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The Open Court

A MONTHLY MAGAZINE

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

Founded by EDWARD C. HEGELER.



NEBUCHADNEZZAR.

From a Cameo in the Museum of The Hague.

The Open Court Publishing Company

CHICAGO

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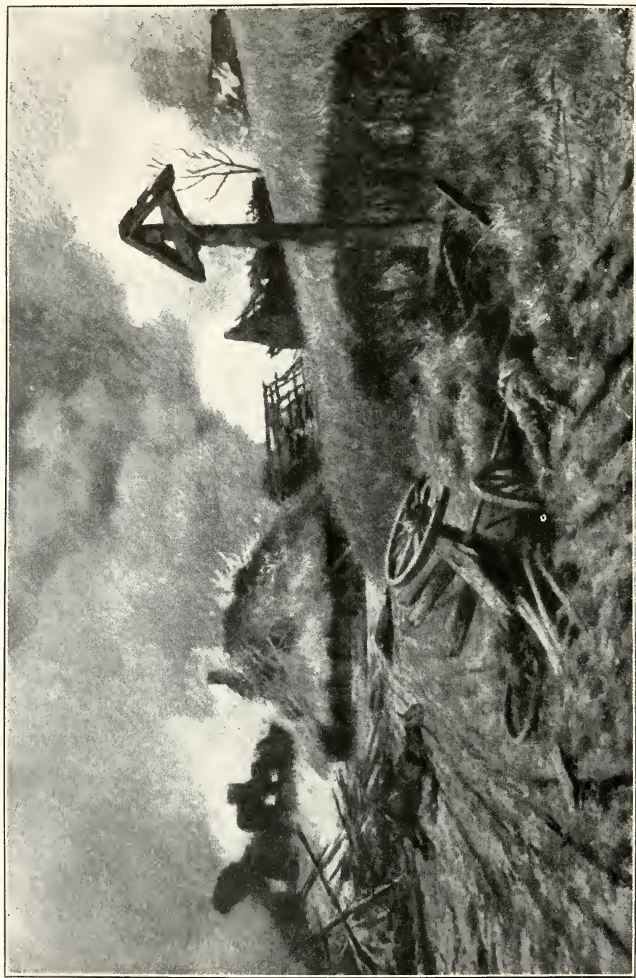
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IN THE WAKE OF THE RUSSIAN RETREAT.

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FOUR ANNIVERSARIES IN THE HISTORY OF GREEK PHILOSOPHY.

BY C. A. BROWNE.

FOR the lovers of Greek science and philosophy the year 1915, in a most peculiar sense, is a year of anniversaries. In its long history of twenty-five centuries Hellenic philosophy has undergone many vicissitudes. There have been periods of birth and rebirth; of development and transformation; of splendor and decay. Among the occurrences of the past there are certain events which, in their significance for Greek philosophy, loom up like detached peaks. They mark off its history into well-defined periods and give us convenient starting-points from which to explore its boundaries. In its relation to several of these events 1915 deserves to be celebrated as a year of commemoration.

I. THALES PREDICTS THE ECLIPSE OF MAY 28, 585 B.C.

Twenty-five centuries ago, on the 28th of May, occurred a famous eclipse of the sun, which, from its prediction by Thales of Miletus, may be said to constitute the first great event in the history of Greek philosophy. According to Professor Allman¹ "the wonderful fame of Thales amongst the ancients must have been in great part due to this achievement, which seems, moreover, to have been one of the chief causes that excited amongst the Hellenes the love of science which ever afterward characterized them."

It is significant that Thales, in laying the foundations of Greek philosophy, should have marked out in completion almost the full extent of the lines upon which the future structure was to be reared. As a traveler and tradesman it was natural that he should cultivate philosophy for practical as well as for ideal ends. He

¹ *Encyclopædia Britannica*, 11th edition, Vol. XXVI, p. 720.

was quick to apply his discoveries in abstract geometry to the engineering problems of measuring heights and distances, and in astronomy he turned from his studies of the stars to show how this knowledge could be utilized in improving the art of navigation. In matters of government the practical trend of Thales's genius is illustrated by many acts of political shrewdness, while in religion and ethics his speculations regarding the nature of God and man are interspersed with pithy reflections upon personal conduct.

But there were wise men before the time of Thales, and in his own age he was counted as only one of the seven great sages of Greece. It was not, therefore, for his precepts and acts of practical wisdom that the Greeks regarded Thales as the founder of their philosophies. What distinguished Thales from the wise men who preceded him was his effort to unify human perceptions by reducing the manifold phenomena of nature to the operations of one common principle. This principle, the beginning and end of things, Thales believed to be water.

Aristotle suggests that Thales was led to adopt water as his primary principle from observing the necessity of moisture for the generation and maintenance of life. Others have thought that the observance of alluvial deposits or of marine fossils may have given birth to the idea. Others again suppose the conception to be of mythological origin. Homer (*Iliad*, XIV, 201) called Okeanos the father of the gods, and in the old Babylonian mythology the first beginning of things was said to have been a watery chaos.

But, whatever its origin, this conception of water as a first principle is noteworthy as it marks the beginning of that monistic tendency which seeks to unify our explanations of the phenomena of nature. It matters not whether the philosophers who came after Thales substituted the principles of fire or air for that of water, or whether they sought other explanations in the play of atoms or the law of numbers, it was Thales who first adopted the idea of one universal principle or law in the interpretation of nature and for this service he deserves the distinction of being called the "founder of philosophy."

II. SULLA ACQUIRES THE LOST BOOKS OF ARISTOTLE AND THEOPHRASTUS IN 85 B. C.

In the spring of 86 B. C. the Roman general Sulla, during the war with Mithridates, besieged Athens and captured it by storm. After the subsequent campaign and victory of Chaeronea, Sulla returned at the close of the year to Athens, where he stayed until

the spring of 85 B.C. It was on this occasion that Sulla seized as part of his booty the famous library of Apellicon which contained the recently recovered books of Aristotle and Theophrastus. Shortly afterwards, when peace had been concluded with Mithridates, Sulla conveyed his spoils to Rome. This acquisition of Apellicon's library took place exactly twenty centuries ago and its removal to Rome was an event of the greatest significance in the history of Greek philosophy.

Just 250 years previous to this, in 335 B.C., Aristotle left the court of Alexander, the newly crowned king of Macedon, and, returning to Athens, founded his Peripatetic school. During the next twelve years of his residence in Athens the activities of Aristotle were divided between studying, lecturing, writing and book-collecting. In the enlargement of his library Aristotle was particularly zealous; he spent three talents in acquiring the library of Speusippus and much money was also laid out in purchasing or in copying the works of other philosophers.

On the death of Aristotle in 322 B.C. his library, which included the manuscripts of his own later works, passed into the possession of Theophrastus, second head of the Peripatetic school. Theophrastus, like his master, was a collector, as well as writer, of books, and the library which he bequeathed in 287 B.C. to his pupil Neleus was one of the finest collections of philosophical books that has ever been gathered together.

Neleus left Athens shortly after the death of Theophrastus and took the library which he inherited to his residence at Skepsis in Asia Minor. The descendants of Neleus, to whom the library passed, were, according to Plutarch, careless and illiterate men. Although having little knowledge of philosophy, and still less knowledge of the care of books, they seem, nevertheless, to have had some faint idea of the importance of the collection. They jealously guarded their inheritance, and to conceal it from the kings of Pergamus, who were especially noted for plundering the libraries of their subjects, they buried the books of Neleus in an underground chamber. For nearly one hundred and fifty years the precious manuscripts remained in this hiding place, where they suffered no little damage from mildew and worms.

After the extinction of the Attalid dynasty the hidden manuscripts were once more brought to light and the entire collection was finally sold for a large sum to Apellicon of Teos, a wealthy resident of Athens and follower of the Peripatetics.

The books of Neleus, which Apellicon brought to Athens, were found to contain many works of Aristotle and Theophrastus that were unknown to the later heads of the Peripatetic school. Apellicon, who found his manuscripts to be seriously damaged, attempted to remedy things by making new copies in which he filled in any gaps, due to illegibility or the ravages of insects and worms, by emendations of his own. Apellicon, however, according to Strabo, was more of a book-lover than a philosopher, and his new edition of the lost books was corrected unskilfully and contained many serious errors.²

It was most fortunate for the future of philosophy that the library of Apellicon should have been removed at this time to Rome. The fame of Aristotle had already been sounded by Latin writers and the arrival in Rome of his original manuscripts in the very handwriting of the great philosopher himself, excited no little commotion. The books were placed by Sulla under the care of a skilled librarian and permission was granted to worthy scholars to visit and study the collection.

The library of Apellicon was an immense composite. It included not only the books and manuscripts of Speusippus, Aristotle, Theophrastus and Neleus, but it also comprised acquisitions which Apellicon had made from other sources. As might be supposed, the books, which formed a part of the mixed spoils of war, reached Rome in a state of great disorder, and to classify such a heterogeneous mass of manuscripts required critical and literary ability of the highest degree. The task of evolving order out of such a chaos very fortunately was allotted to Andronicus of Rhodes.

Andronicus went about his editorial work with great perfection of system. It was first necessary to disentangle the writings of Aristotle himself, as based upon cheirographic or similar evidences, from the works of Theophrastus and other philosophers. When this separation had been made, the disorder of the collection was further reduced by arranging the pages and different treatises in their logical sequence. When this had been done Andronicus was ready to take up the third and most difficult part of his task, which was to make the necessary restitutions of text where any lacunae or gaps existed. While it cannot be said that Andronicus has given the works of Aristotle and Theophrastus to the world in their original entirety and perfection, the restorations of the dam-

² Strabo, XIII, 609. ἦν δὲ ὁ Ἀπελλικῶν φιλόβιβλος μᾶλλον ἢ φιλόσοφος, διὸ καὶ ζητῶν ἐπανόρθωσιν τῶν διαβρωμάτων, εἰς ἀντίγραφα καὶνὰ μετένεγκε τὴν γραφὴν ἀναπληρῶν οὐκ εὖ, καὶ ἐξέδωκεν ἀμαρτῶδων πλήρη τὰ βιβλία.

aged books were no doubt as nearly correct as the best discernment and judgment of the human mind could make them.

The new edition of the manuscripts, which was published by Andronicus with a tabulated bibliography, forms the basis of our modern editions of Aristotle. In the words of Grote³ "the Aristotelian philosophy passed into a new phase. Our editions of Aristotle may be considered as taking their date from this critical effort of Andronicus, with or without subsequent modifications by others, as the case may be."⁴

III. HYPATIA, HEAD OF THE GREEK SCHOOL OF ALEXANDRIA, IS SLAIN MARCH, 415 A. D.

This third event, of which 1915 is the anniversary, occurred in March fifteen centuries ago. As the eclipse of Thales ushers in the beginning, and the removal of the lost books of Aristotle to Rome marks the continuation, so the martyrdom of the beautiful Hypatia, last head of the Alexandrian school, typifies the end of Greek philosophy. Practically the whole of Greek learning is comprised within the thousand years between these first and third events.

It is significant that the opening and closing scenes in this great drama of ideas should have taken place outside the boundaries of Greece. Thales and the other philosophers of the Ionic school lived in Asia Minor, the Elean school of Parmenides and the great school of Pythagoras flourished in Italy, while Democritus, the founder of the Atomic school, belonged to Thrace. These fountain systems of philosophy send their rivulets toward Athens where, mingling in the schools of Plato and Aristotle, they gather into two mighty streams of thought, whose current, however, now ebbs away from Hellas to the empire of the Ptolemies. Philo, Plotinus, Porphyry, Iamblichus and nearly all the great teachers of later renown are connected more or less intimately with the Alexandrian school.

As we approach the old age of Greek philosophy we miss the intellectual ardor of the earlier thinkers. The desire to arrive at one explanation of things begins to fail and the hopelessness of any such solution is more frequently expressed. Philosophers now choose their doctrines from Pythagoras, Plato, Aristotle, irrespective of school, and what these sources fail to supply they draw from Judaism and the Hermetic wisdom of Egypt. It was a time

³ Grote, "Aristotle," Vol. I, p. 57.

⁴ See also the opinion of Spengel (*Ueber die Reihenfolge der naturwissenschaftlichen Schriften des Aristoteles*). "Erst mit der vielbesprochenen Aufindung der Bibliothek des Aristoteles in Athen und deren Wegführung nach Rom durch Sulla wird ein regeres Studium des Philosophen bemerkbar."

of reconciliation when the systems of Egyptian, Chaldean, Jew and Greek were all made to agree. The syncretic philosophers of that age might well exclaim:

"All thoughts, all creeds, all dreams are true,
All visions wild and strange."

But the evidences of failing power, which the Greeks may have shown in philosophy, were more than counterbalanced by the progress that was made in science. In astronomy, geometry, mathematics, mechanics and in other exact sciences the Greek mind, during most of the Alexandrian period, displayed a wonderful vigor. The traditions established by Euclid under the first Ptolemy in the 3d century B. C. continued unbroken for nearly seven hundred years.

Eratosthenes, the many-minded, not only writes upon philosophy, poetry, philology, astronomy, geography, and chronology but he measures for the first time the circumference of the earth. Aristarchus devises a method for measuring the relative distances of the sun and moon and was the first to maintain the revolution of the earth around the sun. Hipparchus, according to Delambre one of the greatest men in the history of science, invents trigonometry and discovers the precession of the equinoxes.

The importance to science of observation and experiment now began to be recognized. We see the first awakening of that scientific spirit which, while recognizing that the life of the individual worker is but brief, does not for that reason despair, but cheerfully records what it is able to observe in the hope that some subsequent worker may thereby be assisted in arriving at the truth. There are few better illustrations of this than the way in which Hipparchus, having discovered the inadequacy of the theories which came down to him, refrained from setting up new hypotheses of his own, but patiently began the collection of new observations that some future astronomer might reap the benefit of his labors.

In the second century A. D. Claudius Ptolemy, the best known scientist of the Alexandrian school, develops the ideas of Hipparchus in his *Almagest*, a book which has exercised a greater influence upon subsequent thought than any other scientific work of antiquity.

After the time of Ptolemy but few additions are made to Greek science, and the labor of scholars, as in literature and philosophy, is devoted more and more to the writing of commentaries. Pappus, the last great mathematician of Alexandria, writes commentaries on Euclid and Ptolemy. Theon, the father of Hypatia, brings out Euclid in its final Greek edition,—the edition which is

in use to-day. Hypatia herself writes commentaries upon the geometry of Apollonius and Diophantus.

The rapid decline of Greek learning in the fourth century was due in no small measure to the growing opposition of the church. The attitude of the early Christians toward science and philosophy was at first one of indifference. "It is not through ignorance," writes Eusebius, "but through contempt of such useless labor that we think little of these matters and turn our souls to better things." Basil expresses the same feeling when he says: "It is a matter of no interest to us whether the earth is a sphere or a cylinder or a disk." But as the church increased in power the negative feeling of indifference was succeeded by an active hostility to science. It was declared irreligious to deny that the earth was oblong while those who preferred the astronomical teachings of philosophy to the interpretations of the Bible were condemned as heretics.

Nowhere can the contest of ideals during this period be studied to better advantage than in the life and letters of Synesius, a pupil of Hypatia, who afterwards became Bishop of Cyrene. The Greek intellect of Synesius revolts at the bigotry and superstition of illiterate monks, yet with the easy tolerance of an Alexandrian he sees no opposition between the teachings of Jesus and Plato, and finds it easy to become a Christian. But in adopting Christianity Synesius will not surrender his accustomed freedom of thought and will make no concessions to dogma. In a statement of his difficulties in accepting the appointment of bishop he writes to his brother as follows:

"I must insist upon one other point, beside of which all other obstacles are as nothing. It is difficult, if not altogether impossible, to eradicate from one's soul those convictions which have been gained by means of science. You know that philosophy rejects many of those dogmas which are generally accepted as true. I could never persuade myself, for example, that the soul was of later origin than the body; nor would I ever say that the world or any of its parts is doomed to destruction; the resurrection, an object of common belief, is for me only a sacred allegory and I am far from accepting the views which are ordinarily held."

This declaration of belief is the dying challenge of Greek philosophy to the spirit of intolerance which was about to win the day. Fortunately for Synesius he did not live to see the outcome. A last letter, written to his beloved teacher, Hypatia, in 413, describes most bitterly his state of mind and shortly after this he passed away. At the time of his death the fanaticism of the Chris-

tians in Alexandria was reaching its climax: In 412 the dogmatic and intolerant Cyril became patriarch, and under his leadership a violent crusade was begun against heretics and unbelievers.

First of all the Novatians, a harmless Christian sect, suffered the loss of their churches and were forbidden the right to worship. Next a mob of furious fanatics, led by the patriarch Cyril in person, fell upon the Jews in their synagogues and drove them from the city. The hatred of the rabble finally turned upon the teachers of Greek learning.

"On a fatal day," to quote from Gibbon, "in the holy season of Lent, Hypatia was torn from her chariot, stripped naked, dragged to the church and inhumanly butchered by the hands of Peter, the reader, and a troop of savage and merciless fanatics; her flesh was scraped from her bones with sharp oyster-shells and her quivering limbs were delivered to the flames."

Such was the end of the last bright figure in the history of Greek philosophy. Superstition and intolerance had finally succeeded in extinguishing the lamp of learning; a last effort to revive its flame at Athens was crushed by the edict of Justinian which forbade the teaching of philosophy.

The black curtain of the Middle Ages now falls upon the scene. The very names of that long line of thinkers, whose works had been the admiration of Greeks and Romans, became forgotten. Only in the quietness of their seclusion a few isolated scholars preserved the writings of antiquity for the breaking of a better day. It was not until the Revival of Learning, ten centuries after the martyrdom of Hypatia, that the world was again to resound with the names of those

"Whose myriad fame
Had passed into the night and towards the dawn."⁵

IV. COMPLETION OF THE LIFE WORK OF MANUEL CHRYSOLORAS, RESTORER OF GREEK LEARNING, APRIL 15, 1415.

"Again the dawn, again the light,
Again the day doth brightly shine.
After the darkness of the night
Sing thou again, O soul of mine!"⁶

⁵ οὐ τὸ μυρίον κλέος
διήλθε κῆπὶ νύκτα καὶ πρὸς ἄω.
—Theocritus.

⁶ Πάλι φέγγος, πάλιν ἄως
Πάλιν ἡμέρα προλάμπει.
Μετὰ νυκτίφοιτον ὄρβναν
Πάλι μοι λίταινε, θυμέ.
—Synesius, Hymn II.

These opening words from the second hymn of Synesius, which was written on the eve of the extinction of Greek philosophy, might well have been chosen as a song of jubilation by the revivers of learning at the beginning of the Renaissance. And this brings us to the last in this series of anniversary events. The fifteenth of April, five centuries ago, marked the completion of the life work of Manuel Chrysoloras, the man who more than all others was the instrument of restoring Greek science and philosophy to the European world.

Ever since the overthrow of the Greek schools the belief of the church that the spirit of intellectual liberty was hostile to Christianity had kept the minds of men in ignorance and superstition. Only in the pages of a few Latin writers were preserved imperfect memories of the great thinkers of antiquity. The knowledge of Greek in Western Europe was completely extinct. As Symonds has well said, "Greek was hardly less lost to Europe than Sanskrit in the first half of the eighteenth century."

With the coming of Petrarch in the fourteenth century we catch the first glimpses of the dawning spirit of intellectual freedom. "In my search for truth, I care nothing for sects,"⁷ he writes in one of his letters. Petrarch, in his efforts to free men's minds from the bondage of ignorance, instinctively felt the necessity of reviving the knowledge of Greek, but there was no one in Italy from whom instruction could be received. A gift of a Greek manuscript of Plato was sent to Petrarch from Constantinople, but he was unable to read it. The feeling of possession, however, was something of a joy and he wrote with satisfaction: "*Graecos spectare, et si nihil aliud, certe juvat.*"

The desire for a knowledge of Greek, which Petrarch initiated, was further intensified by his pupil Boccaccio, and to these two men is due the chief merit of having prepared the ground for the seeds of Greek learning.

In 1393 Manuel Chrysoloras, the descendant of a distinguished Roman family which had migrated with Constantine to Byzantium, was sent upon an embassy to Italy by the Greek emperor, Palaeologus, to implore the aid of the Western Christians against the Turks. Although the main object of this embassy was a failure, its consequences in other respects were far-reaching. During his brief visit to Italy the learning and culture of Chrysoloras made a deep impression upon the minds of the Florentines, and so it happened

⁷ Sum sectarum negligens, veri appetens.—*Epistolae Rerum Senilium*, Lib. I, 5.

that shortly after his return to Constantinople he was invited by the Signory of Florence to accept the Greek professorship at their university. The invitation was accepted, and upon this fact hinges the future history of Greek learning.

The enthusiasm which the coming of Chrysoloras aroused in Florence may best be realized from the following passage⁸ in the Commentaries of Leonardo Bruni:

"Letters at this period grew mightily in Italy, seeing that the knowledge of Greek, intermitted for seven centuries, revived. Chrysoloras of Byzantium, a man of noble birth and well skilled in Greek literature, brought to us Greek learning. I at that time was following the civil law, though not ill-versed in other studies; for by nature I loved learning with ardor, nor had I given slight pains to dialectic and to rhetoric. Therefore, at the coming of Chrysoloras, I was made to halt in my choice of lives, seeing that I held it wrong to desert law, and yet I reckoned it a crime to omit so great an occasion of learning the Greek literature; and oftentimes I reasoned with myself after this manner: Can it be that thou, when thou mayest gaze on Homer, Plato, and Demosthenes, together with other poets, philosophers and orators, concerning whom so great and so wonderful things are said, and mayest converse with them, and receive their admirable doctrines—can it be that thou wilt desert thyself and neglect the opportunity divinely offered thee? Through seven hundred years no one in all Italy has been master of Greek letters; and yet we acknowledge that all science is derived from them. Of civil law, indeed, there are in every city scores of doctors; but should this single and unique teacher of Greek be removed, thou wilt find no one to instruct thee. Conquered at last by these reasonings, I delivered myself over to Chrysoloras with such passion that what I had received from him by day in hours of waking, occupied my mind at night in hours of sleep."

The seeds of learning which were so bountifully sown in Florence were scattered also through other Italian cities. After a residence of three years in Florence Chrysoloras opened schools at Milan, Padua, Venice and Rome. But the work of this accomplished man was not confined to Italy alone; in 1408 Chrysoloras was sent to Paris on important business by his emperor, Palaeologus, and in 1413 he conducted an embassy to Emperor Sigismund of Germany. It was during these missions that the influence of Greek learning was first felt beyond the Alps.

⁸ J. A. Symonds, *The Revival of Learning*, p. 110.

In 1414 the aged scholar was delegated by Palaeologus to attend the famous Council of Constance as representative of the Greek church. On his arrival at Constance the delicate constitution of Chrysoloras, weakened by the fatigues of so many journeys, gave way and he died suddenly on April 15, 1415.

Few teachers have played a greater part in the history of letters than Chrysoloras. His influence upon contemporary and succeeding times has been well summarized by Symonds:⁹

"The scholars who assembled in the lecture-rooms of Chrysoloras felt that the Greek texts, whereof he alone supplied the key, contained those elements of spiritual freedom and intellectual culture without which the civilization of the modern world would be impossible. Nor were they mistaken in what was then a guess rather than a certainty. The study of Greek implied the birth of criticism, comparison, research. Systems based on ignorance and superstition were destined to give way before it. The study of Greek opened philosophical horizons far beyond the dream-world of the churchmen and the monks: it stimulated the germs of science, suggested new astronomical hypotheses and indirectly led to the discovery of America. The study of Greek resuscitated a sense of the beautiful in art and literature. It subjected the creeds of Christianity, the language of the Gospels, the doctrine of St. Paul, to analysis, and commenced a new era for Biblical inquiry. If it be true, as a writer no less sober in his philosophy than eloquent in his language, has lately asserted, that 'except the blind forces of nature, nothing moves in this world that is not Greek in its origin,' we are justified in regarding the point of contact between the Greek teacher Chrysoloras and his Florentine pupils as one of the most momentous crises in the history of civilization."

But the humanizing and civilizing influence which Chrysoloras¹⁰ exerted through Greek letters was not altogether immediate. As the turns which are given to a twisted cord unwind themselves on releasing, so it seemed as if the spirit of man, in recovering its freedom from medievalism, must trace backward again its past record

⁹ J. A. Symonds, *The Revival of Learning*, p. 112.

¹⁰ The epitaph of Chrysoloras, composed by his pupil and friend, Poggio Braccioloni, the famous humanist, deserves to be quoted in this connection:

"Hic est Emmanuel situs
Sermonis decus Atticae:
Qui dum quaerere opem patriae
Afflictae studeret huc iit.
Res belle cecidit tuis
Votis, Italia; hic tibi
Linguae restituit decus

"Atticae, ante reconditae.
Res belle cecidit tuis
Votis, Emmanuel; solo
Consecutus in Italo
Aeternum decus es, tibi
Quale Graecia non dedit,
Bello perdita Graecia."

of cruelty and persecution. Chrysoloras, fortunately, was spared the pain of witnessing the trial and martyrdom of John Huss,¹¹ which was one of the first matters to engage the attention of the Council of Constance. The burning of Huss, however, was only the prelude to the burning of other victims, who, from Jerome of Prague to Giordano Bruno, have dared to proclaim the doctrine of spiritual and intellectual freedom.

It would extend too far the limits of this paper to discuss in detail the influences which the revival of Greek letters exerted upon modern science, philosophy and literature. We may summarize, however, by saying that in each of these fields the chief service of Greek learning has been the incentive which it gave to the spirit of rationalism. Rationalism was one of the last fruits of the revival of learning, yet its origins go back to the first beginnings of Greek science. The chief significance for philosophy of the eclipse of 585 B. C. was that Thales brought under the domain of law an event which men in their ignorance and fear had been accustomed to regard as a manifestation of divine anger.

The glory of Greek philosophy, according to Lucretius,¹² was that it substituted law for ignorance and liberated the mind from the terrors of superstition. His noble lines,

"Ergo vivida vis animi pervicit et extra
Processit longe flammantia moenia mundi"

express the triumphant march of Greek learning in its age-long conflict with dogmatism and intolerance.

The winning for man of intellectual and spiritual freedom has been the supreme achievement of Greek letters and this should be the central thought in commemorating the first and last of these anniversary events—the birth of Greek philosophy under Thales and its restoration under Chrysoloras.

¹¹ Huss was burned in July, 1415, within three months after the death of Chrysoloras.

¹² Lucretius, *De rerum Natura*, beginning of Book I.