

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,
Assistant Editor: T. J. McCORMACK.

Associates: } E. C. HEGELER.
 } MARY CARUS.

VOL. XIII. (NO. 6)

JUNE, 1899.

NO. 517

CONTENTS:

<i>Frontispiece.</i> CONDORCET.	
<i>Paganism in the Roman Church.</i> The REV. TH. TREDE, Pastor of the Evangelical Church of Naples	321
<i>French Philosophy at the End of the Eighteenth Century—Condorcet.</i> PROF. L. LÉVY-BRUHL, Maître de Conférences at the Sorbonne, Paris	340
<i>Intermediate Forms of Abstraction.</i> A Study in the Evolution of General Ideas. TH. RIBOT, Editor of the <i>Revue Philosophique</i> and Professor in the Collège de France, Paris	349
<i>Peace on Earth.</i> A Problem of Practical Diplomacy. A Suggestion to the Members of the International Peace Commission. EDITOR	360
<i>Plato and the Cross.</i> With Illustrations. EDITOR.	364
<i>International Good-Will.</i>	373
<i>The Filipino Question</i>	375
<i>Henry Clarke Warren.</i> Obituary	376
<i>Manilal N. Dvivedi.</i> Obituary	378
<i>A Further Note on the Buddhist Nativity Sutta</i>	379
<i>A Practical Introduction to English Literature.</i>	380
<i>Book Reviews, Notes, etc.</i>	380

CHICAGO

The Open Court Publishing Company

LONDON: Kegan Paul, Trench, Trübner & Co.

Single copies, 10 cents (6d.). Annually, \$1.00. In the U. P. U., 5s. 6d.



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,
Assistant Editor: T. J. McCORMACK.

Associates: } E. C. HEGELER.
 } MARY CARUS.

VOL. XIII. (NO. 6)

JUNE, 1899.

NO. 517

CONTENTS:

<i>Frontispiece.</i> CONDORCET.	
<i>Paganism in the Roman Church.</i> The REV. TH. TREDE, Pastor of the Evangelical Church of Naples	321
<i>French Philosophy at the End of the Eighteenth Century—Condorcet.</i> PROF. L. LÉVY-BRUHL, Maître de Conférences at the Sorbonne, Paris	340
<i>Intermediate Forms of Abstraction.</i> A Study in the Evolution of General Ideas. TH. RIBOT, Editor of the <i>Revue Philosophique</i> and Professor in the Collège de France, Paris	349
<i>Peace on Earth.</i> A Problem of Practical Diplomacy. A Suggestion to the Members of the International Peace Commission. EDITOR	360
<i>Plato and the Cross.</i> With Illustrations. EDITOR.	364
<i>International Good-Will.</i>	373
<i>The Filipino Question</i>	375
<i>Henry Clarke Warren.</i> Obituary	376
<i>Manilal N. Dvivedi.</i> Obituary	378
<i>A Further Note on the Buddhist Nativity Sutta</i>	379
<i>A Practical Introduction to English Literature.</i>	380
<i>Book Reviews, Notes, etc.</i>	380

CHICAGO

The Open Court Publishing Company

LONDON: Kegan Paul, Trench, Trübner & Co.

Single copies, 10 cents (6d.). Annually, \$1.00. In the U. P. U., 5s. 6d.

The Open Court Publishing Company

324 DEARBORN ST., CHICAGO, ILL.

General Agencies:

Agencies for *Open Court* Publications in the United States and foreign countries are given below. Publications may be examined and orders filled at any of these places.

In the United States:

CHICAGO:

AT THE OFFICE OF THE PUBLISHERS, 324 Dearborn St.
A. C. McCLURG & Co., Corner Wabash Ave. and Madison St.
BRENTANO'S, 218 Wabash Ave.
CHARLES McDONALD, 5 Monroe St.

NEW YORK:

LEMCKE & BUECHNER, 812 Broadway.
BRENTANO'S, 31 Union Square.

BOSTON:

DAMRELL & UPHAM, 283 Washington St.

CAMBRIDGE, MASS.

HARVARD CO-OPERATIVE SOCIETY.

Foreign Countries:

LONDON:

KEGAN PAUL, TRENCH, TRÜBNER & Co., Paternoster House, Charing Cross Road.
WATTS & Co., 17 Johnson's Court, Fleet St.

LEIPZIG:

OTTO HARRASSOWITZ, 14 Querstrasse.

ROTTERDAM:

H. A. KRAMERS & SON.

AMSTERDAM:

KIRBERGER & KESPER, Rokin, 134.

TURIN:

PALERMO: } LIBRERIA CARLO CLAUSSEN.

MILANO:

ULRICO HOEPLI, Librario della Real Casa.

CALCUTTA:

THE MAHA-BODHI SOCIETY, 2 Creek Row.

The Monthly Open Court.

A FEW RECENT AND FORTHCOMING FEATURES:

Biographical Sketches of Great Thinkers, Philosophers, and Scientists.

WITH HANDSOME HALF-TONE PORTRAITS.

The following have appeared in the series:

PYTHAGORAS	ZOROASTER	LESSING	SCHILLER	GOETHE	
DESCARTES	MALEBRANCHE	SCHOPENHAUER	LOBACHEVSKI		
GALILEO	EULER	LAPLACE	KEPLER	LAGRANGE	MONGE

Studies in Comparative Religion. (Mostly with rich illustrations.)

THE RELIGION OF THE ANCIENT PERSIANS. <i>Editor.</i>	DR. BRUCE ON BUDDHISM. Glasgow Gifford Lectures for 1898.
ESCHATOLOGY IN CHRISTIAN ART. <i>Editor.</i>	
THE RELIGION OF ISLAM. <i>Père Hyacinthe Loyson.</i>	NORSE MYTHOLOGY. <i>Editor.</i>
CATHOLICISM IN ITALY. <i>Prof. G. Fiamingo.</i>	THE TRINITY IDEA. <i>Editor.</i>
DEATH IN RELIGIOUS ART. (A Series.)	ANIMAL WORSHIP. <i>Dr. Th. Achelis, Bremen</i>

The History of Religion.

HISTORY OF THE PEOPLE OF ISRAEL. From the Beginning to the Destruction of Jerusalem. By *Dr. C. H. Cornill*, of the University of Königsberg. Written especially for *The Open Court*.
HISTORICAL SKETCH OF THE JEWS SINCE THEIR RETURN FROM BABYLON. With illustrations of Jewish customs and life. By the *Rev. B. Pick, Ph. D.*
THE INQUISITION. *Editor.* Illustrated.
THE CANONISATION OF SAINTS. By *Professor Fiamingo.* Illustrated.
THE UNRECORDED SAYINGS OF JESUS CHRIST. Thoroughly compiled.

Philosophical and Scientific.

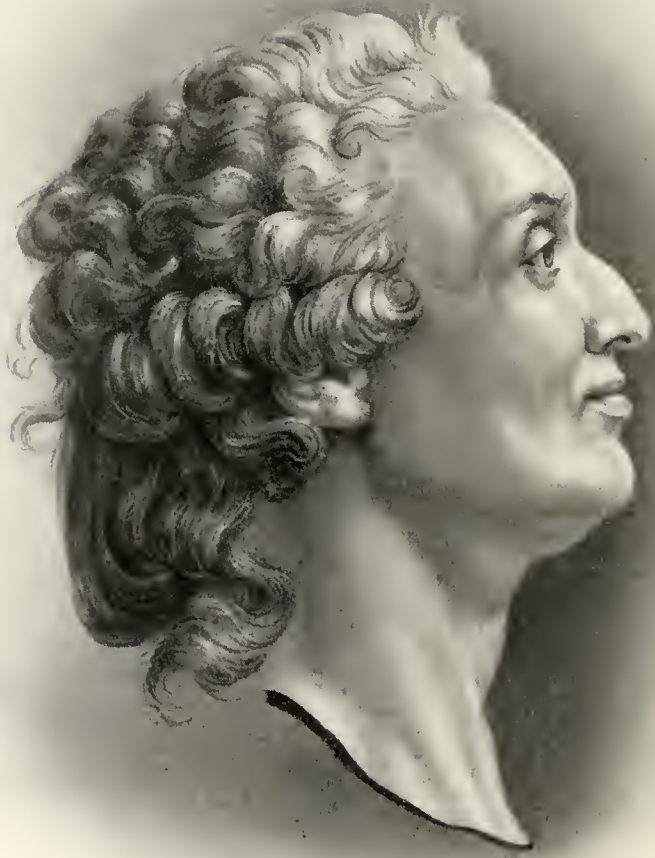
LAMARCK AND NEO-LAMARCKIANISM. By *Prof. A. S. Packard.*
ETHNOLOGICAL JURISPRUDENCE. By the late *Judge Post* of Bremen.
ON THE PHOTOGRAPHY OF FLYING BULLETS. By *Prof. E. Mach*, Vienna.
Popular articles by the *First Authorities* appear on all scientific and philosophical questions.

Announcements.

SOLOMONIC LITERATURE. By <i>M. D. Conway.</i>	ON THE PHILOSOPHY OF SCIENCE. <i>Prof. Ernst Mach</i> Vienna.
ON MONEY. By <i>Count Leo Tolstoi.</i>	
MATHEMATICAL RECREATIONS, etc.	ON THE EVOLUTION OF GENERAL IDEAS. <i>Prof. Th. Ribot</i> , of the Collège de France, PARIS.
HISTORY OF MODERN PHILOSOPHY IN FRANCE. By <i>Professor Lévy-Bruhl</i> , Paris.	ASSYRIA. <i>Prof. J. A. Craig.</i>

Single copies, 10 cents. Annually, \$1.00. In the U. P. U., 5s. 6d.

THE OPEN COURT PUBLISHING CO., CHICAGO,
324 Dearborn St.



CONDORCET.

(1743-1794.)

Frontispiece to The Open Court.

THE OPEN COURT

A MONTHLY MAGAZINE

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

VOL. XIII. (NO. 6.)

JUNE, 1899.

NO. 517

Copyright by The Open Court Publishing Co., 1899.

PAGANISM IN THE ROMAN CHURCH.¹

BY TH. TREDE,

Pastor of the Evangelical Church at Naples.

IN silent desolation, surrounded by swamps and malaria, there rises in the plain of Pæstum the famous temple of Poseidon, the best preserved of all the extant Hellenic temples. "A tale of the ages olden,"—thus it impressed us as we saw it not long ago in the light of the evening sun. "The sun rules"—such is the expression in modern Greece for the sinking king of day, a popular expression understood only by one whose eye has seen the color-marvels of evening in the southland, which, proceeding from the throne of that monarch, deck as by magic sea and land, mountain and valley, earth and sky with a chromatic splendor that no artist can imitate—yonder the shimmering sea, the purple-surg-ing, sacred salt-tide of Homer; here proud mountains veiled in tender violet; between them the soundless plain once famous for its rose-gardens, and in the plain that temple, transfigured by the roseate, odorous haze; above us the sky, as blue as when blooming life filled these fields now desolate for centuries, as smiling as when, twenty-four hundred years ago, Hellenic faith erected the temple—thus we saw that majestic construction, and then left that region, bearing with us deep and imperishable impressions.

The temple at Pæstum is an eloquent surviving witness of struggles of world-wide significance, such as earth has not seen before or since, we mean the two centuries of conflict beginning with Constantine, in which, as is commonly said, paganism succumbed to victorious Christianity. Two hundred years! A long time, so long that we cannot possibly assume that from the start Christian-

¹ Translated by Prof. W. H. Carruth of the University of Kansas.

ity was facing in paganism a weak, half-dead opponent. It must be that this opponent possessed great vitality if it was only after two hundred years that he could be declared conquered by a church which was supported by the most powerful of allies, the State.

We speak of a two hundred years' conflict between Christianity and paganism. Is the expression correct? Was then this struggle a purely spiritual struggle, and did the victory consist in a conquest of the spirit of paganism by the spirit of Christianity? And was there an inner victory won, which resulted in the disappearance of the outward evidences of pagan life, as, for instance, the temples? We speak of a "fall," an "overthrow" of Hellenic-Roman paganism. Does this mean that those two hundred years destroyed the moral and religious tendencies of paganism so that mankind was transformed, first inwardly and then, as a consequence of this, outwardly?

In the temple of Pæstum we see a lifeless relic of paganism; the present article will show forth some of its living relics.

With Constantine, the first so-called "Christian" emperor, the power of the State was turned against paganism. While the pagan Roman emperors had endeavored to annihilate Christianity by annihilating the individual Christians, the Christian Roman emperors resorted to another method for accomplishing their ends. In order to exterminate paganism they directed their attack against pagan worship, which was the means, according to the Roman point of view, of preserving for all mankind the favor of the guardian gods. The government attempted to abolish this by violence in order thus to deprive paganism of the means of self-manifestation, the very condition of existence. As a matter of course acts of violence could not abolish the religious spirit and tendency of paganism, and the fact that two hundred years were required for a by no means complete outward Christianisation shows how little virtue there was in the violent measures of government.

Measures against the pagan Roman worship could not fail to strike the temples at the very first. The closing, evacuation or destruction of the temples, as well as their use for the construction of churches and other purposes, began under Constantine and his sons, but did not assume considerable headway until the end of the century of Constantine (the 4th), under Emperor Theodosius. The Church hailed him as a second Joash, of whom the Old Testament says: "And all the people of the land went to the house of Baal and brake it down; his altars and images brake they in pieces

thoroughly." (2 Kings, xi. 18.) At this time the Church began to call out the hosts of her monks for the destruction of the temples, and among the bishops there were not a few who flattered themselves that they possessed the spirit, the power and the calling of Elijah. Such a one was, for instance, Theophilus, bishop of Alexandria, who thoroughly destroyed the world-famed temple of Serapis at that place and also destroyed the unapproachable, mysterious, miraculous image of the great Serapis. The Church was filled with rejoicings, for she believed that the fall of this temple was a glorious victory for Christianity. For the vanished Serapis the Church offered compensation in "king" Christ, and the heathen who were converted by such deeds now expected all that they had formerly hoped and obtained from Serapis from Christ, who assumed the guardianship of the Nile-gauge which had formerly stood in the temple of Serapis. Such was the dispensation of the Church. For the honor of Christ and the pursuit of their own salvation bands of monks, fanatical or instigated by fanatics, undertook in those days regular crusades against the temples, and in Canopus (Egypt), for instance, razed to the ground all the temples, although they made compensation by providing for the construction of Christian sanctuaries and furnishing them with relics of the saints in the place of the expelled gods, in whom the whole Church of that time recognised real powers, called "dæmons," which according to the notions of that time were subdued by the magic spell of the Church. Such a crusade was undertaken in Syria by the trooper-bishop Marcellus, attended by gladiators, soldiers, and monks, and in Gaul Bishop Martin, elevated from the camp to be a Church official, could not repress his warlike ardor and directed it against temples and "dæmons." No wonder that the Frankish rulers chose this bishop for their patron saint and took with them on their crusades as a palladium that guarded and guaranteed victory the mitre of Saint Martin. The clergy, who had charge of this palladium at home and on the way, received from the "cappa" (hat, or mitre) referred to the name "cappelani," and the receptacle which contained the palladium was called "cappella" (hat-box). This "cappa," then, served the same purpose for the Christian Frankish princes as for Æneas that palladium which he took with him from Troy (Æneid, I., 378), or as that famous "ancile" (shield) which was regarded in Rome as a direct gift of heaven, or as that famous image of Mary in Constantinople, which at the beginning of the fifth century was dedicated to public worship by Pulcheria, sister of the Emperor Theodosius II., and in critical times was

fastened as a protection to that portion of the wall which was most exposed to hostile attacks. Constantine had the very same expectation of the cross, *cæleste signum Dei*, when he substituted it for the pagan emblems that had been worshipped as divine.

While in the Orient the temples were quite thoroughly cleaned away, in the Occident, and especially in Italy, they received very different treatment. We are told of no scenes of vandalism, nor of trooper-bishops and crusades against the temples of Italy. Monasticism did not appear there until later, and this absence of fanatic mobs of monks preserved the temples from the fate that befell them in the Orient. In Italy in the course of the two centuries beginning with Constantine only a small portion of the temples were violently destroyed; on the contrary they were evacuated, closed, deprived of their revenues and consequently of their administration; many, after their pillars had been taken away for Christian purposes, fell into ruins, many were transformed into churches, many survived these two centuries to meet later one of the fates just mentioned or to be destroyed by earthquakes. Many temples, chiefly in Sicily, have defied the ravages of time until the present day. It is true, the number of theatres preserved is much greater, a fact that is easily explained. For when the temples had long been desolate in Italy the pagan theatre still flourished, together with beast-baiting and gladiatorial combats, which for instance did not cease in Rome until the beginning of the fifth century.¹ The temples in Naples disappeared almost utterly, but only gradually in the succeeding centuries, likewise in Tarentum (Taranto) and in Palermo. The effects of an earthquake may be seen in the temple ruins of Girgenti and Selinus in Sicily, and in Calabria more than a hundred years ago a fearful earthquake destroyed many remains of temples. It is remarkable that in two places the Greek word for temple, *Naos*, has been preserved. Capo di Nao is the name to-day among the Calabrian people for that promontory on the Gulf of Tarentum where still a single column marks the place of the temple of Hera. Near the modern Monteleone the same word calls attention to the site of a temple.

This extensive sparing of the temples in Italy fifteen hundred years ago proves on the one hand that the Christian emperors did not and could not carry out all that they decreed, and on the other hand that the people were free from Christian fanaticism. It would have been an easy matter to destroy all the temples of Italy

¹The spectacle of beast-baiting was permitted as late as the sixth century, and that by the Christian emperor Justinian. Even the clergy participated at such spectacles.

in the course of fifty years, yet what could have been accomplished in a short space of time was not completed in two hundred years. When the Normans took possession of Sicily in the eleventh century they found there numerous Mohammedan sanctuaries erected by the Arabian conquerors. In Palermo there were several hundred temples and mosques. All these were destroyed in no time at all by the order of the Norman leaders; the same in Bari and elsewhere. There is not a trace of such structures left.

Now because ruins of temples were once very common things in Southern Italy it has come about in later centuries that the people in many cases regarded the ruins of secular edifices as remains of temples. Many a time the writer has strayed along the deserted strand of Baïæ with its many ruins, praised by Horace as the most charming corner of the earth, and always heard the people there demonstrate the ruins of the baths to be the temples of every possible Roman divinity. On the slope of Posilipo, near Naples, stands the solitary ruin of a Roman bathing villa, known to-day in the popular language as the "Castle of the Ghosts." In this title we hear an echo of the ancient belief in "dæmons" which was preserved even by the Christians for centuries, and the stronghold of the belief in the mysterious magic of the pagan Roman world is shown by other ruins on Mount Posilipo where to this day a piece of ruined wall is entitled "the School of Virgil," that is, the place where Virgil, who was regarded as a magician, taught his magic arts. In modern Sulmona, the birth-place of Ovid, popular songs speak of him to this day as a magician.

For the judgment of past and present it is important to know the connexion between the oldest churches of Southern Italy and the pagan temples.

Nearly all the oldest church structures originated in one of the three following ways: either they made use of all sorts of temple materials, and especially pillars, or they were built upon the same foundation which once bore a temple, or the temples were transformed into Christian churches. That is, pagan materials served to make the new Christian structure. This sort of church buildings may serve as a simile to characterise the spiritual reconstruction of those centuries. The Church of that time built a new spiritual structure, but of pagan materials.

In S. Clemente, on the road between Naples and Salerno, lies one of the least known and at the same time most remarkable churches of Christendom, notable because it has come down to our time almost unaltered, although it belongs without question to the

fifth century. It is a baptistery, and therefore round and provided with a variety of antique pillars. Pillars from what was once the temple of Apollo are seen in the church of S. Restituta in Naples, pillars from the temple of Poseidon in the pilasters of the cathedral in the same place. There are antique pillars in the old church of S. Costanzo on the island of Capri, which marks the place down by the sea where the ancient village of Capri stood, destroyed later by the Saracens. These are but a few of the instances from the oldest period of Southern Italian church structures. When later the Lombards settled here and had princely residences in Salerno, Capua, and Benevento, they too used antique columns in their church edifices. It was some five hundred years before the supply of columns was exhausted. Toward the last Pæstum became a rich source of supply. Thence the Norman duke Robert Guiscard brought the ancient columns for his cathedral at Salerno on which he inscribed himself "dux," "rex," and "imperator," as may be read to-day. The atrium of this cathedral still shows the stolen columns of the proud Norman. From Pæstum also the rich merchants of the once mighty Amalfi procured a supply of columns for their cathedral. Twenty splendid granite columns, which adorn the cathedral of Gerace are of Hellenic origin, taken from the ruins of ancient Locri. The Norman duke Roger, who once resided in Melito (Calabria), procured columns from the ruins of Hipponion near the modern Monteleone.

It is worth noting that the erection of such columns in churches, especially in the oldest times, was done in a very unsystematic way. They took what they found—and accordingly we see even yet pillars of very different kinds standing side by side. And a similar method was pursued by the Church of those centuries in its spiritual edifice.

Just as they gathered up columns, so they did other pagan objects which could be used in the churches for various purposes. In the cathedral at Naples we see a splendid basalt basin with beautiful reliefs showing the worship of Bacchus, snatched from some temple. It serves as a baptismal font! In the cathedral at Terracina is seen an ancient granite tub, in the cathedral at Amalfi an antique vase, in the cathedral at Syracuse a very pagan and secular mixing-vessel. It is known that in many churches in Rome there are marble episcopal chairs which once stood in the bathrooms of the public baths of Diocletian. Rome, indeed, gave a widely followed example in the gathering up of pagan material for ecclesiastical purposes. By this statement we mean not merely

bath chairs, and so forth, but we are thinking also of material for the spiritual edifice of the Church.

Numerous antique sarcophagi with their pagan reliefs constitute an odd adornment of the older churches of Southern Italy. They are found, for instance in Salerno, Capua, Amalfi, Cava (in the monastery of S. Trinita), Palermo, and in Naples and Girgenti. It is a strange sight when the eye is surprised in a Christian church by Hellenic-Roman inscriptions and finds dancing bacchantes where they should not be expected. The sarcophagus in Girgenti is famous, with its relief representing the legend of Hippolytus. When we come to examine the spiritual structure of the Church more closely we shall be still more surprised by mythological features of a different sort than by those on the sarcophagi mentioned.

Little is preserved of the chief adornment of the temples, the statues of the gods, for while in Italy no sweat was wasted over deliberate and violent destruction of the temples, during these two centuries of conflict the images of the gods were for the most part destroyed, and what is found in the museums, as at Naples, is but a remnant. For in that city images of the gods were so numerous that the proverb ran: "You are more likely to meet a god than a man in Naples." Only one of all the extant statues of the gods in Southern Italy has escaped the lot of imprisonment in a museum. It is a mutilated Ariadne which stands beside a fountain in the vicinity of Monteleone, where it is worshipped unto this day under the name of Santa Venere, just as Poseidon was worshipped in the temple at Pæstum, the divinity being identified with the statue. "Saint Venus" is appealed to by women under certain circumstances down to this day. And the harbor at that place is named after her: Porto Santa Venere.

The temples from which the statues of the gods had disappeared, when once they were changed into churches, or when new churches were built on their foundations, were straightway occupied by the ancient paganism under the guise of Christianity. The pagan rhetor Libanius, who in that period of conflict presented to the Roman emperor a defence of the endangered temples, was right: "They may close the temples against the gods, but not the hearts of men." Some instances will illustrate this.

The oldest church that was built within the walls of Naples in the sixth century (there were some churches built without the walls previous to this), stood upon the ruins of a temple of Artemis, and was dedicated to the Madonna. The latter took the place of

the former and assumed all of her former functions. In the ancient campanile of this church, built of brick, one may still see all manner of fragments of that temple. To this day in that church women ask of the Madonna precisely what was once asked of Artemis in the same place. On the slope of Posilipo, near Naples, there stands solitary on the shore a church of the Madonna on the spot where once sea-faring men could see a temple of Venus Eupleua, that is, the divinity who protected harbors and navigation. To the present hour in the eyes of the fishermen the Madonna performs the same offices as did once Dame Venus, and gifts are brought to her altar as of old, and vows performed before her image as once they were before that of Venus Eupleua. There was in Naples a temple of Antinous, the well-known favorite of the Emperor Hadrian, who placed him among the gods, after the youth had incurred death for his sake. On the place of this temple has stood from early times the church of St. John the Baptist, who also incurred death for the sake of his Master. John the Baptist, then, in the simplest and most natural fashion, displaced Antinous and assumed in the eyes of the so-called Christians the same office that Antinous had filled. In Terracina the church of S. Cesareo stands upon a temple of Augustus; in Messina St. Gregory displaced Jupiter in the same manner, and in Girgenti Zeus was likewise obliged to flee before S. Gerlando; and when Saint Benedict came to Monte Cassino in the sixth century, S. Martino, that warlike saint, chased away Apollo, who, as we all know, had pierced with his dart the serpent Python. On the highest point in modern Pozzuoli stands the cathedral of Saint Proculus on the foundation of a splendid temple of Augustus which the Apostle Paul saw when he landed there. One who travels along the magnificent mountain road toward Sorrento and enters the divinely favored plain at Meta, covered with fragrant orange groves, will find in Meta a famous church of the Madonna which offers the same miraculous cures that were once sought on the same spot in a temple of Minerva Medica. From the fifth century there has existed in a cave on the majestic promontory of Monte Gargano in Apulia the ancient sanctuary of St. Michael, who expelled from the place in the fifth century the oracular dæmons of Kalchas. We shall later hear more of this famous shrine. At Marsala (in Sicily) a church of S. Giovanni was built above the cave and magic spring of a sibyl, and there the saint still dispenses oracles, that is, has displaced the sibyl. On the summit of Monte Vergine near Naples once stood a sanctuary of the *Magna Mater* (Cybele), and when S. Guiglielmo

built his cells there as a hermit he found the remains of the sanctuary, which had been a pilgrim shrine of the pagans down to the days of the last emperors. Upon the ruins was erected a church of the Madonna which was soon equipped with a famous miraculous image (*imago prodigiosa*), and thus once more a "magna mater" reigns there, who is so highly esteemed that this shrine attracts more than fifty thousand pilgrims every year at Pentecost. In the sixth century a pagan asked the monk Isidor what difference there was between the magna mater Cybele and the Madonna.

One of the best examples is furnished us in the Madonna del Capo (of the Promontory). On the towering Licinian promontory near Croton on the Gulf of Tarentum stood formerly the temple of Hera Lucina, the religious centre for all the Hellenic colonies of that coast, a shrine of solemn pilgrimage to which came every year a brilliant-hued procession, just as in Athens to the Parthenon. Forty-eight marble columns enclosed this sanctuary, which stood in the midst of a murmuring fir grove and guarded immense treasures, which, however, even a Hannibal spared, fearing the wrath of the divinity. When this temple came into Roman possession it retained its popularity, the only change being that the name of the goddess was changed to Juno Lucina. Then Christianity entered the country, and in the fifth century the bishop of Croton changed that temple into a church. Again only a slight change was made, for the divinity whose image was displayed there was now called Mary, but in her function and influence she was all that Juno had been. Afterwards as before processions went up thither, afterwards as before vows were performed, afterwards as before women appealed in the most important concerns of life to Mary-Juno-Hera. Pythagoras, who developed his chief activity in Croton, induced the women there to lay their ornaments on the altar of Hera. In later times many Christian virgins did the same before they renounced the world and entered the cloister. That temple of the Madonna was left solitary when the Saracens devastated the coast, the sacred image was taken to Croton, but the temple itself remained in good preservation for a long time. Finally it was destroyed by a bishop of Croton, who constructed a palace for himself out of the material. This man bore the name Lucifero and lived about the year 1520. To-day it may be said of the temple :

" Only one lofty column
Tells of its vanished splendor."

Finally an example from Sicily. On Mount Eryx in the north part of the island, illumined by sunshine or veiled in clouds, there overlooked the sacred salt tide the temple-sanctuary of Aphrodite, famous throughout antiquity among both Greeks and Romans. The temple has disappeared, but on the same height, called Monte S. Giugliano, the graciously smiling, loving Madonna is worshipped. Aphrodite kept there her sacred doves, and to this hour doves are to be seen fluttering about the mountain and the sacred spot, for no priestly conjuration has been able to remove this relic of paganism. A strange testimony this!

In this rechristening of the old gods also an example was set the church by eternal Rome, this episcopal capital which had been Christianised outwardly at the end of the fourth and the beginning of the fifth century. Pagan mothers there were in the habit of taking their sick children to the sanctuary of Romulus and imploring aid of him who had been suckled by the she-wolf on that spot. The church did not want the Christianised mothers to be deprived of any comfort, and accordingly erected a Christian sanctuary there and established in it St. Theodorus, to whom mothers appealed just as before they had done to Romulus. This transformation took place in the fourth century, and the church referred to, a round structure of brick, partly ancient material, still stands. Two centuries later eternal Rome crowned the work of rechristening by transforming the Pantheon, the temple dedicated to all the gods, into a church sacred to all the martyrs, after taking into it whole wagon-loads of holy bones.

Even in the fourth century many a man of deeper insight complained of the merely nominal Christianity of the masses who were floating with the current. These were the voices of prophets in the wilderness. There is a mournful sound in the judgment of Augustine upon his time: "Jesus is seldom sought for his own sake." It is a painful saying when Chrysostom compares the church of his time with a woman who has retained only the empty chests in which her wealth had been. While even such superior minds were by no means able to escape entirely the spell of paganism, others floated along with this tide that was submerging the church without being aware that they were dominated by paganism. We mean to include all those churchmen of the two centuries of conflict who assigned to the saints and martyrs the very same function which, according to the doctrines of the Stoics and the Neo-Platonists, belonged to heroes, dæmons, and guardian spirits. Without difficulty the outwardly Christianised pagan masses found again in the

church what they had just surrendered. The Spartans had apotheosised their Lycurgus, the Hellenes Hercules and other heroes, the Romans their emperors (including Constantine), Hadrian had deified his Antinous. The Church did the same with its martyr-heroes. The Church said: "Juno Lucina is a false divinity; Mary is the true intercessor between men and the Most High." This was the "lenitas," the mild method, of the Church, which often made pagans Christians by the wholesale but gave to Christianity a pagan form and accordingly reared a spiritual edifice that corresponded with the Church edifices of those centuries of conflict. In both pagan material was used. The protection of pagan deities which had been secured by pagan religious ceremonies made way for Christian ceremonies which ensured the guardian care of Christian divinities. The fact remained, only the name was changed.

For the better understanding of the above it must be remembered how deeply rooted in the heart of a Hellenic-Roman pagan was the need of reaching with faith and hope those deities of a lower grade, which, as intercessory divinities, were nearer to man, and furthermore what support the Hellenic-Roman religious faith had received in this direction from the philosophical doctrines of the second century. Then we must consider in this connexion the well-known fact that during the first Christian centuries new divinities and new forms of worship were constantly being introduced from the Orient and willingly received. So the Hellenic-Roman pagan world was accustomed to hear of new and powerful aiding and atoning divinities, and the yearning human heart turned with especial readiness to those divinities and forms of worship which promised atonement. Why, men asked, should they not give a trial to Christianity which blazed, a propitious planet, above the so-called Christian emperors, which promised to the longing human heart the true aiding and atoning divinities, substituted a brilliant ceremonial for the splendor of pagan worship, and received all possible aid favor and encouragement from the great ones of the age? Moreover the charitable institutions of all sorts within the Church and its membership constituted an especial attraction for the people of the poorer classes. As early as 325 A. D., indeed, complaint was made by the Council of Nicæa of the defective preparation of the catechumens. Finally I call attention to the fact that the Hellenic-Roman pagan world never hesitated to modify newly introduced divinities or to recognise in them their own heathen deities. When, for instance, the worship of Mithras, the

Persian god of light, was introduced, traces of which may still be seen in a cave on the island of Capri, the religious Roman merely saw in Mithras his own pagan deity Sol (the sun). The Phœnician Astarte was modified by the Hellenes into Aphrodite, and she in turn became among the Romans Venus. Tacitus was able to see in the Germanic gods those of his native Rome. Thus we see the reason why it was so easy for the outwardly Christianised pagans to feel at home on the Christian Olympus with its saints and its Mary, especially as the nature of the religion suffered no change. It was afterwards as before a matter of ceremonial, that is, the essence of certain performances which were believed to have an inherently magical effect. Christianity was regarded as the new dispensation, and the Christianised pagan merely exchanged one dispensation for another.

Just as the pagan divinities, with Christian names, leaving the deserted temples entered the churches, so the Hellenic-Roman religious ceremonial followed them. The construction of the Christian ceremonial during these two centuries of conflict is a parallel to the construction of the churches by means of pagan materials.

We meet in the churches the spell of the holy water, we see to-day the clouds of incense, the flowers on the altars, the candles before the images, the votive offerings or "vota," relics of all sorts, pictures and statues, the latter in such growing avalanches on Neapolitan territory that the modern churches revive the truth of that old proverb mentioned above: "In Naples one is more likely to meet a god than a man." All these things are portions of the Hellenic-Roman ceremonial, introduced during those two hundred years of so-called conflict.

At the entrance of pagan temples stood a vessel of holy water with which to sprinkle oneself, and magic spells added strength to the holy water as to-day; the aspergillum (holy water sprinkler) was very familiar to the pagans, and sprinkling men and inanimate objects with holy water was a universal pagan custom. While Justin Martyr in the second century condemned the holy water as an invention of the devil, opinion had changed by the end of the fourth century. The erudite Jerome tells, with the pagan-Christian belief in miracles common to his time, that the race-horses of a Christian, sprinkled with holy water, won over the horses of a heathen. "Thus the pagan god was conquered by Christ." (Jerome, *op.* 4, p. 80.) That Christian baptism took the place of pagan ceremonies of atonement in the eyes of Emperor Constantine and his contemporaries, and likewise in the eyes of Emperor Theodosius,

is clear from the fact that baptism was transferred to the close of life.¹

Clouds of incense and the glitter of candles were prominent features in the pagan temples. Aphrodite escapes to Paphos and views with joy the place where rises her temple and where glow a hundred altars with the burning incense from Sheba and fragrant with fresh wreaths (Virgil, *Aeneid* I., 415). Jeremiah (xliv. 17) condemned the Jews who burned incense to the queen of heaven; Emperor Theodosius forbade pagan burnt offerings. The prohibited incense, rechristened with a Christian name, entered the churches, and with it lights, whether in costly lamps or in the glimmer of tapers. Of perpetual lamps (*vigil ignis*) we are told by Virgil, *Æneid* IV., 200 :

“And altars placed a hundred; vigil fires
He hallowed there, the eternal guards of heaven.”

The temples were filled with votive gifts, just such as we find to-day in all the churches of the South, in some of them in great quantities. In Æschylus's tragedy of “The Seven Against Thebes” women hasten full of anxiety into the temples, and we hear some of them exclaim before the images of the gods: “Now it is time, ye holy ones of this temple, that we appeal to your images as we embrace them.” They call out to Poseidon, then to Apollo, to Hera, and so on: “Remember the temples, remember the sacrifices, remember the rich gifts, remember the votive offerings, and hasten!” Any one acquainted with modern Naples might think Æschylus was our contemporary and had intended in the above passage to depict the present thought regarding votive offerings. Of the *donaria* (votive gifts), which often consisted of representations of beneficial occurrences, the Roman poet Tibullus says (*Eleg.*, I., 3): “O goddess, that thou canst give aid is shown by the number of paintings that deck thy temple.” Had Tibullus seen the contemporary churches of Southern Italy? The Roman satirist Juvenal, a contemporary of Hadrian, says that the goddess Isis furnished a living to the painters of votive pictures. Did the poet mean perhaps the Madonna at Naples?

Relics, too, the pagans had, but not quite so plentifully as the Christians. The bones of Theseus rested in Athens, whither they had been solemnly brought, and where they were regarded as pledges of his protection. The house of Romulus, the stones vomited forth by Saturn, a chip of the ship Argo, and so forth, were regarded as very sacred relics.

¹ Atoning ceremonials of magic power were numerous in the pagan world.

According to Plutarch the pagan king Numa objected to the images of the gods in the temples, but later the worship of images in the temples assumed great dimensions and moved from the temples into the churches. Emperor Theodosius forbade the heathen worship of images, but it was rechristened, and to-day goes far beyond the limits observed by paganism, and is protected by absolute. The images, as in ancient life, are identified with the "santi" whom they are intended to represent, and the number of these increases with incredible speed. When the Arabs took possession of the city of Selinunt (Modione) in Sicily they found so many statues of saints that they called the city Rahl el Asnam, "village of idols." Closely connected with the worship of images is the cultivation of processions, which to-day are as much like the corresponding performances of Hellenic-Roman worship as one twin the other, as like as the Christian legends of miracles are to the pagan. The legends of the pagans laid aside the Roman toga, clothed themselves in the Christian cassock, and became thus eligible to church membership. Finally the Church took under her patronage the festivals connected with the Church service, hoping that a saint placed in the centre of these festivals so popular with the common people would transform them into something sacred. But she was disappointed, or, more correctly, she lost all sense of the distinction between pagan and Christian festivals. We may be witnesses of Christian festivals later which would serve as examples of Pagan orgies. In ancient life the priests were managers of the festivals. The Christian priests of Southern Italy perform this office to the present day, and understand the business as well as did their pagan predecessors.

The Church spoke of victory and triumph when she saw the temples deserted, the gods banished, and herself raised to the throne, like Joseph who rose from chains and a dungeon to royal distinction. The victory of the Church was in fact her defeat, which became complete when sacrifices were admitted to the church buildings. Sacrifices were the heart and centre of the Hellenic-Roman worship, and were forbidden by the Christian emperors again and again for two hundred years, and finally on penalty of death. In the sacrifice of the mass that central feature of ancient worship found its way from the temples into the new churches, and along with it the class of sacrificing priests, to whom descended the function, the office and the wealth of the pagan priests who had been dismissed. The Christian priest, tonsured after the fashion of the pagan Isis-worship, beside him the

altar-attendant, just as he may be seen in a Pompeian fresco,—the Christian priest offering the mass-sacrifice for the living and the dead, that was the complete defeat of the Church at the moment when she was dreaming of victory.

The Hellenic-Roman temples served not only the rites of religion; many of them had other incidental objects. When the churches were offered as compensation for the deserted temples it was expected that this compensation should be complete, for the force of custom is great, especially in the South. It is well known that the right of asylum was transferred to the churches. Temples were also storehouses for public and private treasures, and nearly every temple had an especial treasure-chamber. Millions in treasure were concealed for instance in the above-mentioned temples of Hera Lucina, Aphrodite Erycina, and in many others. The temple on the island of Delos, as is known, contained the public treasure of Athens. Private citizens often deposited great sums, and the supervisors of the temples, that is, the priests, not infrequently acted as bankers, carrying on financial operations with such capital. For centuries, in Naples, for instance, many monasteries with fine churches attached, and certain richly endowed charitable institutions were the only public banks, which understood not only financiering but bankruptcy as well. The pious bank that was connected with the foundling asylum and had millions in deposits from private persons ended in the previous century with a crash. Any one who wishes to see what a treasury really is should ask to be shown the treasure-chapel of S. Gennaro in the cathedral at Naples, where there are millions in precious stones. The church of S. Maria Nuova in Naples once had such a wealth of gifts that had been presented to a certain miraculous image that it was possible to pay for a complete reconstruction of the church from the sale of them. The proceeds were 120,000 lire. Furthermore the temples guarded public and private documents, records of all sorts, sometimes even the lists of citizens, so that the priests acted as archivists. In this direction, too, the church furnished a substitute, in the shape of the monasteries. Of old the positions with the widest outlook had been chosen for temples, and the monasteries followed this example: these sacred places became the repositories of all important public and private documents within their districts. We find such treasures, for example, in the monastery of Monte Cassino, in the monastery Trinita della Cava; one of the most important historical archives in the world is the government archive in Naples, now in the chambers of the monastery

of S. Severino. The greater part of its treasures consists of records which were deposited in monasteries. Every monastery was a Delphi in the eyes of its neighborhood.

Many temples served also as museums for the monuments of the great dead. In the Parthenon at Athens the sons of Themistocles set up a statue of their father; the statues of the heroes of Attica were to be seen at Delphi; the porches of many temples were filled with statues of victors; in the temples erected in honor of the emperors were seen their statues; even Cleopatra stood in a Roman temple. The force of ancient custom causes the churches, equally numerous in modern times, to be used in the same way. The church of S. Domenico in Naples, with its worthy and its worthless monuments, is the temple of fame of the Neapolitan aristocracy. S. Domenico in Palermo serves the same purpose. The church of S. Croce in Florence is a national temple of fame; St. Peter's in Rome, the papal. "And marble figures stand and gaze at me."

The power of custom in southern lands was cited above in explanation. The writer, who has lived uninterruptedly for more than ten years in that region, is constrained to call the power of custom, as he has observed it, astounding when he marshals before his mind's eye all the small and great things that have been preserved of ancient life and have become a part of the manners and customs of popular life, while the people themselves take not the slightest account of this origin. In this sketch we can cite only a few examples, and will refer to but a few things which show how ancient life has been preserved to the present day in even trifles. The donkeys which carry vegetables to the city are equipped with the "bissaccium" which comes from the ancient Roman times; the two-wheeled Roman carriage, the "cisium" is perpetuated in the popular "corricolo," which we see standing by the hundred in the very places where rose the ancient gates of Naples and where such carriages had had their stand for centuries. Ancient statues of horses show the forelock tied up neatly, a custom which may be observed in thousands of instances in the Campagna. Look at the bottles and jugs for wine and oil found at Pompeii, the shape of the loaves of bread; regard the recreations of large and small; note the tambourine ("tympanon") used in the popular dances; consider the beds of the South with their dreadful height and their two little and more dreadful pillows,—everywhere we find ancient Roman life preserved in such trifles. But in popular life there are details which are still older and show the specific Hellenic influence. The

numerous money-changers under the open sky, the cook-shops on the street and the kettles of boiled lentils, the door-knockers in the older quarters, the fondness for garlic, the number of hair-dressers, the custom that men make the daily purchases for the house, all features of Neapolitan daily life, are derived from Greek life. Even those intestine-vendors mentioned by Aristophanes are still to be found in Naples, offering their unappetising wares to-day in this once Hellenic city as formerly they did on the streets of Athens. Pits as receptacles for oil, such as are to-day found in Apulia, for instance, were known to the Hellenes; the modern shepherds in the Sila forest with their shawms remind us of the shepherds of Theocritus; and as of old in the cities of Greece rhapsodes recited publicly the tales of Homer's heroes, so Naples preserves her "cantastorie," i. e., her story-tellers, who entertain the listening crowd with the heroes of Tasso and Ariosto. In the popular theatre certain figures of the ancient theatre are preserved, and rural wine-stands are painted on the door-posts just as one may see them to-day preserved in one case in Pompeii.

If from these few instances we see the striking power of conservative custom in unimportant things, the same power is to be reckoned with the more surely in considering the highest and most important sphere of ancient life, religion. Here of all places the power of custom caused the old and traditional to be preserved.

In closing let us once more cast a glance upon temples and churches. The number of the latter in the South is great, but the number of temples also was always equal to the demand. One who knows the history of the two centuries before Constantine is aware to what an extent Hellenic-Roman piety devoted itself to the construction of temples and pious endowments of every sort, vows, dreams, divine revelations as well as the hope of favor and profit, being the chief motives. In innumerable instances we find the same motives in church endowments. Vows of the city and vows of princes created the principal churches in Naples, for instance, and probably every church of the South is in some respect an evidence of that pagan desire for reward which descended to the Christian Church, of "righteousness of works." The famous treasure-chapel of St. Januarius in Naples originated in a vow of the city, given in the time of a severe pestilence. By this performance they won the favor of the "santo" referred to, and expected from him an equivalent. If for S. Gennaro we substitute an ancient divinity, we have the religious life of paganism.

While we find the ancient pagan motives active in the con-

struction and decoration of churches, yet a church is a very different thing from a temple. Let us compare a modern church with the temple of Pæstum. The pagan temple stood in the midst of a sacred territory, far from the tumult of secular life, often in the midst of sacred groves, and the presence of the divinity was felt in the solemn silence. The churches of the South, on the contrary, stand in the midst of the rush of the street, shut in by secular buildings, often disturbed by mad noises, as though it were intended to deprive the worshippers of the last remnant of inspiration, of sense of the nearness of God. The temple of Pæstum shows a direct, simple and majestic dignity and a solemn sobriety. The churches of Southern Italy? The older ones all have been modernised, i. e., supplied with the empty ornaments of senseless decoration; the later ones have all the same tendency. The temple at Pæstum had a single statue of a divinity, which occupied the "cella," and only one altar, just in front of the temple, and the eyes of those gathered about the altar turned from it to the solemn and silent interior of the temple. The churches of Southern Italy are filled almost without exception with glass tabernacles in which stand gaily decked or beribboned and bekerchiefed madonnas, creations of mere handicraft which never would have been endured in a pagan temple. Inside, the churches show the disturbing features of the many side-altars and other things which were unknown in the temples. On the anniversaries of the patron saints and Madonnas one might compare the churches with royal receptions; at the same time they are concert-halls, opera-houses, where one hears opera-air and merry dance-music. In Lent they become college lecture-rooms, where the Lenten preachers, generally advertised as famous, "distinguished orators," begin their addresses with "Signori," (Gentlemen). Sometimes one is reminded of a theatre, for applause with clapping of the hands is not unheard of. Fifteen hundred years ago the display oratory which had spread itself before that time in the forum and in the halls of the rhetors, entered the Church. It is still to be found in the churches of Southern Italy, and a saint or a Madonna has to endure not one, but seven, oratorical displays (panegyrics). A Greek temple was never disturbed by panegyrics.

Finally, the churches are mercantile establishments, having, like these, their signs, displayed in some cases constantly, in others only occasionally: "Perpetual, complete, daily absolution for living and dead." Such signs were not seen about Roman and Greek temples.

The last and most important church which was constructed in Southern Italy (or in all Italy) before the union of Italy under the house of Savoy is the church of S. Francisco di Paolo in Naples, built more than seventy years ago by King Ferdinand in consequence of a successful vow. It is an exact imitation in every respect of a pagan temple, of the Pantheon at Rome. Thus in this style of architecture the Church has returned once more to paganism.

FRENCH PHILOSOPHY AT THE END OF THE EIGHTEENTH CENTURY—CONDORCET.

BY PROFESSOR L. LÉVY-BRUHL.

TOWARDS the end of the eighteenth century, the rapid progress of the sciences presaged a general revolution of opinions. Not only had mathematics gained by the impulsion given in the early years of the century, but also physics, chemistry, and above all, the natural or biological sciences, had developed wonderfully. Not to mention the French mathematicians, astronomers, physicists and physiologists who rivalled Bradley, Bernoulli, Euler, Haller, and Franklin, natural history was revived by Buffon and Jussieu, who extended it beyond the narrow sphere within which specialists had hitherto confined it. By laying before the public the great questions on natural history they became valuable auxiliaries to the “philosophers,” even when refusing to be considered as allies.

This is particularly true of Buffon, who was led by the plan of his great work to treat of “the general theory of the globe we live on, the distribution, nature and formation of the substances it presents to our view, the great phenomena which occur on its surface or within its bosom; the history of man and the laws which preside over his development, life and destruction.” Among these problems, which Buffon looked upon as unquestionably belonging to natural history there are a good many which only a century earlier belonged to theology. The change wrought in men’s minds was therefore nothing else than a revolution. Theology was henceforward confined within its own domain; even metaphysics was no longer in good standing, and little was accepted under that name beyond psychological and moral researches, or at the utmost a remnant of speculation on the existence of God and the nature of the soul. Everywhere else the scientific spirit

asserted its supremacy. Constant use was made of positive methods, mathematical formulæ and analysis, whenever the phenomena admitted of them ; and the experimental processes applied to the study of the genesis and formation of animate and inanimate things. To analyze, to trace things back to their origins, was the very spirit of the age which after having struggled in the first half of the century had become victorious in the latter half.

We find a rather striking picture of this great movement in the *Éloges*, written by Condorcet for the Academy of Sciences after 1782. Condorcet was a true son of the age, and a grateful son. An enthusiastic admirer of Voltaire, a friend of Turgot and D'Alembert, imbued with the ideas of Condillac, of the Encyclopædists, and even, on some points, of Rousseau, perpetual secretary of the Academy of Sciences, and introduced into the French Academy with the help of the "philosophers," Condorcet showed even in what he wrote before the Revolution what he was to be when fully developed in his last and most important work, the *Esquisse du tableau des progrès de l'esprit humain*: a passionate upholder of the philosophy of his time, convinced that under its guidance humanity was on the way to happiness. His faith was so immovable that, when outlawed and threatened with death, his last words were to be a rapturous hymn to progress as attained by means of reason and science. Being an acute-minded and remarkably well-informed man, he combined with over-sanguine hopes and previsions a clear and precise insight into the social evils of his time and the means of remedying them. By considering the body of his leading ideas we can draw up a summary balance-sheet, so to speak, of the philosophy of the eighteenth century in France, on the eve of the day when the Revolution was to put it to the severe test of facts.

According to Condorcet the proper object of philosophy is man, and, secondarily, the totality of the actual in proportion as it concerns man's development and happiness. Such a conception may be narrow or it may be wide ; narrow, if we purposely exclude all researches in which we do not perceive man's immediate profit ; wide, if, on the contrary, we start from the principle that all things in the universe are mutually dependent, and that consequently the science of man is inseparable from the study of the totality of the actual. Condorcet stood half-way between these two extremes. True, he had but little inclination for metaphysics. Although he would not regard as invariable the limits assigned by Locke to the human mind, and although he considered the questions of the sim-

plicity, the immortality, and the liberty of the human soul, he did not deviate notably from his contemporaries' point of view. "True metaphysics" is to him, as to them, only the application of reasoning to the facts observed in reflecting upon our sensations, our ideas and our feelings.

But on the other hand, he has no narrowly utilitarian conception of positive science. He understands that to seek immediate utility would be to destroy the deep source of it. The most useful theories practically are composed of propositions which were discovered by curiosity alone, and which long remained useless, while no one dreamed how they could one day cease to be so. The chain of truths which spring from each other, and which can be successively discovered only with the aid of newly-discovered methods, bears no relation to the series of truths which are also to become, one after another, practically useful. A discovery is not made because it is needed, but because it is linked to other truths already known, and because we become at last strong enough to overleap the space between it and us. Let us then be wary lest under pretence of reducing the *sciences* to their lowest terms we should countenance ignorance, the greatest bane of mankind and the cause of nearly all our misfortunes.

Conceived in this way, positive science (the principles of which Condorcet has indeed no intention of examining) will supply a more or less rapid but a certain solution of the main problems which puzzle mankind. Man at the present time is wicked and miserable. But his vices as well as his sufferings proceed solely from ignorance and error, both of which science will dissipate. The true use of science, therefore, does not consist in its application to the arts, or at least this is but a small part of its utility. Its most important benefit is perhaps that it has destroyed prejudices, and rectified after a fashion our human intelligence. All political and moral errors originate in philosophical errors, which in their turn are connected with physical errors. There is not a religious system or a piece of supernatural extravagance which does not rest upon ignorance of natural laws. The progress of physical knowledge is all the more fatal to such errors because it often destroys them without even seeming to attack them.

Thus do we owe to Greece an eternal debt of gratitude. The philosophers of Athens, Miletus, Syracuse, and Alexandria, have made it possible for the inhabitants of modern Europe to excel all other men. Had Xerxes been victorious at Salamis, we might still be barbarians. That battle is one of those events, so rare in his-

tory, in which the fortune of a single day determines for a long series of centuries the destiny of mankind. Fortunately the danger incurred in the fifth century B. C. no longer threatens us. Barbarism over the entire globe is no longer possible. Printing has forever saved mankind from such a danger. We shall witness no more "disastrous" epochs, such as the Middle Ages were. Science not only frees, but it guarantees the man it has freed against any aggressive return of ignorance and barbarism.

* * *

We are thus brought to the central idea of Condorcet's philosophy, which is the idea of progress and of indefinite perfectibility. The expression of this thought constantly recurs in his works, confident, eager, enthusiastic as a hallelujah. Every century shall bring with it new discoveries and new instruments for discovery; and even as Aladdin's lamp made better those who possessed it and made a good use of it, the progress of science shall be accompanied by the melioration of mankind. "My aim," says Condorcet in the beginning of the *Esquisse*, "is to show, by the aid both of reasoning and of facts, that no boundaries have been set to the improvement of the human faculties; that man's perfectibility is really indefinite; and that his progress, now independent of any opposing power, has no limit not coincident with that of the globe on which fate has cast him." Even our bodily organism will be perfected. With better hygiene, more sanitary houses, a more thorough knowledge of the animal frame, the duration of life may be increased. Death would be but the result of extraordinary accidents, or of the ever later destruction of the vital forces.

The idea thus coming to its full development in Condorcet had its roots in the philosophy of the whole century. Condorcet merely drew conclusions from principles which had been universally accepted. How often had it been said that everything is acquired, that everything comes from experience; that between the primitive man and the man of the present day there is a wide distance, and that this distance has been covered by man with the help of his own sole powers! But if these have been able to lead him up to the point where he is now, how far may they not lead him in the future! What may not be expected from a rational system of education? Helvetius dreams that by this means we may obtain "men of genius" at will. Condorcet entertains the hope that all men will thus be made wise and benevolent. All "philosophers" agreed in saying that nature "begins aright" and that if man "continues badly," the fault is with him, and not with her.

It is for him, therefore, to amend himself, and to rid himself of his errors, prejudices and vices. In one word, this philosophy reduced to nothing the factor of innateness, instinct and heredity in man. As a necessary consequence, it expected everything from education, instruction and laws, and on this basis looked forward to unlimited progress.

It is true, we are wanting in information as to the prehistoric life of mankind. We can only guess the steps by which man, when isolated, or rather limited to such association as was necessary for reproduction, was able to make that primitive progress, the final term of which was articulate language. It is only by examining man's intellectual and moral faculties and physical constitution, that we can conjecture how he rose to this first stage of civilisation. At least the hypothesis thus formed is not contradicted by facts. Moreover, according to Condorcet man is naturally good. Though indifferent to good and evil while pursuing his own interest, he has yet a natural feeling of pity and benevolence, a necessary consequence of his constitution, which inclines him towards kindness and justice to his fellow-creatures. This feeling always works in the same direction, whereas self-interest counsels most various actions, so that this feeling of good-will exercises in the end a considerable influence upon the conduct of men, thus contributing to the progress of civilisation.

Whence comes it, then, that there are still so many wicked and miserable men? Condorcet does not deny the fact, but would not have it exaggerated. Humanity has already advanced far beyond the animal nature from which originally it could scarcely be distinguished. If ignorance and errors still occasion a great many evils, it is because nothing is so difficult as to destroy deeply-rooted prejudices, of which mankind contracted in its childhood a vast number, and also because there have long been classes of men whose interest was served by maintaining these prejudices, especially priests, of whom Condorcet speaks much as Voltaire and D'Alembert did. But mankind will eventually be cured; it cannot fail to be cured. Superstitions and other errors will fade away before the light of science. "It would be necessary only to enlighten people upon their real interests, and a very few simple truths would suffice to establish the happiness of mankind on a solid basis."

* * *

While indulging in most sanguine hopes for the future progress of the sciences, it was difficult for Condorcet to foretell in

what this progress would consist, and he was wise enough not to attempt it. He contented himself with pointing out the general order of their evolution, according to which the simpler the facts to be studied, the speedier and surer will be the progress of the science. Thus astronomy was created first, and physiology last. Beyond physiology, he had a glimpse of sociology. Social phenomena were among his most habitual themes for reflexion. He understood that these phenomena like all others must be subjected to laws, the knowledge of which depended upon the observation of facts, and that this knowledge might become a science which like all others would make prophetic predictions possible. "The only foundation of belief in the natural sciences is the idea that the general laws, whether known or unknown, which regulate all phenomena in the universe, are necessary and unchanging. Wherefore should this principle be less true as regards the development of man's moral and intellectual faculties than as regards other natural operations?" Condorcet even dimly foresaw, but without dwelling upon it, the distinction between social statics and dynamics, and the preponderating importance of dynamics. On the other hand, he took up the bold idea of applying mathematical analysis to social phenomena. He thought he had thus found a most effective and fruitful use of the theory of probabilities.

Together with social science and with its aid, social art, which is the supreme object of philosophers, is to be developed and devoted to making all men free, reasonable and happy. First free, for the better enlightened men are, the freer they are. This proposition, Condorcet says, has the value of an axiom. According to the natural order of things "political enlightenment is the immediate sequence of the progress of the sciences." But this truth must be published cautiously, and Condorcet highly praises the philosophers for having quieted as much as possible the suspicions of princes. "Let us not," he says, "challenge the oppressors to league themselves together against reason; let us carefully conceal from them the close and inevitable connexion between enlightenment and liberty; let us not teach them beforehand that a nation free from prejudice soon becomes a free nation." The throne must not know that its interest lies in supporting the altar.

Again, in order that the progress of enlightenment may produce favorable results, the progress must be general and all men must share it. Condorcet here ventures to contradict his master, Voltaire. The latter was wrong, he says, in speaking scornfully of "the mob," and in thinking with his friend Frederick II. that

“the stupid populace” has no need of enlightenment. Too long has intellectual and moral culture been exclusively the privilege of a minority, while the ignorant mass lies sunk in ignorance and prejudices. In any well-governed country the people will have time to acquire instruction and the few needed ideas to guide them according to reason. There must be public education, extending to all classes of society, offering to all children not so much a systematic course of instruction as the first elements of every science useful to all men, and giving to every one a survey of the various objects of knowledge. Society is interested in this, for in this way no man born to genius can be lost to society, and moreover it would be insured against the danger of seeing new prejudices constantly succeeding the old ones. But above all such an education would make men reasonable and happy by acquainting them with their rights, duties, and interests.

Trained by science and by the use of his reason, man learns that “his rights are written down in the book of nature.” It was formerly to sacred books, to the bulls of popes, to the rescripts of kings, to collections of customs, to the annals of the church that men used to turn for maxims and examples from which they might draw conclusions. It is now well known, and has been declared by the American republic and by France first in the Old World, that reason is sufficient to show us the rights of man. These are all derived from the very simple maxim that, given two sentient beings, created equal by nature, it is against the natural order that one of them should seek his own happiness at the expense of the other. The question now becomes to establish on principles derived from reason alone a system of laws insuring to man the enjoyment of the advantages procured for him by the social state, while taking from him as few of his natural rights as possible.

Now most men are in fact far from enjoying their natural rights. Even where there are no longer any special privileges, where the equality of men is recognised before the law, the extreme disparity of fortunes very often makes the possession of natural rights a vain show. Of what use is the nominal enjoyment of these rights to a poor wretch dying of misery and starvation? Therefore we must found pension funds for old people and annuities for widows and orphans. A certain capital will be supplied to the young when old enough to work for themselves; popular credit societies will be established. These and many other institutions of the same kind, which may be formed in the name of society and become one

of its greatest benefits, may also be the results of private associations.

Penal laws will cease to be a revolting anachronism in a society the manners of which are refined. Torture will disappear. The death penalty will be abolished. Natural children will be treated with humanity and justice; girl-mothers will not be driven to despair and crime; and, finally, we shall have a new jurisprudence, freed from the idle trash with which the prejudices of a score of nations and a score of centuries have loaded our law.

All these improvements will take place as education, guided by the social art, makes men better acquainted with their real interests. The improvement of laws, attending upon that of sciences, will bring together and often identify the private interests of each man with the common interests of all. There is no reason why the opposition between these interests, though now a violent one, should last forever. Man is naturally good. It is sufficient to impart to him gentle and pure morals, to enlighten his conscience, to prevent the laws from creating artificial opposition between the direct interests of individuals, but to cause them to develop and strengthen man's natural inclination to make his own happiness dependent on the happiness of others, and lastly, to prompt him to feel towards mean, unjust or cruel deeds a somewhat organic and reflex dislike. Reason must form laws and laws must modify men's manners.

Men will soon understand that national interests are no more incompatible with one another than private interests are. According to Condorcet there cannot exist, especially in a large empire, any truly national interest that is not merged in the general interest of mankind. All the causes which produce, embitter and perpetuate national feuds will gradually vanish. Wars between nations, like murders, will be numbered among the extraordinary atrocities, humiliating and revolting to nature.

One may recognise here the dream of universal fraternity, the humane optimism in which the eighteenth century at its close used to indulge. But such optimism did not make philosophers blind to the present state of misery, and their openly-avowed hopes were one of their forms of protest against the established code of morals and laws. This philosophy, as we have already seen, was above all an offensive weapon. The war it waged is far from closed; thence the discrepancy among the opinions concerning it even at the present day. According to some it is a poor, narrow, paltry philosophy. It understood nothing about the history of

mankind and was a stranger to all religious feeling, insensible to the poetry of nature, intoxicated with the progress of science, and practically leading to frightful excesses. According to others it is the philosophy of a great age; it drew conclusions from the principles discovered or rehabilitated by the Renaissance and the Reformation; it restored to man the consciousness of his individual dignity and responsibility; it was passionately fond of justice and humanity; and, though it was wrong in believing problems too simple and in accepting too hasty solutions, at least it disposed once for all of the former social conception of inequality among men, and with the subjection of reason to theology. A weighty case which has not yet been settled! Time will develop further phases of it, and the future alone can bring in a dispassionate verdict.

INTERMEDIATE FORMS OF ABSTRACTION.¹

BY TH. RIBOT.

HAVING thus acquainted ourselves in the two previous *Open Courts* with the factor of speech, which as an instrument of abstraction becomes steadily more and more important, we can take up the subject of abstraction from the point at which we left it. In passing from the absence to the presence of the word, from the lower to the intermediate forms of abstraction, we must again insist on our principal aim: viz., to prove that abstraction and generalisation are functions of the completely evolved mind. They exist in embryo in perception, and in the image, and at their extreme limit involve suppression of all concrete representation. This conclusion will hardly be contradicted. The difficulty is to follow the evolution step by step, stage after stage, and to note the difference by *objective* marks.

For intermediate abstraction, this operation is very simple. It implies the use of words; it has passed the level of prelinguistic abstraction and generalisation. We may go farther, and—always *with the aid of words*—establish two classes within the total category of mean abstraction:

1. The lower forms, bordering on generic images, whose objective mark is the feeble participation of the word: it can indeed be altogether foregone, and is only in the least degree an instrument of substitution.

2. The higher forms, approximating to the class of pure concepts, and having as their objective mark the fact that words are indispensable, since these have now become an instrument of substitution, though still accompanied by some sensory representation.

¹ Translated by Frances A. Welby.

The legitimacy of this division can be justified only by a detailed comparison of the two classes.

I.

Before giving examples that determine the nature and intellectual trend of the lower forms, a theoretical question presents itself which cannot be eluded, albeit any profound discussion of it belongs to the theory of cognition rather than to psychology. It is as follows: Is the difference between generic images and the lowest concepts, one of nature or of degree? This question has sometimes been propounded in a less general and more concrete form. Is there any radical difference, any impassable gulf between animal intelligence¹ in its higher, and human intelligence in its lower aspects? Some authors give an absolute negation, others admit community of nature, and of transitional forms.

I shall first reject as inadmissible the argument that identifies abstraction with the use of words. Taine seems at times to admit this: "We think," he says, "the abstract characters of things by means of the abstract names that are our abstract ideas, and the formation of our ideas is no more than the formation of names which are substitutes."² Clearly if abstraction is impossible without words, this operation could only begin with speech. All that was said in previous articles proves the inanity of such an assertion.

Let us, in order to discuss the question profitably, sum up the principal characteristics of generic images on the one hand, of inferior concepts on the other.

Generic images are: (1) simple and of the practical order; (2) the result of often-repeated experiences; (3) extracts from very salient resemblances; (4) a condensation into a visual, auditory, tactile, or olfactory representation. They are the fruit of *passive* assimilation.

The inferior concepts most akin to them, which we are studying in the present instance, are in character: (1) less simple; (2) less frequently repeated in experience; (3) they assume as material, similarities mingled with sufficiently numerous differences; (4) they are fixed by a word. They are the fruit of *active* assimilation.

It may be said that the two classes, when thus opposed to each

¹ Intelligence is taken here in its restricted sense, as the synonym of abstracting, generalising, judging, reasoning.

² *De l'intelligence*, Vol. I., Bk. IV., Chap. 1, p. 254, first edition.

other, present but minimal differences, save for the addition of words. For the moment, indeed, the word is only an instrument handled by a bad workman, who ignores its efficacy and highest significance, as will be proved below. But were it otherwise, and were the delimitation between the two classes in no way fluctuating, the thesis of a progressive evolution must needs be given up, unless it be admitted to begin only with the appearance of speech.¹

Romanes describes the passage from the generic image to the concept as follows :

“Water fowl adopt a somewhat different mode of alighting upon land, or even upon ice, from that which they adopt when alighting upon water ; and those kinds which dive from a height (such as terns and gannets) never do so upon land or ice. These facts prove that these animals have one receipt answering to a solid substance, and another answering to a fluid. Similarly, a man will not dive from a height over hard ground, or over ice, nor will he jump into water in the same way as he jumps upon land. In other words, like the water-fowl, he has two distinct receipts, one of which answers to solid ground, the other to an unresisting fluid. But unlike the water-fowl, he is able to bestow upon each of these receipts a name, and thus to raise them both to the level of concepts. So far as the practical purposes of locomotion are concerned, it is, of course, immaterial whether or not he thus raises his receipts into concepts ; but, as we have seen, for many other purposes it is of the highest importance that he is able to do this. Now, in order to do it, he must be able to set his receipt before his own mind as an object of his own thought : before he can bestow upon these generic ideas the names of “solid” and “fluid,” he must have cognised them as ideas. Prior to this act of cognition, these ideas differed in no respect from the receipts of a water-fowl ; neither for the requirements of his locomotion is it needful that they should : therefore, in so far as these requirements are concerned, the man makes no call upon his higher faculties of ideation. But, in virtue of this act of cognition whereby he assigns a name to an idea known as such, he has created for himself—and for purposes other than locomotion—a priceless possession ; he has formed a concept.”²

In point of fact, the transition is not so simple. Romanes omits the intermediate stages : for with fluid and liquid we pene-

¹ *De l'intelligence*, I., Bk. IV., Chap. 1, p. 254, first edition.

² *Mental Evolution in Man*, pp. 74 and 75.

trate into a more elevated order of concepts than those immediately bordering on the generic image. What he well brings out is that the bare introduction of words does not explain everything. It must not be forgotten that if the higher development of the intelligence depends upon the higher development of speech, this last is conditioned, not simply by the faculty of articulation, which exists among many animals, but by anterior cerebral conditions that have to be sought out.

For these, we must return to the distinction loosely established above, between passive and active assimilation. We know that the fundamental mechanism of cognition may be reduced to two antagonistic processes, association and dissociation, assimilation and dissimilation; to combine, to separate; in brief, analysis and synthesis.¹ In the formation of the generic image, as we have seen, assimilation plays the principal part; the mind works only upon similarities. In proportion as we recede from this point, we have the contrary; the mind works more and more upon differences; the primitive and essential operation is a dissociation; the fusion of similarities only appears later. The further back we go, the more analysis preponderates, because we are pursuing resemblances more and more hidden by differences. Coarser minds do not rise above palpable similarities. The peasant who hears a dialect or patois closely akin to his own understands nothing of it; it is another language to him; whereas even a mediocre linguist immediately perceives the identity of words that differ only in accent.

We may represent the differences between generic images and these general notions that most nearly approximate to them, by the following symbol:

I. <i>A B C d e</i> <i>A B C e f</i> <i>A B C g h</i> , etc.	II. <i>A b c d e</i> <i>x y z A f</i> <i>g A h k m</i> , etc.
--	---

where each line corresponds to an object, and each letter to one of the principal characters of the object. Table I is that of the generic image. A part, *A B C*, is constantly repeated in each experience; moreover, it is in relief, as indicated by the capitals; the elimination of differences is almost passive,—self-caused; they are forgotten.

Table II is that of a fairly simple general notion. Here *A* has to be disengaged from all the objects in which it is included. It

¹ As Paulhan remarks, "L'abstraction et les idées abstraites" (*Revue Philosophique*, Jan., 1889, p. 26 et seq.), these two processes are initially linked one with the other, so that we find analytical syntheses, and synthetical analyses.

still has a salient character, indicated by capitals, and recurring in each object; but as it is merged in the differences, as it represents but a poor fraction of the total event, it is not disengaged spontaneously; it exacts a preliminary labor of dissociation and elimination.

Thus understood, the difference between the two processes consists only in the faculty of greater or less dissociation, and we are in no way authorised in assuming a difference of nature.

But the question may be propounded in a different manner,—more precise and more embarrassing. I formulate it thus: the generic image is never, the concept is always a judgment. We know that for logicians (formerly at any rate) the concept is the simple and primitive element; next comes the judgment, uniting two or several concepts; then ratiocination, combining two or several judgments. For the psychologist, on the contrary, affirmation is the fundamental act; the concept is the *result* of judgments (explicit or implicit), of similarities with exclusion of differences. If in addition to this we recall what was said above: that speech commences with phrases only, that in its simplest form it is the word-phrase; then the debated question may be thus transformed: Is there, between the generic image and judgment in the lower forms, a break in continuity, or a passage by slow transformation?

For the partisans of the first theory, the appearance of judgment is a “passage of the Rubicon” (Max Müller). It is as impossible to deny this as to affirm it positively and indisputably. Romanes, who makes a stand against the “passage of the Rubicon,” admits the following stages in the development of signs, taken as indicative of the development of intelligence itself.

1. The indicative sign; gesture or pronominal root; a dog barking for a door to be opened, etc.

2. The denotative sign which is affixed to particular objects, qualities, or actions; for example, the parrot which on seeing a person utters the name of the person, or some word which it has associated with him, and which for the animal has become the distinctive mark of the person.

3. The connotative or attributive sign, which, rightly or wrongly, is attributed to an entire class of objects having a common quality; for instance, the child which applies the word *star* to everything that shines.

4. The denominative sign; or the intentional employment of the sign as such, with a full appreciation of its value; for example, the word *star* in its meaning to the astronomer.

5. The predicative sign, or a proposition formed by the apposition of two denominative signs.¹

This hierarchical order, while in some measure open to criticism, indicates at least schematically the progressive passage from the concrete to the higher abstractions, and may therefore be accepted.

It is clear that the two first stages scarcely pass beyond the concrete.

To the third, Romanes attaches capital importance: judgment begins with it. It may, however, be asked if affirmation really exists at this stage. For my own part I am inclined to admit it as included in the generic image in its highest degree (for here too there are degrees), under the form *not of a proposition, but of an action*. The hunting dog assuredly possesses generic images of man and of different kinds of game, under the visual and more especially the olfactory form. When it starts off on the scent of its master, of a hare, or of a partridge, this is surely a judgment of a certain kind, an affirmation, the least doubtful of all, seeing that it is an act. The absence of verbal expression and of logical information in no way alters the fundamental nature of the mental state. We have already spoken in a previous *Open Court* of *practical* judgments and ratiocinations; it is needless to reiterate.

The transition from the third to the fourth stage is even more important. It is here that the true concept appears; this point attained, an almost unlimited progress is possible. Now the true cause of the true concept is reflexion. This formula appears to us the simplest, the briefest, the most clear, and the most exact. There is the possibility of concepts where there is the possibility in the mind of detaching a single character (or several), extracted from among many others, of setting it up as an independent entity, of raising it into a *known* object, i. e., determined in its relations with ourselves, and with other things. Example: to form the general idea of a vertebrate. But this fundamental act—reflexion—is not without antecedents, it does not spring forth as a new apparition. It is the highest degree of attention, i. e., of a mental attitude that we encounter very low down in the animal scale.

Discontinuity of evolution, in the passage from lower to higher, is thus far from being established. Doubtless this, like all other questions of genesis, leaves much to hypothesis, and can only be decided on probabilities: yet these do not appear to favor a rupture in continuity, and opposition of nature.

¹ *Op. cit.*, VIII., 158-165.

In sum—to confine ourselves to what is least contestable: given the cerebral and psychological conditions for speech (not for articulate language alone), and application of words to qualities and attributes raised little by little into independent entities,—and the decisive step has been taken. Such is intellectual progress, and we may remark in passing that the process which creates the true concept, leads fatally by the same issue to faith in idols, in the entities realised.

Without for the moment pausing at this last point, let us under a more positive form, and strictly on the lines of experimental psychology, examine the nature of the lower forms of intermediate abstraction, determining it by examples. At the same time we shall fix the intellectual level that corresponds to the moment of transition between generic images (animal form), and the higher abstracts which have still to be studied in detail. The best method is to take as a type such human races as have remained in the savage or half-civilised state: these are more instructive than childhood, because they represent fixed and permanent conditions. We can draw on two principal sources: their languages, and their systems of enumeration. Their religious beliefs might also be studied with the same results, but this would take too long, and would moreover be less definite.¹

1. *The languages*, considered under their most general characteristics, reveal a notable impotence for transcending the simplest resemblances, an incurable incapacity for extended generalisations; they hardly rise above the concrete. Words play a very indistinct part; they are the most incomplete substitute—hardly more than a mark, a sign, like gestures—differing from the latter only in the future they carry within them. The study of the ascending progress of generalisations is in effect the study of the successive phases of the emancipation of speech up to the time when it becomes preponderant and dominating. At the actual stage, which might be termed *concrete abstract*, it is not yet emancipated; it is a minor, under tutelage.

Let us take in turn substantives, adjectives, and verbs.

The indigenes of Hawaii, says Max Müller (*Lectures on the Science of Language*, Second Series, II., p. 19), have but one word,

¹We have touched on this subject incidentally in *La psychologie des sentiments* (Part II., IX, § 2, pp. 305 et seq.). Many tribes do not get beyond polydemonism, peopling the universe with innumerable genii; this is the reign of the concrete. A certain progress is marked by subordinating the genius of each tree to the god of the forest, the different genii of a river to the god of the river, etc. At a degree higher, the intellect constitutes a single god for water, one for fire, one for the earth, etc. Thus there come to be genii of individual, specific, and generic origin.

“aloba,” to express love, friendship, esteem, gratitude, benevolence, etc.; on the other hand, words to express variations in the direction of the force of the wind are very numerous, proving once more how at its origin abstraction or dissociation is governed by practical causes. In savage languages there are terms to express not merely each species of dog, but their age, the color of their hair, good or bad qualities, etc. So, too, for the horse; there are special words to designate its varieties, and all its movements; to indicate if it is mounted, not mounted, frightened, running away, and the like. The North American Indians have special words for the black oak, the white oak, and the red oak, but none for the oak in general,—still less for tree in general. The indigenes of Brazil can point out the different parts of the body, but not the body as a whole (Lubbock). Among several tribes of Oceania, a special word is employed for the tail of a dog, another for the sheep’s tail, and so on, but they have no designation for tail in general. Again, there is no common term for the cow, but there are distinct words for red, white, or brown cows (Sayce).

There are, however, cases of very clear progress in generalisation; the significance of a word extends itself; from specific it becomes generic. This metamorphosis exists *in vivo* among the Finns and Laplanders. The former have a name for the smallest stream, and none for river; originally again there was a term for each finger, none for finger in general; but latterly the term used for thumb alone has come to designate the fingers collectively. Among the second race, certain tribes who had a special denomination for each kind of bay, have now adopted one that serves for all kinds (Max Müller).

The same holds good of the poverty of the adjective, the abstract term proper. The case of the Tasmanians has often been quoted, how they could only express qualities by concrete representations: hard=like a stone; long=legs; round=like a ball, like the moon, etc. (Lubbock). A less familiar case, termed by linguists “concretism,” is met with even in certain more developed idioms, like a survival of the time when the mind was unable to detach itself from the concrete, or to forego a complete and detailed qualification. Instead of saying ten merchants, five hens, the idiom is merchants ten men, hens five birds, and so on for similar cases.

The verb is able to express all degrees of abstraction and of generalisation as well as the adjective and substantive. At this period, it exactly repeats the type (as described above) of the sub-

stantive with its burdensome multiplicity,—for want of a generalisation simple enough, according to our judgment. The North American Indians have special words for saying: to wash one's face, another person's face, the linen, utensils, etc.: in all, thirty words, but none for washing in general. So, too, for eating bread, fruits, meat, etc., striking with the hand, foot, axe, etc., for cutting wood, meat, or any other objects: for all these there are special terms, but none for saying simply, to eat, to knock, to cut (Sayce, Hovelacque). On the other hand, here is a case of transition, analogous to that of the Lapps and Finlanders. Certain tribes in Brazil have a few verbs of general, simple significance: eat, drink, dance, see, etc., even love, thank, etc. (Lubbock).

We need not multiply examples; these will suffice to throw into relief the extreme impotence in generalising, so soon as the mind loses its hold on the concrete. We might also recall the difficulty so often experienced by missionaries. They find it almost impossible, even by creating new words, or by changing the meaning of others, to translate the sacred books into these idioms, from their paucity of concrete terms.

2. *The numeration*, taking its development as a whole, appears to sub-divide into three principal periods: concrete numeration, as studied above, in animals and children; concrete-abstract numeration, with which we are now occupied; purely abstract numeration, which we shall examine later, as translated into organised arithmetic.

We have seen that speech at its origin was so humble as to need gesture to complete and to elucidate it. During its concrete-abstract period, numeration is in an analogous position. At first its extension is very limited: it progresses slowly and painfully from unity. Further, it can operate only when sustained by the concrete; it must have a material accompaniment. Counting is accomplished by the enunciation of words, with the aid of enumerated objects, as perceived at the same time, or with that of the fingers: which, let it be remarked, is the first essay in substitution. There is simultaneously concrete or digital, and verbal numeration.¹

We know that many Australian and South American tribes can count verbally to two only; some say two-one = three; two-two = four; others by the same process arrive at six (two-three = five, three-three = six): everything else is "much." For the most part

¹ Tylor, *Primitive Culture*, I., gives abundant data on this question. Chap. VII. is entirely devoted to it.

they count without words, with the aid of fingers or of articulation ; even when they employ words, the two numerations—digital and verbal—are performed simultaneously.¹

This manner of counting is in first degree concrete ; the concrete-abstract form is only there in embryo. A great advance, made early enough in many tribes, consisted in counting by five, taking the hand (five fingers) as a new unit, superior to the simple unit. Then : one hand = 5 ; two hands or half a man = 10 ; two hands, one foot = 15 ; two hands, two feet, or a man = 20. Such is the evident origin of the quinary, decimal, and vigesimal numerations. Sometimes fingers, as instruments of numeration, have been replaced by objects of a typical number. Ex. : 1 = moon or sun ; 2 = the eyes or legs, etc.

However varied these processes (of which only a few have been mentioned) in different races and periods, they are fundamentally identical to the psychologist. They may be reduced to this ; numeration is performed more particularly with the aids of sensible perceptions ; words are but an insignificant accompaniment, a superfluity—existing only as a proliferation—of so little utility that they are for the most part neglected.

Though it is less often spoken of, we may remark that the measure of continuous quantity passed through the same concrete-abstract phase ; and here it appeared at a somewhat early stage, owing to practical and social wants. Hence we find at the outset the foot, the finger, the thumb (inch = Fr. *pouce*), the palestra (four fingers' length), span, cubit (arm's reach = *coudée*), fathom, etc., the stadium (distance a good runner could cover without stopping).² The concrete character of all these measures is obvi-

¹ In the account of his travels among the Damaras (*Tropical South Africa*, p. 133) Galton says : "In practice, whatever they may possess in their language, they certainly use no numeral greater than three. When they wish to express four, they take to their fingers, which are to them as formidable instruments of calculation as a sliding-rule is to our English schoolboy. They puzzle very much after five, because no spare hand remains to grasp and secure the fingers that are required for 'units,'—yet they seldom lose oxen : the way in which they discover the loss of one, is not by the number of the herd being diminished, but by the absence of a face they know." [This tallies with what we have already said as to so-called numeration in animals and children.] "When bartering is going on, each sheep must be paid for separately. Thus suppose two sticks of tobacco to be the rate of exchange for one sheep, it would sorely puzzle a Damara to take two sheep and give him four sticks. I have done so and seen a man first put two of the sticks apart and take a sight over them at one of the sheep he was about to sell. Having satisfied himself that one was honestly paid for, and finding to his surprise that exactly two sticks remained in hand to settle the account for the other sheep, he would be afflicted with doubts ; the transaction seemed to come out too pat to be correct, and he would refer back to the first couple of sticks, and then his mind got hazy and confused, and wandered from one sheep to the other, and he broke off the transaction until two sticks were put into his hand and one sheep driven away, and then the other two sticks given him and the second sheep driven away." Galton relates many other similar facts which he had himself witnessed.

² And the barley-corn of English measure.—*Tr.*

ous. Again, there are survivals in certain current locutions, such as a day's journey. More than this; they have a human character, their standard and starting-point being, at least at the outset, certain parts of the body, or a determined sum of muscular movements. Little by little they lost their original significance, progressing through centuries towards our metrical system—the type of a scientific, deliberate, rationally abstract system, as far as possible liberated from anthropomorphism.

The reader will probably obtain a more definite idea of the nature of these lower forms by recapitulating the examples cited, than from any long dissertation. Is their intellectual level very superior to that of the generic image? This question is doubtful. At times the only distinction between them is the presence of the word: at the present stage it makes but a poor figure,—yet with all its modesty, it augurs a new world wherein it is to be of prime importance.

PEACE ON EARTH A PROBLEM OF PRACTICAL DIPLOMACY.

A SUGGESTION TO THE MEMBERS OF THE PEACE COM-
MISSION.

BY THE EDITOR.

MEN of good will have at sundry times, both in and out of season, preached peace on earth to mankind. The Gospel story selects this theme as the cradle-song for the child in the manger; and yet war has continued to the very present day, and if there is any abating of its power it is apparently due to the increase of its destructiveness, diminishing only in the ratio as it becomes more formidable. On the one hand, Moltke, the greatest strategist of modern times, regarded even a victorious war as a misfortune; on the other hand, Christ, the prince of peace, emphatically declared that he had come to bring not peace but a sword, and considering the constitution of the universe it would be difficult to refute the proposition that war is part of God's dispensation. Is it not, then, a fond illusion to convene an international conference and discuss disarmament, the abolition of war, and the arbitration of conflicts, by an international tribunal, and the establishment of peace on earth?

The advocates of peace on earth are, as a rule, zealous men who mean well but lack in proper comprehension. They are men of sentiment unfamiliar with real life, attempting the impossible. They imagine that the great national governments would voluntarily surrender their power—an act which would be neither wise nor right. If the average peace-advocates could have their way for a time, they would soon find out that their system would not work.

But while we must recognise that sentiment alone is an insufficient guide in life, we need not give up our ideals. The ideal of

peace on earth is not quite unfeasible ; on the contrary, the evolution of humanity is naturally tending toward it. We must only bear in mind that the abatement of war does not mean the abolition of struggle. A higher civilisation, therefore, must be brought about by substituting for barbarous methods of fighting, the civilised weapons of argument and demonstration. Struggling is a duty, as Professor Jhering has pointed out in his work *Der Kampf ums Recht*. Even the peaceful settlement of lawsuits remains a combat, and right is right only when it can be maintained ; for, after all, right is ultimately based upon might.

While it is true that struggle is part of the world-order, we should not be blind to the truth that the methods of struggle have been changed by the progress of civilisation. The old barbarous methods of the club have given way to gun and canon, and resistance in the face of an overwhelming superiority has become useless, so that to-day in civilised countries controversies between powerful institutions are decided not by arms but according to law through the verdict of a judge. The fact, however, is that while the court-room exhibits no direct display of warlike force, the power of the government and the collective will (*der Gesamtwille*) of the community stands behind the judge. The decisions of our courts are given by Right not by Might ; yet Right in this case has become Might, and the question is only whether or not it is possible to create among nations the same condition that has been established among individuals.

This question, I am confident, may be answered in the affirmative. The tendency of evolution is toward the substitution of the more spiritual for the more material and cruder methods ; and while Might must forever remain the basis on which alone all adjustments will be made, Right is actually acquiring more and more influence over the minds of the people, so as gradually to reverse the equation Might is Right into its opposite, Right becomes Might.

For the first time in the history of civilisation, representatives of almost all civilised governments are now assembled to discuss the feasibility of establishing peace on earth, and the question is, Will they be able to accomplish anything? The Czar of Russia has proposed disarmament, but the Russian government is at the same time enormously increasing the number of its battle-ships, and the Emperor of Germany frankly declares that peace can be maintained solely by sufficient war preparations ; and the old proverb holds good still : "*Si vis pacem para bellum.*"

Nevertheless the peace-conference is a symptom of progress,

and we may fairly hope that some good will come of it, for we may rest assured that the commissioners are wise enough to see what can and what cannot be accomplished. Yet there is danger on the one hand that the practical diplomat, the *Realpolitiker*, will have no faith in the ideal of peace on earth, and the idealist, the *Schwärmer*, will attempt the impossible and thereby delay the realisation of that which is possible.

We must bear in mind that struggle is the law of life and cannot be abolished, and power exists as a result of previous successful struggles, peaceful as well as warlike. Power is the essence of life, and we cannot expect any one, let alone any government, to renounce power. The idea of disarmament should, therefore, not be entertained at all; for discussion of the subject cannot lead to any result. In times when there is danger of war, it would not only be inadvisable but morally wrong, indeed criminal, for a government to disarm and expose its citizens to the humiliation of defeat; and since the world is a large battlefield, it is the duty of every government even in times of peace to be prepared for the emergencies of war. Because our government, as a rule, has done too little for the defence of the country, there is no reason to expect that other nations should do likewise. We are extremely lucky that we have not suffered for our neglect. If we had been a little less prepared during our disagreement with Spain we should have been confronted with great disasters, but if we had been a little better prepared, Spain would have been more amenable to our requests, and we might have bought the freedom of Cuba and Porto Rico without any sacrifice of human lives, for less money than the war cost us.

Disarmament is unfeasible, and a court possessing the authority to decide international disputes would play a very ludicrous part among the powers of the world, for we cannot expect that the strong nations would voluntarily submit to its decisions. They would uphold the court only so long as it suited them, and the institution that should bring peace on earth would most certainly suffer the worst injury possible—ridicule.

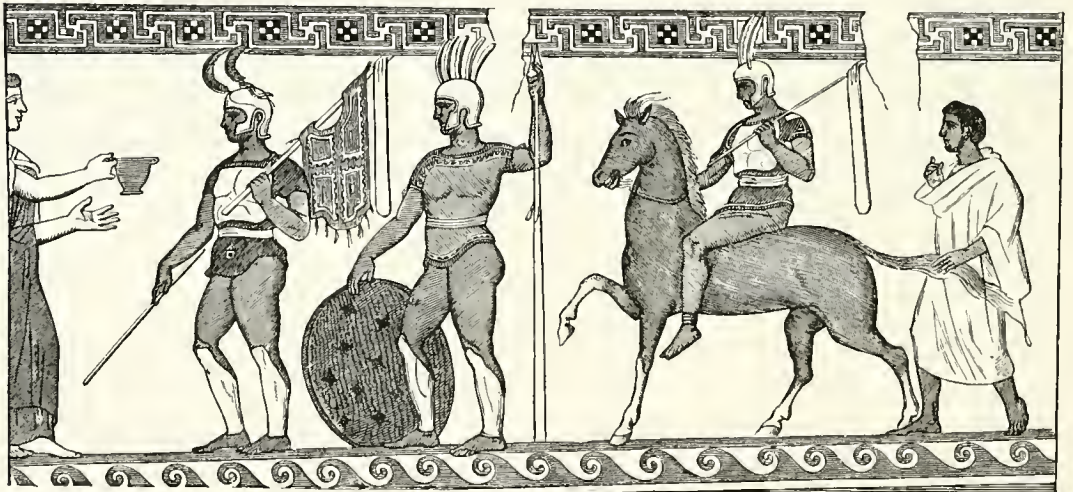
The only practical way of bringing mankind nearer to the cherished ideal of peace on earth would be by the establishment of an international tribunal, consisting of five or ten or perhaps fifteen commissioners, men of high standing, noted for their unequivocal love of justice and breadth of comprehension, whose duty should be, not to decide litigations of international politics, but simply to give, when called upon, an opinion from a purely moral stand-

point. If the members of such an international commission, after a careful investigation of the situation, should come to a substantial agreement on a question which threatens to be a *casus belli* they would necessarily influence the opinion of all the sober and fair-minded people in the countries involved and might thus contribute not a little to calm down the war-fever before actual hostilities began. Their verdict should not be a decision nor should they be regarded as judges. They should not be a court of arbitration. Their authority should be that of an advisory council. They should not be vested with the power to enforce their views, but should simply act the part of honest friends. They should be good patriots who love their country, and love it so well as to hate to see its honor tarnished by wrongdoing. They should be men who represent the conscience of their country, and thus when combined in an exchange of thought would represent the conscience of civilised mankind. The less political power they had, the weightier their opinion would be, and certainly no power on earth would be powerful enough to disregard their propositions or to treat them with indifference. The mere existence of such a tribunal—a kind of international conscience—could not fail to exercise a beneficial influence on politics, and would help to lift diplomacy to a higher realm, where integrity and justice would be the standard by which ultimately all transactions should be measured.

PLATO AND THE CROSS.

BY THE EDITOR.

CHRISTIANITY, the religion of the cross, although founded upon the scriptures of the Hebrews, developed upon the classical soil of ancient Greece and other provinces of the Roman Empire. In order to understand the character of the new religion that spread with wonderful rapidity over the big cities of Egypt,



THE CROSS ON GREEK STANDARDS.

Syria, Asia Minor, Greece, and Italy, we must be familiar with the dominant ideas that began to take hold of the masses of the people; and back of them, behind the highest culture of the age, lay the philosophy of Plato.

Plato will come to be recognised more and more as the fore runner of Christianity, as its prophet and as he who made the paths for it level and straight. His philosophy of the soul, his conception of God, his notions of Heaven and Hell, his theory of ideas (of which the Logos, as his disciples, the Neo-Platonists, concluded from Platonic premises, is the comprehensive unity)

foreshadow in metaphysical terms the doctrines of Christianity, the latter being in many respects simply a popular and religious expression of the abstract thoughts of Plato's philosophy. What has Plato to say of the cross?

The cross (*σκόλοψ* or *σταυρός*) as the wooden instrument of the most cruel and degrading execution, is to Plato not yet identified with the figure of two intersecting lines, be it erect $+$ or standing on edge \times . The latter, the figure of two intersecting lines, is to him a symbol of deep significance, being the form of the soul, while the former, the instrument of a disgraceful death, is the extremity of suffering.

Plato mentions the X-cross in his story of the creation, where he tries to reconcile the astronomical and religious convictions, the result of which are theories which prepare the way for mysticism and the doctrines of the Kabala.

In *Timæus* (34-36) we read that God created the universe as a God, an animated cosmos, and he made him spherical without organs, feet or hands, for the God had no need of them. Plato continues :

“The movement suited to his spherical form was assigned to him, being of all the seven movements that which is most appropriate to mind and intelligence.”

And “in the centre he created the soul, which is diffused throughout the body, making the body also its exterior environment.”

“God did not make the soul after the body, although we are speaking of them in this order. . . . He made the soul in origin and excellence prior to and older than the body, to be its ruler and mistress.”

“And God made the soul out of the following elements and on this wise : Out of the indivisible and unchangeable, and also out of that which is divisible and has to do with material bodies, he compounded a third and intermediate kind of essence, partaking of the nature of the same and of the other, and this compound he placed accordingly in a mean between the indivisible, and the divisible and material. He took the three elements of the Same, the Other, and the Essence, and mingled them into one form, compressing by force the reluctant and unsociable nature of the Other into the Same.”

The proportions in which the three elements “Sameness, Otherness, and Essence” are mingled may be omitted here. Plato continues :

“This entire compound he divided lengthways into two parts, which he joined to one another at the centre like the letter X, and bent them into a circular form connecting them with themselves and each other at the point opposite to their original meeting-point; and, comprehending them in a uniform revolution upon the same axis, he made the one the outer and the other the inner circle. Now the motion of the outer circle he called the motion of the same, and the motion of the inner circle the motion of the other or diverse. The motion of the same he carried round by the side to the right, and the motion of the diverse diagonally to the left.

And he gave dominion to the motion of the same and like, for that he left single and undivided ; but the inner motion he divided in six places and made seven unequal circles having their intervals in ratios of two and three, three of each, and bade the orbits proceed in a direction opposite to one another ; and three [Sun, Mercury, Venus] he made to move with equal swiftness, and the remaining four [Moon, Saturn, Mars, Jupiter] to move with unequal swiftness to the three and to one another, but in due proportion."

Plato's doctrine of the two axles that cross each other in the shape of a \times must be understood in a mathematical, not a me-



PROSERPINE CARRYING TWO CROSS-TORCHES.

Theseus and Pirithous venturing down to Hades for the purpose of rescuing Proserpine, the daughter of Ceres, are made prisoners and bound by an Erinyes. Theseus is at last rescued by Hercules. Pluto holds in his hand a scepter on the top of which sits the dismal owl as an *avis funebris*.

(From an Etruscan Vase. Baumeister, *Denkmäler des class. Altertums*.)

chanical, sense ; for if they were solid axles they could not turn in the way described by Plato. His idea of the soul of the universe as being in the shape of the letter X, which is a cross on edge, is perhaps primarily due to the sacredness which ancient religious traditions attached to this symbol, but the thought took root in his mind and found its justification in geometrical and astronomical considerations.

In order to appreciate the importance of Plato's thought of the \times , the cross on edge, we must bear in mind that his conception of



HADES, SHOWING PROSERPINE WITH THE CROSS TORCH, AND TRIPTOLEMUS AND RHADAMANTHUS WITH CROSS-RIBBONS.

(Greatly reduced from *Mon. Inst.*, VIII., 9.)

Picture of a vase found at Altamura, representing a period in which the fear of Hell had become greatly subdued and the belief in its terrors is offset by the legend of a return from the realm of the dead and the conquest of death.

[The upper center shows Pluto and Proserpine, the rulers of the Nether World, in their palace, the former with scepter and Cantharus, or sacred cup, the latter holding the cross-torch and a dish filled with fruits and flowers. Cantharus means both scarabæus-beetle, the Egyptian symbol of immortality, and the drinking vessel used in the mysteries, which probably derives its name from some unknown connexion with the scarabæus. Underneath we see Hercules taming the three-headed Cerberus in the moment of crossing the Acheron, which originates (see Homer, *Odyssey*, X, 513) in the conflux of Cocytus and Pyriphlegethon. Hermes points out the road leading back to the upper world. The Danaïdes with the water vessels on the right bear their punishment with placidity, while Sisyphus on the left seems to be more severely taxed. Dire Necessity (*Ἀνάγκη*) holds the whip in her right hand, but her left extends to the sufferer a laurel branch. (The branch is missing in many similar pictures. It is apparently not an apple branch, which was a symbol of Nemesis, as some archæologists suggest.)

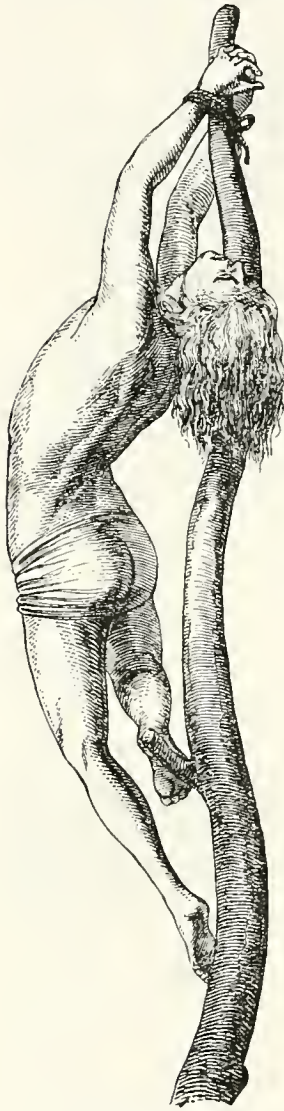
The upper scene on the right shows the ancestor of Hercules and Hippodamia, Pelops, in a Phrygian cap, conversing with Myrtilus who promises to remove the nail from a wheel of Enomaus's waggon in the race for Hippodamia, his bride, by which trick he remains victorious. Underneath are the judges of the dead, Triptolemus, Æacus, and Rhadamanthus, the latter in the attitude of pleading a case with great zeal.

The upper scene on the left represents Megæra and her sons, the Heraclides, innocent victims of a cruel fate in life, who are here comforted. Below this group we see Orpheus with lyre in hand, approaching the palace to ask Proserpine for the release of Eurydice. The Erinyes, or avenging demons (called *ΠΟΙΝΑΙ*) in the picture have lost their terrible appearance and suffer the singer to pass by unmolested.]

this God as the universe as a deity, as "the first-born of all creatures" and the created type of all other gods and beings, comes

close to the Christian conception of God the Son, in whom God the Father revealed himself. God the Father is eternity in its absolute significance; but God, the first-born and archetype of all existence is the revelation of eternity in time. Plato explains this thought as follows :

“When the father and creator saw the being that it moved and lived, and that it became the ideal image of the eternal gods, he rejoiced, and in his joy determined to make the paradigm still more like the original; and as this was eternal, he sought to make the universe eternal, so far as might be. Now the nature of the ideal being was everlasting, but to bestow this attribute in its fullness upon a creature was impossible. Wherefore he resolved to have a moving image of eternity, and when he set in order the heaven, he made this image eternal but moving according to number, while eternity itself rests in unity; and this image we call time.¹ For there were no days and nights and months and years before the heaven was created, but when he constructed the heaven he created them also. They are all parts of time, and the past and future are created species of time, which we unconsciously but wrongly transfer to the eternal essence; for we say that he ‘was,’ he ‘is,’ he ‘will be,’ but the truth is that ‘is’ alone is properly attributed to him, and that ‘was’ and ‘will be’ are only to be spoken of becoming in time, for they are motions, but that which is immovably the same cannot become older or younger by time, nor ever did or has become, or hereafter will be, older or younger, nor is subject at all to any of those states which affect moving and sensible things and of which generation is the cause. These are the forms of time, which imitates eternity and revolves according to a law of number. Moreover, when we say that what has become *is* become and what becomes *is* becoming, and that what will become *is* about to become and that the non-existent *is* non-existent,—all these are inaccurate modes of expression.”

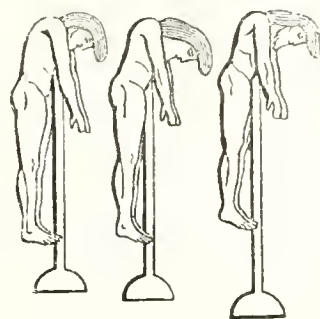


CRUCIFIXION ON A
SIMPLE POLE.

The slanting cross is a religious symbol in ancient Greece, the significance of which seems lost. We find the judges of courts and priests, as pictured on vases, dressed with ribbons crossing over their breast, and the cross-torch plays an important part in the Eleusinian mysteries as a symbol of resurrection, but we have no means now of finding out the reason or the peculiar use of this strange utensil. Proserpine, the wife of Hades and goddess of rejuvenated nature, holds it in her hands.

¹We understand Plato to say, that God is eternal in the sense of being above time, but the second God, the universe is eternal in the sense of infinite duration in time.

While the figure of two intersecting lines is a symbol of deep significance to Plato, the emblem of the God incarnate in the universe, he looks upon crucifixion, or death by impalement, as the utmost extreme of disgrace and suffering, and in speaking of the realisation of the ideal of justice which is to him the harmonised totality of all virtues in their perfection, he declares that the perfectly just man must be just, merely for the love of justice, and not on account of worldly blessings that might accrue from its practice. Therefore the perfectly just man will be tried, will suffer all kinds of ills on account of his justice and finally be crucified, yet with all that he will rather be than appear just. Plato says :



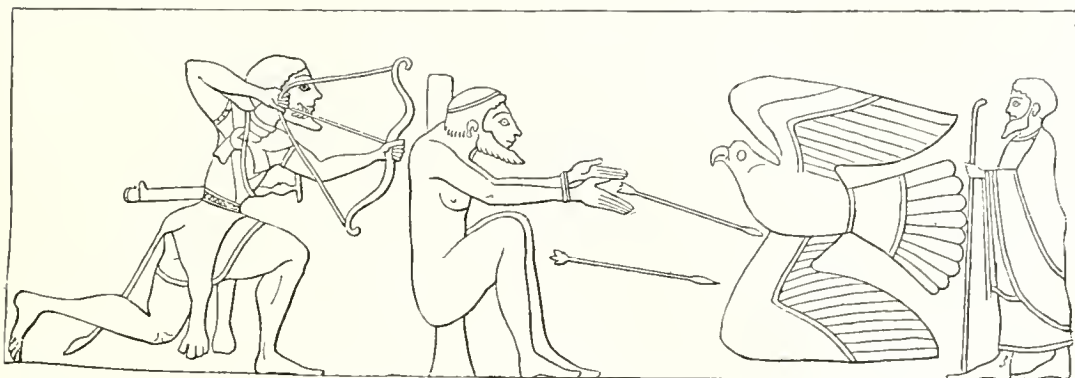
IMPALEMENT.

From Assyrian monuments. (After Layard.)

“They will tell you that the just man who is thought unjust will be scourged raked, bound—will have his eyes burnt out; and, at last, after suffering every kind of evil, he will be crucified.”¹

Plato apparently follows older traditions, for he quotes Æschylus in this connexion, contrasting the truly just man with the unjust man who in his injustice is so perfect as to acquire cunningly “the greatest reputation for justice.” Plato says :

“And at his side (at the side of this perfectly unjust man) let us place the just man in his nobleness and simplicity who wishes, as Æschylus says, *to be and not to seem good.*”



PROMETHEUS TIED BY ZEUS TO THE STAKE (OR CROSS) AND EXPOSED TO THE EAGLE; RESCUED BY HERCULES.

(A vase found at Chiusi, now in Berlin. Baumeister, *D. d. cl. A.*, p. 1410.)

Æschylus, the great tragedian, has dramatised the myth of Prometheus, the forethinker who takes compassion upon poor, miserable mankind, by bringing them the fire from heaven and teaching them its various uses. For punishment Prometheus is

crucified on Caucasus and exposed to the ravenous eagle of Zeus who daily feasts on the immortal Titan, until Hercules comes and shoots the eagle, whereupon Prometheus is taken from the cross.

The deep significance of this legend, illustrating the sufferings of the aspiring man who sacrifices his life for the progress of the race and improvement of the wretched has been well understood by both pagans and Christians, but the most remarkable fact is that all the old mythological illustrations of Prometheus the sufferer show him tied to the staurus, or cross, and Æschylus uses the word "to attach to the rood," *ἀνασλολοπιζειν*, which is a synonym of the New Testament term "to crucify" (*σταυρειν*).

Later authors and artists modify the tradition by having Prometheus, the Titan, chained to Mount Caucasus itself.



PROMETHEUS CRUCIFIED ON A ROCK AND DELIVERED BY HERCULES.
In the background the mountain-god Caucasus.

Plato, no doubt, had seen the Prometheus of Æschylus performed on the stage, he had read the tragedy and pondered it in his heart. In this way, most likely, in connexion with his experiences of the course of events in daily life, he elaborated his highest ideal of moral perfection as the man who is crucified for justice's sake.

A consideration of death by crucifixion as the ancient rite of a sacrifice to the sun-god may have played a part, too, in the formation of the Prometheus myth; but if it did, it is no longer mentioned by Plato.¹ There are, however, other legends, as for instance the Andromeda myth, which represent sacrificial death by exposure to the sun, the victim being tied to a tree or chained on a rock.

¹We remind our readers in this connexion of the previous article "Crucifixion as a Sacrifice" on pp. 151-154 of the *March Open Court*.

The influence of Plato's ideal of the just man as the crucified one was not lost, but it did not exercise upon the early Christians so direct an influence as we might expect. The early Christians we must remember did not belong to the cultured classes of society,



THE SACRIFICE OF ANDROMEDA.¹

Picture of an ancient Amphora in Naples. (From Baumeister, *D. d. cl. A.*, p. 1291.) The victim is here, probably for artistic reasons, represented as being tied to two trees.

but recruited themselves from the ranks of fishermen, artisans, of the poor in general, and even of slaves. Few of them were familiar with Plato, and the thoughts of Plato reached them only

¹Trendelenburg has discovered a passage commenting on this or a similar picture in Achilles Tatius, and explains it as follows: Andromeda, adorned as the bride of death with girdle, crown, and veil, is tied to two poles. Above her Cupid stands engaged with women in the preparation of a wedding. Andromeda's old nurse hands her a twig. Behind and above the nurse are guards with Phrygian caps and arms. On the left, Cassiopeia, Andromeda's mother, who exhibits the vanity, of which the legend accuses her, is seated, in conversation with her servants. Underneath Perseus fights the monster, which scene is witnessed by three Nereids, one riding on a sea-horse, one on a dolphin, and the third resembling the typical figure of Scylla.

through the medium of the Neo-Platonist Philo, but it reached them after all.

Plato's prophecy of the sufferings of the just man is alluded to in the documents of early Christianity only once ; viz., in the Acts of Apollonius where this Christian martyr pleads his case in these words :

“ One of the Greek philosophers said : The just man shall be tortured, he shall be spat upon, and last of all he shall be crucified. Just as the Athenians passed an unjust sentence of death, and charged him falsely, because they yielded to the mob, so also our Saviour was at last sentenced to death by the lawless.”

Plato's philosophy paved the way in Greece for a religion which exhibits the ideal of a morally perfect man, the incarnation of the Logos, who by a disgraceful death on the cross, proves that he would rather be, than merely seem, good.

The two ideas of the cross (1) as the instrument of torture as an emblem of the ignominious death of the perfectly righteous man, and (2) as the intersecting lines denoting the symbol of God incarnate, are both contained in Plato, but they are separate and unconnected like two streams which in the course of time are destined to mingle their waters.

MISCELLANEOUS.

INTERNATIONAL GOOD-WILL.

The theory that sentiment plays no part in diplomacy is quite true of the old school, which is exclusively a diplomacy of monarchies, but is very wrong where we have to deal with the international relations of republics. Public sentiment influences the international relations of France to a considerable degree. The hatred of the Germans, the friendship of the Russians, jealousy of the commercial superiority of the English, are popular notions to which French diplomats have to adapt themselves in public speeches and their general political attitude.

Whether the more prominent rôle of sentiment in diplomacy is an advantage or not, diplomats will do well not to overlook it, and to consider it as an important factor whenever they have to deal with republics. It no doubt weakens the policy of the government which is thus limited by national preferences and prejudices; it hampers their movements and prevents them from committing the country to sudden changes. The government of Russia can swing around from a friendly to a most hostile attitude within an hour; the United States cannot. This condition is in some respects a disadvantage, as it renders changes that are sudden all but impossible; they could occur only under very extraordinary conditions, and so the diplomacy of republics tends upon the whole toward conservatism and stability.

Since the Spanish-American war there has been a remarkable change in the sentiments that dominate the public opinion of the United States. The United States, up to this period, had had no enemy in diplomacy except her old mother country, England, and it was strange to see how these two powerful nations, so much akin, could be so antagonistic in sentiment; but the main reason was that the United States had never waged any serious war except with her mother country, and so the war-spirit of our youngsters found nourishment only in imaginary fighting with English soldiers. While we must not be blind to the fact that there are important differences between English and American civilisation, we may fairly grant that they are trivial as compared with the civilisations of other countries. Our country is in its political institutions, its general conception of life, and political and social ethics, nearer in spirit to England than to any other country. The animosity that sometimes obtains between the two countries has appeared more like the quarrels between two brothers who in due time will have to make up under circumstances where their common ideals might be attacked or endangered. The English have always been suspected in the United States of looking upon the world as their property, and they in their turn seem to be irritated that there is a continent in this world where men of their own kin and speech dare to

tell them to keep their hands off. The English are wont to look upon Americans as deteriorated Englishmen, while Americans prefer to regard their nationality as a more highly evolved Anglo-Saxondom, broadened by the best features of other nationalities.

All the differences between England and the United States were ventilated in this country during the crisis concerning the Monroe Doctrine, which was brought on under Cleveland's administration, through the differences between England and Venezuela. At that time the excitement ran so high that war seemed imminent, and the people of the United States apparently did not shrink from standing up for the Monroe Doctrine with armed hand. England then graciously waived her claims in favor of an unreserved recognition of the principles of the so-called Monroe Doctrine, and the turbulent waters were soon quieted.

The Spanish war changed the situation thoroughly. England was the first nation to declare a friendly neutrality,—an act which was the more appreciated by our people as it was accompanied by a spontaneous expression of sympathy that came not only from aristocratic leaders but was backed by the assent of the large masses of the commoners of England. For the first time in the history of the two countries a genuine friendship was established and produced a sentiment of solidarity on both sides of the Atlantic which will not soon wear away. The hatchet has been buried, old grudges have been forgotten, inveterate suspicions have been laid aside, and mutual respect and good will have been established.

This approach of the two nations is of great importance, and cannot be overestimated in the history of civilisation. It may become the basis of a broader friendship which will promote the harmony among the various civilised nations of the world.

It is strange, however, that simultaneously a difference has sprung up in quarters where it could least be expected,—between the United States and Germany.

The relations between Germany and the United States have always and without any exception been excellent, for not only are more than one-third of our people of German descent and about eight million inhabitants of German birth, but also some of the most important institutions in the field of education and university training have been adopted from Germany and adapted to our special conditions. Most of our best scientists have studied at German universities, and have imported the spirit of German science into this country. They look up to German scientists and poets with an admiration and a veneration that could not be surpassed in the Fatherland itself. Thus, Germany rightly may be regarded as the second mother country of the United States, and war between Germany and the United States has always been considered as a sheer impossibility.

It is unnecessary now to review the causes which have led to the estrangement between the two nations; it started in Manila and was intensified in Samoa. The spirit of ill will was fostered on both sides by those extravagant patriots who have no other means of stimulating the love of their own country than by preaching hatred of other countries, and produce a bitter feeling which can never do any good, but will spread a feeling of ill will that will be the cause of many troubles.

At the present date, we are happy to say the estrangement seems to pass off. The governments of both nations show a sincere wish to re-establish the good relations that have always been existent before; and we have all reasons to believe that they will succeed.

The incidents in Manila belong to the past, and the expressions of a military spirit which naturally originate in the heads of soldiers who are combative by na-

ture, fighting being the main duty of life, have caused ripples only which will quickly pass away¹; and it is fortunate that the German ambassador, Baron von Holleben as well as the United States minister, Andrew White, are animated with the desire to re-establish the *entente cordiale* between the two nations.

Mass-meetings of German citizens in this country have been held of late for the purpose of assuring the German government that the Germans of this country have not yet forgotten that they are Germans. We are sorry to say, however, that the leaders of this movement have made one grave mistake, viz., that of expressing their German-American patriotism by an unnecessary and uncalled-for show of hatred of England. While it is quite true that the Anglo-Saxon friendship should not be an alliance in a political sense, which would commit America to the policy of Great Britain, we should rejoice that a good understanding between Great Britain and America has been established, and should not unreasoningly denounce these sentiments as a mistake and a national blunder. The German-American mass-meetings would have served a better purpose if they had insisted on a triple alliance of the three Teutonic nations,—the Germans, the English, and the Americans. We must not forget that Germany is the home of all Anglo-Saxons, and we wish heartily that the Germans of Germany would remember their kinship with Great Britain and the United States. These three nations are kin in spirit and civilisation, as they are kin in blood, and it ought to be the diplomatic ideal of their governments to pursue a policy of good-will, and to establish among the people of Teutonic blood a sentiment of brotherly friendship.²

The United States is a cosmopolitan nation, and the ideal of our diplomacy must be to remain on good terms with all the nations of the world. Should the necessity come that we must go to war, let it be *for a cause but never against any nation*. At the present time it is our earnest desire to re-establish the good relations with Spain. Our right to regulate the conditions on the islands in American waters has been recognised, and the cause of all ill feeling against Spain has been removed. Further, we wish that unnecessary irritation and mutual spitefulness between our own and other nationalities, above all the Germans and the English, should cease on all sides, and that a policy of lasting good-will and international friendliness be recognised as the common ideal of the diplomacy of all nations.

P. C.

THE FILIPINO QUESTION.

It has been fashionable of late to hold mass-meetings in almost all large cities, either to support or vigorously to denounce the present administration on account of its expansion policy. We are not opposed to expansion, as was indicated in a former article on the subject, so long as expansion comes as a natural result of growth and through duties which historical events force upon us. We are opposed, however, to an expansion by the suppression of the rights of others; it would be an act of injustice on the part of the United States to pursue a policy either of conquest or of imperialism. Accordingly, there is no sense in denouncing the expan-

¹ The publication of a letter written by a German naval officer, and also the speech of the captain of the Raleigh, are on the same footing, and only prove that soldiers are not diplomats. The importance of such evidences of a military patriotism should not be exaggerated in diplomatic circles.

² Authors and newspaper writers on both sides of the Atlantic have sinned much. The worst I have seen is a most venomous article written by a German university professor; and a German diplomat used to say that the Yankees are anti-German, but that the German-Americans are even more so. He meant perhaps anti-imperialistic.

sion policy of the United States; there could arise a cause for censure only if we can prove that our administration pursues a policy of injustice toward other nations; but it seems to me that the situation is at present not yet sufficiently clear to allow of the formation of a final judgment.

The affairs in Cuba have undoubtedly been handled with great discretion, and seem to have reached a consummation which is much better than could be hoped for.

The case seems different in Luzon. Aguinaldo's forces are resisting the authority of our government with armed hand, and the probability suggests itself that either our administration or its representatives have committed some mistakes. Taking all in all, we must confess, however, that it is very difficult to say how these mistakes, if they were committed, might have been avoided, for it is certain that the policy of those who censure the administration most vigorously on the ground that we should have left the Filipinos to themselves could not have led to the insurance of a condition of peace and liberty in those islands, but would have served simply to complicate the situation.

Our war with Aguinaldo is lamentable, but it was probably unavoidable; for granting even that the representatives of our government committed mistakes in not respecting the pretensions of the revolutionary government of the Filipinos, we cannot exonerate Aguinaldo either; for his claims were exaggerated, and it would have been a grievous mistake on the part of the United States to recognise in him the legitimate representative of the Filipinos. Aguinaldo is not a Gomez, and whatever his ability may be as a dictator and general, he has not proved himself to be an organiser of a republic such as would insure the liberties of the European residents of Manila, as well as of the native Filipinos. His methods of government, so far as we can judge by probabilities and precedents, do not recommend themselves.

The present situation is a new departure and presents many new problems involving our executive government in unforeseen difficulties. Under similar conditions other nations have made mistakes, and as it is but human to err, we may expect that we shall not be found entirely faultless. We must therefore not lose patience if we hear reports of occurrences which indicate that now and then some of our representatives or citizens did not act up to the standard of our ideals.

In the face of the fact that Aguinaldo, with all those who have taken up arms against the United States, draw their main strength from the moral backing which they receive from the anti-expansionists of the United States, we deem it a patriotic duty not to join in the hue and cry of those who unreasoningly condemn our administration. Our administration could neither tolerate the presence of armed hordes in the new provinces, nor recognise the legality of a dictatorship upheld by military force. We cherish the confidence that our administration means to do what is right; that it will ultimately endeavor to establish home rule in all those territories which have been ceded to our government; that it will allow them the utmost range of liberty which the people of these districts can stand; and that if mistakes have been committed the grievances caused thereby will in time be duly redressed.

P. C.

HENRY CLARKE WARREN.

Henry Clarke Warren, a Pâli scholar of highest standing, the author of *Buddhism in Translations*, and a man of a rarely noble character, passed away in the beginning of the present year, and we have delayed the announcement of his death

only because we waited for a well-authenticated statement of the main facts of his life, the data of which we now offer to our readers on the authority of his teacher, co laborer, and friend, Prof. C. R. Lanman of Harvard University.

“Henry Clarke Warren was born in Boston, November 18, 1854, son of the late Samuel Dennis and of Susan Clarke Warren. He was the second of four brothers, all graduates of Harvard. In his early childhood a fall from a gig produced an injury which resulted in spinal ailment and in lifelong physical disability and suffering. Thus shut out, before ever experiencing them, from many of the possibilities that make life so attractive to childhood, youth, and young manhood, he bravely set himself to make the utmost of what remained to him. His broadness of mind soon showed itself in a catholicity of interest very unusual for one of his years. The natural trend of his mind toward speculative questions appeared clearly in his scientific investigations of Buddhism. With all this went an eager curiosity about the visible world around him. We can easily believe that he would have attained to high distinction in natural science, so good was his native gift of observation and of well-balanced reflexion upon what he saw. He used his microscope with great satisfaction in botanical study. At Baltimore he worked with enthusiasm in the chemical laboratory. The department, however, in which he has made a name for himself is Oriental Philosophy, and in particular Buddhism, conceived, not as a simple body of ethical teaching, but as an elaborate system of doctrine.

“His first essay in print was an admirable version of a Buddhist story in the *Providence Journal* of October 27, 1884. An interesting paper on “Superstitious Customs Connected with Sneezing” soon followed in the *Journal* of the American Oriental Society. Later appeared results of his studies in the *Transactions* of the International Congress of Orientalists at London, and in the *Journal* of the Pâli Text Society of London. These, however, were but chips from the keel he had laid for a craft of ambitious dimension and noble design.

“In 1896 appeared his *Buddhism in Translations*, published by the University as volume iii. of the Harvard Oriental Series. It is an octavo of 540 pages, made up of about 130 passages from the Pâli scriptures. These selections, done into English prose and verse, are chosen with such broad and learned circumspection that they make a systematically complete presentation of their difficult subject. The work is divided into five chapters. Of these, the first gives the picturesque Buddha legend, and the fifth treats of the monastic order; while the other three are concerned with the fundamental conceptions of Buddhism, to-wit, “sentient existence, Karma and rebirth, and meditation and Nirvâna.” Mr. Warren’s interest centred in the philosophical chapters; the first and last were for him rather a concession to popular interest, an addition intended to “float” the rest. Much has recently been written about Buddhism upon the basis of secondary or even less immediate sources. Mr. Warren’s material is drawn straight from the fountain-head. It is this fact that gives his book an abiding importance and value. And it was a genuine and legitimate satisfaction to him to read the judgments passed on his work by eminent Orientalists—of England, France, the Netherlands, India, and Ceylon—welcoming him, as it were, to a well-earned place among their ranks.

“One of the most pleasing features of his later years was his intercourse with the venerable Subhuti, a Buddhist elder, of Waskaduwa in Ceylon. This distinguished monk, whose learning, modesty, and kindness had endeared him years ago to Childers, Fausböll, and Rhys Davids, was no less ready with words of encouragement for Mr. Warren, and with deeds of substantial service, notably the pro-

curing of copies of manuscript. The King of Siam recently celebrated the twenty-fifth anniversary of his accession to the throne by publishing in thirty-nine volumes a memorial edition of the Buddhist scriptures or Tipitaka (a most commendable method of celebrating! Sovereigns of far more enlightened lands have preferred sky-rockets). Copies were sent, exclusively as gifts, to the principal libraries of Europe and America, Harvard among them. Mr. Warren had sent to His Majesty a magnificently bound set of the Harvard Oriental Series; and it was matter of honest pride and pleasure to him to receive from the king in return a beautiful copy of this Tipitaka. It is certain to be a satisfaction to the king and some of the high authorities at Bangkok when they learn how diligently Mr. Warren used the royal gift.

“Long before the issue of his *Buddhism*, Mr. Warren was well advanced in his study of Buddhaghosa's ‘Way of Purity.’ To publish a masterly edition of this work was the ambition of his life as a scholar. He did not live to see of the travail of his soul; but, as in the case of Whitney, of Child, and of Lane, it is believed that naught of his labor of love will be lost. A word about Buddhaghosa and his work, and about Warren's plan and his progress towards its achievement.

“Buddhaghosa (about 400 A. D.) was a famous divine, who had been brought up in all the wisdom of the Brahmans, and who, after his conversion to Buddhism became an exceedingly prolific writer. He may, in some sort, be styled the St Augustine of Buddhism. His ‘Way of Purity,’ or ‘Visuddhi-magga,’ is an encyclopædia *raisonnée* of Buddhist doctrine. It is, as Childers says, ‘a truly great work, written in terse and lucid language, and showing a marvelous grasp of the subject.’ Warren's plan was to publish a scholarly edition of the Pâli text of this work, with full but well-sifted critical apparatus, a complete English translation, an index of names, and other useful appendices. Buddhaghosa makes constant citations from his predecessors, quite after the manner of the Christian church fathers. And in order further to enhance the usefulness of his edition, Mr. Warren had undertaken to trace back all these quotations to their sources.”¹ The Pâli text Mr. Warren had practically constituted from beginning to end. Much labor is still to be put upon the *apparatus criticus*. Of the English translation about one-third has been made, and about one-half of the quotations have been identified.

Mr. Warren's interests in the furtherance of science are perpetuated in his will. He has left to Harvard College his house and garden grounds on Quincy street, a legacy of \$15,000 for the continued publication of the Harvard Oriental Series, \$10,000 for the Dental School, and the like amount for the Museum of Archæology. These gifts are manifestations of the spirit that prompted them; for his (says Professor Lanman) was the *metta*, that friendliness or good will, which plays such a rôle among the virtues of Gotama Buddha; his was patient and cheerful courage under adversity; his were high intellectual endowments, directed by a character unselfish, and lofty, and pure; his was a profoundly religious nature. For these things, while we mourn his loss, let us remember him and be glad.

MANILAL N. DVIVEDI.

The brother of Manilal Nabhubai Dvivedi, Professor of Sanscrit, Nadiad Gujarat, Bombay Presidency, India, informs us of the death of this prominent Hindu scholar and philosopher. Dvivedi was well acquainted with Western thought, yet his heart was rooted in the philosophy of his own people. His master was S'ankara,

¹ Extracted from the *Harvard Graduates' Magazine*, Vol. 7, No. 27.

the greatest representative of Brahman philosophy. The trend of Mr. Dvivedi's thought was monistic, and we deem him one of the best, perhaps the best, interpreter of Brahman thought. One of his first books, which earned for him a name in the philosophical world, was *Monism or Advaitism? An Introduction to the Advaita-Philosophy in the Light of Modern Speculation*. Other books of his are the *Rāja-Yoga*, the *Tarka-Kaumudī*, a compendium of Nyāya-Vaiśeṣika Philosophy (a book which earned the praise of such scholars as Prof. W. D. Whitney and Dr. G. Bühler), the *Yoga-Sūtras*, the *Māndukyaopaniṣad*, the *Samādhi-Sāta*, and *Syādvāda-Manjari*. His *Imitation of S'ankara*, which like his other books contains the Sanscrit as well as the English translation, is a collection of utterances of his master, so systematised as to make the study of Sanscrit philosophy comparatively easy, even to the uninitiated. We reviewed the book at considerable length in *The Monist*, Vol. VI., No. 3, and have discussed the Atman theory in *The Open Court* under the title "Brahmanism and Buddhism, or the Religion of Postulates and the Religion of Facts." (Vol. X., p. 485r.)

We had some correspondence with the late Professor Dvivedi on the contrast between Buddhism and S'ankara's conception of the self. Professor Dvivedi was anxious to reconcile both systems, and it may be that he succeeded in settling the problem to his own satisfaction. We ceased to hear from him when disease overtook him, and regret now to learn of his death. India has lost in him one of her best sons, and a man whose life was helpful in leading the Hindus toward a higher condition of existence by showing them how they could preserve their own and yet adopt all the good of Western civilisation.

P. C.

A FURTHER NOTE ON THE BUDDHIST NATIVITY SUTTA.

Since writing my note in the November number, I have made further researches into the sources of this document. I have found large portions of it in other parts of the Pāli canon, and am convinced that it is one of the most fundamental narratives, on a footing with the Book of the Great Decease. Thus, the statement that the mothers of Bodhisats always die a week after the Nativity is in the Udāna (V. 2). The splendors and earthquakes at Buddha's descent from heaven and birth in the world, are in the Aṅguttara-Nikāya (IV. 127) and partly also in the Sanskrit Divyāvadāna, p. 204. But, above all, nearly the entire Nativity Sutta (Majjhima 123) translated by me last August, is embedded in the Dīgha-Nikāya (Mahāpadhāna-Sutta, No. 14), where it is told of a former Buddha, Vipassī. I made my translation in March, 1897, and my increasing knowledge of Pāli leads me to correct the second paragraph, which should run thus:

"Wonderful, O brother! marvellous, O brother! is the occult power and magical might of the Tathāgata: when, for example, he has knowledge of bygone Buddhas who have gone into Nirvāna, have broken down obstacles and avenues, exhausted their transmigrations and passed beyond all pain; and the Tathāgata perceives: 'Such were the families of the Blessed Ones, such were the names of the Blessed Ones; their clans were so-and-so; such were their moral codes, such their doctrines, their wisdom, their dwellings, and their manner of release.'"

The Nativity Suttas (including the one in the Sutta-Nipāta) lie behind the Lalita Vistara and other early poems and commentaries. They probably constituted one of the ancient Nine Divisions of the canon, called *Marvels*. Together with the First Sermon, the Chain of Causation, the Confessional, the Antinomies of the

Schools, and the Book of the Great Decease, they rank among those prime documents of the religion around which all recensions rally.

ALBERT J. EDMUNDS.

A PRACTICAL INTRODUCTION TO ENGLISH LITERATURE.

Mr. Edwin Herbert Lewis has rendered a distinct service to the cause of education in the compilation of his admirable *Introduction to the Study of Literature, for the Use of Secondary and Graded Schools*. (New York: The Macmillan Co. Pages, 410. Price, \$1.00.). His guiding principle has been "That literature ought to serve as a prime agency in the education of the emotions, and indirectly, of the will. . . . If the study of English during the adolescent age is merely formal, the student loses one of the best influences that the school can ever give him." In saying this, the author would not underestimate the ethical or commercial value of formal training in composition; he would still insist upon Spartan severity with regard to everything that affects the outward forms of writing and speech; but the attaining of the desired end by Spartan methods, which end is the arousing of an unconstrained love for noble literature, is almost a hopeless undertaking; and "Gradgrind and enemy of Gradgrind he must be within the same hour."

In the selection of literature for reading in secondary schools the second principle has been that the natural interests of the student, and not the chronological order, should be consulted. To discover what these natural interests are, the experience of school-boys of various ages who have been allowed to browse in good libraries has been consulted, and as the result partly of such experimenting, as interpreted and supplemented by the author's own judgment, observation, and theory, the present volume has been offered "as a tentative body of lyrics, ballads, and short stories." The material has been drawn mostly from nineteenth century authors. The works are grouped by subjects, and bear such titles as "The Nobility of Animals," containing selections from such authors as Browning and Scott; "The Heroism of War," containing selections from Tennyson, Sir Francis Hastings Doyle, Kipling, Gerald Massey, Stevenson, Eggleston, Whittier, and Emerson; "The Heroism of Peace," with selections from Walt Whitman, Longfellow, Kingsley, Lowell, A. Conan Doyle, and Tennyson; "The Athlete," with selections from Byron, Lefroy, Blackmore, Blackie, Poe, Franklin, and Jeffries; "The Adventurer," represented by pieces from Longfellow, Tennyson, and Stanley; "The Hearth," with selections from Kingsley, the Bible, Matthew Arnold, and Landor. "The Morning Landscape," "the Gentleman," "Wit and Humor," and "The Far Goal," complete the list of titles. An introduction is prefixed to each chapter, with the aim of pointing out the thread of meaning common to all the pieces. The reading of Homer, Cooper, and Shakespeare is recommended at certain stages, and the poems which should be read aloud, and which are especially good for learning by heart, are indicated. A chronological table of British and American authors has been appended to the volume.

BOOK REVIEWS.

LIFE, DEATH, AND IMMORTALITY. With Kindred Essays. By *William M. Bryant*, M. A., LL. D., Instructor in Psychology and Ethics, St. Louis Normal and High School. New York: The Baker & Taylor Co. 1898. Pages, vi, 442. Price, \$1.75,

The common theme for the essays comprised in this volume is the religious

aspect of human nature, but its chief topic is that which is referred to in the leading title of the book,—man's immortality. The author puts the question thus: "Whether in respect of man's essential nature as a thinking unit, death can ever be more than transition from one to another grade of life,—whether so complex a living unit as man can ever wholly die?" The key to the solution of the problem is found in the fact that the human mind can conceive of an infinite Mind, and can also conceive of itself as progressively unfolding its own powers to infinity. From this fact and from certain admissions made by Mr. Spencer, the author infers that man's "ancestry" necessarily includes as its first indispensable term the great First Cause itself, that is, man as mind can descend only from that which is Mind, "the absolutely spontaneous, self-moved, all inclusive *One* beyond which there is no reality whatever." He argues further that as there can be but one type of mind then the individual unit, which constitutes the extreme term of integration in the total process of Evolution, must be possessed of the same typical nature as the perfect Mind itself. Here we have, says Mr. Bryant, the answer to the question, "whether death can mean utter dissolution for man as a thinking unit." For, "the identity in nature of all minds must mean that each thinking unit is in its typical nature infinite. The degree of its present realisation may be ever so slight yet because it belongs to the same type as every other mind and therefore to the same type as the perfect Mind, it may rightfully claim for itself the full import of its infinite ideal nature." This necessarily implies immortality, seeing that as man can realise the full import of his infinite nature only by progressive finite stages of development, infinite duration will be required for its complete realisation. Assuming life to be a constructive process, then for man whose nature is infinite in its possibilities, "life must signify nothing less and nothing else than an infinitely extended constructive process,—a process of self-development, the full import of which is nothing less than this: that it constitutes the constructive realisation in his own personality of the divine nature common to all thinking units.' But may not man by persistent self-contradiction accomplish his own utter extinction? This is the inversion of the process of life, and the author concludes, after a consideration of the question, that the individual is "an indestructible unit whose central characteristic is: *Power to choose his own course of action*,—the only restriction upon this power being that from his very nature the individual cannot so far misuse it as to bring about its utter destruction, so far as to effect the individual's own utter annihilation." But the divine may become the demonic, and man may choose the never-ending death of self-perversion, death being regarded as merely the phase of transition from one to another degree of life. By Christianity the infinite nature of man was explicitly announced, instead of being implied in other creeds, and the author remarks that, in lieu of saying that Christ brought life and immortality to light, "it might be more precisely descriptive of the fact to say, that Christ brought life *as* immortality to light, in the sense that he was the first to show that life in its highest significance, life in its intellectual and moral phase, already involves the indestructibility, the immortality of such living unit."

We have dwelt so long on the central theme of Mr. Bryant's work that we cannot follow him in his comparison of Buddhism and Christianity, and of Christianity and Mohammedanism, nor in his treatment of miracles and Christian Ethics, except so far as to state that in his view Christian doctrine involves the highest conceivable ethical principle,—that "which demands the ceaseless self-unfolding of man as Mind, and hence of man as the divine son, into ever richer degrees of realised likeness with God as the one divine Father,—the one eternally perfect

Mind." The work concludes with a chapter on Eternity, which gives an account of the development of the author's religious views, and is of special value as being a record of actual mental experience.

C. S. WAKE.

IN TUNE WITH THE INFINITE, OR FULNESS OF PEACE, POWER, AND PLENTY. By *Ralph Waldo Trine*, author of "What All the World's a-Seeking." New York: 46 East Fourteenth Street, Thomas T. Crowell & Company. Boston: 100 Purchase Street. 1898. Pages, 222. Price, \$1.25.

The thesis which the author of this work proposes to establish is that every man possesses within himself the cause of whatever enters into his life. He regards thoughts as forces, which can be connected with whatever "order of thought of the universe" a man chooses, and so place himself exactly in those conditions he most desires. The mind is not only continually building from within, but is constantly attracting from without on both the seen and the unseen side of life, influences and conditions most akin to its own prevailing state. The author in treating of the effects of the various mental states and conditions upon the physical body attempts to show how and why fear, worry, anger and other emotions have a poisoning and destructive effect on the body, while the opposite emotions have a life-engendering, body-building influence. He supposes a knowledge of the higher laws can be used by any one to bring and hold himself continually in a state of abounding health and strength, and to set in operation subtle, silent forces that will in time entirely rebuild the body, so that healthy conditions will replace those of disease. This is said to apply also to the affairs of every-day life, which are thought to depend for their successful issue or failure on the action of the higher forces of man's nature. The author affirms, moreover, that everything is first worked out in the unseen before it is manifested in the seen, in the ideal before it is realised in the real, and in the spiritual before it is exhibited in the material. Hence the realm of the unseen is that of cause, and the realm of the seen is that of effect. Everything is governed by law and therefore what has been done by any one, prophet, seer, sage, or saviour, may be done by all men. The practical conclusion of the work is, that to come into the full realisation of one's own awakened interior powers, is to be able to condition one's life in exact accord with what we would have it. The point of view of the book is mystical and one to which we cannot assent.

Ω.

Persons desirous of obtaining in brief compass an adequate idea of the past history and future prospects of Cuba, may consult with profit a little book by Frederick M. Noa, entitled: *The Pearl of the Antilles* (New York: G. P. Putnam's Sons. Pages, 84. Price, 75 cents).

We have received a prospectus of the *Encyclopedia of the History and Mental Evolution of the Jewish Race*, which is to appear in twelve quarto volumes, with about 2000 illustrations. (New York, Funk & Wagnalls.) The specimen pages are very promising, and the enterprise is supported by the best scholars of to-day.

Dr. Arthur Pfungst, well known as an author, especially as a poet and translator of Oriental subjects, has translated T. W. Rhys Davids's *Buddhism* into German, which he has done from the seventeenth English edition. The book, published by Reclam, is a marvel of German cheapness, costing 40 pfennigs, which

equals 10 cents of our money. Prof. Rhys Davids's book is well known as a standard work, and the present edition will contribute not a little to make the doctrines of the Shâkyamuni better known in Germany.

Dr. Th. Achelis, a prominent anthropologist of Germany, who some years ago contributed to *The Open Court* an article on "Animal Worship," has written in German a sketch of *Ethics*, in which he explains the growth, development, and significance of ethics from the standpoint of an anthropologist and an evolutionist. It has appeared in the *Sammlung Götschen*, which will insure it a wide circulation. Dr. Achelis discusses in the first part of the book the history of the ethical systems, first of classical antiquity, secondly, of the Middle Ages, thirdly, of modern times. The second part of the work is devoted to a consideration of the factors of morality, language, mythology and religion, social life, law and art. The last part is devoted to the principles, or rather the conditions, of morality, viz., first, the will, secondly, the moral motives, and thirdly, the moral norms and ideals. The work concludes with the idea that ethics is the development and gradual fulfilment of humanity, that is, of the most ideal human norms. (G. J. Götschen, Leipsic. Price, 20 cents.)

NOTES.

The writer of the article "Peace on Earth, a Problem of Practical Diplomacy," wishes to add by way of a note that he knows himself to be in substantial agreement with the Hon. C. C. Bonney of Chicago, a jurist whose thorough knowledge of the law is widely recognised by the legal profession and who otherwise has won eternal fame as the inaugurator of the World's Congresses and the Parliament of Religions. Ten years ago, Mr. Bonney, as the Chairman of the Committee on Toasts and Responses for the Banquet given by the Bar Association of Chicago to the American Bar Association, offered as a toast for the banquet that

"The establishment of a permanent International Court of Arbitration, to declare the law of nations, and the right of such cases as the parties might submit to it, either for advice or for decision, would powerfully promote the substitution of arbitration for war, and worthily crown the great achievements of the nineteenth century."

The writer takes exception to the expression "to declare the law of nations" and also to the very name "court of arbitration." If a standing commission were established to whom questions of right and wrong in international complications would be submitted, care should be taken to avoid even the semblance of representing it as a court which has the authority of arbitration. But a personal interview with the Hon. Mr. Bonney has assured the author that he practically means the same thing as proposed in the present article.

Mr. Bonney's toast received cordial responses from Thomas M. Cooley, Lord Chief Justice Coleridge, Alphonse Rivier, Emile De Laveleye, G. Rolin Jaequemyns, August Von Blumerincq, and the Hon. William E. Gladstone, all of whom expressed their appreciation of the gravity of the problem and the desirability of a solution.

Mr. Bonney argues his case as follows :

"It is almost incredible that the wager of battel as a mode of determining controversies between English subjects was not actually abolished till 1819, though it had fallen into disuse in the midst of tribunals in which evidence and argument took the place of battle-axe and lance, but as late as 1818 Lord Ellenborough declared that the general law of the land was then in favor of the trial by battel, when properly demanded.

"Yet the progress of the world since that day has been so wonderful that it should not seem an extravagant prediction that the twentieth century will enjoy the felicity of celebrating the general substitution of arbitration for war, . . .

"War may, indeed, as Lord Coleridge says, remain in the future, as it has sometimes been in the past, a dire necessity. Cases may, indeed, continue to arise in which persistent wrong must be met with armed retaliation; but having successfully made Sovereign Justice the final arbiter of controversy among the powerful States of the American Union, the genius of human government can neither retrace its steps nor stay its grand advance, but must still go forward till it has made Sovereign Justice the crowning glory of international law, and the supreme safeguard of international intercourse. A simple treaty of leading powers, creating the tribunal recommended in the toast and providing for its proceedings and support, would, indeed, mark the beginning of a new era of peace and progress.

"The supreme achievement of civilisation is the substitution of arguments for arms—of an unarmed judge for a military commander—of the voice of justice for the edict of force; and this is true as well of nations as of men. Alike for both in the swift-coming years will the paths of law and duty prove to be the highways of prosperity and power."

The application of the scientific spirit to matters of religion in both philosophical and historical questions is fast spreading through our universities. It is carried out in the Summer-School of Theology at Cambridge, Mass., which will meet on July 5th, and the general favor with which its lectures have been received is a hopeful sign of the times

The Countess de S. Canavarro, who founded a Buddhist convent in Ceylon already described in *The Open Court*, has gone to India, and is at present working in behalf of Buddhism in Buddha Gayâ, the place where the Buddha Gayâ temple stands as a memorial of the spot in which the ascetic Gautama attained to enlightenment.

The Countess is active in organising the Maha-Bodhi Society of Buddha Gayâ, which serves as a centre of all the Maha-Bodhi societies in Buddhist countries, and publishes the *Maha-Bodhi Journal*. She proposes to erect a small temple of modest architecture, in ancient style, which shall contain a Buddha statue, that in its way will be unique. She proposes to have it carried out, not in the traditional style, but according to modern taste. It will be done in Parian marble, carved by an American artist, in the United States of America.

The article on "Paganism in the Roman Church," which appears in the present number of *The Open Court*, is the first chapter of a large work by the Rev. Mr. Trede, entitled *Das Heidenthum in der römischen Kirche, Bilder aus dem religiösen und sittlichen Leben Südtaliens*, published in four parts by Friedrich Andreas Perthes, of Gotha. Pastor Trede has spent many years in Southern Italy, and gathered for his book a vast amount of interesting material relating to the popular religion, folklore, and religious antiquities of this historic country.

Some of the cuts in Dr. Carus's article on "Plato and the Cross" in the present number are from *The Open Court* of November, 1898. They were there used to illustrate the Greek idea of salvation, and not with special reference to the history of the cross. They have been reprinted for the convenience of the readers.

HENRY HOLT & CO. 29 W. 23d St. NEW YORK.

HAVE RECENTLY PUBLISHED

JAMES'S TALKS TO TEACHERS ON PSYCHOLOGY

AND TO STUDENTS ON SOME OF LIFE'S IDEALS. By PROF. WILLIAM JAMES, of Harvard. Author of "The Principles of Psychology," etc. xi + 301 pp., 12 mo, gilt top. \$1.50, net.

In their present form, these "Talks" contain a minimum of what is deemed "scientific" in psychology and are practical and popular in the extreme. In the last two articles the author trenches upon ethical grounds and speaks for the rights of individualism in a way which readers of his *Will to Believe* will recognize.

Contents: Psychology and the Teaching Art; The Stream of Consciousness; The Child as a Behaving Organism; Education and Behavior; The Necessity of Reactions; Native and Acquired Reactions; What the Native Reactions Are; The Laws of Habit; The Association of Ideas; Interest; Attention; Memory; The Acquisition of Ideas; Apperception; The Will; The Gospel of Relaxation; On a Certain Blindness in Human Beings; What Makes Life Significant.

WALKER'S DISCUSSIONS IN EDUCATION

By the late FRANCIS A. WALKER, President of the Massachusetts Institute of Technology. Edited by JAMES PHINNEY MUNROE. 342 pp., 8vo. \$3.00, net.

The author had hoped himself to collect these papers in a volume.

The Dial: "A fitting memorial to its author. . . . The breadth of his experience, as well as the natural range of his mind, are here reflected. The subjects dealt with are all live and practical. . . . He never deals with them in a narrow or so-called 'practical' way."

The Boston Transcript: "Two of his conspicuous merits characterize these papers, the peculiar power he possessed of enlisting and retaining the attention for what are commonly supposed to be dry and difficult subjects, and the capacity he had for controversy, sharp and incisive, but so candid and generous that it left no festering wound."

"The chief organ of serious educational thought in America."—*The Dial*.

"It is a sort of working library. Its volumes stand always at my elbow."—Prof. Paul H. Hanus of Harvard.
Now is the time to subscribe. The eighteenth volume commences with the June number.

EDUCATIONAL REVIEW

Edited by PROFESSOR NICHOLAS MURRAY BUTLER of Columbia. \$3.00 a year (monthly excepting July and August). 35 cents a copy.

The best thought of the last eight years on educational matters is to be found in the back volumes of the Review. The publishers have a few complete sets left. Vols. I to XVI (January 1891–May 1899), bound, \$60.00; unbound, \$50.00. These prices subject to change without notice. Terms on such separate volumes as are not out of print, on application. Table of Contents, Vols. I to XV and **sample copy, free on application with reference to this advertisement.**

ELEMENTARY ILLUSTRATIONS OF THE

Differential and Integral Calculus

By AUGUSTUS DE MORGAN

Handsome new reprint edition. (In the press.) Red cloth. Price, \$1.00. An easy and pleasant introduction to the most embarrassing difficulties of the calculus.

THE OPEN COURT PUBLISHING CO., 324 Dearborn St.
CHICAGO.

LONDON: Kegan Paul, Trench, Trübner & Co.

The Readers of The Open Court

Will find below a few salient reasons why they should select for their 1899 mounts THE

Sterling Bicycle "BUILT LIKE A WATCH"

Its features of construction are distinctively its own, and not to be found in any other makes.

It contains no "ready-made" parts, such as are used in the rank and file, but each and every part is manufactured from the crude material right in the Sterling factory.

Its construction has not been cheapened, but is GUARANTEED to be the equal in material, finish and workmanship as when it sold for \$125.00.

It is the only American bicycle using the celebrated Mannesmann spiral fibre tubing, imported from abroad.

It is not a re-hash of old models, but is radically changed.

It represents the highest type of construction without a single cheap feature

Its equipment is high grade only, giving a large range of options on tires, saddles, chains and pedals.

It has a broad gauge guarantee, indefinitely protecting defects.

It does not spend half the riding season in the repair shop.

It is known to every wheelman as honestly built, up-to-date and handsome, strong and rigid, but light running and with remarkable responsiveness.

It runs as well at the end of two or three years as when it was new.

Its Chainless Model is the only one made having interchangeable rear bevels, giving the owner two widely different gears at pleasure.

If more reasons are desired they will be cheerfully furnished.

A postal addressed to the factory or to the local agent will secure a free catalog showing the details of construction, and illustrating the various models of Chain, Chainless and Tandem types.

STERLING CYCLE WORKS, Kenosha, Wis.

Columbia

Hartford and Vedette Bicycles

\$25.00 to \$75.00

12 MODELS OF NEW MACHINES.

Catalogue, Booklets, Folders, etc., free of any Columbia Dealer,
or by mail for a two-cent stamp.

POPE MFG. CO., HARTFORD, CONN.

The Religion of Science Library.

A collection of standard works of The Open Court Press, issued bi-monthly. Yearly, \$1.50; single numbers, 15, 25, 35, 50 and 60 cents (9d., 1s. 6d., 2s., 2s. 6d., 3s.), according to size. The books are printed on good paper, from large type.

The Religion of Science Library, by its extraordinarily reasonable price, will bring a number of important books within reach of all readers.

The following have already appeared in the series :

- No. 1. **The Religion of Science.** By PAUL CARUS. 25 cents.
2. **Three Introductory Lectures on the Science of Thought.** By F. MAX MÜLLER. 25 cents.
3. **Three Lectures on the Science of Language.** By F. MAX MÜLLER. 25 cents.
4. **The Diseases of Personality.** By TH. RIBOT. 25 cents.
5. **The Psychology of Attention.** By TH. RIBOT. 25 cents.
6. **The Psychic Life of Micro-Organisms.** By ALFRED BINET. 25 cents.
7. **The Nature of the State.** By PAUL CARUS. 15 cents.
8. **On Double Consciousness.** By ALFRED BINET. 15 cents.
9. **Fundamental Problems.** By PAUL CARUS. Pages, 373. 50 cents.
10. **The Diseases of the Will.** By TH. RIBOT. 25 cents.
11. **The Origin of Language, and The Logos Theory.** By LUDWIG NOIRÉ. 15 cents.
12. **The Free Trade Struggle in England.** By GEN. M. M. TRUMBULL. 25 cents.
13. **Wheelbarrow on the Labor Question.** 35 cents.
14. **The Gospel of Buddha.** By PAUL CARUS. 35 cents.
15. **Primer of Philosophy.** By PAUL CARUS. 25 cents.
16. **On Memory, and The Specific Energies of the Nervous System.** By PROF. EWALD HERING. 15 cents.
17. **The Redemption of the Brahman.** A Novel. By R. GARBE. 25 cents.
18. **An Examination of Welsmannism.** By G. J. ROMANES. 35 cents.
19. **On Germinal Selection.** By AUGUST WEISMANN. 25 cents.
20. **Lovers Three Thousand Years Ago.** By T. A. GOODWIN. 15 cents.
21. **Popular Scientific Lectures.** By ERNST MACH. 50 cents.
22. **Ancient India: Its Language and Religions.** By H. OLDENBERG. 25 cents.
23. **The Prophets of Israel.** By C. H. CORNILL. 25 cents.
24. **Homilies of Science.** By PAUL CARUS. 35 cents.
25. **Thoughts on Religion.** By G. J. ROMANES. 50 cents.
26. **Philosophy of Ancient India.** By RICHARD GARBE. 25 cents.
27. **Martin Luther.** By GUSTAV FREYTAG. 25 cents.
28. **English Secularism.** By GEORGE JACOB HOLYOAKE. 25 cents.
29. **On Orthogenesis.** By TH. EIMER. 25 cents.
30. **Chinese Philosophy.** By PAUL CARUS. 25 cents.
31. **The Lost Manuscript.** By GUSTAV FREYTAG. 60 cents.
32. **A Mechanico-Physiological Theory of Organic Evolution.** By CARL VON NÄGELI. 15 cents.
33. **Chinese Fiction.** By the REV. GEORGE T. CANDLIN. 15 cents.
34. **Mathematical Essays and Recreations.** By H. SCHUBERT. 25 cents.
35. **The Ethical Problem.** By PAUL CARUS. 50 cents.
36. **Buddhism and Its Christian Critics.** By PAUL CARUS. 50 cents.

THE OPEN COURT PUBLISHING COMPANY,

324 DEARBORN ST., CHICAGO, ILL.

LONDON: KEGAN PAUL, TRENCH, TRÜBNER & CO.

Buddhism and Its Christian Critics

By *Dr. Paul Carus*. 8vo. Pages,
311. Price, \$1.25.

Contents:

THE ORIGIN OF BUDDHISM.
THE PHILOSOPHY OF BUDDHISM.
THE PSYCHOLOGICAL PROBLEM.
THE BASIC CONCEPTS OF BUDDHISM.
BUDDHISM AND CHRISTIANITY.
CHRISTIAN CRITICS OF BUDDHISM.

The Open Court Pub. Co., Chicago

HARVARD SUMMER SCHOOL OF ..THEOLOGY..

JULY 5-21, 1899

Courses in Old Testament, Church History and Theology
by professors in Harvard University and by Professors A. V. G.
ALLEN, W. N. CLARKE, A. C. MCGIFFERT, H. G.
MITCHELL, G. F. MOORE and Pres. W. DEW. HYDE.

Fee, \$15.00

Circulars on application to R. S. MORISON, Sec'y HARVARD
DIVINITY SCHOOL, CAMBRIDGE, MASS.



Address :

Wyckoff, Seamans & Benedict

144 Madison St.,

CHICAGO, ILLINOIS.

AN ORIENTAL ART WORK

Scenes from the Life of Buddha

Reproduced in Colors

from the Paintings of Keichyu Yamada,
Professor in the Imperial Art Institute,
Tokyo.

With a Handsome Cover-Stamp

especially designed for the volume by
Frederick W. Gookin, in imitation of a
Buddha-painting of the Fifteenth Cen-
tury.

Just Published. Price, \$2.50.

These pictures, which are a marvel of
daintiness, have been reproduced by the
new and expensive three-color process.
The inimitable delicacy of tint of the
originals has been brought out in this way
with scarcely any loss of quality.

Unique and Original.

The illustrations are eight in number and
occupy each a separate leaf, with the de-
scriptions and references intervening.

The publishers **will send the work on
inspection to subscribers to The
Open Court**, provided the same be re-
turned uninjured and carefully packed
within two days after its receipt, if not
satisfactory.

The Open Court Publishing Co.,

324 DEARBORN ST.,

Chicago, - - - Illinois.

MUNICIPAL AFFAIRS.

\$1.00 Per Year.

The only magazine devoted exclusively to the consideration of municipal problems from the standpoint of the taxpayer and citizen.

Besides the leading articles, each number contains a *Bibliographical Index* of all the literature that has appeared during the preceding quarter, thus making it possible to ascertain in a few moments what articles, pamphlets, books and reports have appeared upon any phase of city government; *Digests of Periodical Literature* which are exceedingly valuable to the busy reader who wishes to secure the gist of the best articles without extended reading; and *Book Reviews* of the most important works, by persons entirely familiar with the various subjects.

The *December Number*, 1898, is devoted to a world-wide survey of

Municipal Functions: A Study of the Development, Scope and Tendency of Municipal Socialism, by Milo Roy Maltbie, Ph.D.

8 vo., 223 pp. Index. (Separately, paper, 50 cents; cloth, \$1.50.)

Contents:

The Historic City—The City of To-day—Protective Functions—Charities—Education—Recreation—Street Facilities—Industrial Functions—Causes of Increased Municipal Activity—Future City Functions—Index.

“The present monograph is certain to attract very wide attention and to be in great demand for purposes of reference. It is a remarkably thorough compilation of facts as to the nature and extent of actual municipal undertakings in the *principal cities* of the world.”—*Review of Reviews*.

An Unparalleled Offer.

All subscribers to MUNICIPAL AFFAIRS for 1899 may secure a copy of Weber's

Growth of Cities,

at \$1.00 per copy (\$1.50 cloth), postpaid.

This exceptionally valuable work of about 500 octavo pages, soon to be issued by the Macmillan Company and sold for \$3.00 and \$3.50, has been described as “the most thorough, comprehensive and scientific discussion of the subject yet presented. No library is complete without it.” This offer expires May 1st.

Send for description of this work and other publications of universal interest. Address all communications to

COMMITTEE ON MUNICIPAL ADMINISTRATION,

52 WILLIAM STREET, NEW YORK CITY.

Important Publications.

Scientific Books.

THE ANALYSIS OF THE SENSATIONS.

By ERNST MACH, Professor of the History and Theory of Inductive Science in the University of Vienna. Pages, xi., 208. Cuts, 37. Cloth, \$1.25.

"... Like everything he writes, a work of genius."—*Prof. W. James, of Harvard.*

"There is no work known to the writer which in its general scientific bearing is more likely to repay richly thorough study. We are all interested in nature in one way or another, and our interests can only be heightened and clarified by Mach's wonderfully original and wholesome book."—*Prof. J. E. Trevor in The Journal of Physical Chemistry.*

THE SCIENCE OF MECHANICS. CRITICAL AND HISTORICAL. By *Prof. Ernst Mach.* Cuts, 250. Pages, 534. Half Morocco, \$2.50.

"A remarkable work."—*Nature.*

"A masterly book."—*Engineering News.*

"As a history of mechanics, the work is admirable."—*The Nation.*

"The book as a whole is unique and a valuable addition to any library of science or philosophy."—*Prof. D. W. Hering in Science.*

"Sets forth the elements of the subject with a clearness, lucidity, and force unknown in the mathematical text-books."—*Canadian Mining and Eng. Review.*

Works on Ancient India.

ANCIENT INDIA: ITS LANGUAGE AND RELIGIONS. By *Prof. H. Oldenberg,* of Kiel. Pages, ix., 110. Cloth, 50 cents.

Contains (1) The Study of Sanskrit; (2) The Religion of the Veda; (3) Buddhism. A popular exposition by the foremost European authority.

"Matter divested of its technical form coming from so eminent an authority is certain to find a welcome reception awaiting it at the hands of the many who are interesting themselves in Hindoo antiquities at the present time."—*Chicago Tribune.*

THE PHILOSOPHY OF ANCIENT INDIA. By *Prof. Richard Garbe.* Containing (a) A Brief History of Indian Philosophy; (b) The Connexion between Greek and Indian Philosophy; and (c) Hindu Monism. 2nd. ed. Pages, 89. Cloth, 50c.

"The value of this little work as a contribution to the history of philosophy may be justly termed great."—*Baptist Union.*

"Though the work is scholarly, it is written for the general reader who need not have previously studied the matter."—*Bookseller and Newsdealer.*

The Works of Gen. M. M. Trumbull.

WHEELBARROW: ARTICLES AND DISCUSSIONS ON THE LABOR QUESTION. With Portrait of the author (Gen. Trumbull). Pages, 300. Cloth, \$1.00.

"Written with vivacity and wit, and with a Cobbett-like terseness of English and felicity of illustration."—*Home Journal,* New York.

THE FREE TRADE STRUGGLE IN ENGLAND. Second edition, revised and enlarged. Pages, 296. Cloth, 75c.

Mr. Edward Atkinson says: "This history ought to be read by every man who desires to make up his mind how to act in this country at the present time."

Religious and Ethical.

THE RELIGION OF SCIENCE. By *Dr. Paul Carus.* Pages, 103. Extra edition, paper, 50 cents.

"The best and briefest possible popular exposition of the scientific attitude towards the religious sentiment that we have read."—*New England Magazine.*

THE IDEA OF GOD. By *Dr. Paul Carus.* Fourth edition. Pages, 32. Linen cover, 15 cents.

"An effort to purify our 'Idea of God' that it may be greater, sublimer, and more awe-inspiring to future generations than it has ever been yet."—*Literary World,* London.

THOUGHTS ON RELIGION. By *G. J. Romanes, F. R. S.* Third edition. Pages, 184. Cloth, \$1.25.

"Will rank among the most valuable books the century has produced."—*Chicago Tribune.*

ENGLISH SECULARISM, A CONFES- SION OF BELIEF. By *George Jacob Holyoake.* Pages, xiii., 146. Cloth, 50 cents.

"George Jacob Holyoake is a sincere, gifted, and scholarly thinker, and his exposition of secularism will be read with interest by all followers of contemporaneous movements."—*The Chicago Evening Post.*

THE GOSPEL OF BUDDHA. By *Dr. Paul Carus.* Fifth edition. Pages, 275+xiv. Cloth, \$1.00.

"In addition to a very luminous and suggestive preface, he furnishes a table of references, showing at an eye-glance the sources of his extracts and the parallelisms in the Gospels. He gives, also, a glossary of names and terms, a method of pronunciation, and a good index. The simplicity of this presentation, the freedom of the text from notes or uncouth and outlandish diacritical points, and the general arrangement of the work are admirable. . . . It is admirably fitted to be a handbook for the single reader or for classes."—*The Critic,* New York.

THE OPEN COURT PUBLISHING CO., CHICAGO,
324 Dearborn St.

THE PROHIBITED LAND

THE TRAVELS IN TARTARY, THIBET AND CHINA

Of MM. HUC and GABET

New Edition. From the French. Two Vols. 100 Illustrations. 688 Pages.
Cloth, \$2.00 (10s.). Handsomely Bound in Oriental Style.

A Classic Work of Travels. One of the Most Popular Books of All Times.

Read the Following Commendatory Notices:

“The work made a profound sensation. Although China and the other countries of the Orient have been opened to foreigners in larger measure in recent years, few observers as keen and as well qualified to put their observations in finished form have appeared, and M. Huc's story remains among the best sources of information concerning the Thibetans and Mongolians.”—*The Watchman*.

“The book is a classic, and has taken its place as such, and few classics are so interesting. It deserves to be put on the same shelf as Lane's *Modern Egyptians*. Recent investigations only strengthen the truth of the intrepid missionary's observations—observations which were once assumed in Europe to be sensational and overdone. These reprints ought to have a large sale. It would be a good time for the Catholic libraries to add them to their stock of works on travel. They will find that few books will have more readers than the missionary adventures of Abbé Huc and his no less daring companion.”—*The Catholic News*.

“Our readers will remember the attempt of Mr. A. Henry Savage Landor, the explorer, to explore the mysteries of the holy city of L'hassa, in Thibet. The narrative of the frightful tortures he suffered when the Thibetans penetrated his disguise, has been told by Mr. Landor himself. But where Mr. Landor failed, two very clever French missionaries succeeded. Father Huc and Father Gabet, disguised as Lamas, entered the sacred city, and for the first time the eyes of civilised men beheld the shocking religious ceremonies of L'hassa. The complete story of their extraordinary experiences is told in the book *Travels in Tartary, Thibet, and China*, published by The Open Court Publishing Co., Chicago.”—*New York Journal*.

“Fools, it is known, dash in where angels fear to tread, and there are also instances of missionaries dashing in where intrepid and experienced travellers fail. Such was the case with MM. Huc and Gabet, the two mild and modest French priests who, fifty years ago, without fuss, steadily made their untortured way from China across Thibet and entered L'hassa with the message of Christianity on their lips. It is true that they were not allowed to stay there as long as they had hoped; but they were in the Forbidden Land and the Sacred City for a sufficient time to gather enough facts to make an interesting and very valuable book, which on its appearance in the forties (both in France and England) fascinated our fathers much in the way that the writings of Nansen and Stanley have fascinated us. To all readers of Mr. Landor's new book who wish to supplement the information concerning the Forbidden Land there given, we can recommend the work of M. Huc. Time cannot mar the interest of his and M. Gabet's daring and successful enterprise.”—*The Academy*.

“They two visited countries of which Europe was, at the time, all but absolutely ignorant, and their record struck the reading world with almost incredulous wonderment.”—*The Agnostic Journal*.

“Has become classical. The work is still an authority on Thibetan Buddhism, and by its pleasant narration of varied adventures will always be readable.”—*The Dial*.

THE OPEN COURT PUBLISHING CO., CHICAGO, 324 Dearborn St.

LONDON: Kegan Paul, Trench, Trübner & Co.

History of the People of Israel

From the Earliest Times to the Destruction of Jerusalem
by the Romans.

By **Prof. C. H. Cornill**, of the University of Breslau, Germany. Translated by *Prof. W. H. Carruth*. Pages, 325+vi. Cloth, \$1.50 (7s. 6d).

Not yet published in German. A fascinating portrayal of Jewish history by one of the foremost of Old Testament scholars.

An Impartial Record. Commended by both Orthodox and Unorthodox.

COMMENDATORY NOTICES:

"Many attempts have been made since Old Testament criticism settled down into a science, to write the history of Israel popularly. And some of these attempts are highly meritorious, especially Kittel's and Kent's. But Cornill has been most successful. His book is smallest and it is easiest to read. He has the master faculty of seizing the essential and passing by the accidental. His style (especially as freely translated into English by Professor Carruth of Kansas) is pleasing and restful. Nor is he excessively radical. If Isaac and Ishmael are races, Abraham is an individual still. And above all, he has a distinct heroic faith in the Divine mission of Israel."—*The Expository Times*.

"I know of no work that will give the beginner a more admirable introduction to the study of the history of Israel than this little volume. There is a fine discrimination of those events which are really important and an extraordinary ability in exhibiting their genetic relations. The place of Hebrew history in universal history is shown with accurate knowledge of recent archæological discovery. The religious significance of Israel's history is appreciated to a degree that is unusual in an adherent of the radical school. It is refreshing to find Samuel regarded as more than a mere fortune-teller, David as more than a robber chief, and Solomon as more than a voluptuary. In this respect as well as in many of his historical conclusions Cornill represents a reaction against the extremes of Stade and Wellhausen. One is much struck in reading this book with the similarity of its own story to the traditional idea of the course of the history of Israel. If the author did not occasionally warn his readers against the traditional view, I doubt if the average layman would find anything that would startle him. The professional Old Testament student recognises how here and there details have been modified by criticism, but still the sweep of the narrative is the same as that to which we are accustomed. This is significant as showing how even the more radical criticism leaves untouched the main outline of the history of Israel as presented in the books of the Old Testament. The publishers are to be commended for their enterprise in securing the publication of this work in English before it appeared in German. The translation is admirably done. The book reads as if written originally in English."—*The Hartford Seminary Record*.

"Professor Cornill has an unusually direct and pithy style for a German, and especially a theologian, and is a master of condensation. Added to these qualities there is a strength and beauty of expression, with occasional touches of eloquence, betraying a feeling and earnestness which are perhaps the more effective because unexpected. To the student this work will not only be of interest as illustrating a method of reconstructing history, but of positive value for its scholarly use of all the results of research which throw light upon the history of Israel and its relations to other peoples. Taken in connexion with the Scripture records it becomes at many points an instructive and illuminating aid."—*The Watchman*.

"A good example of the cultured taste which is making history accessible to the desultory reader who lacks time or inclination, or both, for the study of ponderous tomes, may be found here. While most of us have a certain familiarity with Greek and Roman history, we question if there is anything like so widespread a knowledge of historical facts concerning the Jews, save what we remember of what we have read in the Bible."—*Public Opinion*.

"It will be found an excellent accompaniment to the study of the Old Testament Scriptures, written, as it is, from the dignified standpoint of the conscientious and truth-loving historian, respecting honest religious convictions, and at all times avoiding the tone of cynicism so commonly displayed at those times when historical investigation seems to conflict with the statements of avowed inspiration."—*Chicago Evening Post*.

THE OPEN COURT PUBLISHING CO., CHICAGO, 324 Dearborn St
LONDON: Kegan Paul, Trench, Trübner & Co.

THE
BIBLIOTHECA SACRA

A Religious and Sociological Quarterly

CONDUCTED BY

G. FREDERICK WRIGHT

OBERLIN, O.

Z. SWIFT HOLBROOK

BOSTON, MASS.

Associated with

EDWARDS A. PARK, NEWELL DWIGHT HILLIS, FRANK WAKELEY GUNSAULUS, FRANK H
FOSTER, JUDSON SMITH, D. W. SIMON, WM. M. BARBOUR, SAMUEL IVES
CURTISS, CHAS. F. THWING, A. A. BERLE, W. E. BARTON, E. H.
JOHNSON, JACOB COOPER AND E. W. BEMIS.

Contents of January, 1899 :

The Outlook in Theology.	<i>Edward L. Curtis</i>	Christianity and Idealism.	<i>James Linasay</i>
The Place of a Miracle.	<i>S. Leroy Blake</i>	Sentimental Sociology.	<i>George Luther Cady</i>
Warp and Woof.	<i>Frederick A. Noble</i>	A Side-Light on Luther.	<i>R. Clyde Ford</i>
The Nature of the Divine Indwelling.	<i>Calvin B. Hulbert</i>	The New Political Economy.	<i>Frank Parsons</i>
The Philosophical Disintegration of Islam.	<i>Henry Woodward Hulbert</i>	Dr Driver's Proof-Texts.	<i>G. Frederick Wright</i>
		The Christian Conception of Wealth.	<i>Charles C. Merrill</i>

Partial Contents of April, 1899 :

The Books of the Old Testament <i>Versus</i> Their Sources	<i>Willis J. Beecher.</i>
The Trial of Jesus: Its Value in the Foundation of Faith	<i>F. J. Lamb.</i>
The Holy Scriptures and Divorce	<i>Noah Lathrop.</i>
The Christian Conception of Wealth	<i>Charles C. Merrill.</i>
Kant's Theory of the "Forms of Thought."	<i>James B. Peterson.</i>
Vision of St. Paul on the Road to Damascus	<i>Edward I. Bosworth.</i>
Caedmon, the First Great English Poet	<i>D. S. Gregory.</i>
The Delusions of "Christian Science."	<i>G. Frederick Wright.</i>

Semitic, Critical, Sociological Notes, and Book Reviews in each Number.

800 pp. Three Dollars a Year; 75 Cents a Number.

Address

THE BIBLIOTHECA SACRA CO.,
OBERLIN, OHIO, U. S. A.

A Proposition

To Old and New Readers
of The Open Court.

Goldthwaite's Unique Folding Globe of the World.

Among the advantages which this Globe presents are the following, viz.:

1. The water is colored a *dark blue*, which, besides being more natural than white, shows the land more distinctly, and makes it appear elevated above the level of the water. A globe of this color does not soil easily.
2. The ocean currents are plainly shown, and aid much in explaining physical geography.
3. The attachments are very simple, enabling one to handle the globe without much effort.
4. Outlines of *natural* and *political* divisions are distinctly given.
5. The Isothermal lines are distinctly and accurately given, showing the mean annual temperature for the two extreme seasons all over the world.
6. They are made of expensive material, and covered very carefully, and cannot be easily broken. When soiled, the maps may be cleaned with a damp cloth or sponge dipped in benzine.
7. This globe is convenient for measurement, being about 670 miles to every inch on the surface.
8. Every tenth parallel of latitude and twenty-four meridians of longitude are represented, making the reckoning of time easy, one hour for each meridian..
9. Hence it is the most convenient for general use.

STATE OF NEW JERSEY
ATTORNEY GENERAL'S OFFICE

January 31, 1899.

Wm. M. Goldthwaite:

I purchased from you in '97 a folding globe, and have found it a very great convenience.

Within a narrow compass it

gives you all the information of a geographical character which under ordinary circumstances you require; and best of all, it keeps the seas and land of this world in their due relation to each other, so that no one is confused in looking over your most admirable globe.

Weight, 6 Ounces.

Truly yours,

S. H. GREY.



Special Offer:

Goldthwaite's Folding Globe, as here represented, with beautiful extension brass stand, -	\$5.00	} Both for \$5.00.
The Open Court for one year, - - - -	\$1.00	
Goldthwaite's Folding Globe, as here represented, without stand, - - - -	\$3.75	} Both for \$3.75.
The Open Court for one year, - - - -	\$1.00	

The above price includes delivery in a neat substantial case to any address in the United States, Canada, or Mexico. Address:

Agents
Wanted.

WM. M. GOLDTHWAITE, Hyde Park, Chicago, Ill.

THE GOSPEL ACCORDING TO DARWIN.

By DR. WOODS HUTCHINSON *of the University of Buffalo.* Pages, xii+241.
Price, \$1.50 (6s.). A collection of homiletic essays treating the crying religious and ethical problems of the day in the light of the revelations of modern science.

"Not the least of the virtues of those essays is their stimulating vigor of thought. Dr. Hutchinson owns allegiance to no school; what he gives us is plainly the outcome of earnest personal thought. Touching as he does upon matters which are still under discussion, it is inevitable that the reader should frequently disagree with him. But no amount of disagreement on minor matters can blind the impartial reader to the manifest virtues of the book as a whole; to the width of knowledge displayed, the keen desire for truth, the terse and picturesque style, the originality and independence of mind. These qualities are displayed most conspicuously in the essays on 'Love as a Factor in Evolution' and 'Lebenslust,' but are visible in all. They make *The Gospel According to Darwin* a book which is worthy of study by all to whom the scientific view of the problems of life possesses any interest."—*The Saturday Weekly Citizen*, Glasgow.

"It is in no sense the purpose of this little volume to furnish a system of ethical or religious thought, or the germ of a new religion, as perhaps its title might lead some to infer, least of all to enunciate truths which are original with, or peculiar to, its author. It is merely an attempt to get a bird's-eye view of a few of the influences affecting human hope and human happiness from the standpoint of that view of, and attitude towards, the universe, which is best expressed by the term Darwinism."—From *Author's Preface*.

"Is one of the most thoughtful and stimulating of recent publications. . . . In these pages are discussed, in frank, manly, straightforward, manner, many of the themes that are most vital to the race. . . . We may not agree with all Dr. Hutchinson says but we cannot deny the freshness and vigor of his argument, nor the force of his facts, and we shall all find in his pages very much food for profitable meditation."—*The Chicago Chronicle*.

A Recent Work in Biology.

A MECHANICO-PHYSIOLOGICAL THEORY OF ORGANIC EVOLUTION. SUMMARY. By *Carl von Nägeli*. Translated by V. A. Clark and F. A. Waugh, of the University of Vermont. The only original account of Nägeli's theories in English. Pages, 52. Price, paper, 15c. (9d.)

A Chinese Philosophical Classic.

LAO-TZE'S TAO-TEH-KING. 老子道德經 Chinese-English. With an Introduction, Transliteration, and Notes. By *Dr. Paul Carus*. Pages, 360. Price, cloth, \$3.00. (15s.)

Just Published.

THE ETHICAL PROBLEM. Three Lectures on Ethics and Science. By *Dr. Paul Carus*. Second edition, enlarged by a discussion of the subject by William M. Salter, John Maddock, F. M. Holland, Prof. Friedrich Jodl, Dr. R. Lewins, Prof. H. Höffding, and Prof. L. M. Billia. With replies by the author. Pp. 351. Cloth, \$1.50. Paper, 50c.

THE OPEN COURT PUBLISHING CO., CHICAGO, 324 Dearborn St.
LONDON: Kegan Paul, Trench, Trübner & Co.

Books of To-day for Americans.

THE WAR AS A SUGGESTION OF MANIFEST DESTINY.

By Prof. H. H. POWERS, of Stanford University . . . Price, 25c.
The development of our new policy of imperialism. The manifest destiny of an Anglo-American alliance for world domination. A book of the most striking present interest.

THE NICARAGUA CANAL AND THE ECONOMIC DEVELOPMENT OF THE UNITED STATES.

By Professor E. R. JOHNSON, of the University of Pennsylvania . . . Price, 10c.
The essay shows what great commercial benefits the canal will bring to the United States. It shows also why the canal itself should prove a paying investment for American capital.

THE NICARAGUA CANAL AND THE MONROE DOCTRINE.

By Professor L. M. KEASBEY, of Bryn Mawr College . . . Price, 25c.
A history of the struggle between England and America to control the canal when built, dwelling especially on the Clayton-Bulwer treaty.

INTERVENTION AND THE RECOGNITION OF CUBAN INDEPENDENCE.

By Professor AMOS S. HERSHEY, of the University of Indiana . . . Price, 25c.
The author explains the right, according to international law, of the United States' intervention in Cuba, and the bearing of the Monroe Doctrine upon such intervention. In addition, he discusses intervention from the standpoint of humanity, and reviews the history of Spanish misrule.

THE STUDY OF THE NEGRO PROBLEMS.

By Professor W. E. B. DU BOIS, of the University of Atlanta . . . Price, 25c.
The negro question, so long of vital interest in America, has now added importance and new phases, since our recent acquisitions of territory.

PROPOSED REFORMS OF THE MONETARY SYSTEM.

By Professor JOS. F. JOHNSON, of the University of Pennsylvania . . . Price, 25c.
A statement of the principles which must be observed in any sound reconstruction of the currency system; with a criticism of the monetary commission and Gage's plans

The above six books will be sent postpaid for \$1.00.

A new and complete catalogue of over 230 publications on political, social, and economic topics will be sent free on application.

American Academy of Political and Social Science,
STATION B, PHILADELPHIA.

Psychology and Philosophy.

The Monographs of Th. Ribot.

"The best statements concerning attention, personality, and will."
Journal of Education.

(1) *Psychology of Attention.* (2) *The Diseases of Personality.* (3) *The Diseases of the Will.* Cloth, 75 cents each. Full set, cloth, \$1.75.

Briefer Works by Max Mueller.

"The old fascination and still riper wisdom."
Watchman.

(1) *Three Introductory Lectures on the Science of Thought.* (2) *Three Lectures on the Science of Language.* Cloth, 75 cents each.

By Alfred Binet.

"An original and valuable contribution."
Evening Journal.

On Double Consciousness. New Studies in Experimental Psychology. Pages, 93. Paper, 15 cents.

By Ludwig Noiré.

"No Reason without Speech; No Speech without Reason."

On the Origin of Language. Pages, 57. Paper, 15 cents.

By Ewald Hering.

"A veritable little classic."

On Memory, and the Specific Energies of the Nervous System. Pages, 50. Paper, 15 cents.

The Works of Paul Carus.

"A good introduction to the study of philosophy."
The Scotsman.

(1) *The Primer of Philosophy.* A Simple and Concise Exposition. Pages, 242. Cloth, \$1.00.
(2) *Fundamental Problems.* A More Exhaustive Philosophical Treatise. Pp., 373. Cloth, \$1.50.
(3) *The Soul of Man.* A Treatise on Physiological and Experimental Psychology. 125 Cuts. Pages, 458. Cloth, \$3.00.

By the Same.

"Very clear."

The Nature of the State. Pages, 56. Paper, 15 cents.

World's Fair Lectures.

(1) *The Philosophy of the Tool.* Pages, 24. Paper, illustrated cover, 10 cents. (2) *Our Need of Philosophy.* Pages, 14. Paper, 5 cents. (3) *Science a Religious Revelation.* Pages, 21. Paper, 5 cents.

Philosophical and Psychological Portrait Series.

(Now Complete.)

Suitable for framing and hanging in public and private libraries, laboratories, seminaries, recitation and lecture rooms.

The portraits, which are 11 x 14 in., have been taken from the best sources, and are high-grade photogravures. The series is now complete.



HUME. (Original 11x14 in.)

	Philosophical :	
PYTHAGORAS	SPINOZA	HEGEL
SOCRATES	LOCKE	SCHLEIERMACHER
PLATO	BERKELEY	SCHOPENHAUER
ARISTOTLE	HUME	HERBART
EPICETUS	MONTESQUIEU	FEUERBACH
THOMAS AQUINAS	VOLTAIRE	LOTZE
ST. AUGUSTINE	D'ALEMBERT	REID
AVERRHOES	CONDILLAC	DUGALD STEWART
DUNS SCOTUS	DIDEROT	SIR W. HAMILTON
GIORDANO BRUNO	ROUSSEAU	COUSIN
BACON	LEIBNITZ	COMTE
HOBBS	WOLFF	ROSMINI
DESCARTES	KANT	J. STUART MILL
MALEBRANCHE	FICHTE	HERBERT SPENCER
SCHELLING		
	Psychological :	
CABANIS	MACH	ROMANES
MAINE DE BIRAN	STUMPF	PAUL JANET
BENEKE	EXNER	RIBOT
E. H. WEBER	STEINTHAL	TAINÉ
FECHNER	BAIN	FOUILLEE
HELMHOLTZ	SULLY	BINET
WUNDT	WARD	G. STANLEY HALL
HERING	C. L. MORGAN	G. T. LADD
AUBERT		

To Subscribers :

TERMS : For the whole series (68 portraits) on regular paper, \$7.50 (35s.); on heavy Imperial Japanese paper, \$11.00 (50s.).

The Philosophical Series, 43 portraits, Imperial Japanese paper, \$8.75 (40s.); the same on the best plate paper, \$6.25 (30s.). The Psychological Series, 25 portraits, on Imperial Japanese paper, \$5.00 (24s.), the same on the best plate paper, \$3.75 (18s.). (The higher prices in parentheses refer to foreign countries. Carriage prepaid.) Single portraits on regular paper, 25 cents.

For subscribers who may prefer not to frame the portraits, a neat portfolio will be provided at a cost of \$1.00 additional.

On Inspection : A specimen portrait will be sent to any reader of *The Open Court* giving his or her full business and home address on condition that it be returned within two days after its receipt, if not satisfactory.

"I have received the first instalment of the series of portraits of philosophers, and am very much pleased with them."—*Professor David G. Ritchie*, St. Andrews, Scotland.

"I congratulate you on the magnificent character of the portraits, and I feel proud to have such adornments for my lecture room."—*J. J. McNulty*, Professor of Philosophy in the College of the City of New York.



SPINOZA. (Original 11x14 in.)

THE OPEN COURT PUBLISHING CO.,

CHICAGO,
324 Dearborn St.

LONDON: Kegan Paul, Trench, Trübner & Co.

On the Study and Difficulties of Mathematics

By AUGUSTUS DE MORGAN.

New corrected and annotated edition, with references to date, of the work published in 1831 by the Society for the Diffusion of Useful Knowledge. The original is now scarce.

With a fine Portrait of the great Mathematical Teacher, Complete Index, and Bibliographies of Modern Works on Algebra, the Philosophy of Mathematics, Pangeometry, etc.

Pp. viii + 288. Cloth, \$1.25 (5s.).

“A Valuable Essay.”—PROF. JEVONS, in the *Encyclopædia Britannica*.

“The mathematical writings of De Morgan can be commended unreservedly.”—PROF. W. W. BEMAN, University of Michigan.

“It is a pleasure to see such a noble work appear as such a gem of the book-maker's art.”—PRINCIPAL DAVID EUGENE SMITH, Brockport Normal School, N. Y.

“The republication of De Morgan's work is a service for which you should receive high commendation.”—JOHN E. CLARK, New Haven, Conn.

THE OPEN COURT PUBLISHING CO., CHICAGO,
324 Dearborn St.
LONDON: Kegan Paul, Trench, Trübner & Co.

Lectures On Elementary Mathematics

By JOSEPH LOUIS LAGRANGE

Being the Course of Lectures Delivered at the École Normale, Paris, 1795

Translated from the French by THOMAS J. McCORMACK

With a Fine Photogravure Portrait of the Great Mathematician, Notes, Bibliographical Sketch of Lagrange, Marginal Analyses, Index, etc. Handsomely Bound in Red Cloth. Pages, 172. Price, \$1.00 net. (5s).

A Masterpiece of
Mathematical
Exposition

First Separate
Edition in English
or French

“I intend to recommend Lagrange's *Lectures on Elementary Mathematics* to the students of my course in the Theory of Equations, for collateral reading, and also to the teachers of elementary mathematics who attend my summer conferences on the Pedagogy of Mathematics. I trust that this valuable translation is but the forerunner of others in the same field by your house.”—*J. W. A. Young*, Professor of Mathematics in the University of Chicago.

“The book ought to be in the hands of every high-school teacher of mathematics in America, for the sake of getting Lagrange's point of view.”—*Prof. Henry Cress*, Northwestern University, Evanston, Ill.

“Can we not get Lagrange before the mass of the teachers? No teacher should teach elementary mathematics who has not mastered the matter represented by this work.”—*L. Graham Crozier*, Knoxville, Tenn.

“Teachers of elementary mathematics, who desire to improve their methods of instruction, adding richness and vitality to the subject, should read this book.”—*American Mathematical Monthly*.

THE OPEN COURT PUBLISHING CO., CHICAGO,
324 Dearborn St.
LONDON: Kegan Paul, Trench, Trübner & Co.

The Principles of Bacteriology

By DR. FERDINAND HUEPPE

Professor of Hygiene in the University of Prague

Translated from the German and annotated by *Edwin O. Jordan*, Ph. D., Assistant Professor of Bacteriology in the University of Chicago. 28 Cuts. Five Colored Plates. Pages, 465 +. Price, \$1.75 (9s.).

Invaluable Information for the Physician, Scientist, and General Reader.

Bacteriology is now in a state of transition. From having been descriptive and classificatory, it is now becoming a genuinely organised body of scientific knowledge, with its own principles, its own methods, and independent powers of scientific inference. Dr. Hueppe's book represents this latest phase of development. He seeks to give to his science a critical and logical setting, and to free it from all metaphysics. It is on its philosophical character, in fact, that the greatest emphasis must be laid. The book is new, just translated, and may be regarded as the only rigorous and strictly scientific introduction to bacteriology yet written.

Press Commendations of the Original.

'Those who have already followed Professor Hueppe through his 'Methods' and through his 'Forms of Bacteria' will be quite prepared to find here a philosophical treatment of bacteriology such as has seldom been attempted; in place of a mere repetition of methods and enumeration of species Professor Hueppe has grappled with the fundamental questions concerned and has in clear language given a cogent, philosophical, and scientific account of bacteria and their relations to the processes with which they are said to be associated. . . It is the work of a master of the subject, who is not only a scientific man in the sense of being an observer, but also in the sense of having a truly philosophical mind.'—*The Lancet*, London.

"Books of bacteriological technique have been somewhat common in recent years but nothing has hitherto appeared which, leaving out laboratory methods and systematic details, gives a summary of the important discoveries of modern bacteriology. . . . To any one who wishes to know what bacteriology has accomplished and what problems are still undergoing solution, nothing can serve better than this outline of Professor Hueppe."

"This work of Professor Hueppe is useful to two classes of readers. Those who are not bacteriologists, but who desire to learn the general facts which the last quarter of a century has discovered, will find here a brief but intelligible summary. Those who are already familiar with the general facts will, perhaps, find the book of even more value in giving a clear and simplified conception of the various confusing facts which have so rapidly accumulated in recent years."—*Science*, New York.

THE OPEN COURT PUBLISHING CO., 324 Dearborn St., CHICAGO.

LONDON: Kegan Paul, Trench, Trübner & Co.

THE MONIST.

A QUARTERLY MAGAZINE

Devoted to the Philosophy of Science.

PUBLISHED BY

THE OPEN COURT PUBLISHING COMPANY, CHICAGO, ILL.

MONON BUILDING, 324 DEARBORN STREET. POST-OFFICE DRAWER F.

Annually \$2.00 (9s. 6d.). Single Copies, 50 cents (2s. 6d.).

AGENTS AND TERMS OF SUBSCRIPTION.

	SINGLE COPIES	YEARLY
LONDON: Kegan Paul, Trench, Trübner & Co., Paternoster House, Charing Cross Road	2s. 6d.	9s. 6d.
LEIPSIK: Otto Harrassowitz	M. 2.50	M. 9.50
ROTTERDAM: H. A. Kramers & Son	—	Fl. 6.60
TURIN: } Libreria Carlo Clausen	—	Lire 12
PALERMO: } Ulrico Hoepli, Librario della Real Casa	—	Lire 12
MILANO: } Damrell & Upham, 283 Washington Street	50 cents	\$2.00.
BOSTON: } Lemcke & Buechner, 812 Broadway	50 cents	\$2.00.
NEW YORK: }		

Postpaid to New South Wales, Victoria, Queensland, Tasmania, and New Zealand, and all countries in U. P. U., for one year, \$2.25.

Recent and Forthcoming Features:

A Series of Articles on General Philosophy. *Principal C. Lloyd Morgan*, Bristol, England.

Myths in Animal Psychology. *Prof. C. O. Whitman*, Chicago

A Study of Job and The Jewish Theory of Suffering. *Prof. J. A. Craig*, Univ. of Mich.

The Primitive Inhabitants of Europe. *Prof. G. Sergi*, Rome.

On General Biology. *Prof. Yves Delage*, Paris.

On Pasigraphy. *Prof. E. Schröder*, Carlsruhe.

On the Foundations of Geometry. *Prof. H. Poincaré*, Paris.

On Science and Faith. *Dr. Paul Topinard*, Paris.

On the Education of Children. *Dr. Paul Carus*.

General Review of Current German, French, and Italian Philosophical Literature. By *Prof. F. Jodl*, Vienna
M. Lucien Arréat, Paris, and *Prof. G. Fiamingo*, Rome.

SOME RECENT CONTRIBUTORS:

In General Philosophy:

PROF. KURD LASSWITZ
PROF. RUDOLF EUCKEN
PROF. F. JODL
THE LATE PROF. J. DELBŒUF
PROF. C. LLOYD MORGAN

In Logic, Mathematics, Theory of Science:

CHARLES S. PEIRCE
PROF. FELIX KLEIN
SIR ROBERT STAWELL BALL
PROF. ERNST MACH
PROF. HERMANN SCHUBERT

In Biology and Anthropology:

PROF. AUGUST WEISMANN
PROF. C. LLOYD MORGAN
PROF. JOSEPH LeCONTE
PROF. MAX VERWORN
DR. EDM. MONTGOMERY

THE LATE G. J. ROMANES
PROF. C. O. WHITMAN
DR. PAUL TOPINARD
DR. ALFRED BINET
PROF. JACQUES LOEB

PROF. ERNST HAECKEL
PROF. TH. EIMER
PROF. E. D. COPE
PROF. C. LOMBROSO
DR. JAMES CAPPIE

In Psychology:

PROF. TH. RIBOT
PROF. JAMES SULLY
DR. G. FERRERO
DR. J. VENN
DR. ERNST MACH
PROF. C. LLOYD MORGAN

In Religion and Sociology:

DR. PAUL TOPINARD
DR. FRANCIS E. ABBOTT
PROF. HARALD HOFFDING
DR. PAUL CARUS
PROF. G. FIAMINGO
PROF. E. D. COPE

THE OPEN COURT PUBLISHING CO., 324 Dearborn St.,
CHICAGO

JUST PUBLISHED

The Psychology of Reasoning

BASED ON EXPERIMENTAL RESEARCHES IN HYPNOTISM. By ALFRED BINET, Doctor of Science, Laureate of the Institute (Académie des Sciences and Académie des Sciences Morales), Director of the Laboratory of Physiological Psychology in the Sorbonne (Hautes Études).

Francis Galton's Commendation:

"Clear and solid, and deserves careful reading two or three times over."
—Francis Galton.

Translated from the recent second edition by *Adam Gowans Whyte, B. Sc.* Pages, 193. Index. Cloth, with gilt top, 75 cents (3s. 6d.).

THE OPEN COURT PUBLISHING CO., CHICAGO,
324 Dearborn St.

LONDON: Kegan Paul, Trench, Trübner & Co.

Mathematical Essays and Recreations

By HERMANN SCHUBERT

Professor of Mathematics in the Johanneum, Hamburg, Germany.

Translated from the German by THOMAS J. McCORMACK.

Pages, 149. Cuts, 37. Price, Cloth, 75c. (3s. 6d.).

Contents:

Notion and Definition of Number.	The Magic Square.
Monism in Arithmetic.	The Fourth Dimension.
On the Nature of Mathematical Knowledge	The Squaring of the Circle.

The mathematical essays and recreations in this volume are by one of the most successful teachers and text-book writers of Germany. The monistic construction of arithmetic, the systematic and organic development of all its consequences from a few thoroughly established principles, is quite foreign to the general run of American and English elementary text-books, and the first three essays of Professor Schubert will, therefore, from a logical and esthetic side, be full of suggestions for elementary mathematical teachers and students, as well as for non-mathematical readers.

THE OPEN COURT PUBLISHING CO., CHICAGO,
324 Dearborn St.

LONDON: Kegan Paul, Trench, Trübner & Co.