1. Essays American

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Anderson

PAPERS AND ADDRESSES

PAPERS AND ADDRESSES

OF

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"Yet I argue not
Against Heaven's hand or will, nor bate a jot
Of heart or hope; but still bear up and steer
Right onward"

—Milton

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PHILOSOPHICAL
AND SCIENTIFIC PAPERS

I

THE ORIGIN AND POLITICAL LIFE OF THE ENGLISH RACE

PUBLISHED IN "THE CHRISTIAN REVIEW," JANUARY, 1850

IN this day of revolutions, when a total reconstruction of human society and government is fiercely called for by reformers who act on the assumption that there has been no God in the past, and that whatever *is* is necessarily wrong, it may be well for us to turn our attention to those laws of growth by which the Supreme Being indicates his will in the affairs of nations. The experience of the past in history is but the revelation of God's will. Whatever system of polity is constructed in bold disregard of the normal development of the political life of a given nation contains within itself the germs of disorder and decay. . .

We belong to a widespread and ancient race, and it may be interesting and important for us to ascertain as far as possible our moral and intellectual position in the world's history. Every nation and every race has such a position in the moral geography and chronology of the world, and the importance of this position is the measure of the significance and value of its history. History is not necessarily valuable as describing the actions of beings who have borne the human form, but as it marks the means and the relative rapidity of human

development, of human progress. The tribe of Semitic slaves fleeing from the avenging sword of the Egyptian to the desert valleys of Mount Sinai is of more importance to the world than all the arts and learning of the kingdom of the Pharaohs, for they were to be the depositaries of that wonderful Hebrew book which has made such a mark on the progress of the human race. The destruction of one Swiss canton or one New England State would be a greater loss to the world than that of whole nations of Siberians or Tartars.

There are historical races as well as historical men. The hope of our world hangs, humanly speaking, on a very small portion of its vast population. This portion consists of those races whose moral position is in advance of the rest of mankind. On their fidelity in the discharge of their trust depends the character of the future. God guides these races. He uses them for his high and holy purposes. He sends a Moses and a fiery pillar and a cloud to lead the Hebrews from bondage to freedom, for he has a work for them to perform. He trains them to obedience and civil order by a forty years' sojourn in the wilderness. He sends them seers with light from heaven; and even in their terrible punishments for degeneracy and sin, when with a mark set upon them they become a byword and a hissing and a shaking of the head to the nations, they bear in their inflexible enthusiasm and power of endurance the impress of the archangel ruined. God gave intellectual acuteness and the delicate sense of beauty to the Greeks, "the vision and the faculty divine," that they might show to all the world that neither beauty embodied in the

choicest forms of plastic art, nor poetry such as flowed in the liquid numbers of the Ionic ballad, "the tale of Troy divine," or swept over the solemn harp of Æschylus, or poured forth in stormy dithyrambics from the deep-throated Pindar, nor eloquence such as "shook the arsenal," nor philosophy such as Socrates brought from heaven and Plato taught beneath the plane trees of the Academy, was powerful enough so to train and educate a race that it could impregnate the world with the germs of moral order and progress. God gave Rome to be the legislator of the ancient world, that the power of organization and law without a basis in the law of revelation might be tried in their utmost perfection, that the capacity of a military aristocracy with its arms of iron might be tried to resist the tendency to disintegration in ancient society, without a moral power to change the heart and introduce the pulses of a new life into the veins of the dying nations. It is foreign to our purpose even to allude to more of the historical races of earth—to the theocracy of Egypt, to the priestly and military castes of the East, to the recently disinterred monuments of Assyrian glory.

Belonging as we do by our lineage to the Teutonic stock, and consequently, in the ordinary sense of the term, to the modern world, we often speak of ourselves as of modern origin, as if our blood and institutions were of yesterday. Though the English nation, properly speaking, had its rise when the standard of the "white horse" was unrolled by the Saxon and Norse pirates on the shores of Britain; still, as an integral portion of that great tribe of peoples stretching from the Ganges to

Iceland, we are ancient. Our ancestors were not separated by an impassable gulf from the "gray fathers" of the Old World. We are not destitute of the evidence of a remote past. "We are of earth's first blood, and our language is the title-deed of our descent." Our noble mother-tongue received its "form and pressure" and drew the springs of its life from the high plains of Western Asia. Every sentence we utter tells the comparative philologist that the fathers of the stern Romans and of the elegant Greeks were our fathers also, and that the swarthy Brahmin of the Ganges and the fire-worshiper of the land of Zoroaster belong to the same wide-extended family of nations. A nation or a race has a life as well as an individual man, and all its history is the development and modification in various ways of that kind of mental activity and moral character that makes this life distinct and peculiar.

Our national life has been drawn from that combination of Saxon and other Teutonic elements known by the name of Anglo-Saxon. Let us dwell for a moment upon the circumstances under which it was at first developed. We may suppose that the primary cause of the last great German migration to Great Britain was the extended movement of nations which followed the irruption of the Huns into Europe. The German warriors who had for so many centuries withstood the power of Rome, who under Arminius had cut in pieces the legions of Varus, divided, defeated, and disheartened, were swept on in the whirlwind of the Hunnic cavalry, and compelled to relinquish their ancient seats by the general displacement of the

nations which followed. They were in part forced to seek a retreat beyond the sea, and eagerly followed the standards of Hengist and Cerdic, of Ella and Edda, to the island where their descendants were destined to play such a part in the drama of history. The mighty heart of Rome had nearly ceased to beat, and the life-blood of her power was no longer sent to the extremities. The hour of her final agony was drawing nigh, hastened on by the hordes of Genseric and Attila.

It was in all parts of Europe a time of confusion and turmoil, but it witnessed the birth of the modern world. The Burgundians and the Visigoths had encamped in southern Gaul under the administration of the patrician Ætius. The Ripuarian and Salian Franks were gathering their tribes on the western banks of the Rhine, soon under Clovis to smite down the Romans at Soissons and the Visigoths at Vougle, and lay the foundations of the empire of St. Louis and Napoleon. The very year before the landing of the Saxons in Britain—if we may trust the uncertain chronology of this dark and turbulent period—the great question had been decided on the plains between the Seine and the Marne, whether the Mongol or the German should give law to the forming empires of western Europe. Attila, the "Scourge of God," was met at Chalons, and in that dreadful battle, whose story is invested with such horror by the poets and chroniclers of the time, was driven back finally from the West. The century during which—if we follow the chroniclers—the Saxons were effecting the conquest of Britain, was rendered memorable in the Eastern Empire by the reign of Justinian, the codification of the Roman

law, and the short-lived triumphs of Belisarius and Narses. It was an age of movement and disorder and apparent confusion. But in the midst of these chaotic elements we can now see the workings of Providence. These masses of barbarian life were soon to arrange themselves into strata of races, and harden and crystallize into the crust of modern society.

It is foreign to our present purpose to enter into an ethnographical examination of the number and relative proportion of the elements which have contributed to form the English race. It is enough for our present purpose to state what will be admitted by all, that the mixture of elements which we are accustomed to call by the name of Anglo-Saxon, is that which has given character to, or dominated all others. It has overlaid the Celtic below it, and absorbed the Norman above it, while it has pervaded and given character to everything that is distinctive in English social life, polity, language, and literature. The ancient Britons have given very little of the form and pressure to English law, government, or character. We suppose, though contrary to the general opinion, that large numbers of the Celtic inhabitants were enslaved in the centuries of war between them and the Saxons and Danes, and formed at a later period the body of *theows* in Saxon times, and the serfs that cultivated the feudal acres under the successors of the Conqueror, the *villains regardant* and *villains in gross*, described by Littleton, and still later the poorer tenants-at-will and the holders of small farms by servile tenure. The Norman-French army of William, in connection with the few wealthy Saxon families who managed

by timely submission to save their estates, formed the old feudal nobility and gentry, and are to this day represented by the more ancient noble and gentle English families. If we may credit the account of William of Malmsbury, the Normans were superior to the Anglo-Saxons in education and in the cultivation of the arts of civilized life. Having been placed by the events of the Conquest in the position of lords of the land, freed from all apprehension of want and from the necessity of labor so long as the ascendency of their own race should continue, they necessarily were soldiers and politicians. The high places in the church too, were filled by those of the dominant race, whose cupidity or ambition could be thus gratified.

The Normans, thus holding the soil of England by conquest, and consequently all offices of emolument and honor and trust, gained power by the exercise of their faculties, and for a time outstripped the ruder Saxons in the march of civilization and improvement. They formed what, in the language of Burke, may be called "the Corinthian capitals of society." They have given tone to the order which they founded; and as in the process of time men of talent have fought and forced their way from other races into the ranks of the English nobility, they have become imbued with the old Norman traditions, and have become partakers of the spirit of those fierce barons who received the titles to their broad acres from the sword of the Conqueror. Though much that is great and worthy in the English annals is connected with this race, it cannot be denied that they have been in every age, as a whole, the oppres sors of the people. They have had interests apart

from the body of the nation. They have been a foreign element in the State. The spirit of caste, their landed estates, their hereditary privileges, have placed them under the most powerful temptations to be recreant to the cause of progress and freedom. Whoever from their ranks espouses heartily and efficiently the cause of the people, is so far false to his order and to his own family interest. Every step of real advance on the part of the masses of the English population renders the hold of the nobles upon their privileges less strong.

Beneath these Corinthian capitals of English society stand the plain shafts of the columns of English power, the middle classes, those who form the rank and file of the nation, the substantial citizens and merchants in the towns, and the yeomanry in the country. These are the representatives of the Anglo-Saxon portion of the population. This class has, in every age, been the depositary of those privileges and principles, those aspirations after liberty, and that jealousy of oppression, that are birthrights and characteristics of the "true-born Englishman." This portion of the English people has infused its spirit into the lower orders, who are the descendants of the old servile part of the population, and have continually assisted them in forcing their way upward, and in claiming their proper influence in society and government. These men, intermediate between the highest and lowest strata of English society, have formed the House of Commons. They consolidated the Reformation. They smote down Charles I. and Laud. They carried the Petition of Right. They formed the armies of Cromwell. They expelled the Stuarts. They have

emancipated the Catholics, they have passed the Reform Bill, and repealed the Corn Laws. We do not mean to intimate that members of the aristocratic order have not contributed, more or less, to all these objects, but the great body of the nobility has been their opponent.

Doubtless the distinction of races in England has been made to account for too many facts by such men as Michelet and Thierry, and we are not unaware that historical generalizations, like all others, contain in them an element of error, inasmuch as they are inadequate statements of specific facts in the same degree that they are general. Individual exceptions to these statements occur spontaneously to the minds of all persons at all familiar with English history. Still, we believe that an accurate classification of all the known facts will sustain the views which we have given. English historians do not, for obvious reasons, wish to give prominence to the facts which show that the distinction of orders and privileges in their constitution had its origin in a barbaric conquest in which justice and mercy were alike disregarded. Nevertheless, we should remember that the person who in modern times most successfully directed attention to this view of the distinctions in English society was a high Tory and a profoundly learned black-letter scholar—the Wizard of the North, the author of "Ivanhoe." Thierry, who acknowledges Scott as his master, has given for his views an array of authorities more copious than any other historian of that period; and we are not aware that any formal refutation of the general views of Thierry has been attempted, further than what may be implied in the

suggestion of modifications where the French love of generalization has carried him too far. It should be borne in mind also, that the statements which we make have reference to the English part of England, exclusive of any discussion of the influence of that portion of the Celtic inhabitants who made their strongholds in the mountains of Wales and Cumberland.

In the process of centuries, these two strata of population have nearly changed places. The shrinking and fearful commoners, who were summoned *ad consentiendum*, merely as a form, who debated on matters of State in constant peril of their ears or the dungeons of the Tower, have become the great power in the State. The lords, once the great hereditary council of a monarch nearly absolute, now find their chief duty to consist in feeble attempts to clog the action of the lower house, or in quietly registering its decrees. In spite of all its ancient glories, the House of Peers has become a mere nullity in the majestic presence of the Commons of Great Britain. Whatever may be said of the amalgamation of the Norman and Saxon races in England, no one can deny that their spirit and traditions are severally retained by the nobility and commonalty of the present day. The watchwords, the feelings, the inner life of these two classes are as really Norman and Saxon as they were in the days of William Rufus or Richard Plantagenet. The life of races outlives centuries of revolution, of progress, and change.

Again, the colonies of England have gone forth mainly from the Anglo-Saxon portion of her people. The nobility and gentry have had in general no

motive for leaving permanently their native country, and until lately the ancient servile portion wanted the means and the enterprise to emigrate. This naturally leads us to speak of ourselves as a part of the English race. We are too much accustomed to speak of our countrymen as a separate people from those of the mother-land. But, however we may be separated from her by the broad Atlantic, and distinguished by a part of our religious and political institutions, we cannot forget that not only our language and literature, but all the essential foundations of our social and political fabric, belong not so much to us as to the race of which we form a part. Moreover, our institutions and national character have been drawn pre-eminently from that element which makes up the great middle class of English society.

The struggle between the Puritans and Cavaliers was, in its leading features, marked by the original distinction between Saxon and Norman. While we admit that there were individual instances in which this distinction will not hold, we still believe that the great body of the supporters of Charles I. and Laud were representatives either in blood or spirit of the old Norman families. It is true that the lowest portion of the peasantry followed in general the opinions of the landed gentry and nobility, whose tenants they were, with a sort of mechanical stupidity, and were good Protestants under Edward VI. and good Catholics under Mary. But this was by no means true of the best portion of the middle class. The stronghold of Protestantism at the Reformation, and of Puritanism during the Commonwealth, was among those who formed the

middle stratum of the English population, the sturdy descendants of the Anglo-Saxons, at an equal remove from degradation on the one hand and effeminate refinement on the other. It was from this portion of the English people that the great mass of the colonists of America sprang, and though other races have mingled freely with them, they have given the stamp to our national life and character. The American colonists, then, as a body have sprung from the heart of the English nation, not from the highest nor from the lowest portion in point of rank, but from those who have been the originators and guardians of all that is noble in the career of England. The United States is another England, relieved from the crushing weight of an aristocracy and a State hierarchy on the one hand, and from the servile and degraded poor who lie at the base of the social fabric on the other. We are sprung from the best blood of the race, the solid, hardy, liberty-loving Anglo-Saxons, having a slight intermixture of the Norman and Celtic, to give life and mobility to the less showy but more manly and vigorous original stock.

We have no sympathy with that false patriotism that affects to consider it disgraceful to owe the foundation of our literature and character and political institutions to the noble land of our fathers. Our national recollections, our great ideas, are a common inheritance that has not been divided among the heirs. Our fathers sat in the *Witenagemote* of Alfred. They fought with Harold at Hastings, and rallied in the ranks of the retainers of the Barons at Runnymede. They charged the French knights with their clouds of clothyard

arrows at Agincourt; they followed Richard of the lion heart to the land of the Saviour, and formed the mailed bands that planted the cross of St. George on the towers of Acre and Joppa and Ascalon. They laughed over the satire of Piers Ploughman and the Mirror for Magistrates, and followed with childish delight the journey of the Canterbury Pilgrims with Chaucer. They read with solemn joy the quaint pages of Wycliffe's Bible, and listened with young enthusiasm to the "wood notes wild" of the Swan of Avon. It was for the ancient and undoubted privileges of Englishmen that our fathers contended unto blood during the colonial and revolutionary period. The old customs brought from the woods of Germany and incorporated into the English common law are administered by every justice of the peace from Maine to Georgia. The decisions of Westminster Hall are cited as authority on the circuits of our Western forests and in the august assembly of the judges of the Supreme Court of the United States.

This race is substantially one wherever it has been planted. Its influence and character may for general purposes be considered as uniform, however it may temporarily have been affected by the admixture of foreign elements. This race too has spread over the world, and has carried with it everywhere its own peculiar life and power.

Such is this English race. We have now to ask, what has it done in the past and what may we expect from it in the future? An answer to this question would involve the development of its political, intellectual, and moral life—its government, its literature, and its religion. But at present

we propose to limit our remarks to the first of these three topics.

It has been pretty generally admitted that in the science and practice of State building the English are in advance of all other men. This we might take for granted; but it may be made to appear with additional distinctness if we can ascertain some of the elements, aside from the inherent power of the race, that have kept alive that system of laws and polity which has been the foundation of free States wherever it has been planted. What then is the inner life, the germ of that political organism which the race has carried with it in all its wanderings from Australia to Oregon, and which has everywhere been fruitful of freedom and blessing? Much has been written on the Constitutions of England and of the United States which does not touch the peculiar principle that forms their distinguishing characteristic. This principle, for the sake of brevity, we shall call the *confederation of distinct local governments*. It was to a certain extent common to all the Teutonic tribes, and was founded on the feeling of personal independence which marked those fierce barbarians that conquered Rome. This led them to be jealous of centralization, and to adopt a government that provided in the highest degree for the security of personal rights.

So far as our knowledge of the German and Scandinavian tribes in early times extends, we everywhere find traces of local governments springing from the will and power of the people of the district governed. This local or rather personal government of small bodies of men, was the differential element, the "original monad" of Teutonic

political society. These distinct governments were formed primarily not with reference to the State, but with reference to the convenience and liberty of the individual man; and general governments or States were integrations from this differential element. It has been the habit of most English historians and lawyers, in accordance with the notion that the king is the fountain of justice, to represent all local courts to have received their power from the central government of the State, in which, to adopt the language of Blackstone, "as in a general reservoir, all the executive authority of the law was lodged, and from which justice was dispersed to every part of the nation by distinct yet communicating ducts and channels." Blackstone uses these words when, following the monkish chronicler Ingulphus, he attributes to Alfred the division of England into counties and hundreds. Now it is clear that these territorial subdivisions existed wherever the Teutonic nations have been planted, and moreover that in every case the power of the crown has originally been drawn from the local organization—instead of the contrary process.

Among the Scandinavians the integral community was the "*hærad*," or hundred—or perhaps the quarters, or tithings, which existed within the *hærad*. Among the old Swedes the chief man of the *hærad* was called the "*heradzhoffding*." When this office became vacant, the "*laghman*," or head of the shire, in which larger division the *hærad* was included, summoned a meeting of the men of the hundred, who chose twelve men, who with the *laghman* were to elect three persons from the hundred, one of whom was to be the *heradzhoffding*. This

boy's Cæsar tells him that all Gaul is divided into three parts, occupied respectively by the Aquitani, Celti, and Belgæ. It tells him in another place that the Belgæ were Germans; and the general idea of scholars, until the beginning of the present century, was that the Aquitani or Basques, south of the Garonne, though speaking a special dialect, were a part of the great Celtic stock. This was the opinion of the celebrated Edward Lluyd, and it was from him quite extensively adopted. Although a grammar of the Enskara was published in Mexico in 1607, and another by the Jesuit Larramendi in 1729, yet little was known of the language by scholars until the publication of the "Mithridates," by Adelung. This at once showed the language to be unrelated to any of the European tongues, except by some remote grammatical analogies to the Finnic, Hungarian, and American languages. Subsequent analysis of the local geographical names of Spain revealed to W. Von Humboldt the identity of the Enskara and the ancient Iberian tongue, and gave evidence of original occupancy by the Basques of a large part of the Spanish Peninsula, and also unmistakable traces of an extension of the stock into the adjacent countries in the south of Europe. Early ethnological investigators met with insuperable difficulties in admitting the correctness of Cæsar's designation of the Belgæ as Germans. The Belgic language of Gaul, whatever it was, had been superseded by the Latin and French, and it had left no literature. The Belgæ of Britain were clearly Celtic. In this dilemma Pritchard made a minute analysis of all the old geographical names of the region, connecting them with the people by the per-

sonal appellatives preserved by the ancient historians and geographers, and especially by Cæsar. The result was unmistakable evidence that the body of the Belgæ, with the exception of some intrusive German tribes, must have been Celtic, speaking a language, probably, varying from the other portions of Celtic Gaul, as Welsh varies from Gaelic.

Although the Gauls laid aside their mother tongue with a facility which perhaps finds no parallel in history, and adopted the Latin, we find throughout their territory fragments of their ancient speech similar to those which identified the Belgæ of Cæsar with their Celtic neighbors. Among the inhabitants of Lower Brittany we find still extant a Celtic language with a considerable amount of popular literature, collections of which have been made by Villemarque. This illustrates the tenacity of language, even in the country most commonly cited as an example of the unreliable nature of philological marks in classifying tribes of men. The slight influence of Norse and German elements in the language of France is explained by the fact that the Germans came into Gaul as conquerors, few in numbers and without a literature. The best authorities estimate the army of Clovis as low as six thousand men. Other and separate German tribes spread themselves gradually among a people possessing already a rich literature, fixed organization, and the assimilating force of Christianity. The Franks spoke the Tudesque, for a time, among themselves; but becoming Christians and being compelled, like the Normans in England, to use the language of the majority, they left but a partial deposit of their vocabulary in the French tongue.

This deposit, however, is largely traceable in personal names, political distinctions, and provincial dialects. That portion of Gaul which was really German in the time of Cæsar—the watershed facing the Lower Rhine—is German still in blood and to a great extent in language. The Normans came to Neustria with a Scandinavian speech, but they were sea-robbers and few in number, and of necessity intermarried with the Gallo-Roman population, among which they settled by treaty, rather than by conquest. The people of the Channel Islands are Norse; the names of towns and families are, to some extent, Norse. William the Bastard understood Norse. The language was spoken at Bayeux some time after the battle of Hastings. The philology of Normandy, when it shall be minutely explored, will undoubtedly reveal more fragments of the dialect of these early filibusters than we at present are aware of. Here, as almost everywhere, the majority ruled in the matter of languages, and the children spoke what they heard from their mothers.

The great work of M. De Chevaillet, "*Origine et Formation de la Langue Française*," just completed, adds immensely to the estimate hitherto made of the amount of Celtic and Gothic elements in the French language. This learned and elaborate work proves that in taking on the Latin language, in its earlier or later forms, the Celts and Germans have left a large deposit of their words in the new formation, and that these fossil-remains of the tongues supposed to be extinct would enable us, even in the absence of history, to connect the modern French with the fierce and patriotic antagonists of Cæsar, and the barbarous Franks who gave their name to

the magnificent domain of Charlemagne, St. Louis, and Napoleon.

The Celtic has ceased to be spoken in England proper, and the fact is often cited as a proof of the failure of language to mark blood. But when we examine the family and geographical names of England, we find constant evidence of the past and present existence of a Celtic element. The German incursions were from the east, and the Celtic blood and names regularly increase as we go westward. We find remnants of the ancient language just where history and deduction would lead us to expect the most of ancient blood. Moreover, the class of common Celtic words retained in the English is just such as we should expect from the relations established between a conquering and a conquered people. The list of Celtic words in modern English which are not common to the Indo-European languages, collected by Garnett, refers almost entirely to servile occupations. In Cornwall the English has overcome the Cornish within the last hundred years, but Cornish words are spread over the whole district and population of Cornwall. Even the common distich regarding names,

> *Tre*, *Val*, and *Pen*,
> Mark the names of the Cornish men,

is a proof of the fact.

The Celtic race was considered to stand apart from the whole body of the Indo-European stock until the publication of Dr. Pritchard's "Eastern Origin of the Celtic Nations," which was announced in 1813, but was not published till several years

later. This gave a new impulse to Celtic ethnography, which has been followed up by Bopp, Pictet, and Meyer, with such success, that the affiliation of the aborigines of France and the British Islands with the great Aryan family is almost universally admitted. The only substantial question still at issue is the period at which the Celts broke off from the common stock. That there is a connection all admit. Even their mythology is so clearly Aryan that Lappenberg has, with good reason, called the Druids the "Brahmins of the North." It is found, however, that the relation of the Celtic to the general Aryan family is by no means so close as that of the other members to each other. Their geographical position indicates an earlier migration westward than can be affirmed of any other members of the family. Minute examination of Celtic philology accords remarkably with this supposition. Though a certain amount of affinity between the families in question is clearly proved, it is only by extending the limits of the Indo-European family that the Celtic can be included within it. The Celtic languages seem to be a transition stock between the agglutinated and the syllabic tongues proper. As compared with the other members of the class, it is represented to have, among others, the following peculiarities:

1. Its declension of nouns is exceedingly scanty. In the Irish alone there is found a form for the dative plural in *aibh*cos=foot, cos-aibh=*pedibus*. "Beyond this," says Latham, "there is nothing else whatever in the way of case" as found in the other tongues of the class. Even "this isolated form in question is not found in Welsh and Breton."

2. The Celtic differs from the Indo-European class, in the agglutinate character of its verbal inflections.

3. It differs by the system of initial mutations. The system of transmutation of initial consonants, says Dr. Charles Meyer, is "the peculiarity of the Celtic, by which that language is distinguished from all others." We have seen that the Celtic tongues are deficient in case-endings. This deficiency is made up by a change in the initial letter of the noun, according to its relation to other words in a sentence. These changes follow according to a certain law, in which the euphonic and grammatical changes seem, to a certain extent, to coalesce with each other and form one consolidated system.

We have given these illustrations of the Celtic grammatical system, to show with what completeness both the similarities and differences between the Celtic and other members of the Indo-European family of tongues coincide with the actual facts of history and geography. Traces of a deposit of Celtic speech which are found in Germany, Spain, and Northern Italy, show that, historically, it antedated other tongues in the occupancy of Western Europe, as much as the partial development of its inflectional system shows it to have preceded them in the time of its separation from the parent stock.

An hypothesis, suggested originally by Arndt, but identified with the name of Rask, who first fully developed it, deserves a passing notice in this connection. It was found that certain fragmentary peoples were scattered over Europe, whose languages

could not be classified with any existing European tongues. These are the Lapps, Fins, Esthonians, Basques, and Skipetar or Albanians. The three first-named peoples, though differing physically to a considerable extent, were found to agree so entirely in their language, that they are considered ethnologically one stock. Taking this as a hint, Rask developed the idea that a body of people disconnected in stock and language from the Indo-European families were the aboriginal inhabitants of Europe, and that possibly these discontinuous areas or islands of speech were the outcropping peaks of a primitive linguistic and tribal formation. This pregnant philological hint has led the way to a series of investigations into the contents of ancient barrows and burial places, resulting in a critical classification of weapons of war, utensils, and skulls, in the light and under the guidance of this single idea. The labors of Castren and others have connected the Finnic race with the inhabitants of northern Siberia. Gyarmarthi had long before this pointed out the affinities between the Finnish and the Magyar languages. Subsequent investigation has affiliated the Hungarian with the speech of the Vougouls and Ostiacks north of the Caspian sea. Students of the Basque have not, so far as we know, shown an affinity between it and the Finnish, beyond a remarkable similarity in its grammatical structure, which, like that of the American languages, is highly agglutinate or polysynthetic. The Skipetar have been probably identified with the ancient Epirotes, but their language, supposed by some to be Indo-European, still waits for its permanent classification. Whatever may be

the ultimate fate of the Finnic hypothesis, it has given an impulse and direction to ethnological inquiry, in all its departments, which has already wrought out most brilliant results. Set forth and illustrated by a philologist whose genius has rarely if ever been surpassed, it may justly be claimed as a practical contribution of philology to ethnological science.

We have already exceeded our proper limits. We trust, however, that sufficient proofs have been given to beget the conviction in a scientific mind that comparative philology, so far from being of "no value" in ethnological classification, holds in fact a relation to inquiries into the physical history of man, similar to that which paleontological studies sustain to physical geology.

III

SIR WILLIAM HAMILTON'S LECTURES

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FOR learning, acuteness, and vigor, in their happiest combination, few men have equaled, and still fewer have surpassed, Sir William Hamilton. . . We believe his knowledge, in extent and exactness, to have been equal, if not superior, to that of any man of his time. He was distinguished for his legal learning while at the bar. His acquaintance with anatomy and physiology was worthy of a professional naturalist. He introduced into Great Britian a new era in the history of education and learned schools. His analysis of the evidence bearing on the authorship of the "*Epistolæ Obscurorum Virorum*," is a model, both for its acuteness and historical learning.

As a critic, and expositor of philosophical systems, it may be questioned if the world has furnished his equal. He was pre-eminently a master in criticism; and from the predominance of the critical and dialectic over the inductive and constructive tendencies in his mental constitution, it has seemed to us that he just falls short of taking a place among the greatest philosophers of the world. In the exposure of pretension, and the detection of false claims to learning or discovery, he was searching and merciless, and showed a zeal amounting to absolute fierceness. . . The polemic character of

most of Hamilton's works may have given rise to many of those extreme statements which require modification in order to be adopted for scientific truth. His power as a critic has doubtless deterred his contemporaries from expressing their dissent from his views, and deprived him of the benefit which such criticism would have conferred. The brilliancy of his genius and the extent of his learning have so impressed, and even oppressed, the minds of his pupils and followers, that it seems impossible for their mental activity to deviate from the grooves which the great master has plowed for them.

The philosophical system of Hamilton, must be gathered from a careful reading of his complete works, and a careful comparison of the various portions of them with each other, having reference always to the circumstances of the writer, and the points of view from which at successive periods he looked at the subjects discussed. It is just to say that, in spirit and intention, he adopts the cautious and reverent method of the great founder of Scottish philosophy, Thomas Reid. The system of Reid he has clarified and supplemented. He has reduced it to logical order, fixed its foundations and vindicated its claims, with such learning and power that he has become the second founder of Scottish philosophy. He has done for it a work greater than that achieved for the Newtonian physics by the exhaustive analysis of Laplace. Where Hamilton has swerved from a cautious and sound method, we trace the influence of the system and terminology of Kant, which early obtained a powerful hold upon his mind. Connected with this, we see the effect of an excessive trust in the processes and results of

formal logic, and a tendency to apply it to subject-matter, which, transcending the limits of human knowledge, is incapable of sharp and distinct definition. His marvelous capacity for abstract thought, by which he was able to deal with the highest generalizations and the subtlest distinctions as if they were physical entities in time and space, led him at times to confound concepts and singular terms with one another.

We may best set before our readers the merits of Hamilton by sketching in outline his Philosophy of Perception, giving incidental hints of its points of difference from antecedent and contemporary systems, and making such few criticisms as our limits will permit. We take this course the more willingly, as this is the department in which he most excelled, and because all sound thinking in every department of philosophy, must depend upon sound views of this, the starting point and basis of all. The primordial facts of consciousness are in reality simple and obvious. But various considerations, both physical and mental, have conspired, in the history of speculation, to obscure or set them aside. Let us glance at a portion of them.

The fundamental antithesis between the conscious *ego*, which knows, and the forms of matter which are known, as well as between God and the universe of matter, was impressed upon the Greek philosophers at the very dawn of distinct psychological and theological investigation. The forces of mind, whether finite or infinite, were found in relation to matter. The question regarding the mode of that relation, the effects of which were everywhere seen, was naturally mooted. That the relation

of God to the world could be immediate, in its creation or preservation, hardly seems to have entered the Greek mind. The same difficulties have beset modern thinkers, and the mere statement and explanation of the various theories of this relation would fill a volume.

A similar difficulty occurred when the attempt was made to explain *how* the mind of man gets a knowledge of the outward and material. Very early it seems to have been assumed that mind could know only by actually enveloping or permeating the object of its knowledge. Obviously, this process could take place only on the condition that some shadowy film of exceedingly attenuated material, or some matterless appearance, phantasm, or form, came into relation to the mind, and mingled with or was enveloped in its very substance. Generalized, this assumed notion took the form of the maxim, which most philosophers, ancient and modern, have taken for granted without proof, "that the relation of knowledge involves an analogy, in the mode of existence, between the knowing subject and the thing actually known." Matter as solid or extended, is as sharply as possible distinguished from mind in the mode of its existence. Separated from mind, in the words of John Norris, by the "whole diameter of being," it can be known, if the above assumption be true, only through some vicarious entity or mode of existence, representing, but not really or numerically identical with, the material body known.

Regarding the manner in which these films or forms or modalities—which were supposed to be the only actual, direct, and really present objects of the

mind's knowledge—were generated, two broadly contrasted schools soon came to exist, destined to continue, either absolutely or partially distinct, in all subsequent speculation down to the present time. One school supposed that the forms of external things actually in contact with, or in relation to the mind, were generated by impact of a body upon the senses; this impact, in some way, produced a copy of the body itself; this copy became the property of the mind and represented to it the outward object, which itself remained unknown, except as the putative generator of the form or image enveloped or permeated by the mind. Roughly speaking, this school is represented by Aristotle. Though Hamilton hazards the assertion that he was a "natural realist," it is evident that the great body of his pupils and followers were not; and, besides, the assertion is inconsistent with other essential parts of his system. Throughout the middle ages, modifications of this notion were prevalent, under the authority of the great philosopher's name.

The other school, which may be designated as the Platonic, posited the existence of patterns, or forms of all material things, antecedent to, and independent of, the material creation. These were supposed to be in every human mind, but out of consciousness—they having been brought into this world from an anterior and more spiritual mode of existence, where they had been acquired by direct intercourse with the immortal gods. The world of sense was supposed to be formed after the models of these substantial and perfect forms; but, from the nature of matter, material objects were thought to be shadowy and imperfect resemblances of the pre-

existing pattern, and to be changing, unsteady, and unreal. When these objects in the physical world came into relation to the senses, they were supposed to call into consciousness, with more or less distinctness, the reminiscence of the substantial forms of the world of real being. Laying aside the doctrine of pre-existence as inconsistent with revelation, this theory of knowledge was widely adopted by Christian writers, and has retained its powerful hold of the human mind in the speculation of every subsequent age.

These two theories of the origin of knowledge, intermingled with each other and modified in a thousand ways, have never been utterly lost sight of. Generally speaking, in modern times, necessary concepts have been assigned an origin in some way accordant with the Platonic, and contingent knowledge, with the Peripatetic system. In the majority of cases, the object of thought actually in relation with the mind has been conceived to be somewhat numerically distinct from the mind. The polemic of Locke against the existence of "innate ideas," in the sense in which he understood Descartes and his followers to affirm their existence, showed the absurdity of supposing ideas or forms of thought to exist in the mind anterior to any action of the intellect upon the material given through the senses. The *a priori* elements in the mind are now generally spoken of as regulative principles of the mind's activity, inherent in its constitution, known intuitively, when the soul becomes observant of its own processes upon the subject-matter given in sense.

Though the theory of forms existing in the mind, numerically distinct from it, had vanished from the

field of strictly metaphysical inquiry, it still held a precarious and doubtful empire in the philosophy of perception. It was to the work of laying the ghosts of these defunct theories of human knowledge, that Hamilton addressed himself. Reid had begun the work before him, but had not comprehended the subtlest form of that representative hypothesis which he designed to destroy. It survived his attacks, while the theory of consciousness adopted by him and his disciple Stewart—which referred our knowledge of the objective and the subjective elements given in the act of perception to different faculties of the mind—left the theory of immediate knowledge, which they desired to establish, open to attack and even subjected its authors to the charge of holding one form of the representative theory. Brown, whose brilliant, acute, but incautious mind had seized upon this interpretation of the psychology of Reid and Stewart, boldly laid the foundations of a new idealism, which needed nothing but the intrepid logic of some Fichte or Hume to bring it into light. Brown, by his flippant treatment of the great masters of Scottish thought and his meretricious rhetoric, disgusted the more thoughtful and sober of his contemporaries. It was in his criticism of Brown's Lectures, which was published in the "Edinburgh Review," in 1830, that Hamilton first enounced those views on the philosophy of perception, which, taken in connection with his criticism of Cousin, constitute his title to the position of a great philosopher.

His first object was to correct the faulty analysis by which Reid and Stewart were logically compelled to admit that all knowledge is subjective, and that

matter cannot come within the sphere of consciousness. Their analysis of consciousness into a special faculty of the mind—conversant alone with mental states, exclusive of those objective material realities which limit and determine its activity—was almost a justification of the interpretation of their doctrines made by Brown, as well as of the charge of logical inconsequence and shallowness, which had been brought against the Scotch philosophy by continental writers. Hamilton then, by an examination of questions involved in the origin of empirical knowledge, and a careful induction and classification of the various theories of that origin which had been adopted, drew out a scheme involving all forms of the doctrine of representative perception which the nature of the conditions rendered possible, and gave quotations from Reid's works showing that that philosopher had intended to reject all representative theories of knowledge. He admits that Reid had failed to understand and characterize that form of the representative hypothesis which makes the representing entity in perception to be, not a semi-material image, or an immaterial form existing in the substance of the mind, but a modification of the mind itself, superinduced by the material object, but non-existent out of consciousness. By reason of Reid's failure to recognize this subtlest form of the representative hypothesis, Hamilton admits also that Reid had been in fault, and had laid himself open to misinterpretation. But that Reid, in spirit and intention, was a natural realist, in the sense that he proceeds to explain, Hamilton insists most earnestly. Laying aside some ambiguous and inconsistent statements, to which we shall allude as we proceed, Ham-

is where it manifests itself. When it manifests itself as knowing, at the point of contact with the outward world, he would accept the deliverance of consciousness in its integrity. Upon this he takes his stand, and discusses the mode in which some physiologists have attempted to set aside the authority of consciousness, only that he may show its inadequacy and failure. This doctrine, which may seem to some readers of Hamilton to be novel, is the old, and it may almost be said, general theory. We have lying before us a series of citations from ancient and modern authors, which, taken in connection with those referred to by Hamilton, presents a formidable array of theologians, metaphysicians, and physiologists, all coinciding in our author's interpretation of the affirmations of consciousness in perception.

Another element in his system is the recognition of the several senses as being so many modifications of the single sense of touch. This doctrine, as old as Democritus, will be readily admitted. Cœnesthesis, or the vague common feeling of existence, must be the basis of all distinct and specialized sensation. As we examine the animal kingdom, in its stages of progress from the lower animals toward man, we find a constantly increasing differentiation of the nervous matter, the organ of this common feeling, into nerve-fibres and special senses, all of them reducible to the common element, touch. The optic nerve is specialized to touch light; the auditory nerve, to touch the vibrations of the sound-wave; the olfactory nerve, to touch odoriferous properties. Each of these senses has this in common with the others, and with touch, namely, that

it is fitted to come into direct and immediate relation with the peculiar objects it was designed to cognize.

This simple analysis gives us the basis for the limitations, under which we speak of immediate knowledge in perception. The mind has an intuitive and direct knowledge of the sound-wave, but not of the bell or gong which sets the sound-wave in motion. Its knowledge of the cause of the intuitively known effect is indirect or inferential. The same may be said of odors. The only serious difficulty in this analysis occurs in the case of vision, and this is rather seeming than real. Every one knows that the eye has no natural power of itself to become cognizant of bodies. The most uneducated person recognizes light as a physical medium, distinct from the body which reflects it on the one hand, and from the eye on the other. Every one is aware that what the eye immediately knows, or what actually comes into relation with it, is light. The question how light causes us to know the objects from which it is reflected, is one that it is impossible to answer. But however this may be, it is a question of physics, rather than of psychology. Assuming that in vision we come into immediate relation to light of different colors, it follows that, as we become cognizant of the variously colored patches of light which differently constituted bodies reflect, we know these showers of reflected rays, or patches of color, as distinctly separate from each other. Each reflecting surface is, by the laws of light, discriminated by means of the spots of different colored light on the retina, the meeting of the different colors forming the outlines of the figure.

Thus it comes to pass, that we see figures of two dimensions, in relative size and form, directly and intuitively described and limited, in the various colored rays which actually touch the eye. . .

With these explanations, it is evident that the standing examples which are brought forward to prove the deceptive character of the sense of sight, and thereby to disprove natural realism, have no relevancy whatever. I look at a stick thrust diagonally into water. It appears to me bent—not because my sense deceives me, but because it does not. My sense advises me of the exact conditions under which the light comes into relation with it. A seaman sees a ship or a headland looming up in a fog, but he never attributes the phenomenon to the deceptive action of the sense, but to the fog.

Thus we see that the root of all actual knowledge is found in the intuitions of the sense, affirming that the object of these intuitions actually exists and that it holds a direct and immediate relation to the organism. All other knowledge is indirect and inferential; and however certain and real it may be, it becomes such through the agency of physical *media*, which themselves are the objects of intuitive apprehension. These general distinctions, requisite as limitations of a doctrine of natural realism, are set forth by Hamilton through the analysis of the qualities of matter into primary, secondary, and secundo-primary.

We prefer to present the subject as we have, for the purpose of simplicity and clearness. The analysis of the qualities of body made by Hamilton displays, in a high degree, his acuteness in making distinctions; but it seems to us to give a

less clear idea of the necessary limitations of natural realism, than the simple division of knowledge into that which is direct, intuitive and immediate, on the one hand, and that which is mediate, inferential or indirect, on the other. The distinction between these two kinds of knowledge is obvious, it being substantially the same as that commonly given by psychologists who distinguish between direct and acquired preceptions. The analysis of the qualities of body into primary, secondary, and secundo-primary,—besides being extremely complicated in result, and difficult of application,—is in great part, if not entirely, conversant with facts and modes belonging to physics, rather than to psychology. To call sound a quality of a vibrating body, is in any legitimate sense of the term a misnomer, and tends to confuse the mind, inasmuch as it puts into the same class, and gives the same name, to the objects of mediate and immediate knowledge. Indeed, Hamilton himself, in one of his supplementary dissertations, admits the impropriety of this application of the term. If we mistake not, the classification of light, sound, and odor, as qualities of body, was originally determined by confused notions of the physical conditions to which they were due. In inquiries of this nature, nothing tends more strongly to confusion and error than the equivocal use of terms, and the failure to mark sharply the distinction between psychology and physics.

We may be permitted to draw attention, in passing, to the statements of our author, regarding what he calls "the purely subjective character of the secondary qualities, as apprehended." To illustrate the case, we will suppose an odor, or sound-wave, to

be perceived. He tells us that in these cases there is "an objective quality supposed, but not perceived"; that a "subject-object is the only object of the cognition"; that the apprehensions of the secondary qualities are "sensations, not perceptions." These passages, taken in their obvious meaning, affirm that in knowing sounds or odors, there is no *non-ego* discriminated from the *ego* at all; hence, also, that our knowledge of them is purely subjective—a mode of mind only, which gives us no affirmation whatever of an external reality. If there is no discrimination of an external object from the knowing subject, there is no means of discriminating the mental processes under discussion from acts of imagination. He affirms, however, that from these purely subjective affections, their causes, which he calls secondary qualities, "are inferred and conceived as possible." Now, these subjective sensations cannot become signs, such as will compel us to infer an external, material cause, unless they are accompanied, at the same instant, by a perception—vague and indistinct it may be, but still a perception—of an external object, actively affecting the organism. We say of strong light, that it *strikes* the eye. In so saying, we describe the sudden collision of an external object with the organ. The action of a sound-wave upon the ear is often so intense as to destroy the tympanum. It strikes the organ, and is perceived to be external to the organism as really as the rain which beats upon a traveler's face in a storm. Place a vial of ammonia beneath the nostrils, and we are as really percipient of a *non-ego* as if pricked by a bundle of needles. Without doubt, in coming into relation with these

attenuated forms of matter, our perception of the object becomes more and more indistinct, as sounds become faint, or the odorous particles reaching the nerve or the rays of light impinging on a given surface of the retina become fewer. But we believe that, so long as there is a sensible affection of the nerves, there is a perception of an external object, distinct in proportion to the intensity of the external conditions that are present to the organ. There are physical limits to the susceptibility of our nerves with respect to the more attenuated forms of matter; but within those limits, and whenever the nerves are sensibly affected, we believe that some degree of knowledge of the external impinging object really takes place. Very many questions are suggested by this discussion regarding the physical constitution of what are called "imponderable" substances; but, though they have a certain relation to the subject in hand, it is not a vital one and we pass them by.

From the nature of the results at which our author arrives regarding presentative knowledge in perception, it follows, as a matter of course, that memory and imagination must be conversant with representations, as opposed to presentative intuitions. As memory and imagination rest on the basis of intuitions of which the mind has had experience in the past, the representations only of these intuitions can be present to the mind.

We are able from what has been said, to form a definite notion of the real distinction between sensation and perception. In the philosophy of Reid and Stewart, these were represented as separate, very much according to the theory of the Car-

tesians. Sensation was not considered as an act coexistent with perception, but as merely the antecedent occasion upon which an idea was caused to appear in the mind. In accordance with the views here given, it will be seen that sensation and perception are names for the bodily and mental sides of the same indivisible process. Mind and body actually come into relation with the things known, at the same moment of time. The bodily side, or the mental side, may predominate in a given case; but so long as there is no lesion, or compression of the nerves, so as to produce numbness or fainting, neither of the two elements can be reduced to zero; they must coexist. Regarding the comparative potency of these coexistent activities of mind and body, which we call sensation and perception, Sir William enounces the law, that the distinctness of each is in an inverse ratio to that of the other. . .

But we must leave the discussion of details, however interesting to the student of these topics, and proceed to the examination of some few statements, definitions, and conclusions of Hamilton, that seem to us inconsistent with that doctrine of perception which in general he sets forth with such marvelous vigor and clearness.

In the first place, let us inquire into the purport of our author's doctrine of the relativity of knowledge. The statement that all our knowledge is relative, is repeated in so many forms that we may suppose it to be a cardinal point in his system. One quotation will suffice: "Our whole knowledge of mind and matter, is then, as we have said, only relative; of existence, absolutely and in itself, we

know nothing." Now, there are some difficulties which strike the mind at once, in reading this passage. If we are told that we can have no knowledge of any object which does not come within the sphere of our several faculties, we can easily understand what is meant. We cannot know light, unless it touches the eye, nor the aerial vibrations which produce the effect we call sound, unless they touch or come into relation with the ear. Moreover, we understand that only *so much* of any given object can be known as comes into relation to the faculties. A cannon ball lies before me. It comes into certain relations to my mind; but these are few and unimportant, in comparison with the relations which it might present to the mind of a chemist like Faraday or Liebig. My knowledge, though partial compared with theirs, is just as real and just as positive. God exists in all possible relations to all possible objects; hence, we say his knowledge is absolute, or complete. But my knowledge of that which comes into relation to my mind is real, though extremely partial in amount. Consequently, I know something real of the cannon ball that lies before me.

We shall find further information on this subject, when we ask the meaning of the assertion so constantly iterated by Hamilton, that of "matter in itself," or of "existence in itself," we know absolutely nothing. Does he mean to affirm that I "know nothing" of the cannon ball, "in itself"? My consciousness affirms that I do know something of the actual ball, "in itself." Though he uses the most general terms, such as "matter" and "existence" in his formulas, we have a right to as-

sume that whatever is affirmed or denied of the class "matter," or "existence," is affirmed or denied of all the things included under the class. Now, the cannon ball is "matter," and has "existence." Moreover, I cannot separate it from itself, even in thought. It cannot exist "in itself," and out of itself, at the same time. Hence, if I do not know the ball actually, directly, presentatively, and "in itself," I do not know it at all, and natural realism is swallowed up with the denial. Again, if we suppose our author to represent by the phrases "matter in itself," or "the cannon ball in itself," its inner physical constitution, or the form of its ultimate atoms, we can admit our ignorance on that point, without being compelled to acknowledge that we know absolutely nothing of the piece of matter in question. Between the completed knowledge of the Almighty concerning the constitution and mode of existence of the cannon ball, and the limited knowledge which I possess, there is a vast difference. But it does not follow from this that I have no knowledge at all. I do know something of its constitution and mode of existence, and can confidently discriminate it from wood, or stone, or lead. We are driven to the conclusion that in adopting the phrase "matter in itself," and "things in themselves," and affirming our ignorance of what they denote, Hamilton may be justly charged with using them in the Kantian sense. All know that the phrases were used by Kant to set forth a system of purely subjective knowledge, and that in his system their meaning is unequivocal, and holds a vital relation to a consistent terminology, which in all its parts is absolutely exclusive of anything

like natural realism. That Sir William has thus been drawn into the outer currents, at least, of the maelstrom of the Kantian dialectic, will further appear, when we examine his use of the terms "phenomenon" and "quality," as correlative and antithetical to the phrase "matter in itself."

In his second Dissertation, appended to the "Philosophy of the Conditioned," he writes as follows: "Of things absolutely, or in themselves, be they external, be they internal, we know nothing, or know them as incognizable, and we become aware of their incomprehensible existence only as this is indirectly and accidentally revealed to us through certain qualities, related to our faculties of knowledge. . . All that we know is, therefore, phenomenal—phenomenal of the unknown." In his seventh lecture, he says: "It is only in its qualities, only in its effects, in its relative or phenomenal existence, that it [matter] is cognizable or conceivable, and it is only by a law of thought, which compels us to think something absolute and unknown as the basis or condition of the relative and known, that this something obtains a kind of incomprehensible reality to us."

These forms of expression are almost identical with those of Kant bearing on the same subject, and distinctly grounded in a system of representationism of the most unequivocal character. In connection with the first passage quoted, Hamilton cites the following sentence from Kant as illustrative and confirmatory of his own views: "In perception, everything is known in conformity to the constitution of our own faculty." This passage, as every one familiar with the system will see, is a

recognition of the idea fundamental in Kant, that phenomena in perception are mere representations in the mind of the unknown *noumena*, or things in themselves ; and that these phenomena are products of an unrelated, formless content in the sense which when modified by the subjective laws of thought, elaborated into ideas, are no longer exact representations of the external realities as they actually exist. The outward world, as it really exists, is thus represented by phenomena, which *ex hypothesi* not only have their existence apart from the reality, but have been themselves modified and changed from their original character by the plastic agency of the subjective mental forces. Hamilton seems to have been so far misled by the terminology and influence of the great German, as to recognize as true that false analysis which, in the process of sensible perception, separates in time or space the phenomenon from the matter which actually *is*, and whose actual presence to the mind *is* the phenomenon.

This false analysis assumes it to be possible for the mind to know, in the intuitions of sense and intellect combined, a phenomenon or quality, without knowing, at the same instant and in the same mode, the material substance which appears and exists in such or such a relation to the mind. Now, quality in respect to matter, is merely a term naming a given relation of a real object to the mind. The word phenomenon, in physical science, denotes a fact to be explained or reduced to law ; in the philosophy of perception, it properly denotes any given part of a material object which is in direct relation to our faculties. Apart from the thing which *is*, and is in relation to the mind, phenomena

or qualities have no existence, except as abstract concepts in the thought—the *entia rationis* of the schools. But, in the Kantian sense, the term phenomenon, when used relatively to sensible perception, denotes an impression made upon the senses, after it has been manipulated by the forms of the sensibility and the categories of the understanding. After this process, it becomes the permanent possession of the intellect; and so it is to be distinguished broadly from the "thing in itself," or *noumenon*, which is assumed always to remain in a sort of lofty isolation as the unknown cause of the phenomenon, which itself has been modified and elaborated, till it has lost its right to be taken as a copy of its unknown original. We would repudiate, term and thing, this shadowy Teutonic "phenomenon," as nothing more nor less than the intelligible "species" of the schoolmen, and as involving in itself the germ of that idealism which the logic of Fichte developed, and of that pan-egoism which, alternated with pantheism, Mr. Emerson deals out in infinitesimal doses to his bewildered and admiring disciples.

When Hamilton addresses himself definitely to the exposition of natural realism, we find nothing of this illegitimate terminology. But when he comes to deal with the continental absolutists, who affirm the omniscience of the human intellect, he seems ready to sacrifice even that real knowledge of real things which he has so powerfully vindicated to the human mind, if thereby he may the more effectually crush and grind to powder that pretentious absolutism which with lofty scorn he delivers over to shame and everlasting contempt. In the battle of the giants, which he waged with Cousin and

Schelling, he seized the weapons which Kant had forged. They are dangerous and deceitful weapons to the advocate of natural realism. The powerful subjectivism of Kant is a logical whole, crystallized into a terminology marvelous for adaptation to its purposes, and for the coherence of its parts. It has no points of agreement with an inductive philosophy of consciousness, nor will it be tampered with by coy suitors. It must be taken as a whole, or not at all.

We have limited ourselves to Hamilton's psychology, and we must avoid the attractive field of his metaphysics, with the simple record of the impression that in these deviations from the consistent holding and advocacy of natural realism will be found the weakest points of his, in the main, unanswerable argument against the absolutists of the Continent. Just here, also, we venture to predict, will his enthusiastic and unquestioning disciples be likely to fail in their attempts to follow out and apply the system of their master. The best results of Hamilton's reply to the absolutists may be retained—the limitations of human knowledge stated and proximately defined—without reducing that knowledge to zero, and leaving as the ultimate product of finite thinking a system of philosophical know-nothingism, or a body of postulates forever swinging pendulum-like between opposite contradictories.

As we know matter, appearing, extended, modified, existing in such or such relations to our organisms, so we know mind. Our knowledge of it is not confined to mere concepts, which have no real existence out of our thought, called phenomena or modes

or qualities; but we have a direct and immediate knowledge of mind as acting, knowing, suffering, as self-approving or self-condemning. Our knowledge of the constitution of mind is very limited, but we know from the fundamental antithesis of consciousness that it is not matter. We know matter as extended, hard, heavy, as of this or that form; so in like manner we know mind as willing, suffering, knowing, judging. By the knowledge which we thus acquire, we are able to discriminate and classify material facts and mental facts, and may thus form a real science of matter and a real science of mind. Our knowledge is partial, but no man may say that it is not real. Making all proper allowances for human weakness, ignorance, and error, every man knows something of mind and something of matter, as each actually is. The terminology of Kant regarding mind, names a system which denies immediate knowledge of self, as well as of the not-self; hence his consistency, when he affirms that we know nothing of "mind in itself," but only phenomena, of which the *ego* is an unknown *noumenon*, or, in fact, a mere logical concept or tie, connecting the fugitive phenomena with each other. But Sir William's natural realism affirms and requires a presentative knowledge of self, as the correlative conditioning element of the presentative and immediate knowledge of matter. We admit that this mode of expression is not peculiar to Kant or Hamilton, but is found in nearly all the English treatises of psychology as well. The idea which underlies it, is one of the remnants of the "logical realism" of the middle ages, which supposes the existence of a material substance, which is neither hard nor soft,

extended, shaped, heavy, or colored—a something indescribable, in which qualities inhere, or, in simple English, in which they are stuck, like so many quills in a porcupine. It is one of the continually recurring instances wherein a logical entity is confounded with a real existence in space and time. It has had its latest apotheosis in the identification of thought and being in the intellectual monstrosities of Hegel.

A natural realism which admits the immediate consciousness of self, and not-self, in both mode and substance at the same time, furnishes the only solid foundation of evidence in physics, morals, and religion. With all our reverence for the genius and learning of Hamilton, we cannot follow him one inch away from the foundations which he himself has laid. His natural realism we can accept with thankfulness; but that continental subjectivism with which he has sought to unite it, we would reject without reserve or condition.

In conclusion, we may be permitted to express the conviction, which a somewhat extended study of the works of Hamilton has impressed upon us, that for a gymnastic exercise of the mind, for a stimulus to vigorous thinking, for exact definition and breadth of view, they are unsurpassed in the literature of philosophy. He who differs in opinion from Hamilton, will find his best preparation for criticism in giving his days and nights to the study of the works from whose conclusions he may record his dissent. It is not too much to say, that since the death of Immanuel Kant no greater name has adorned the commonwealth of letters.

IV

GROWTH AND RELATION OF THE SCIENCES

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WHOEVER attempts to make an exhaustive analysis of the method of physical inquiry, will find himself brought into relation with the profoundest questions in the science of mind. The line which separates the philosophy of matter from the philosophy of mind, is exceedingly difficult to define. These two great departments meet and inosculate at so many points, that the study of each compels a recognition of the other. Mind can only be studied in its relation to the world of matter. Matter can be studied only in its relations with mind. The laws of both must be recognized and understood by the man who would study either successfully. Slowly but surely the human mind in its progress through the ages has come to recognize the truth, that the fundamental method which controls the investigations of physical science is alike applicable to all the sciences. So clearly does this principle manifest itself, that when we have given to us the prevailing method of inquiry adopted by an individual or nation in either of the great domains of nature, we can with a good degree of certainty predict that a similar method will hold sway in every other. The metaphysical subjectivism of Schelling and Hegel in Germany, generated a brilliant but audacious system of nat-

ural history and physics, which assumed to be independent of fact, claiming to be founded in necessary ideas. The unquestioning allegiance to fact which penetrates and vitalizes the *Novum Organon*, illustrated and immortalized in the cautious and reverent induction of Newton, has impressed itself upon the mass of the philosophers and theologians of Great Britain. In our own country a rational cosmology springs by a natural process from the same method which could produce a rational psychology. . .

We are met at the outset of this discussion by a question regarding the restrictions proper to be given to the application of the term "science." It cannot be denied that a tendency exists to limit its application to those departments of human knowledge which are conversant with material facts and processes, and the quantitative laws which express and measure their activity.

The rapid growth and impressive results of the material sciences within a few years, have given currency to the idea that there are no facts sufficiently definite and important to be molded into a scientific system, except such as can be subjected to weight and measure.

Against this tendency we beg leave to enter our protest. A fact of mind is as real as a fact of matter. A law of mind is as definite and fixed as a law of matter. The imperial will of Napoleon was as much a force as the powder which carried his cannon balls into the ranks of his enemies at Austerlitz or Marengo. Our loves and our hates, our hopes and our fears, triumph over the forces of nature. The agency of thought converts them into

untiring slaves of human benevolence, avarice, or ambition. Thought, volition, conscience, are facts capable of description, analysis, and orderly arrangement, and form one of the grandest spheres of human inquiry. The whole range of the knowable, in the worlds of matter and of mind, may be made the objects of legitimate science.

It is requisite for us to distinguish carefully between science and knowledge. There is a vast accumulation of knowledge in the "Natural History" of Pliny, but very little science. Observations almost without number, on storms, trade winds, and currents, have been accumulating in the log-books of ships which for the last two centuries have sailed over the ocean; but they added little to the science of physical geography till they were taken in hand by scientific men, analyzed, classified, and reduced to system and law. Scientific facts are not science. Thunder and lightning have accompanied the summer shower in all time, but no science of electricity was evolved till Franklin sent skyward the kite. The strata of the earth's crust have been open to view for ages; fossil shells and skeletons have excited the wonder of the passing traveler, but the science of geology is hardly half a century old. Allied to this distinction between science and knowledge, is the distinction to be made among scientific men. The great mass of so-called scientific men are not really such, but are mere collectors of facts, which comprehensive minds combine and digest into system and order. The world is full of men who abound in the knowledge of scientific facts; but the men of science in a given age are as rare as great statesmen or soldiers.

The question, What is science? naturally arises here. Science is the arrangement of a series of facts or principles, according to a fundamental and uniform law or idea. The law of such an arrangement may vary with the nature of the subject-matter. In deductive science, of which mathematics is an example, the subject-matter is concepts or definitions; the law of arrangement is that of premise and conclusion; and the process of growth is that by which all possible consequences are drawn out of postulates and definitions.

In the sciences of fact, the law of arrangement may vary with circumstances; or the same facts may be arranged in reference to different laws. The law of classification may be physical composition, cause and effect, similarity of form, or unity in time and place. The process by which we pass from particular facts to general laws or classes, is called "induction." The basis on which such reductions of particular facts to classes and laws rests, is the actual existence among thoughts and things of order and system which have originated in the divine mind, and have determined the fact, mode, and succession of their creation. It follows, then, that scientific inquiry, in the broad and general sense of the terms, *is the discovery and registration of the plan of the Almighty in the creation and government of the universe of matter and mind.*

If science is the discovery and registration of the plan of God in the universe of matter and mind, we have before us the elements for determining the proper application of the much abused term, "law." There is a tendency to use this term in some vague way, as synonymous with "efficient

formal logic, and a tendency to apply it to subject-matter, which, transcending the limits of human knowledge, is incapable of sharp and distinct definition. His marvelous capacity for abstract thought, by which he was able to deal with the highest generalizations and the subtlest distinctions as if they were physical entities in time and space, led him at times to confound concepts and singular terms with one another.

We may best set before our readers the merits of Hamilton by sketching in outline his Philosophy of Perception, giving incidental hints of its points of difference from antecedent and contemporary systems, and making such few criticisms as our limits will permit. We take this course the more willingly, as this is the department in which he most excelled, and because all sound thinking in every department of philosophy, must depend upon sound views of this, the starting point and basis of all. The primordial facts of consciousness are in reality simple and obvious. But various considerations, both physical and mental, have conspired, in the history of speculation, to obscure or set them aside. Let us glance at a portion of them.

The fundamental antithesis between the conscious *ego*, which knows, and the forms of matter which are known, as well as between God and the universe of matter, was impressed upon the Greek philosophers at the very dawn of distinct psychological and theological investigation. The forces of mind, whether finite or infinite, were found in relation to matter. The question regarding the mode of that relation, the effects of which were everywhere seen, was naturally mooted. That the relation

absence of specific experience. Upon this view are founded all those ambitious attempts to construct *a priori* the details of the sciences of fact. The laws of matter are discovered, not deduced from *a priori* principles. God's ideas in nature can never be discovered by man, except by a laborious and reverent study of God's actual works. His plan can never be known by man until he has seen fit to incarnate it in things appreciable by human faculties. "A clever man," aptly remarks Sir John Herschel, "shut up alone, might reason out for himself all the truths of mathematics, by proceeding from the simple notions of space and number, of which he cannot divest himself without ceasing to think. But he could never tell, by any effort of reasoning, what would become of a lump of sugar if immersed in water, or what impression would be produced on his eye by mixing the colors of yellow and blue." The assumption, moreover, of the universality of laws of whose action we have no further knowledge than we derive from the limited extent of our experience, which we make in all induction, is justified only by our faith in the uniformity of the Creator's plan, having its origin in his wisdom and goodness. Every induction in physical inquiry is illogical, in the absence of this concession of the universality of the Creator's plan. We legitimately infer the universal from the particular, by tacitly assuming the existence and universality of the creative thought.

"Induction," says Mill, "is the process by which we conclude, that what is true of certain individuals of a class is true of the whole class,"—whether they have all come within the purview of our own, or any other man's experience, or not,—"or, that what

is true at certain times will be true under similar circumstances at all times." The actual existence and universality of an intelligent plan in the universe, is the suppressed premise in every process of induction. The discovery and verification of laws, and the legitimacy of the inductive process, all take for granted the existence of the Infinite mind.

In regard to the world of mind, it may be said that "law" is a name for the modes in which its processes actually take place, so far as its necessary or constitutive elements are concerned. So far as the moral and volitionary processes, strictly speaking, are concerned, "law" is the name for the mode in which they *ought* to take place. The differential element of mind, that which separates it from the whole world of physical existence, is pre-eminently freedom. In physics, we find the Creator's idea and plan in what actually takes place; in the world of volitionary action, we seek for them in the imperative decisions of right.

Scientific inquiry must from its nature commence with the very elements of all knowledge. It must go from the simple to the complex, from the specific to the generic, and from the known to the unknown. We cannot go back to the beginnings of thought in childhood, for the dawning light of intelligence leaves no trace on the memory. We must seek these elements of knowledge in the mature man.

Let us suppose such a mature person to take into his hands a piece of iron; he knows it at once as *something* distinct from his organism, something not himself. In knowing the iron as not himself, he must recognize himself as existing, and exercising that knowledge; he affirms at the same instant that

the iron is not himself, and that he himself is not the iron. Here we have an affirmation in consciousness of the radical antithesis between what thinks in man, and the external world of inert or active matter. Again, he takes in hand a piece of marble; he finds the discrimination between himself and the marble occurring as in the first-named instance, but with a difference in the nature of the knowledge received. Comparing these two discriminations and knowledges with each other, through the common factor self, or what thinks, he finds a third discrimination between the iron and the marble. Repeating this process indefinitely, he increases his knowledges in the same proportion. As he applies his different senses to the same object, he gets a new knowledge of it with each application; his knowledges soon become numerous and complex. We suppose him supplied with language, and in order to distinguish his knowledges one from another, he must give them names, as a herdsman distinguishes his sheep or horses. He soon finds that many of these knowledges are similar, and for convenience he collects these under a like sign or name.

Without carrying these illustrations farther, it will be seen that we have arrived at these general truths: (1) That the root of all knowledge is the discrimination of *what thinks*, or the self, from the various objects of the external world. (2) That by means of this original knowledge we are able to compare these knowledges with each other, to distinguish them by their appropriate marks, and by means of language to give them names. (3) That by finding things similar we are able to put them in classes, and give them common names. (4) We

have found that however numerous and complex the knowledges are which we acquire, the self, or knowing mind, remains the same. It is ever the constant quantity or element in the midst of the endless variety of external objects with which it comes into relation. (5) In every new acquisition of the knowledge of material things we find the uniformly renewed affirmation, that this constant unvarying element, or what knows and thinks, is not only distinct from matter, or what is known, but also, that whatever matter may be, it is in its constitution antithetical to what thinks. (6) We find in the primeval and constantly repeated facts of consciousness, the two grand but antithetical modes of existence which in common language we designate as *matter* and *mind.* (7) We are so constituted by the Creator that these gifts of consciousness, these elementary principles of knowing, must be admitted, accepted, and held for true—or thought and knowledge are impossible. From these fixed points we must take our departure and bearings in all our voyages of exploration over the vast ocean of the knowable.

Let us now trace a little more in detail the process by which we go onward from the vague beginnings of knowing and thinking, to specific and definite science. We will commence with the world of *mind.* The mind knows itself. This knowledge, though partial, is immediate, trustworthy, and real. Though the mind always acts in a more or less intimate relation with the world of organized or unorganized matter, we can turn our attention to the thinking subject and its processes, and subject them to observation and analysis. Looking at the process

of knowing, we find the mind limited in its present state by a physical organization, so that we come into relation with the world of matter only in certain definite modes, which we call "sense-perceptions." These are all specific differentiations of the fundamental sense, touch. The eye is adjusted to touch light; the ear is adjusted to touch the sound-wave; the olfactory organs detect the subtle and attenuated effluvia which we call odor; the tongue discriminates sapid bodies. All of these are evidently mere modalities of touch. All knowledge of matter is obtained, therefore, by the sense of touch in one or the other of its modes. These modes are the "senses." Though these modes of knowing have among themselves specific differences, they show a general agreement. Hence all action of the mind through the senses has been included under the common name, perception. Following a similar analysis through all the various activities of the mind in knowing, feeling, and willing,—classifying together those which are similar, and describing and naming their characteristic likenesses and specific differences,—we find the science of psychology growing up under our hands.

Out of this as a root, we find several other branches of inquiry naturally maturing themselves. One or two illustrations will suffice for our purpose. We all are conscious, when we act in a certain way, of a peculiar and imperative emotion which gives us the notion of right and wrong. We feel that we *ought* to do some things and *ought not* to do others. Paley asks, "Why am I bound to keep my word?" One man answers this question by saying that it is because such a course will conduce to the interest

of the individual and society. Another says that the obligation arises from the nature of things. Another still answers that the ground of moral obligation is found in the will of God. It is also asked, whence comes this fact within us which we call conscience? Is it native to the mind, the Almighty's will organized into the substance of the soul, breaking out in denials and affirmations as keen and emphatic as the lightnings of heaven; or is it a mere chemical compound of sympathies and associations and habits? The examination of these questions and answers, the separation of the pertinent and true from the irrelevant and false, and arranging the result in an orderly and systematic form, is the science of theoretical ethics, or the philosophy of morals. The detailed examination of human actions and obligations in reference to their being right and wrong for a moral being to perform, and arrangement of them in a system as duties and rights, resolving complexities and removing contradictions, forms the science of morality, or casuistry.

Extending similar observations regarding human duty to the social relations of men, inquiries arise concerning the organization, the rights, and duties of the State. These inquiries form the science of polity.

The application of the authority of the State to individuals is regulated by rules. The body of rules by which the executive authority of the State is guided in its governing action, is the civil and criminal law. The theory of the construction of these rules is the science of legislation. The science conversant with the interpretation and application of these rules, is the science of jurisprudence.

It is foreign to our purpose to do more than furnish a specimen of the manner in which the facts and forces of mind expand, under the eye of observation and analysis, into broad and magnificent fields of scientific thought. Bearing in mind the illustrations already given of the elementary processes which lie at the basis of our knowledge of matter, let us now trace some of the steps by which we pass from the vague and indefinite beginnings of common material knowledge, to those complete and orderly results which we call physical science, or sometimes natural philosophy.

In our first observations of bodies we find them in two states, that of *rest* and *motion*. We ask the origin of our idea of the cause of motion, and we find it in the expenditure of muscular effort necessary for us to exert in order to produce it. This effort we call *force*, and we give that name to every thing which produces motion. We find by experience, that the great forces of nature are always in a state of activity. But when acting in opposition to each other, their natural effect, motion, is counteracted, and the equilibrium thus produced is rest. All rest of bodies is due to these counteracting forces. We find that all masses of matter exist necessarily in one of these two conditions—rest or motion—depending on the fact whether the forces which are ever acting in and through them are in equilibrium or not. We have here the basis for a broad distinction between the condition of masses of matter, as existing in one or the other of these elementary states. That part of mechanics which is conversant with the conditions of matter or body at rest, is called statics. That part conver-

sant with bodies in motion, receives the name of dynamics. Those forms of matter which are liquid and aeriform, may be considered as varying from solids, by greater or less degrees of cohesion among their parts. Consequently, they are subject to the same laws and methods of analysis. In addition to the statics and dynamics of solids, we have therefore those of fluid and gaseous bodies. The statics and dynamics of aeriform bodies are discussed and included under the general term pneumatics. In the case of liquids, the laws of their motion and rest are classified under the terms respectively of hydrostatics and hydrodynamics. We may remark in passing, and by way of illustration, that questions regarding arches, strength of structures in architecture, whether of ships, of buildings, of the pressure of water under various heights of a column, or "head," the expansive force of steam or explosive gases, belong to the statical branch of mechanical science; while the motion of projectiles in gunnery, the flowing of water, and the motion of expansion in steam or gases, are questions belonging to general dynamics.

All the fundamental principles upon which the science of mechanics depends, are summed up in what are known as the three laws of motion. These laws are ordinarily expressed in the following form:

1. "When a body moves, not acted upon by any other force, it will go on perpetually in a straight line and with a uniform velocity."

2. "When a body in motion is acted upon by a force in a direction transverse to its motion, the result is that there is combined with the motion with which the body is thrown, another motion exactly

the same as that which the same force would have communicated to a body at rest."

3. "When a force of the nature of pressure produces motion, the velocity produced is proportioned to the force, other things being equal."

These laws are established by experiment; and from them, by the aid of mathematical formulas and processes, are drawn out the whole system of mechanical philosophy, theoretically considered. The practical modifications of the strictly theoretical principles, which are required by friction of materials, and the resistance of *media* like air, are themselves determined by experiment, and become an important element in the practical application of mechanical principles. The mode in which these laws of motion are proved, and the countless applications and illustrations of them, which the manifold phenomena of force and motion afford, constitute the broad field of physics.

The application of these laws to the phenomena of the celestial motions, identifying them in kind with those due to gravity on earth, and referring them to the same cause, form the science of physical astronomy. The observation and notation of the appearances and motions of the heavenly bodies as they are revealed to the eye, are descriptive astronomy. This precedes physical astronomy in point of time, and is necessary to verify and legitimate to the worlds beyond us the applicability of those laws of motion which are observed in small masses of matter on our earth. The range, complexity, and invariableness of the action of these laws among the heavenly bodies, form the sublimest realm of inquiry in the domain of the material and

sensible universe. The human mind reels and staggers in the attempt to comprehend and represent the stupendous mechanics of the Almighty. . .

Here we may be permitted to make a few remarks upon the relation of the mathematical sciences to physical inquiry. "It is," says Sir John Herschel, "a character of all the higher laws of nature to assume the form of precise quantitative statement." Hence one of the first requisites for scientific observation is, to increase the capacity of the senses to measure every description of quantity by carefully adjusted machinery. We must also fix accurately certain standards of weight and measure, which shall become a common unit with which all quantities can be compared. All branches of general physics, astronomy, crystallography, and chemistry, are eminently sciences of quantity.

Now the fact that gravity varies directly as the quantity of matter and inversely as the square of the distance, is learned by observation and experiment. The fundamental facts of physics are not reached by comparing concepts of the mind which we cannot but believe to be true, as in mathematics; consequently, the two sciences stand apart in their foundations and methods, and must never for a moment be confounded.

When it was seen that sound is due to the disturbance of the air, sending an oscillatory or wave motion in all the directions occupied by the medium, it became evident that these oscillations must follow the law of waves produced by dropping a stone into tranquil water, diminishing in force as they recede from the center of action. This analogy suggests the application to the phenomena of sound of the

theory of elastic bodies in general. It was found that the assumption that the intensity of sound varies at different distances by the same proportion that obtains between the radii and surface of a sphere, harmonized both with the general laws of elastic bodies, and with the approximate measurements of its intensity by instruments.

The facts of light, whether the emission theory or the undulatory theory was assumed true, were found by similar methods to harmonize with the same law. The same law was found applicable to other imponderable agents, and these forces in general are held to vary in intensity, inversely as the square of the distance. After this relation was found to hold true as a general fact, the mathematical laws of the sphere and spherical cone could be used in all calculations regarding the intensity of sound, light, and heat, as if these were due to the action of material radii of a sphere or cone proceeding from a center with their ends touching the spherical surface, and spreading over it with a thinness increasing with the length of the radii and the extent of the assumed spherical surface, each increasing by a common law.

We may illustrate still further this relation between mathematics as the science of quantitative ideas, and the sciences which rest on observation of facts, by the well-known method in which Newton established the universality of the law of gravitation. (1) In the outset he had given him the observations of descriptive astronomers as to the rate of the moon's motion in her orbit. (2) He had the discovery of Kepler, that the moon's orbit is an ellipse. (3) He had given him by measurement,

the length of a meridian of the earth, which enabled him by the law of the parallax to calculate the approximate distance of the moon from the earth. (4) He had also given him the fact that all bodies at short distances from the earth were attracted to it by a force sensibly constant.

The questions which occurred to his mind, waiting for an answer, were these: (1) Can the hypothesis, that the force which holds the heavenly bodies in their orbits varies as the square of the distance, be proved? This hypothesis had also occurred, as Newton himself admits, to Hooke, Wren, and Halley, but they had failed to verify it by calculations. (2) Is this force identical with that of gravity on the earth's surface? Analogy would seem to indicate that these questions might be answered in the affirmative. The hypotheses seemed reasonable enough, but are they actually true as matters of fact? All the mathematical or metaphysical reasoning possible, all the fine analogies and harmonies that ever entered the head of Pythagoras or Schelling, would not give the ghost of a reply that would satisfy, or ought to satisfy, a scientific mind. But if mathematics could not of itself, and from its unassisted resources, answer the questions, it could help the inquirer to put nature to the torture, and compel her to answer yes or no.

Supposing the moon at any given time to have a projectile force impressed upon it in the direction of a tangent to its orbit, carrying it forward at a rapidity, say, of thirty-eight miles a minute, would the mass of the earth, acting constantly by its gravity and with that force diminishing inversely as the square of the distance, draw the moon toward itself

in such a way that it would describe an ellipse by its motion? This calculation was made, assuming the hypotheses adopted in the outset to be true. The result of the calculation was found to agree with the path and time of the moon's orbit as actually observed. Applying similar calculations to the observed elements of other planetary orbits, the same results were found. It explained the tides also, and the irregularities of planetary motion. Found to be true in these emphatic instances, the induction was held to be complete. The law of the celestial motions was established, and astronomy passed from infancy to manhood by a single bound. The theory has since been extended to other systems than ours, by observations on binary stars; it has been shown to harmonize in the minutest points with the vast accumulations of observed irregularities in celestial motions. But the induction was complete, when, with quickened pulse and quivering hand, the great discoverer first looked upon the results of his calculations on the orbit of the moon.

We have given this illustration to show the nature of the relation between pure mathematics and inductive processes. Mathematics is essential to physics; but it is distinct from it, as is the world of thought from the world of matter. Not less impressive is the power of mathematical analysis in other branches of physical science. A ray of light, when it enters water, is bent or refracted by a certain and invariable law. This law, mathematically expressed, is the index of refraction. Each of the different colored rays in the spectrum has a different index of refraction. A globular drop of water decomposes light like a prism. The rainbow

is seen only when the sun shines into drops of rain or spray. Here are a series of facts that would give rise to a reasonable hypothesis of the cause of the rainbow. But how are we to subject this hypothesis to a scientific test? Obviously by calculating the effect on the eye of a myriad of little globes of water bathed in the sunlight, and each furnishing its tiny but manifold fringes of radiance and beauty.

The scientific investigator begins with these elementary and obvious facts, and by his powerful calculus, compels the single drop of water to reveal the marvels of the bow of promise. He constructs the primary, secondary, and tertiary bow, determines the distance between them, and even gives us the radius of the curve which these resplendent arches describe on the blue of the firmament. He demonstrates the harmony of his hypothesis with the universal laws which govern the reflection and refraction of light in any medium whatever. He makes his thought the possession of all who may take the trouble to read and understand his formulas. No college student who has labored through the differentiations and integrations which establish on a scientific basis the theory of the rainbow, will ever forget the impression made on his mind. Years may pass away, the processes may fade into vagueness or be forgotten, yet the impressions of power and beauty and all-pervading law which then dawned on his mind, will be lived over in all their freshness with every vision of that "sacred sign in the heavens." It will be to him one of those "thoughts that wake to perish never."

The physical sciences which we have thus far considered, have been conversant with masses of mat-

ter, or the integral and similar parts of which the masses are by aggregation made up. That science which has to do with the component elements of these parts themselves, is chemistry.

Chemically considered, bodies fall in the first place into two classes, simple and compound—the term simple being only provisionally applied to those substances which resist all known chemical re-agents. Compound bodies are held together, as the phenomena of decomposition proves, by an attraction mutual in its action and resulting in a statical equilibrium. Chemical decomposition is the destruction of this statical equilibrium, by bringing into action other forces which rend the compound body apart, forming a new combination or a new equilibrium. Practically, there is a chemical statics and dynamics, but they are due to the action of subtler forces than gravity, elasticity, or friction. It is with the control of these forces and the examination of the laws of their action, that chemistry is conversant. It has to do with whatever determines, modifies, or suspends the action of these forces. It describes the various properties of the combinations which result. It takes account of all conditions requisite to the excitation of chemical action, whether heat, cold, time, rest, agitation, pressure, light, electricity, or magnetism. Although, since the time of Lavoisier, chemistry has been a science of number, weight, and measure, its laws do not admit of that kind of quantitative expression which renders possible mathematical deductions; nor do its laws admit of the imposing generality of statement as do other branches of physics. Hence a general acquaintance with its laws and facts may be acquired, without that intense

and painful concentration of thought, or that comprehension of abstract terms and complicated processes, which render physics and astronomy the horror and opprobrium of indolent college students. Its "wonderful and sudden transformations," to use the language of another, "the violent activity often assumed by substances usually considered inert and sluggish, and above all the insight it gives into the nature of innumerable operations which we see daily carried on around us, have contributed to render it the most popular, as well as one of the most useful of the sciences."

The doctrine of latent heat, with its consequences, especially that bearing on the scientific theory of the steam engine; the atomic theory of Dalton, leading to the law of definite proportions for the combination of gases as well as solids and liquids; the discovery of the relation of chemical affinity with voltaic electricity; the analyses of the constitutive elements of plants and animal tissues; the establishment of the relations between the chemical composition and form of crystalline bodies—have marked the steps of progress which have placed chemistry among the most important and imposing of the physical sciences.

Allusion to chemical analysis, leads us to note the growing up of the sciences of mineralogy and geology. At first, mineralogy consisted in a loose description of the color and external characters of bodies composing the crust of the earth. Soon attention was given to their chemical composition, and this furnished the law of classification in the science. Afterward, the relation between this chemical composition and crystalline form was, to a con-

siderable extent, found to be fixed and definite. The tendency to crystalline form was found universal, and minerals were classified by their fundamental forms; and all the manifold and partially developed states in which they are actually found in nature, were reduced, by cleavage and the application of a few mathematical diagrams and formulas, to the six primary classes or forms which include all the crystalline substances in nature.

From the examination of the minute portions of the earth's constituent elements, men naturally passed to an examination of the order of formation, and laws of superposition of the large masses. Mineralogy had indeed formed the natural preparation for this higher science. As the edges of the earth's strata are elevated by mountain ridges, or exposed by deep abrasions, they are seen to be separate and distinct from each other and susceptible of classification into formations. When these are not continuous, they may, either by similar lithological structure and composition or by similar organic remains, be identified with each other. These formations occupy a fixed relation in the earth's crust, and one which naturally suggests the order of time in which they were deposited. In all these formations, except the lower in natural place, there are distributed marks of organic life, generally in a petrified state.

These fossil remains, as they are called, are so arranged in the earth's crust that they indicate different epochs of vegetable and animal life, as having succeeded each other on our earth, proceeding by gradations from the lowest to the highest forms. Though these gradations are by no means absolutely

regular, they justify us in the conclusion that animal and vegetable existences, greatly different from those of the present time, have flourished on our globe, under their appropriate conditions of life. The study of fossil plants and fossil animals has thrown the strongest and clearest light on all questions connected with recent zoölogy and botany. The gigantic plants of the coal period, studied in their relations to the conditions of soil and atmosphere in which they grew, show the enormous changes which external circumstances can make in the same or allied botanical species.

He who would penetrate into all those secrets of nature which affect the acclimatization, hybridization, modification, and nutrition of plants, must begin his studies in fossil botany, and give days and nights to the examination of that gigantic flora whose remains have formed the coal fields of the geological explorer. A similar train of remark would be applicable to the relation of fossil remains to existing species in the animal creation. It has been the study of the fossil fauna which has given, during the last half-century, such an impulse to comparative and morphological zoölogy.

These fossils form a sort of rude chronology of our planet's history, and give the elements by which the stages of the earth's development, under the forming thought of the Creator, can be reconstructed and described. The identification of the forces which are now in action on the earth with those which in past eras have uplifted mountains and submerged continents, has given a breadth and comprehension to geological generalization and a universality to its laws, which bring them within the

same range as those of physical astronomy. The closeness of the connection of geology with economical results in agriculture and mining, and the widespread and obvious nature of some of its phenomena, render it one of the most elevating and practically useful of the sciences.

We have already gone too far for our readers' patience in the attempt to sketch the fields of inquiry open to the mind of man. It has been to little purpose, if some glimpses have not been given of the intimate connection of all the parts of this vast realm with each other. The several sciences of mind and matter so grow out of each other, and interlace in so many thousand ways, that it is difficult, except by a merely arbitrary line, to distinguish their respective domains. All the sciences of mind are so many outgrowths of a simple analysis of the indivisible consciousness of man. The doctrine of the correlation of physical forces even threatens to break down the distinctions among the active agents in nature, and resolve them all into a single force under a variety of transformations. It may now be said, without exaggeration, that no man can become profoundly versed in any one of the sciences, without some acquaintance with the laws which control all the cognate branches of inquiry. As we push observation and thought, we find the isolated and apparently unrelated facts with which knowledge begins resolving themselves into those which are more general, and the laws by which their appearance is regulated becoming absorbed in those of still broader range, till with bold confidence we reach out our hands to seize the secret of the universe and its Almighty Creator. But as we grasp at the

boon which seems within our reach, it rebounds to the distance, and the humbling facts of our finite capacity for knowledge, and the infinite complexity and extent of the universe, dash our hopes and we bow in philosophical, if not religious awe, in the presence of the secret things which belong to the Almighty.

The seeming paradox, that the wider our sweep of knowledge the more we are impressed with the limits of our capacity, contains a real truth of human experience. . . Our powers of knowing are limited by the minuteness, as well as the vastness of the objects of perception. Our knowledge practically oscillates between the infinitely great and the infinitely small. The eye aided by the microscope possibly reaches no nearer the ultimate elements of things, than our senses approach the comprehension of the infinite whole, in the opposite direction. All speculations regarding the nature of the ultimate constitution of matter have failed. The Daltonian law of definite proportions seems to favor the theory of Newton, that it is composed of solid atoms of a definite shape. The phenomena of crystallography seem also to favor this view; but the hypothesis cannot be verified, and many facts of molecular action refuse to be included within it. It may be safely said, that the internal and ultimate constitution of matter, is as far from our knowledge now as it was in the time of Newton.

Akin to these speculations have been those which have sought as their end the discovery of the secret cause of animal life. The vital principle has been supposed identical with one after another of the forces of nature, but no such identification has been

established. A natural cause for the diversities in species among plants and animals, has been sought with zeal. The hypothesis of transmutation of one species into another, by the joint action of internal forces and external conditions of life, apart from creative agency, has been defended with earnestness and ability; but no crucial experiment showing the possibility of such a change has ever been produced. All merely scientific explanations of the origin of man or animals on our earth, or of the planets in the firmament, have as yet failed. The facts upon which such inquiries depend seem to lie beyond the limits of human knowledge. The nebular hypothesis is encumbered with physical difficulties; and though, like the similar one of transmutation of species, we are not at liberty to say that it cannot be true, no man can prove that it actually is true, or remove the violent assumptions which it involves.

In fact, what is called explanation is simply referring a fact or body of facts to a more general fact or law. When Davy showed that voltaic electricity would rend apart the metallic bases from common alkalies, he simply showed that what were before considered simple substances, were in reality compound, and that the force which held these elements in statical equilibrium, was the same with that which flashes in the lightning and points the needle to the pole. He taught us more than we knew before, regarding the extent and modes of electric action, and of the elements which composed the alkalies. But of the ultimate constitution of the electric fluid, and those new simple substances which he proved to exist, he revealed very little. The broader our induction of physical causes, the grander the sweep

of our recognition of the presence of physical law, the more intense and emphatic becomes the soul's demand for a cause of causes, for a mind to whose unresting, unhasting agency, all modes of material activity are due. Starting out from the admitted and fundamental principles of any human science, a point is soon reached in which problems arise too great in number and complexity of elements and conditions for human solution.

From this law of limitation no class of thinkers can claim exemption. The metaphysician is vexed with his antinomies regarding freedom and necessity, and the passage in thought from the finite to the infinite. The philologist has his ever-recurring and never-explained difficulty about the relative priority of thought and language. The mathematician has his paradoxes touching infinitesimal analysis, and is haunted by ghosts innumerable of departed quantities too thin and vapory to be held in the meshes of curve or formula. The politician must meet and quell by unseemly compromises the ever-outcropping and ever-unsettled feud between public law and the individual conscience, between personal well-being and freedom and what is imperatively demanded as the condition for maintaining a continuous and energetic State life. The naturalist has his vexed questions on origins, the distinction between mineral and vegetable, plant and animal, instinct and reason. Everywhere we find solid and unquestionable knowledge in close relation to the chaos of darkness and mystery.

The line which separates the region of positive knowledge from that of obscurity and doubt is never sharply defined. It is enough for us that,

though the knowledge permitted to us is limited and partial, it is trustworthy and real, vastly greater in extent than any man can explore, and always adapted to man's needs by that great law of uses and adjustments, which reveals the thought and goodness of Him by whom and in whom all things consist.

V

THE ARABIAN PHILOSOPHY

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NO person who follows back the stream of philosophic thought from the present time through the Middle Ages to its proximate sources in the prolific intellect of the Greeks, can fail to notice the profound impression made upon the European mind by the Saracenic literature which crossed the Pyrenees from Spain. . .

Wherever we can trace the beginning of the scientific discussion of the mental faculties, we find the determining impulse in that direction to have been given by man's moral wants and religious aspirations. It is these which start the great problems of life and being that so imperatively demand attention and solution. While the remark of Beausobre, that "heresies in religion have been founded on previous philosophies," contains in it a partial truth; that of Stahl, that "a people's philosophy has its root in their theology," embodies one much more radical and profound. . . Philosophy and religion act and re-act upon each other with extraordinary power, alternately manifesting themselves as cause and consequence. But even in these alternations of energy and passivity, a profound analysis will discover that some affirmation or denial concerning God and duty has controlled and pervaded alike the philosopher and the seer.

To these general considerations the Arabs form no exception. The advocates of the doctrine that there are essential and specific differences of mental constitution in different human races, have affirmed that the Semitic tribes are incapable of generating philosophical conceptions, and that their mental activity in everything relating to the soul is limited to the acceptance and propagation of religious dogmas embodied in lyrics or prophecy. Although we shall see hereafter that the Arabic thought was finally molded into Greek forms, there is clear evidence of philosophic activity, at least in the germ, before the practical contact of the Greek and Arabic minds. The same general relation existed between the Greek and the Arabic mind as between that of the Greeks and the Roman, Celtic, Slavonic and Teutonic peoples. Like the Non-Hellenic Europeans, the Arabs derived from the Greeks their forms of thinking, and the basis of their developed systems.

It is not improper to say that there is no monument of abstract thought attributable to the Arabs, previous to the time of Mohammed. The Arabs estimate so lightly the knowledge of their ancestors before the advent of the prophet, that they designate the antecedent period as "the time of ignorance." In the first years of propagandism, the ferocious fanaticism of the conquering Saracens left them neither time nor disposition for the processes of philosophy. But no sooner had their new creed become established, than some independent and thoughtful minds sought for a foundation, in the nature of things, for the doctrines of the Koran. These efforts led to the formation of

religious sects and schools of instruction, which sought to defend their various dogmas by dialectic weapons, and to ground them upon general views of human nature.

These philosophical tentatives generally took the form of heresies and dissent from the reigning religious faith. Among the first of these was the sect of the "Kadrites," or the partisans of freewill. In opposition to the natural interpretation of the Koran, they believed in man's entire ability to control and determine his own actions, whether good or bad. They denied predestination, and placed the human soul beyond the control of any objective influence whatever. To these were opposed the "Djabarites," or the partisans of absolute fatalism. This sect denied to man all power to act freely; and affirmed that all his activity was due to external constraints. So far as the theory of the will was concerned, this school was quite in harmony with the orthodox belief derived from the Koran. But there was taught in connection with this, the doctrine that God could not be placed in any category of being, and could be described by no attributes, qualities, or modes—views analogous to those held by Scotus Erigena. In opposition to the last-named doctrine, there arose the school of the "Cifatites," or partisans of the attributes, who interpreted literally the words of the Koran descriptive of the Almighty, and pushed their conclusions to the extreme of anthropomorphism.

At Bassora, about the first quarter of the eighth century, there arose another school, called the "Motazales," or Dissenters. This school attempted by an eclectic process to reduce to system the opin-

ions of the various Mohammedan sects, and especially those of the Kadrites, or partisans of free-will. Though subsequently subdivided by many shades of opinion, these dissenters agreed generally in denying the existence of divine attributes, as distinct from the divine essence, seeking thus to modify the coarse representations of the mode of the divine existence given in the Koran; and especially to illustrate and establish the doctrine of the unity of God. They strenuously maintained the freedom of the human will, affirming that man actually creates the good and evil by which he is affected. By reason of their adhesion to these two doctrines, the unity of God and the freedom of the human will, the Motazales styled themselves the partisans of unity and justice, assuming that the unity of God and the justice of his government were called into doubt by the vulgar Mohammedan creed. De Sacy, in his "Exposition of the Religion of the Druses," says, that the Motazales held that "all the knowledge requisite to salvation, is accessible to man by the light of reason, independently of the Koran, or any positive revelation." They naturally employed dialectic processes in defending their opinions against the literal orthodox on the one hand, and the extreme heretics on the other, between whom they sought to hold an intermediate position. This dialectic method of treating the doctrines of the Koran, either in the way of explanation, attack, or defense, was called the "science of the word," and it grew up into something very similiar to the scholastic theology of the Christians in the Middle Ages. Among the Saracens, as among the Christians, a similar method of investigation and statement was adopted by the

holders of views extremely diverse from each other.

These general remarks will give some idea of the condition of the Moslem mind at the accession of the Abbassides to the throne of the Caliphs, in the latter half of the eighth century. They show that the Arabians had already been exercised in dialectic subtleties, and had entered upon metaphysical discussions which prepared their minds to receive the Greek philosophical culture, and to cast their sectarian debates into still more abstract forms.

The Arabs derived their first knowledge of Greek literature from the Syriac and Chaldean Christians. The Caliph Al Mamoun was especially noted for his efforts to increase the influence of Greek culture among his subjects. In the first instance, translations from the Greek into Arabic were confined to works on medicine, physics, and astronomy. But these sciences among the Greeks were treated with so little division of labor, and were so much affected by strictly metaphysical methods and processes that the Arabs were soon introduced to all the subtleties of the Greek philosophers.

Aristotle became, by way of eminence, their guide, and this position he seems always to have retained. The Arabic translations of Aristotle appear to have been mainly the work of Christian writers, and especially of the Nestorians, who frequented the courts of the Caliphs in considerable numbers as teachers and physicians. Many of these works were rendered into Arabic from Syriac versions, which had been made at an earlier period. Whether made from the Greek directly or from Syriac versions, these works appear to have been trans-

lated into Arabic with a good degree of care and exactness, having been subjected to repeated corrections and revisions. Many historians of philosophy, however, have followed Brucker and Bayle in representing them as grossly inadequate and incorrect. But the great Jewish Orientalist, Munck, the author of the articles on Arabic Philosophers in the "*Dictionnaire des Sciences Philosophiques*," has formed of them a much more favorable opinion. Referring to Brucker's statement, Munck speaks as follows: "'The Refutation of the Sophists' appears in our manuscript in four different versions. The examination of the critical apparatus which this precious manuscript alone furnishes, is sufficient to convince us that the Arabs possessed translations made with the most scrupulous exactness, and that the authors who, without having seen these translations, have spoken of them as barbarous and absurd, were in a profound error. These authors have founded their judgment upon bad Latin versions, made, not from the Arabic, but from translations of the Arabic into Hebrew."

The most noted of the early translators of Aristotle were a Nestorian physician named Honain Ben-Ishâk and his son. They lived at Bagdad, in the latter part of the ninth century. Early in the tenth century, other celebrated translators revised these versions, or made new ones, and added to them the commentaries of Porphyry, Alexander of Aphrodisia, Themistius, and John Philoponus.

It was through these commentators that the Arabs first became acquainted with Plato. Although Plato's works do not seem to have been much studied among them, an Arabian author of

the thirteenth century, who wrote a "Dictionary of Philosophers," speaks under the article "Plato," of Arabic versions of the "Republic," the "Laws," and the "Timæus"; and under the article "Socrates," the same author cites long passages from the "Crito" and the "Phædon." It is quite evident, however, that the exact knowledge of the Arabs regarding Greek philosophy, was limited to Aristotle and his commentators.

Of Greek writers on the natural sciences, their knowledge was somewhat more extended, including the Elements of Euclid, the works of Ptolemy, Hippocrates, Galen, and Dioscorides. In these writers the Arabs found their masters; and all their subsequent scientific attainments were founded in the study of their works. Contrary to the general opinion, Renan insists that their claim to originality in physical science is very slight, and not in any way superior to that which they can claim in respect to metaphysics.

The knowledge of the works of Aristotle soon spread into all the schools, and they were eagerly studied by all the religious sects, not, however, without exciting the suspicions of the more orthodox followers of the Prophet. De Sacy quotes an Arabic historian who laments that "the doctrines of the philosophers have given rise to the most fearful evils among the Mohammedans, philosophy having served to augment the errors of heretics, and to add to their impiety an increase of impiety." Notwithstanding the suspicion thrown upon the followers of Aristotle, his works were eagerly studied, and the opinions and psychological analyses of the great master were made available by

all the heretics and sectaries among the Arabs in the defense and propagation of their tenets. They soon commenced the task of commenting on Aristotle's works after the method of the Alexandrians and later Greeks, whose writings had become known to them. They gave to him the epithet of "the philosopher" by way of eminence, after the manner of the Christian writers of the Middle Ages. Though not slavishly adopted as an authority by all, he exercised a general dictatorship over the form and method of their investigations and reasonings.

The intellectual development of the Arabs manifested itself in the main at two centers—at the courts of the Eastern Caliphs on the one hand, and in Spain on the other. The Eastern writers preceded the Western in point of time, and the suppression of free thought in the schools of Bagdad and Bassora by Mohammedan bigotry gave additional vigor to the philosophical development of the Mohammedans in Spain. The most celebrated of the Arabian philosophers in the East were Al Kendi, who flourished in the ninth century; Al Farabi, who lived in the tenth century, known especially for his works on logic; and the more widely celebrated Ibn-Sina, or Avicenna. The last-named writer was of Persian origin, and was born A. D. 980, and died A. D. 1037. He occupied a representative position among the Eastern Saracens, similar to that of Averrhoes in the West. It is around these two celebrated names, occupying respectively similar positions in the Orient and Occident, that our sketch of Saracenic thought will naturally gather. They were both followers of Aristotle, and hence similar in their general views.

Avicenna is best known in popular history as a physician. His "Canon of Medicine" was for centuries considered the text-book for the European medical student. As a philosopher he is not thought to have made any important additions to the views of Aristotle and his Neo-Platonic commentators. In his religious opinions he professed to follow the Koran, and was clear in his affirmation of the individuality of the soul; but for reasons which we shall hereafter notice, he fell under the suspicion of heresy, and was made the object of attack by the skeptic Gazali, or Algazel, who wrote, or professed to write, in the interests of the orthodox Mohammedan faith.

In the minds of the Arabian philosophers who at all adhered to the popular faith, there seems to have been a constant collision between the strict monotheism of the Koran and the dualistic system of Aristotle. The Mohammedan and Aristotelian doctrines of the soul were also at variance with each other. The Greek philosopher believing in the eternity of matter, his views could not be harmonized with the Hebrew doctrine of creation, which had been incorporated into the Koran. He was by no means clear in his exposition of the relation which his "pure energy" or "form," without matter, sustained to the material universe; and consequently left in confusion, or shrouded in cosmological speculation, his entire doctrine of God. The Aristotelian notion of the division of the soul into intelligible and sensible parts, but one of which was appropriated to human individuality, could hardly be reconciled with that personal existence of the soul so emphatically affirmed in the Koran.

With the Arabian philosophers of the Middle Ages, the task of reconciling the doctrines of the Stagirite with the Koran was not an easy one. The doctrine of creation by a personal God, universally held by Christian philosophers, owes its origin to the Bible. This view borrowed by Mohammed from the Jews and Christians with whom he came in contact, stands out clearly in the Koran. This doctrine, and that of the unity of God and the spiritual personality of man, are the great truths which gave power to the system of Mohammed. The Greek philosopher, with all his breadth and power of intellect, never reached these elevated and simple conceptions.

There are two hypotheses concerning the creation of man and the physical universe, radically different from each other, which may be respectively designated as Mosaic and heathen. The one supposes a Creator, free, personal, omnipotent, with a constitution and attributes definite and determined, having a constant providence over the universe, holding in himself the complete causality of all things objective to himself, including the substantial, personal, and immortal soul of man. The other hypothesis involves the idea of the eternity of matter, the denial of creation, a belief in the evolution of the world from formless matter by inherent dynamic forces—God being but a name for the sum of the activities of the universe, undetermined and undistinguished by consciousness, freedom, or personality. The resulting doctrine of the human soul makes it a mere segment of the activities of the universe, separated from the sum of being in general by no real divisions—its individu-

ality being a formal and transitory mode of universal life to be absorbed, at the dissolution of the body, into the indistinguishable totality of universal being. How far Aristotle emancipated himself from this general drift of heathenism, it is not our purpose to inquire. It is clear that he never rose above the tendencies of his time, and that his doctrine of God and of the soul was radically inadequate and pantheistic.

Avicenna assumed with Aristotle the eternity of matter, but taught that the work of the Creator was simply to mold and fashion this eternally existent matter into forms of order and beauty. Adopting the Aristotelian terminology, which distinguished between the "matter" and "form" of material objects, he described the Creator as the "Giver of Forms," but encumbered this comparatively simple idea of creation, with reminiscences of Oriental pantheism, like those preserved in the Jewish Cabala, and the emanation-hypotheses of the Alexandrian Platonists and the Gnostics. Omitting, for the present, any discussion of these hypotheses, which were common to all the Arabian Aristotelians, it is sufficient to say that the Mosaic doctrine of the creation as expressed in the Koran seems to have retained a stronger hold of the mind of Avicenna than is generally made manifest in the writings of the Saracen philosophers of the Spanish school. It is plain that he made an attempt to harmonize the doctrine of the Koran with that which he received from other sources, whether Greek or Oriental.

In order to ascertain the doctrine of Avicenna regarding the soul, we must glance at that of Aris-

totle. At the basis of this great thinker's system lay the distinction between "power" and "act," between potential and actual existence. Aristotle applied this distinction to all things, man included; and in man, to thought itself. In analogy with this distinction, he supposed the existence of two intellects, active and passive—an intelligible and sensible soul. The sensible soul receives impressions of external things by virtue of its similarity to them in the mode of its existence, on the ancient principle, *simile simili cognoscitur.* The intelligible soul receives into itself the pure "form" from the sensible soul, disengaged from the material vehicle which contained it in the sense. It is the organ for the reception and manipulation of ideas—the *locus principiorum*—the faculty to which are due all the higher functions and activities of the rational being. This only is immortal. But whether this organ was held to be personal, that is to belong to the individual man, or was considered as a common "light of all our seeing," has given rise to much controversy. Omitting further discussion until we notice the similar opinions of Averrhoes, we will simply recount the deductions made by Avicenna from his interpretation of his master. These deductions were three-fold:

1. The active intellect has its existence anterior to the act of individual thought, since it is the necessary condition of all thought—thinking being impossible until its presence is actually made known.

2. The active intellect is independent of the individual, and does not make a part of the essence of one's personal being.

3. The active intellect, existing independently of the soul of the individual man, is the same in all.

By these deductions he was supposed by his contemporaries to weaken, if not to destroy, the hope of immortality, holding that everything which pertains to the individual, and which constitutes the personality of man, belonged to the sensible soul, which, according to Aristotle, pertained solely to the physical organization, and perished with the body. It is evident that however much respect was felt or feigned for the Koran by the Arabian philosophers, they did not limit their speculations by any regard to its letter.

It was natural that in the interests of Mohammedan orthodoxy, other and antagonistic speculations of an apologetic character should arise. Accordingly a school of thinkers, half sacerdotal and half philosophical, was formed, of which Gazali, or Algazel, was the leading spirit. His aim was to overthrow the influence of the metaphysicians, by showing their views to be self-destructive, and thus to prove the necessity of relying for the discovery of truth on the divine communications made to Mohammed. Algazel was born A. D. 1038, and was educated at Bagdad. He is chiefly important in the history of Saracen speculation as a philosophical skeptic. He belongs to the same class with Huet in France, and Glanville in England. He has somewhat in common with the distinguished Mansel of our own time. He represents himself as having gone through an examination of all the schools of philosophy, in the hope of attaining stable convictions. This course of study, however, resulted in complete skepticism. He doubted the

gifts of the senses, or he thought them not certified by intelligence. He doubted the results of intelligence, because it could not prove the reality and certitude of its own principles. From this condition of doubt, he was led to adopt the mystical doctrines of the Persian Soofis, which had been incorporated into the ideas of some of the many Mohammedan sects. In the mysticism and ecstacy of the Soofis, he appears to have reached intellectual quiet, but as a writer on their doctrines he seems to have made little mark.

After becoming an adherent of the mystical party among his countrymen, Algazel addressed himself to the work of neutralizing the influence of the philosophers, on the ground that they had weakened and corrupted the faith of his countrymen. For this purpose he wrote two treatises, the one entitled "Tendencies of the Philosophers," and the other, "Mutual Refutation." After announcing his general design in the preface to his first book, he added very sensibly that it would be impossible for him to accomplish his purpose of refuting the philosophers, until their views had been expounded and their underlying principles developed. After having finished his first and preliminary work, he undertook the task of refutation, which he effected by setting in orderly opposition the conflicting arguments of the various writers on the same subjects, showing thus the futility of philosophy as a means of obtaining fixed and practical convictions as guides in life.

The criticism of Algazel was directed to some twenty points of physics and metaphysics on which the philosophers had laid down conflicting state-

ments, and on which he regarded their conclusions as untrustworthy and dangerous. The following is a portion of the analysis of the work given by Munck: (1) The philosophers have failed to establish their doctrine of the eternity of matter, and the inherent and necessary permanence of the material world. (2) He deemed them wrong in asserting God to be a mere plastic worker in eternally existing and uncreated matter. (3) He also denied that by philosophy they had proved the existence of such a plastic worker at all. (4) He denied that they could establish the unity of God, or show the falsity of the Aristotelian dualism. (5) He accused them of error in denying that God manifests himself under finite conditions and relations. (6) He also accused them of error in the affirmation that the First Existence or Absolute Being is an abstract entity only, incapable of being put into any category of thought or existence, or of being compared with, or distinguished from, any other being. (7) He claimed that they failed to prove God incorporeal. (8) He asserted that they failed to show that the world had a cause, and that consequently they were chargeable with atheism. (9) He affirmed that their system denied to God the knowledge of particular things, or of his own existence. (10) He denied their theory of causation, and charged them with error in affirming that the so-called laws of nature were necessary in their action. (11) He denied their power to demonstrate the spiritual existence of the soul, or its immortality. (12) He charged them with error in denying the resurrection and the future state of rewards and punishments.

We omit his objections to the reigning theories on physics and cosmology. It is clear from what we have here given, that Algazel was a shrewd and able critic, with great capacity to detect the weakness of the human understanding, as well as the defects of those baseless *a priori* hypotheses which formed so much of the subject-matter of ancient philosophy. He illustrates also the natural sympathy between the apparently opposite poles of human thought, skepticism and mysticism. It is interesting to meet with illustrations of universal principles in minds widely separated from each other in respect to time, culture, and conditions. Mysticism and skepticism each has a tendency to generate the other. George Fox and his immediate followers undervalued the objective and positive elements of the Christian faith, and rested in an internal mystical illumination, distinguishable by no positive marks or tests from the workings of their own consciousness. Succeeding generations of the Friends, surrounded by the influence of this mystical culture, have furnished much more than their natural share of recruits to the ranks of the rationalists and skeptics. Large numbers of persons in our own country, educated in skeptical methods, who have passed through all the phases of religious and philosophical doubt and denial, have passed at a bound to the opposite extremes of religious and philosophical mysticism. It is worthy of remark that, during the time of the intensest skeptical activity that our own country has ever witnessed, the mystical writings of Behmen and the early Friends, of Madame Guyon and Fenelon, were in great demand. Spinoza, a philosophical mystic, whose mind had

been nourished in the mystical theories of the rabbins and the Cabala, became the high priest of the German school who resolved the Gospel histories into personified ideas, and sapped the foundation of all objective certainty and evidence. We often see the same mind at one period absolutely rioting in doubt and denial of all sacred things, and at another adopting with enthusiastic faith the dogmas of transubstantiation and the immaculate conception.

One of the most remarkable points in the criticisms of Algazel is found in his discussion of the law of causality. In it he has anticipated nearly the entire doctrine of Hume on the same subject. But this anticipation only proves that skeptical tendencies in all ages naturally lead to similar results. Although his reasoning on this subject is analogous to that of Hume, the use which he makes of it is quite different. Denying the actual relation of cause and effect between things, and denying all power of one substance or event over another, he attributes all real causation in the universe to the immediate action of the Divine Will. His doctrine presents a striking analogy to the Cartesian hypothesis of "occasional causes" and "Divine assistance." We condense his reasonings and illustrations, as given by Munck, under the following heads: (1) When two events happen in constant relation and order, it by no means follows that one is the cause of the other. The relation is one of association, not of cause and effect. He thus keenly illustrates this proposition: A person born blind, who should see for one day only, and who knew nothing of the nature of light, would suppose that he saw the objects

themselves by their own impression upon his organs, and would take no account of the rays of light which are the real object or medium of vision. (2) When one admits the action of certain causes by a law of nature, so called, it by no means follows necessarily, that the effect under the same circumstances and upon the same objects must always be the same. For example, cotton, without ceasing to be cotton, might take on, by the will of God, some quality by which it could resist the action of fire. In fact, what philosophers call the law of nature, or the law of causality, is simply a name for what takes place uniformly by the action of the Divine Will. We admit the relation between such events to be fixed and uniform, because God in his foreknowledge, determining that things should remain always thus, has given us the consciousness or belief of that fact. But there can be no law of nature which is immutable in itself, or which limits the freedom of the Creator.

Algazel is charged with having written these books in the interests of religion, without himself believing in the system which he defended. Renan tells us that Moses of Narbonne, in his preface to the Hebrew version of the work we are noticing, declares that Algazel wrote a little volume for some chosen friends, in which he set aside his own arguments against the philosophers. Ibn-Tofail makes similar statements in a more circumstantial manner. We may suppose that, like all other skeptics, he saw that in denying the validity of sensible knowledge and the authority of consciousness, he in reality denied nothing; that he who attempts to overthrow all the bases of human belief leaves all things rela-

tively where he found them. The mass of men can never doubt the certainty of the common facts of daily life, and if a skeptic leaves the evidence of a supernatural order upon the same foundation, he in reality accomplishes nothing, but makes a show of sharp reasoning which can produce no conviction.

The practical effect, however, of the able works of Algazel seems to have been such as to give a deathblow to philosophical speculation at the courts of the Eastern Caliphs. Recoiling before bigotry and opposition at the East, it arose with new expansiveness and vigor on the soil of Spain, where the Saracenic dominion had already been fully established. There is so much of uniformity in the methods and results of Arabian speculators, and they follow so closely in the steps of each other and of Aristotle, that it would be wearisome to speak of them in detail. We pass over, without notice, the names of many distinguished men among the Arabs in Spain. We confine ourselves to a sketch of the opinions and influence of Ibn-Roshd, or Averrhoes.

This great man's writings form the culminating point of philosophical culture among the Saracens. He seems to have gathered up into his own mind, and spread out in his writings the entire results of Arabic thought and investigation. A statement of his methods and opinions will cover the principal remaining ground of our sketch of Moslem philosophical development. It was mainly through the writings of Averrhoes that the Christians of the Middle Ages came into connection with the thinking of their enemies across the Pyrenees. The study of his writings undoubtedly did much to excite

thought and investigation in Christendom, and to promote a taste for a knowledge of the ancient philosophers in their original garb. The impression which he made upon the European mind was powerful. His opinions became mingled with the theology of the schools, and called forth in their refutation the ablest minds of the Christian church. Though spoken of at first with respect, his name was finally mingled with the legendary history of the Middle Ages as the grand exemplar and representative of scoffing, blasphemy, and universal unbelief. It is this close connection which existed between the works of Averrhoes and the scholastic theology and apologetics, that gives so much of interest in the mind of the Christian scholar to the views and opinions of this distinguished philosopher.

Ibn-Roshd, known in history as Averrhoes, was born in the first quarter of the twelfth century, at Cordova in Spain. He was descended from a family celebrated as magistrates in a State where, as in all Mohammedan countries, the theologian and lawyer were combined in the same person. The best authorities place his birth in the year 1120. He lived during the height of the Moslem power and civilization in Spain, and after the decline of philosophical culture among the Saracens in the East. His education was begun by a severe training in the theology and jurisprudence which had been drawn out of the Koran. Although remarkable for his proficiency in the knowledge of the Koran and the commentaries and legal decisions by which it had been supplemented, he pushed his studies far beyond, including in them the whole range of the knowledge of his time, whether drawn from native or Greek sources.

Special attention was devoted to medicine, mathematics, the philosophy of Aristotle, and his Neo-Platonic commentators. Like his father and grandfather, he served as a kadi, or magistrate, and appears to have been engaged in a diplomatic mission of some sort in Morocco. Though he arrived at great distinction among his countrymen, he fell into disgrace at the court of the sultan, Almanzor, was deprived of his political honors, and banished to the village of Lucena, near Cordova. Whether his banishment was due to some prejudice which he had incurred with a despotic court, or to the opposition which was excited against him for his philosophical opinions, it is not easy to say. Possibly both causes may have combined in producing the result. By the intercession of powerful friends he was soon released and returned once more to Africa, where he soon after died, in 1198.

It may not be improper, in deference to the end which we have in view, to cast a glance at the intellectual and moral forces which agitated Europe during the period of the life of Averrhoes. The twelfth century must be admitted to have been a period of intense intellectual activity, notwithstanding the inconsistency of this view with the vulgar estimate of that period. Although there was little intercommunication in the modern sense of the term, there was a rapid circulation of ideas, for the age had ideas to circulate. The rush of large bodies of young men to the universities from all parts of Christendom, and a similar impulse for a similar purpose among the Saracens; the Crusades, and the vast upheaval of thought and emotion in which they originated, and in which they resulted; the

bitter conflicts regarding the limits respectively of civil and ecclesiastical power; the sudden influx into Spain of all the best results of Oriental and Hellenic thought from the courts of the Asiatic Caliphs, could not fail to form an intellectual atmosphere stimulating thought and passion to a degree of which we are likely to form a most inadequate conception.

During the last three-quarters of the twelfth century the seeds of ideas, events, systems, laws, and nationalities were germinating and quickening into life. Abelard, the knight-errant of scholastic thinking, was drawing his crowds of eager listeners, while he demolished with his facile dialectic the consecrated realism of his old master and the church, or gave form and substance to the doubts and questionings of the age in his "*Sic et Non.*" Bernard of Clairvaux, positive, mystic, and realist, was thundering on behalf of threatened obedience and orthodoxy, and organizing that system for the compression of thought within the Roman Church, which culminated in the crusades against the Waldenses, and made possible in later times the tortures of Torquemada. Peter of Clugny was defending the Christian faith against Jew and Saracen, whose unholy activity of thought was even then felt and feared more than the spear or scimitar of the Moslem warrior. Peter the Lombard, was elaborating at Paris his four "Books of Sentences," destined for generations to shape and determine the theological and metaphysical activity of European Christendom.

During this period Aben-Ezra "the Wise," revived the exegesis of the Hebrew Scriptures in

Spain; and David Kimchi prepared his Hebrew grammar and lexicon. Jewish scholars, physicians, and bankers were scattered over Europe, bearing with them everywhere the intellectual spoils of the rabbins, the Greeks, and the Arabs. England, under the Norman kings, was becoming a consolidated monarchy, already excited by the collisions between the temporal and eccleciastical power. The Constitutions of Clarendon had decided the dispute against the church, and established the predominance of civil over canon law. Arnold of Brescia, with a foresight which the present condition of Italy more than vindicates, labored to save Rome from the temporal control of the papacy, and to restore to the church apostolic freedom, and to the city the old franchises of the republic. During this period the sacramental system of the Roman Church was developed amid strong opposition. The Waldenses made their protests against the corruptions of the hierarchy, and, like the Saracens of the East, were made the object of a bloody and exterminating war. During this period Gratian made his collection of ancient canons, giving currency anew to the forged Decretals of Isidore, laying in fraud the basis of the papal supremacy. During this period the Pandects of Justinian were discovered at Amalfi, and that intense impulse given to the study of the Roman law which collected at Bologna students from all parts of Europe. In this period the war of the Hohenstaufen emperors regarding Investitures, was carried on. Guelph and Ghibeline were arrayed against each other in Italy; and the Holy Roman Empire was set in deadly array over against the Holy Roman Church. By literature and arms

that long strife was begun, which in our time, under the alias of the "Roman question," has baffled alike the statesmanship of Cavour, and the physical power of Napoleon. Toward the East all eyes were turned, where Barbarossa, "the Xerxes of the Middle Ages," Philip Augustus, and Cœur de Lion, were contending with the genius of Saladin, and the still fresh enthusiasm of the Moslem.

It is not strange that in such an age, when all the fundamental principles of life and society were casting off the old, and taking on the new—when the two mightiest moral forces of earth were measuring their strength in deadly conflict for the control of the world—that the young Saracen, Averrhoes, should have found his great natural powers excited to the intensest activity, and furnished with the largest career. Although little is known of the details of his early life, we may safely assume that his celebrity in the pursuits peculiar to the Spanish Arabs was well founded. It is a remarkable fact, that of his personal history so little is known. The persecutions which rose against the philosophers soon after his death, almost entirely obliterated the name and memory of the great commentator from the Arabic literature and mind. In the excitement of this reaction whole libraries of philosophical writings were destroyed. This bigotry and fanaticism affected both princes and people, and left the greatest names which illustrate the Saracenic annals to be saved from oblivion by Jewish and Christian historians alone. The burning of works on philosophy is said to have been one means adopted by the usurper, Almanzor, to secure popularity among his subjects. Renan quotes the following passage

from an Arabic writer: "It is well known how Almanzor conceived the idea of destroying, within his States, all works treating of logic and philosophy, giving orders that all books of this sort which could be found should be publicly burned. It is known also how he sought to abolish the study of the sciences by persecuting men who were devoted to their pursuit, punishing severely those convicted of possessing scientific works, or of hiding them in their libraries." It is evident that the philosophical culture of the Mohammedans, either in the East or West, was but a passing phenomenon which never affected the mass of the people, nor could be made consonant with the genius of their religious system.

In giving a sketch of the opinions of Averrhoes, as a specimen and resumption of the philosophical achievements of his countrymen, it is proper that allusion be made to the works of a literary and scientific character which occupied his life, and have been transmitted to us by their contents or titles. We give the following sketch on the authority of Renan. Upon philosophy, in the ancient sense of that term, there are attributed to him twenty-nine different treatises. Among these may be named his celebrated refutation of Algazel, a work concerning "the material intellect," an abridgment of Logic, Prolegomena to Philosophy, a commentary on the Republic of Plato, and another on a treatise on the intellect by Alexander of Aphrodisia. Among them are five treatises on theology, nine different treatises on jurisprudence, including three volumes of cases decided in the courts and a complete course of Mohammedan legal study; three works on as-

tronomy, including an abridgment of the Almagest, and a treatise on the motions of the celestial spheres, two works on grammar, and seventeen on medicine. The suspicion under which Averrhoes fell, of being false to the national faith, and the general destruction of works on philosophy by Almanzor, have already been alluded to as accounting for the feeble impression made by the great commentator on the generations of his countrymen succeeding his own. His memory and works received no better treatment from the Spanish conquerors of the Saracens. Spanish bigotry devoted Arabian literature to indiscriminate destruction. Eighty thousand manuscripts are said to have been burned by the direction of Cardinal Ximenes, in the streets of Grenada alone. It has thus come to pass that Arabic copies of the metaphysical works of Averrhoes are exceedingly scarce. But two libraries in Europe, according to Renan, the Laurentian Library at Florence and that of the Escurial in Spain, possess exemplars of the Arabic text of any portion of his philosophical writings. The Arabic texts of his medical works are less rare. But Hebrew versions of all his works, made by the Spanish Jews, exist in great abundance. It is from these Hebrew versions that most of the Latin translations, which are so numerous, have been made. From these versions, made at second-hand from the Hebrew, most historians of philosophy have formed their estimates of Arabic translations of Greek authors. According to Renan, no part of the Arabic text of Averrhoes has ever been printed. Two small works of his in Hebrew versions have been published, one at Trent in 1560, and another at Leipsic. Down to

the end of the sixteenth century, Latin translations of the whole or parts of his works were frequently published.

In making clear the opinions of Averrhoes we pass of necessity over a track similar to that which introduced our remarks upon Avicenna. Averrhoes entered into his predecessor's labors, adopted the same masters and combated similar theological views. He did not present himself as the founder of a system. He was imbued with that extreme reverence for the authority of Aristotle so universal in his time. In his treatise on the "Generation of Animals," he says of Aristotle, that "he occupies the highest elevation to which any man in any age has been able to arrive. It is to him that the Almighty makes allusion when he says in the Koran 'this superiority God gives to whom he will.'" His faith in the genius of the Greek philosopher was as exclusive as it was absolute. Never assuming to present a new system, he always takes the humble place of commentator upon the works of the great master. But even in so doing there was place found for a certain degree of originality. A multitude of points in Aristotle's works are left obscure, or his conclusions merely hinted at. These the commentators have essayed to explain or to supplement. In so doing they have made distinct and original essays on the topics in hand. In this way much original thought was demanded, which gave free play to the mental activity of the commentator. These discussions, which often stand apart, independent of the opinions of Aristotle, when collected and analyzed form a body of original doctrine which characterize the distinct opinions of each writer,

and determine his place in the history of speculation. It is in this way only that Averrhoes can be ranked among original writers upon philosophy.

The apologetic theology of the time was especially active in its opposition to the errors of the various sects, and especially to the views of the philosophers who sought to establish and popularize the doctrines of Aristotle. It maintained, against the Aristotelian dualism, the creation of matter, the existence of a free, personal God, separate from the world which he had created, though continually acting upon it. It exaggerated the fatalism of the Koran by affirming that every kind and mode of existence and activity, whether negative or positive, was immediately the work of God. Even the soul of man and the physical universe it held alike to be merely protracted volitions of the infinite mind. It denied the reality of physical causation in nature, affirming God to be the sole being in whom the attribute of power really exists. The representatives of this scholastic Mohammedan theology were the natural enemies of the philosophers. It was against them and their system that the philosophical writings of Averrhoes were directed. While commenting on the works of Aristotle, he covertly carried on a vigorous polemic against the theologians. The doctrine of Averrhoes was a bold and vigorous interpretation and development of Aristotle and his later Greek commentators. So far as his views were positive, they gathered themselves around the illustration and defense of the Peripatetic doctrine of "the eternity of matter" and the separate organization of the "intelligible" and "sensible soul."

In his commentary on the twelfth book of the

metaphysics of Aristotle, Averrhoes speaks as follows: "There are two opposite opinions upon the origin of beings, making allowance for some varieties of hypothesis intermediate between them. The one is the theory of development; the other that of creation. The partisans of development hold that generation is merely the drawing out of one being from another—a change of form in the same substance. The active principle in this process has no function but to draw out an endless procession of beings, and by these varying forms to distinguish them from each other. It is evident from this that its functions are those only of a moving force. The partisans of creation affirm that the active principle or being can create actually and completely without the necessity of pre-existing matter. This is the opinion of the 'Motecallemin' [scholastic theologians] of our religion and of the Christians—John Philoponus, for example—who pretend that the possibility of creation resides of necessity in the agent alone."

Averrhoes then proceeds to specify two varieties of the theory of development. After saying that both of these varieties are in accord as to the belief that generation is nothing but a transmutation of substance already existing, and that nothing is engendered, except from something similar to itself, he proceeds to define the first of them, evidently referring to the views of Avicenna. In this variety, he says in substance, the active principle creates first the "form" or type, and then impresses it upon the "matter" already existing. On this principle, the part of the Creator is that of the "Giver of Forms." This notion of Avicenna seems to have

been adopted with a view to a partial introduction into his philosophical system of the doctrine of creation held among his countrymen. Aristotle, as interpreted by Averrhoes, reduced creation, or rather generation, to a mere movement which struck out the "form," and united it with "matter" in the same indivisible act. This movement was merely that necessary process by which the new substance generated passed over from the potential to the actual state. Averrhoes disdained making any concessions to the beliefs or prejudices of his countrymen. He adopted with boldness and even exaggerated the doctrine of Aristotle on the creation and the constitution of the soul.

We condense from Renan the following exposition of his mode of applying to details his hypothesis of creation. Generation is nothing but a movement; all movements suppose a something moved. This unique something, this universal potentiality, is the "first matter." It is endowed with receptivity, but has no positive quality whatever, being equally fitted to take on the most contrary forms and modifications. This "first matter" is not susceptible of any characteristic name or definition. It is nothing but simple possibility. Every substance is thus eternal by its matter, or its possibility of being. To say that a substance has passed from non-existence into being, is to say that it possesses a capacity which it never had. The matter of substances has never been engendered, and is therefore incorruptible. The series of generations of being is infinite, *a parte ante* and *a parte post;* all that is possible to be will pass into actual existence. Otherwise there will be a cessation of activity in

the universe. Hence in eternity there will be no difference between that which is potential and that which is actual. Order will not precede disorder, nor will disorder precede order. Movement will not precede repose, nor repose precede movement. Movement is eternal and continuous, for all movement has its cause in a preceding movement. Time does not exist otherwise than by movement. We do not measure time, except by the change of state which we observe in ourselves. If the movement of the universe should cease, we should cease to measure time, that is to say, we should lose all perception of the succession of life and existence. We measure time in sleep only by the movements of our imagination. When the sleep is very profound, and we cease to be conscious of the movement of the imagination, we cease to be conscious of the movement of time. Movement alone constitutes the "before" and "after" in duration. Thus without movement there would be no successive revolutions of being, or in other words, there would be non-existence.

From this it results that the mover or moving force does not act freely, as the "Motecallemin" contend. Avicenna, who made to them so many concessions, imagined his classification of existence into the possible and the necessary. He put the world in the category of the possible, and supposed that it could have been different from what it actually is. But how can we call that possible or contingent of which the cause is necessary in its action? "The world could not be greater or less, than it is. . . God does not take cognizance of particular events, but only of the general laws of the

universe. He is occupied with species and classes to the exclusion of the individual. If he took cognizance of individual acts and beings, there would be perpetual change or innovation in his being. Again, if God governs the world immediately, the evil of the universe must be held as his immediate work. . . The only reverential idea of God is that which reduces his providence to being the general reason of things. On this hypothesis, all that is good in the world is attributable to him, since he has produced it. Evil, on the contrary, is not his work, but is the fatal consequence of matter having contradicted his designs."

So far Averrhoes seems to have been a faithful and intelligent interpreter of the views of Aristotle, as expressed in the first and seventh books of the Physics, and the twelfth book of the Metaphysics. An indeterminate element, "matter," and determinative, limiting and conditioning element, "form," lie at the basis of the whole Peripatetic system. This is equally true in reference to the worlds of both matter and mind. It is evident that to Averrhoes and Aristotle, God was but a name for the general order or reason of things. The fundamental elements of personality and creative power did not enter into this conception, matter and form being alike uncreated. This ceaseless and orderly movement, which they recognized in the universe, was similar to that which in modern times has been personified by those who would exclude a personal God from the universe, under the names of "nature" and "law." Their "first matter," or universal potentiality, seems, from their use of the terms, to have been little else than a concept of

the mind. Their "form" was but a name for the vital and organic forces which limit and differentiate the various classes of organized existences. At bottom their notions seem to have been pantheistic. It is difficult to avoid the conclusion that they looked upon all parts of the universe of existence as really identical in nature, as a boundless ocean upon whose surface there rolled eternally the ever oscillating and shifting waves of individuality.

The simplicity of our conception of that invisible and organizing force which controls the physical universe, makes it extremely difficult to form an adequate idea of the complicated hypotheses which represented, among the ancients and especially in the East, the meagre amount of their physical and astronomical knowledge. On the basis of some vague statements of Aristotle concerning the nature of the heavenly bodies, as living beings subordinated to each other in a sort of hierarchy, Averrhoes developed the idea of a vast and complicated system of intelligences who occupied the immense chasm between the "first mover" and the world. The heavens, according to Averrhoes, constitute a living being, composed of many orbs, representing the members essential to life, in which the "first mover" represents the heart, from which life rays out to all the other members. Each orb has its own intellect which is its "form," in the Aristotelian sense of the word, as the rational soul is the "form" of man. These intelligences hierarchically subordinated, constitute the chain of forces which propagate movement from the first sphere to this. Desire is the motive force by which they are all influenced, each seeking after some-

thing better than its own state. Their movement is unceasing, for the appetite for the better condition is constant in its exercise. Their intellects are always in action, and exercise themselves without fatigue and without imagination or sensibility. These intelligences are self-conscious, and have knowledge of all that takes place in the inferior spheres. The First Intelligence consequently, has knowledge of all that passes in the universe. "The government of the universe," says Averrhoes, "resembles the government of a city where everything moves out from the same center, but where everything is not the immediate work of the sovereign." He conceived and described an intermediate ministry for the abstract and invisible "prime mover," in order to bring him into relations with the universe. This ministry was made up of a series of analogues, images, and manifestations of that power which was itself sealed up in the depths of absolute existence. It is thus that a few vague and indefinite statements, in a passage of the Metaphysics of Aristotle, of perhaps doubtful authenticity, have, in the hands of the Arabs, become a complete theory of the universe, ingeniously bound together in all its parts and holding a close relation to their entire scientific system. It forms in fact the most distinctively Oriental portion of the Arabic philosophy, and connects it with the Cabala, Sabeism, and the innumerable sects of Gnostics which vexed and corrupted the Oriental Christian churches. The sublime mechanical hypothesis of Newton so profoundly penetrates our view of the universe, that all the conceptions of antiquity and of the Middle Ages appear like dreams.

As the theory of the planetary intelligences adopted by Averrhoes is an amplified commentary of some passages in the twelfth book of the Metaphysics, so his theory of the intellect is in like manner an expansion of the views of Aristotle given in the *De Anima,* modified and supplemented by the Oriental mysticism and subtlety which so deeply affected the Arabic mind. We quote the following passage from the third book of this remarkable work :

"As every nature contains two principles, the one material (in which lie all things potentially), the other formal and efficient (as art stands related to the material substance), so of necessity must the same differences exist also in the soul. The nature of the passive intellect consists in becoming all things, that of the active in causing all things, acting analogously to light, which causes to exist in actuality the colors which before existed potentially. This intellect is separate, impassive, and unmixed, being in its essence active. For always the active is held in higher esteem than the passive, and the *principium* than matter. . . And being separated it is simple and absolute, and this only is immortal and eternal. And we do not remember [its preexistent acts] because it is impassive; but the passive intellect is perishable, and without the active puts forth no act of intelligence."

This passage from Aristotle is the basis of the theory of the intellect adopted by the entire range of Arabian philosophers properly so called. We have already alluded to its influence upon the mind of Avicenna, and it reappears in an exaggerated form in the work of Averrhoes. It is easy to see

what consequences are to be drawn from this statement of Aristotle, by one who accepted it as an authority not to be questioned. If the receptive or passive intellect is that only which pertains to the personality of man, and which perishes with the body, all foundation for a distinct personal existence in the future life is swept away. If the active intellect comes from without, and furnishes the universal elements in thought, which by their necessity must be the same in all, the conclusion would be a very natural one that this objective intellect in which these universal elements reside, must be a unique and identical substance, manifesting itself only as it comes to the surface in the mental activity of individual human organizations, whose thinking it completes and renders possible. From this point of view the receptive capacity of the mind is but an attribute of man's physical organization. The active intellect is but the outcropping of the common intellectual life of the universe temporarily limited and conditioned by the animal organization. The higher processes of thinking are but waves of an all-enveloping atmosphere of being.

It has been justly said that this doctrine is very little in harmony with the general spirit of Aristotle's system. It only shows that his system, like that of many human thinkers, fails in harmony and consistency among its parts. The doctrine of the individuality of the human soul can hardly be said to have been clearly conceived or expressed by any of the ancient philosophers. The νοῦς of Anaxagoras was the spiritual principle of the universe. Aristotle is supposed with good reason to have adopted from him this idea. All the Alexandrian school

taught the procession or emanation of individual intelligences from the universal intelligence. The realism which manifests itself so obtrusively among the Fathers of the Christian church was owing to their failure to apprehend what is alike the ultimate deliverance of the human consciousness and the teaching of revelation—the distinct individuality of the human soul. This failure to apprehend the unity and individuality of the soul given in consciousness, was probably the prevailing error of philosophers, strictly so called, up to the time of the revival of letters. Any one familiar in any degree with the scholastic theologians, knows how constantly and how earnestly they struggled to harmonize the individualism of the sacred oracles with the philosophy which they accepted with such undoubting trust. Even Thomas Aquinas made the individuality of the soul to depend upon its organization into a material body. The Peripatetic theory of the soul as it appears in the writings of the ancient and mediæval commentators, exhibits with greater or less clearness the following points:

1. The distinction of the two intellects, active and passive.

2. The incorruptibility of the active, and the perishable nature of the passive intellect.

3. The conception of the active intellect, as something external to the human personality, and as the light of all intelligence.

4. The unity and identity of the active intellect, wherever manifested.

5. The identification of the active intellect with the highest of the intelligences which constitute and control the heavenly bodies, and fill up the

chasm between the absolute, supreme intelligence and the world.

Upon the first two of these points the thought of Aristotle is clear; upon the third there seems to be comparatively little question. The two last-named are more doubtful, but there are many of his commentators who, by reconciliation of conflicting statements, and induction of passages from different works, have made out for them a reasonable claim to be considered the doctrine of the great master. The immediate disciples of Aristotle occupied themselves mainly with that part of the Peripatetic psychology which had to do with the physical organization and the senses. At a later period, under the influence of the Neo-Platonic school, Alexander and others laid hold of the notions of Aristotle contained in the third book of the *De Anima*. It was this which gave the first impulse to that earnest study which this book received during the whole period of the Middle Ages. Alexander was followed in this respect by most of the Greek commentators who succeeded him. In all these the part played by the active intellect is exaggerated, and the tendency to represent the doctrine of Aristotle to be a denial of human individuality constantly increases.

It is in developing certain portions to the exclusion of others, that the Arabs have changed the aspect of the Peripatetic philosophy. They seem to have given the preference to those parts which are rather incidental to the system considered as a whole, and marked by an unusual obscurity. We have seen what this course resulted in, when applied to the isolated cosmological hypotheses of the

twelfth book of the Metaphysics. A similar tendency toward the logical development of vague and incomplete statements affects the Arabian commentaries on the *De Anima.* In the opinion of Averrhoes, the active intellect had an objective existence, and the act of knowledge took place by the concurrent action of this, with the subjective or passive intellect. The passive intellect Averrhoes held to be personal, material, perishable, inasmuch as it had to do with the variable and contingent, and what pertained to the specific individuality of each man. The active intellect, on the contrary, he held to be in its existence entirely separate from any individual man, exempt from all mixture with matter. The personality of consciousness was even less clearly apprehended by the Arabs than by the ancients generally. The unity of the universal mind struck them with far greater force than the conscious individuality and manifold variety of the reason developed in, and belonging to, the human soul. Assuming that all parts of the universe were so many living beings, having each a similar organization of matter and form, they considered human thought in its *ensemble* as the resultant of objective and superior forces, as a general phenomenon of the universe, unspecialized and unappropriated to the individual. As everywhere in the infancy of abstract thought, little attention was given to the analysis of facts; vague ontological speculations were preferred to the sober and limited teaching of psychological experience.

There is a remarkable similarity between the statements of Averrhoes and those of Coleridge, Cousin, and the German pantheists. "Reason," says

Cousin, "is literally a revelation, a necessary and universal revelation, which is wanting to no man, and which enlightens every man on his coming into the world. Reason is the necessary mediator between God and man, the Logos of Pythagoras and Plato, the word made flesh which serves as the interpreter of God and the teacher of man, divine and human at the same time. . . Every man thinks, every man therefore thinks God, if we may so express it. . . Everywhere present, he (God) returns as it were to himself in the consciousness of man, of which he indirectly constitutes the mechanism and phenomenal triplicity by the reflection of his own nature and of the substantial of which he is the absolute identity."

In the first volume of "The Friend," Coleridge says: "I should have no objection to define the reason, with Jacobi and his *Hemsterhius*, as the organ bearing the same relation to spiritual objects, the universal, the eternal, the necessary, as the eye bears to material and contingent phenomena. But then, it must be added, that it is an organ identical with its appropriate objects. Thus God, the soul, eternal truth, etc., are the objects of reason; but they are themselves reason." A similar notion is involved in the following passage from Malebranche: "Man is finite, but the reason he consults is infinite. . . But if it be true that reason, whereof all men participate, be universal and infinite; if it be true that it is immutable and necessary; it is certain that it differs not from that of God himself. . . This reason, therefore, is not distinct from him [God], but is coeternal and consubstantial with him."

It is clear that these statements of modern meta-

physicians would lead to conclusions quite as troublesome as those which have been drawn from Aristotle by the Arabian commentators. It is not strange that modern thinkers holding such opinions and striving to harmonize them with the actual facts of mind, should make a similar attempt on behalf of Aristotle and his Alexandrian and Arabian commentators, and find in the *intellectus agens* nothing but a faculty of the soul conversant with the regulative, constitutive, and universal elements of thought. This attempt has actually been made, but we need to beware of projecting modern opinions into ancient forms of expression. Our object should be to seek what the ancient writers in their early essays in mental analysis really arrived at and believed—to get their errors as well as their truths. The pantheistic tendency naturally takes on similar modes of expression in ancient and modern times. Those who find in the definitions of the "reason," in the passages quoted, an adequate analysis of the actual constitution of the human soul, can hardly refuse to accept the more bold, clear, and consistent statements of Averrhoes.

The real individuality of our entire rational being is the most radical, obtrusive, and constantly affirmed fact of human consciousness. To deny or extenuate this affirmation is to destroy or weaken all the foundations of morality and religion. Any philosophical system which fails to take account of this fundamental fact carries error on its very front. We cannot relieve Averrhoes from the absurdities of his doctrine by identifying it with later statements of similar views. His constant affirmations of the externality of the active intellect to man,

that the immortality of the soul is merely the continuous existence of our race, which never disappears from the earth, are conclusive regarding the class of thinkers to which he belongs. With him man is but a form in which the universal force, life or intellect, which appears in different modes and potencies in all parts of the universe, manifests itself and becomes self-conscious. With him individuality is temporary and phenomenal only. It is a segment of the universal intellect common to all intelligent beings exercising the function of thought through a single material organization.

It would be improper to conclude this rapid sketch without an allusion to the doctrine of "union" between the sensible soul and the active intellect, which was so constantly discussed by the Saracenic writers.

They supposed it possible for the individual element in man to arrive at an intimate union with this universal intelligence, or to a sort of identification with it. They supposed that the active intellect exercised upon the receptive soul two distinct functions: one was to enable it to perceive the intelligible; the other was to draw it upward to a union with the universal intellect. Arrived at that state, man becomes like God, and comprehends all things, by the universal reason which he has appropriated. The mode in which this union is affected was a subject of constant discussion. Some supposed it to be brought about by ascetic observances. Others supposed the same result could be obtained by mystical contemplation, and the exclusion from the thoughts of all ideas connected with the senses. It is this doctrine of the absorption of the soul into

the universal intelligence by ascetic observances or contemplation, or both combined, which shows the connection of the Saracen philosophers with the mystical sects of India and Persia.

Averrhoes taught a different doctrine of union. Rejecting the asceticism and mysticism of many of his contemporaries, he taught that the union of the individual soul with the universal intellect was effected by "science." It is accomplished when, by contemplation and study, a man has drawn aside the veil of things, and finds himself face to face with transcendental truth. The end of human life is to make the superior part of the soul triumph over sensation; when this is accomplished paradise is attained. But this happiness is rare, and reserved only to great men. By this doctrine of union, Averrhoes seems to have understood little else than the becoming cognizant of the great fundamental principle of his system—the oneness of the human intellect, so called, with the universal soul. This appears to have been the drawing aside of the veil of things, and standing face to face with transcendental truth. In the constant and uniform activity of nature he saw but so many manifestations of the same force which generated the thoughts of his own soul. It was the consciousness of this that "science" accomplished for him. The union between the sensible and intellectual was complete when he came to identify his own individuality with the universal sum of being.

The thought which impresses itself most strongly upon the mind, in reviewing the doctrines of the Alexandrian and Arabic commentators upon Aristotle, is the substantial similarity of their processes

and results with those of the modern schools of pantheistic philosophers. We have the same neglect or denial of the facts of consciousness, and the same *a priori* methods in physics. We have similar results regarding the certainty of knowledge, the foundations of morality, and revealed religion. Pantheism, so far from being the last word of philosophy, as is the boast of its modern professors, is found to be the mere alphabet of abstract thought, and to belong to the infancy rather than to the manhood of philosophical culture.

VI

CHRISTIANITY AND THE COMMON LAW

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THE moral code of a people is, speaking generally, derived from one or all of the following sources: (1) From divine revelation or what is believed to be such; (2) from the aggregate of the moral judgments of the community, as expressed in moral treatises, or in proverbs or fables; or (3) from what common and long-continued experience has wrought into customs supposed to be obligatory or useful. In an ideal state of things, this moral code would be in harmony with absolute right. But practically, no human society attains to such a condition; hence there are always two standards of action, the ideal and the actual. In a community which is in a state of moral progress, the tendency is toward a conformity of the actual with the ideal.

The penalties for the violation of the moral code are in general: (1) The consciousness of ill-desert and self-condemnation on the part of him who offends against it; (2) the concentration against such an offender of an outraged public opinion; (3) the fear of divine retribution either in this life or the life to come. However severe these penalties may be, they are not and cannot be described, defined, or fixed by civil enactments, nor enforced by civil officers through physical pains and penal-

ties. It is only in a vague and metaphorical sense that the term law is used in regard to morals. The uniformly acting force to which we give the name law in this case, is simply the constantly recurring "ought" or "ought not" of the conscience. As an expression of the will of Him who constituted the mind, it may be called a command. But it is not, either in the mode of its expression or in the fixed and objective nature of its penalties, analogous to the civil law.

The civil law, on the other hand, covers that portion of human obligations which it is possible or legitimate to sanction by physical pains and penalties. It consists of a body of rules enacted by the State, designed to mark out courses of action to the obedient, and to limit and determine the action of executive and judicial officers in the application of its penalties to the disobedient. The laws among civilized peoples comprise: (1) written commands formally issued by the legislative authority, with definite penalties announced; and (2) judicial decisions by which these commands are interpreted, harmonized, or supplemented. These decisions, in order to be laws, must be liable to enforcement by pains and penalties similar to those written commands on which they are founded.

This pretorial or judicial legislation last named is built up in general: (1) By giving legal authority and sanctions to prevailing customs having their origin in religion, race peculiarities, or external physical conditions; or (2) from the adoption, by the judicial body, of the oral or written opinions of men whose judgments from any cause may have come to have weight sufficient to justify their ac-

ceptance; or (3) from the adoption by the judiciary of the doctrines and provisions of celebrated foreign codes, which have acquired authority by time or by their intrinsic excellence; or (4) from the adoption from time to time of maxims and principles from the code of morals commonly received in the nation, but hitherto unexpressed in positive law.

As all these sources of civil law are related, in a greater or less degree, to the average moral opinions of the people governed, it is evident that law and its sources, in the moral life of any nation, act and re-act on each other. There is a tendency on the part of the law to affect the moral judgment and moral action of the governed; and there is a still stronger tendency on the part of an existing moral code to become incorporated into the body of the civil law. The two systems always tend to approach each other. If the morality of the law is in any considerable degree above public moral opinion, its requirements will be evaded or executed with difficulty. If, on the other hand, the public morality is above that of the law, there will be a constant, and in the end a successful effort to elevate the tone of the law, or to give it additional severity in execution. In countries despotically governed, the movement which tends to assimilate the public and private law to public moral opinion will be indirect and slow. In governments where the appeal to public opinion is direct and frequent, the adjustment between the practical public conscience and the civil law is likely to be rapid and easily effected.

In countries where, as is common, the great majority of the people have accepted a given religious

faith, that faith will influence most powerfully for good or evil the moral code which they accept and practice. Moreover, as all accretions to a nation's laws, either through statutes or judicial agency, must be drawn ultimately from its code of morals, it is evident that all efforts for legal reform which are likely to be permanent, must begin and be carried forward by corresponding efforts to elevate the standard and practice of personal morality.

It will be seen, however, that though there is a close relation between a nation's moral code and its civil law, they are always to be discriminated from each other. Customs and moral precepts, however much they may be respected, and however widely they may be diffused, are not law until they have been incorporated into some statute or have been recognized as binding by some authoritative judicial body, so that their observance can be enforced by physical pains and penalties. Many writers speaking of the common law, or the *Lex non scripta*, as distinguished from statute law, which is designated as the *Lex scripta*, convey the impression that in our country and England there exists a body of customary or common law outside of both statutes and authoritative legal decisions. It is true that in all trades and forms of business there are manifold usages which have existed time out of mind. But neither these nor any particular or general precepts of morality are law, nor can become law, until they are formally decided to be such by some authorized and regularly constituted judicial body.

Still more clearly is the relation of morals to law illustrated in equity jurisprudence. Grotius says, "*æquitas est virtus voluntatis correctrix ejus quo lex*

propter universalitatem deficit." Schlegel defines equity as "the law qualified by historical circumstances." Mr. Charles Butler says that it "arises from the inability of human foresight to establish any rule which, however salutary in general, is not, in some particular case, evidently unjust and oppressive." It is evidently impossible that any single statute or code can embrace all the infinite variety of human discords and relations, or can provide for all possible contingencies in the definition of any particular class of rights and wrongs. Hence some contrivance to meet those cases, in which the application of existing laws would in the manifold complication of human affairs work evident injustice, must in every rational system of jurisprudence be provided.

It is evident that in this correctional system, which is called equity jurisprudence, the judge must be limited in his decisions by rules and principles drawn immediately and directly from the common moral code or system of the nation lying outside of, and apart from, the strict letter of the law. When such moral principles have once been incorporated into decisions, they soon, by being classified, pass into equitable rules, become guides for future magistrates, and within their proper sphere of application have the authority of law. Equity may be viewed as the direct conversion of moral precepts and judgments into legal decisions by the authority of a court. These moral principles may be drawn from the ordinary current moral code of the people; or from the writings of men who have given special attention to conflict of duties and cases of conscience, such as writers on ethics, casu-

istry, or canon law, or from foreign codes and commentaries thereon, such as the Roman law and its expositors. Judge Story says: "From the moment when principles of decisions came to be acted on in chancery, the Roman law furnished abundant material to erect a superstructure at once solid, convenient, and lofty, adapted to human wants and enriched by the aid of human wisdom, experience, and learning."

The fact that the early English chancellors were clergymen specially versed in the canon law and casuistry, illustrates the immediate nature of the process through which moral rules were, by equity courts, changed into law with physical penalties attached. Spelman says that, down to the twenty-sixth year of Henry VIII., seven priests were made viceroys; twelve were made justiciars; and one hundred and sixty were made chancellors. Down to that time also all masters of rolls were taken from the clergy. From the nature of the case the correctional judgments in English practice must have been at first vague and unsystematic; but the thought of centuries has reduced the principles of judgment to orders and classes, which, though refined and complicated, are reasonably fixed and certain.

Casuistry in the hands of priests, and equity in the hands of men like Lord Eldon, have acquired a bad reputation. But we suppose that treatises on practical ethics and chancery law can each show a body of fixed and definite principles. We suppose that the decisions, which have grown up in the lapse of time, are sufficiently definite to guide the equity judge in his labors, by ways nearly as clear and simple as those which statutes and decisions mark

out for the courts of law. We must, of course, leave it to professional lawyers to decide whether Lord Bacon's ideal of a law court and the rules which should guide it, can be realized in equity courts and equity jurisprudence: *etenim optima est lex quæ minimum reliquit arbitrio judicis; optimus judex qui minimum sibi.*

We will now consider how these general principles are illustrated in the actual growth of Roman and English law, with the view of ascertaining, if possible, the actual relation in which Christian morality and doctrine stand to the English and American common law at the present time.

An alien sojourning in Rome, the sovereign government of whose country had no treaty of alliance with the Roman people, "had no rights which the Roman tribunals could enforce." This unsocial maxim obtained in the Roman law from the earliest times to a late period of the republic. When a nation was conquered by Roman arms, the people were not made Roman citizens; nor, on the other hand, were they stripped of all rights. Generally they were permitted to retain their ancient forms of government as far as was consistent with subjection to the Roman power. It was an admitted principle that "the law of Rome itself should not be applied, unless the law peculiar to the particular region shall afford no solution of the legal difficulty." Hence it followed that, in controversies between Romans and provincials, or between provincials belonging to different subject nations, there was no law or court available. To provide for such contingencies, which became more and more numerous as the Roman *imperium* extended, a new magistrate was created

called the *prætor peregrinus*, in distinction from the *prætor urbanus* who presided over the administration of justice to Roman citizens. This *prætor peregrinus* dispensed justice in cases arising, (1) between Roman citizens and provincials, (2) between citizens of different subject provinces, whose residences might be in these provinces themselves or at Rome. The duties of these magistrates led them to seek out similarities and analogies between the laws and customs of different States and establish general principles founded in universal justice, in order to facilitate their somewhat novel and difficult tasks. The decisions of these prætors, and the principles which they set forth in their edicts, gradually grew into a coherent system, representing a far more pure and elevated code of morality than did the severe, technical, and semi-barbarous laws administered by the *prætor urbanus*. This system of law was called *jus omnium gentium*, or by abbreviation *jus gentium*, in contradistinction from the law of Rome proper, which was called, from its being the peculiar code of the Roman citizen, the *jus civile*.

The *jus gentium* was ultimately administered by all the executive and judicial officers of the republic and empire throughout the Roman world, in all cases to which it was applicable; and it ultimately became so incorporated with the *jus civile* that the distinction between the two systems came to denote a difference in their respective sources, rather than in their dignity, authority, or the classes of persons to which they were applicable. The union of the *jus gentium* with the body of the old *jus civile*, effected the absorption into the Roman law of the

common moral doctrines existing in all the provinces of the empire.

After the introduction of this universal element into the Roman law it came, by the influence of Greek speculation, to be called *jus naturale*, on the ground that it was common to all and revealed to man by natural reason and conscience. By the definition of the Institutes it is made to include the instincts and appetites of animals. But this extended application of the term *naturalis* is thought to have been a speculative notion of Ulpian, and it seems to have had no practical influence on the development and application of legal principles. From the time of Cicero to that of Constantine, the Roman law was constantly and powerfully influenced by the Stoic and Academic philosophy; and they were the main moral sources of those doctrines of universal justice which were silently and quietly passing into the body of the civil law, through their incorporation into judicial decisions, imperial rescripts, and constitutions, where they were made "compulsory by public authority." It has always seemed to me that scanty justice has been done to the Greek elements in Roman law. It was the infusion of catholic morality, due mainly to the schools of Greek philosophy, which liberalized the Roman law, gave breadth to its doctrines, and made it a code for the civilized world.

After the introduction of Christianity and its adoption as the State religion, its morality and doctrines took the place previously occupied by the speculations of the Porch and the Academy. Claims, not altogether unfounded, have been made that Christianity elevated the moral thought of the

heathen philosophers through the whole period from Augustus to Constantine, and that its principles passed, by a sort of capillary attraction, from the humble Christian communities through the whole range of the age's thinking. Upon this point, however, the evidence is inadequate. It is enough to say that after the time of Constantine the evidence is abundant showing the influence of Christian morality upon Roman law. The brilliant little monograph of Troplong traces the existence and character of this influence in detail, with abundant citations in proof of his positions. Legaré, a most competent authority, makes the following statement in his brilliant essay on the "Origin and Influence of Roman Legislation": "From his [Constantine's] accession, Christianity became the *jus gentium* of Europe, or the basis of its *jus gentium*, according to the definitions of the civilians themselves."

This influence is seen with special clearness in the Theodosian code, which is founded upon the constitutions of the Christian emperors. The influence of Christianity is seen also in the legalization of Sunday observance; in the prohibition of the brutal sports of the amphitheatres, of the selling of children, and of infanticide; in the mitigation of the *patria potestas*, which made children subject to the father for his life; in the emancipation of woman; in the gradual softening of the state of slavery by the introduction of the *colonat;* in the provision for the poor. Legaré thus speaks of the reforms of Justinian: "His reforms are a perpetual sacrifice of law to equity; of science to policy or feeling; of *jus civile* to *jus gentium;* of the privileges of the citizens to the rights of man; of the pride and prejudices of Rome

to the genius of humanity, consecrated by the religion of Christ. There are those who seem to imagine that the civil law has existed, as a science, only since Justinian published it in the form of a code. The very reverse is the fact. The civil law lost so many of its peculiarities by his unsparing reforms that it may be said more properly to have ceased to exist at that time—to have been completely transmuted into the law of nature and the universal equity of cultivated nations to which it had been, for a long time, gradually approximating. It is this extraordinary change that is brought before us in a sudden and striking contrast by collating the text of Gaius with that of Justinian—the Institutes of the Roman law, strictly so called, and the Institutes of that law purged of almost all that was Roman, which has since become, in the hands of Domat and Pothier, of Voet and Vinnius, the 'written reason' of Christendom."

Since the publication of the great work of Savigny on the "History of the Roman Law during the Middle Ages," no intelligent scholar has accepted the notion, once so prevalent, that the Roman law ceased to be a living force from the fall of the empire until the discovery of the celebrated manuscript of the Pandects at Amalfi. Receiving a Christian stamp from Theodosius and Justinian, it was the code of the Greek empire till the downfall of Constantinople. It was also the written law, to a greater or less extent, of that vast number of municipalities which, with various fortunes and mutations, survived the barbarian invasions, and retained their vitality and organization until the complete formation of the State system of Europe

transferred their powers and franchises to the monarch, the Diet, the States-general, and the Parliament. During all this period the clergy formed a constituent part of the municipal magistracy. The morality, which the law as administered in the mediæval municipalities continually absorbed into itself, was that of the time. It was Christian in its general features, though often grievously corrupted.

The simple traditional codes of the German tribes were formed under the moral guidance of a rude heathenism. But they were not reduced to writing until the introduction of Christianity. A careful examination of these codes reveals a singular admixture of laws with exhortations to moral and religious duties, which do not seem to be legislation, properly so called, but homilies. The laws proper have relation to the duties of the clergy, monks, and nuns; to religious observances and doctrines; to diplomacy and administration. In the homiletic portions above referred to, quotations are made from Scripture, and throughout the codes the influence of Christian ideas is manifest to the most superficial observer. But while ecclesiastical enactments prescribing religious observances and doctrines are strangely intermingled with civil and criminal law, there is no trace of the recognition of the Jewish or Christian Scriptures as forming, in any real sense, a constituent part of any one of the barbarian codes, apart from those passages which are quoted or imitated in the laws themselves and which are made binding by physical penalties. Even where the Jewish law affecting specific crimes is quoted, it would seem to be done for no defined

legal purpose. In the same documents and for the same crimes, laws are given which prescribe processes and penalties entirely different from the Jewish. This, as well as other considerations which will occur to every one in any degree familiar with barbarian law, leads to the general conclusion that while, for the barbarian codes, Christianity and Judaism were alike prolific sources of legal ideas and principles, neither system was recognized to be law, *proprio vigore*, in the sense of Sir Matthew Hale's dictum; nor in the sense in which the Pentateuch among the Jews or the Koran among the Mohammedans was an authoritative code of public and private law. This will be found to be the case even in the Visigoth laws, in which clerical influence was the most predominant.

After the development of the canon law into a system, and the claims of the clerical order to be governed by its provisions were admitted, a new element was introduced into the legal system of Europe. Generally speaking, it may be said that three systems of law were administered in most countries of continental Europe at the same time and in the same locality. The Romanized population in the cities was governed by those fragments of the Roman law which survived all changes and modifications of the civil order due to the barbarian conquests. The barbarians recognized the authority of their traditional codes, which, though modified by the influence of the priesthood who had reduced them to writing, still retained the rude character which rendered them unfit for any society which had attained civilization. The clergy were responsible to the canon law and its episco-

pal administrators. This code may be described as the ecclesiastical echo of the Roman civil law. It was marked by the same despotic tendencies; its mode of trial was inquisitorial; it assumed that the power of legislation, administration, and execution resided in the pope and his represenatives. "What pleases the prince has the force of law," was a principle common to both codes; it furnished the magazine of forces through which the clerical order constantly sought to appropriate the entire control of mediæval society. The clergy as the only scholars in an age of ignorance, united in themselves the knowledge and influence of the clerical and legal professions. They were the natural expounders of canons, and were the only masters of the sources of information on questions arising under the Roman civil code. They were the confessors and conscience-keepers of the barbarian kings. They wielded an overpowering influence in all national and local councils, and were generally present as assessors in all courts for the administration of justice. William of Malmesbury's pithy statement, "*nullus clericus nisi causidicus*," was almost universally true. In such a state of things, the introduction of Christian notions and ideas into all civil administration would have been rapid, had it not been hindered by the rude and semi-barbarous customs of the tribes that were the supreme rulers of Europe.

The main source from which morality was absorbed into the law was the canons. It is just to say that the civilizing force of the Roman jurisprudence came into modern Europe, to a great extent, through the clergy and the canon law. It

should be borne in mind, however, that the canon law, as a code, was never adopted as a whole by any European nation, not even by the States of the Church. In all concordats, the negotiations have turned upon the extent to which the canon law should be adopted in civil administration. One fundamental object of the papal see in its diplomacy has been to secure the introduction of a greater and greater amount of the provisions, doctrines, and principles of the canon law into the civil codes, so that they might be enforced by physical pains and penalties through the civil arm.

In no country were the secular and ecclesiastical administrations more completely confounded than in England. Christianized by missionaries direct from Rome, the administration of the law was under control of the papacy when in other European countries clergy and laity were resisting the encroachments of the Roman see. As a result of the control held by the clergy over the civil authorities, both in legislation and the administration of justice, they were not anxious for separate jurisdiction. Clerical influence in England is especially shown by the introduction of wills and of written titles to landed property, and the use of the oath in the Anglo-Saxon system of practice. By reason of their extreme docility in the hands of the clergy, the Saxon kingdoms avoided the evil of a separate legal system for the Church and the State.

At the Norman conquest, the influence of Lanfranc brought about a partial exemption of the clerical order from the jurisdiction of the civil courts, and secured a distinct foothold for the canon law of Rome, which had just assumed the proportion and

dignity of a code; and he put forth its claims to be the world's rule of life. But notwithstanding the concessions made to Lanfranc, to whom William was indebted for the papal endorsement of his raid upon England, William sternly maintained the supremacy of the civil authority. The blunt refusal of the Conqueror to do homage as a vassal to Hildebrand; the long contest between Anselm and William Rufus and Henry I., regarding the feudal relations of the archbishop to the sovereign, and the control of the landed property of the see of Canterbury; the Constitutions of Clarendon; the statute *de viris religiosis*, ordinarily known as the statute of mortmain; the fictitious actions for "recoveries" contrived by the clergy to evade the action of this last-named statute; all show the continuous vigor with which Norman sovereigns and Norman barons carried on the contest for the supremacy of the civil over the canon law. The curious old chronicle of Jocelin of Brakelonde illustrates the power of this opposition in the courts of law. The old monk bitterly complains that the knights of the assize refuse to admit their written titles to lands drawn with all the technicalities and exactness of the clerical lawyers of the time, as against the claims of the heirs-at-law of a deceased person who had conveyed lands to the monastery. The knights declared the land to belong to the heirs-at-law, and gruffly answered the monks that they cared nothing for their secret conveyances and charters. The land in question had belonged to the deceased and his ancestors, time out of mind, and now it belonged to the dead man's heirs in spite of all documents to the contrary. The angry refusal of the barons at

Merton to change or replace a doctrine of the common law by one drawn from the canons, was in fact not so much a judgment against the change proposed in the law, as it was the development of a prejudice against the source from which it was drawn. It was merely one out of many indications of the rigid determination of king and people to defend the customary and statute law of England against the encroachments of the clerical power and the clerical code, and thereby to preserve in a measure their independence of the papal see. Though the clergy were permitted to be tried by the canon law, an appeal to the king's courts was always possible; and the commands of the pope could not be publicly promulgated without permission given by the civil government.

In the light of this constant jealousy of the encroachments of the clerical order, we are to examine the purport of the celebrated doctrine of Sir Matthew Hale, "that Christianity is parcel of the common law." It may be proper to say that no custom, usage, or principle can legitimately be made a part of a judicial decision, until it is proved to be ancient, commonly received, and not inconsistent with the plain natural rules of justice. Sir Matthew Hale himself says: "When I call those parts of our laws *leges non scriptæ*, I do not mean as if all those laws were only oral, or communicated from the former ages to the latter merely by word. For all these laws have their several monuments in writing, whereby they are transmitted from one age to another, and without which they would soon lose all kind of certainty. They are for the most part extant in records or pleas,

proceedings, and judgments, in books of reports and judicial decisions, in tractates of learned men's arguments and opinions, preserved from ancient times and still extant in writing." Therefore we accept a judicial opinion or the statement of a learned lawyer as an authoritative declaration of what already exists as unwritten law, whether in the range of former decisions, or established custom, or universal opinion.

We are now prepared to subject this dictum of Hale, that Christianity is a part of common law, to the test which he himself has laid down.

1. Was the body of the Christian Scriptures ever, in any intelligible sense, a part of the law of England? If so, it must have been a criminal offense to violate their injunctions or deny their doctrines, apart from any established laws of the realm, expressed in judicial decisions or acts of Parliament. In point of fact, however, a vastly greater number of men have been punished by the laws of England, because of their acceptance and practice of scriptural teaching than for denying or failing to practise it. Up to a late period, it was held that a church establishment was just as much a part of a government as a court of justice. The laws by which such establishments were protected were civil laws, which defined the offenses which they forbade with great exactness, and affixed such penalties thereto as the makers of them saw fit. But, from the time of the earliest Saxon conquest to the present day, there is no trace of legislation or custom which adopted the Christian or Jewish Scriptures, or even the body of the canon law, as in themselves binding, and as such to be enforced by

physical pains and penalties. Doctrines and moral notions, founded in the Christian Scriptures or tradition, or in the canon law, have been made the basis or source of civil enactments; but neither of these have, in and of themselves, been recognized as law by England or any other Christian State. We deny, positively, that there is any custom or usage upon which such universal declarative decision could be founded. Indeed, such a supposition is manifestly absurd.

2. Let us examine the legal history of the dictum as it appears in law books and decisions. The oldest common law authority to which reference is made in laying down the maxim, is a report in the "Year Books" (anno thirty-four Henry VI., pages 38–41), of an argument of a case in which Humphrey Bohun brought a writ of "*quare impedit*" against John Broughton, Bishop of Lincoln, to recover the plaintiff's right of presentation to a church living. The question arose as to the bearing of the ecclesiastical law of the realm upon the civil rights respectively of Bohun and the bishop. Prisot, who appears as judge, says in substance, that the rights of the parties are to be ascertained by a reference to the ecclesiastical and the common law, respectively, as to their bearing on the case. His words are as follows: "*A tielx Leis que ils de Saint Eglise ont en ancien scripture, covient a nous a donner credence; car ceo* [*est*] *Common Ley sur quel touts manns Leis sont fondes. . . Nous sumus obliges de conustre lour Ley de St. Eglise, et semblement ils sont obliges de conustre nostre Ley.*" ["To such laws as they of the Holy Church have in ancient writings, it is fit that we should give credence, for

this is common law upon which all kinds of laws are founded. . . We are obliged to recognize their Holy Church law, and equally they are under obligation to recognize our law."]

Now, in this case, it seems plain that the magistrate was referring to ecclesiastical use, in order to determine what should be the decision of a law-court in a litigation in which the rights of parties, lay and clerical, were involved. What he refers to as that upon which all laws are founded is common and universal custom, represented in this case by the civil and ecclesiastical usages, and laws bearing on the property involved in the right of presentation to a church living, which, as the plaintiff alleged, had been unlawfully usurped by the bishop and given by him to a clergyman. The "*ancien scripture*," to which Prisot refers, is plainly the ecclesiastical law of the realm, which defined the extent of a bishop's right to present a clergyman to a living when the lay patron had failed to exercise his right. The words, "*ancien scripture*" cannot refer to the Old or New Testament, for the simple reason that advowsons and property in church livings were not known to Moses and the prophets, nor to Christ and his apostles. Simon Magus affords the only precedent in Scripture for a transaction of this sort.

According to the appendix of "Jefferson's Reports," the next statement which involves anything like the dictum in question, occurs in a passage from a book known as "Finch's Law," published in 1613, which reads as follows: "To such laws of the church as have warrant in Holy Scripture our law giveth credence." For authority Finch refers to Prisot, in the case already cited. He converts

"*ancien scripture*" or canon law, into "Holy Scripture," and puts the duty upon common-law courts of deciding how far English ecclesiastical law is in accordance with Holy Scriptures, which is a total misapprehension of the sense of the "Year Books." We may remark, in passing, that Jefferson confounds the author of "Finch's Law," the book which he quotes, with Heneage Finch, Lord Nottingham, who was made Chancellor in the reign of Charles the Second. The author of "Finch's Law" was Sir Henry Finch, a sergeant-at-law and reader in Grey's Inn. He was the father of the somewhat notorious John Finch, speaker of the Long Parliament, and Lord Keeper under Charles I. "Finch's Law" was a text-book in high repute, until the publication of Blackstone's "Commentaries."

In 1758, Justice Wingate quoted the words of Finch, and decided them to be common law, citing Prisot also as authority. In 1765, Sheppard states the principle in the words of Finch, and cites Finch and Wingate as authority. The next decision, in order of time, is that of Sir Matthew Hale, who affirms that "Christianity is parcel of the laws of England." Blackstone, in his "Commentaries," repeats the maxim in the words of Hale, excepting that he substitutes the word "part" for "parcel." In 1780, the corporation of London passed a by-law inflicting a heavy fine on a freeman, who being elected to the office of sheriff refused to serve. They then elected a dissenter, who could not serve unless he partook of the eucharist according to the rites of the Church of England. This he refused, and the sheriff elect was sued for the fine which this refusal involved, and

was condemned to pay it by the lower courts. The case came by appeal before the House of Lords. The decision of the lower courts was reversed and Lord Mansfield pronounced the opinion of the Law Lords. In it he says: "The essential principles of natural religion are a part of the common law; the essential principles of revealed religion are a part of the common law—so that any person reviling or subverting or ridiculing them may be prosecuted at common law." He further adds, that, "there never was a single instance, from the Saxon times down to our own, in which a man was punished for erroneous opinions concerning rites or modes of worship, but upon some positive law. . . For atheism, blasphemy, and reviling the Christian religion, there have been instances of persons prosecuted and punished upon the common law." Lord Campbell, in a note upon the passage quoted, says: "This I think is the true sense of the often repeated maxim, that Christianity is part and parcel of common law." [1]

It is clear from this that both of these judges deny that the common law gives the magistrate any power to punish a man for denying the doctrines or refusing to follow the precepts of Christianity as such. If this were not the case it would compel a court to ascertain what the "essential principles" of Christianity really are; and to decide upon such a question, would involve the framing and establishing of some system of doctrine and practice to be recognized as constituting the "essential principles of Christianity." Lord Mansfield's decision

[1] "Lives of the Chief Justices," Vol. II., p. 390.

is, then, that the maxim signifies only that blasphemy and reviling Christianity were offenses indictable at common law. The question now arises whether blasphemy was punished as an offense against the peace and good order of society, or as an offense against Christianity. It seems to me that blasphemy is in reality punished as an outrage against public decency, tending to produce civil disorder and breaches of the public peace. The moment the magistrate undertakes to punish sins against God which are not recognized by the law as crimes against civil society, he passes into the domain of conscience and becomes a persecutor.

American decisions bearing on the maxim under discussion, seem to follow mainly the track of Lord Mansfield. We will give a few of these that seem to be representative in their character.

The Supreme Court of Pennsylvania, in the case of Updegraff *vs.* The Commonwealth, says: "So that we are compelled to admit that, although Christianity be part of the common law of the State, yet it is in this qualified sense: that its divine origin and truth are admitted, and therefore it is not to be maliciously and openly reviled and blasphemed against, to the annoyance of believers, or the injury of the public." [1]

In the case of Andrew *vs.* The New York Bible and Prayer Book Society, the Court speaks as follows: "The maxim that Christianity is part and parcel of the common law has been frequently repeated by judges and text-writers, but few have chosen to examine its truths, or attempted to ex-

[1] Eleventh "Serg. and Rawle," p. 374.

plain its meaning." Referring to the passages already quoted from Lord Mansfield and Lord Campbell, the Court goes on to say: "Its true and only sense is, that the law will not permit the essential truths of revealed religion to be ridiculed and reviled. In other words that blasphemy is an indictable offense at common law. The truth of the maxim, in this very partial and limited sense, may be admitted. But if we attempt to extend its application we shall find ourselves obliged to confess that it is unmeaning or untrue. If Christianity is a municipal law in the proper sense of the term, as it must be if a part of the common law, every person is liable to be punished by the civil power who refuses to embrace its doctrines and follow its precepts. And if it must be conceded that in this sense the maxim is untrue, it ceases to be intelligible, since a law without a sanction is an absurdity in logic and a nullity in fact." [1]

Judge Cooley, one of the Justices of the Supreme Court of Michigan, says: "It is frequently said that Christianity is part of the law of the land. In a certain sense, and for certain purposes, this is true. But the law does not attempt to enforce the precepts of Christianity on the ground of their sacred character or divine origin. Some of these precepts are universally recognized as being incapable of enforcement by human laws, notwithstanding they are of continual and universal obligation. Christianity therefore is not a part of the law of the land, in the sense that would entitle the courts to take notice of and base their judgments upon

[1] Fourth "Sandford's Reports," pp. 180–184.

it, except so far as they should find its precepts had been incorporated in, and thus become a component part of the law."[1]

Judge Clayton, of Delaware, says: [The common law] "adapted itself to the religion of the country just so far as was necessary for the peace and safety of civil institutions; but it took cognizance of offenses against God only where, by their inevitable effects, they became offenses against man and his temporal security. It is a current phrase among the special pleaders, that the 'almanac is a part of the law of the land.' By this is meant that the courts will judicially notice the days of the week, month, and other things properly belonging to an almanac, without pleading or proving them. In the same sense it is sometimes said that the *lex parliamentaria* is a part of the law of the land. So too, we apprehend, every court in a civilized country is bound to notice in the same way . . . what is the prevailing religion of the people. . . It will be seen, that in our judgment, by the constitution and laws of Delaware, the Christian religion is part of those laws, so far that blasphemy against it is punishable, while the people prefer it as their religion and no longer."[2]

Chief Justice Kent, in the case of Ruggles *vs.* The People, after citing various English authorities, to the effect that blasphemy was punishable at common law, says that "reviling is still an offense because it tends to corrupt the morals of the people and destroy good order. Such offenses have always been considered independent of any religious estab-

[1] "Constitutional Limitations," p. 467.
[2] Second "Harrington's Reports," p. 553.

lishment or the rights of the church. They are treated as affecting the essential interests of civil society." [1]

Justice Story, in the case of Vidal *vs.* Girard's executors, says: "We are compelled to admit that, although Christianity be a part of the common law of the State, yet it is so in this qualified sense, that its divine origin and truth are admitted, and therefore it is not to be maliciously reviled and blasphemed against, to the annoyance of believers and the injury of the people." [2]

Chief Justice Kent, in a debate in the constitutional convention of 1821, remarked: "That to maliciously revile it [Christianity] is a public grievance, and as much so as any other public outrage upon common decency and decorum." [3]

Judge Allen, in the case of Lindenmuller *vs.* The People, discussing the desecration of Sunday and the statute forbidding it, says: "The act complained of here compels no religious observance, and offenses against it are punishable, not as sins against God, but as injurious to and having a malignant influence on society. It rests upon the same foundation as a multitude of other laws upon our statute books, such as those against gambling, lotteries, keeping disorderly houses, polygamy, etc."

We have given these quotations as setting forth the present state of opinion among judicial authorities on the maxim under discussion. In view of the facts, reasonings, and authorities which we have thus far given, we are justified in setting forth certain general conclusions:

[1] Second "Howard," p. 128. [2] Eighth "Johnson," p. 293.
[3] Report of New York State Convention of 1821.

1. When the total code of a country has a religious origin and sanction, as was originally the case among the Romans, the Jews, and the Mohammedans, it is due to the fact that the people have accepted the religious system which they hold, as a body of civil law also. Thenceforth, the religious system is enforced upon their belief and practice by physical pains and penalties, and it becomes, in addition to its religious use and character, to all intents and purposes a body of civil law, differing from ordinary civil codes in its purely religious origin and in its confusion of the functions of the religious organization and the State—of things divine and human, of the *jus sacrum* and the *jus civile*.

2. In all such cases, the civil and human elements involved in the system have a tendency to come out in the legal administration, to segregate themselves from the religious portion, and to grow into a system distinctively political and civil. This is illustrated by the absorption of the Roman *jus civile*, essentially religious and priestly in its character, into the *jus gentium*, whose basis was the average moral code of the Roman empire, elevated and purified by the reasoned ethical systems of the Greek philosophers and subsequently by the maxims and spirit of Christianity. The bulky volumes of the Talmud and the numerous decisions and commentaries explaining the Koran—each of which contains a body of legal notions differing essentially from the original texts of Moses and Mohammed—are also illustrations of the principle here stated.

3. When a code has a purely civil origin it must, of necessity, embody with more or less completeness and accuracy, the average moral opinions of the

nation which adopts it or submits to it. In its development and differentiation, such a code will tend constantly to represent the processes of elevation and degradation in the practical morality of the people governed. Laws being the outgrowth of the prevalent morality, changes in them not only reveal the changes in moral belief and practice, but they diffuse and accelerate these changes as well. Civil law and morality in any nation act and react upon each other.

4. Where a civil code and a religious system, distinct in origin, exist side by side, the religious system becomes legally established only through statutes affixing civil sanctions and penalties to the neglect or denial of certain definite and specified portions of the creed and rites of the system established. The portion of such religious system thus adopted, then becomes a part of the civil code and differs from other laws only in its subject-matter and origin. This statement is illustrated by the fact that in England, all ecclesiastical causes arising in the establishment are ultimately tried before lay courts, and that all clerical discipline involving ejectment from a cure of souls is, in fact if not in name, a matter of civil administration. The Articles of Religion, the Liturgy and Rubrics, so far as the English establishment is concerned, are simply acts of Parliament upon which a Jew, a Romanist, or an atheist may acquire the right to vote.

The subject of negotiation, in all concordats between the papal see and the States in which the Roman Catholic religion is established, has been in the main to determine the extent to which the canon law shall be adopted by the State and enforced

by physical pains and penalties. So much of the canon law as had been at any time adopted and enforced became, by that act, a part of the nation's civil code, differing from it only in its character and source.

5. In no country in Christendom has the body of the Christian Scriptures been adopted as law to be enforced by physical penalties. Certain rights and dogmas founded on tradition, or upon the Scriptures, or both, have been made a part of the civil law in all Christian countries where a church has been established at all. It is in this absorption of ecclesiastical rules and principles into the body of constitutional and municipal law that an establishment consists.

6. We see that the first introduction of the maxim under discussion was due to a misunderstanding of the "Year Books," and has never been practically sanctioned, in its natural and literal sense, by any English or American court. The common law has never furnished the ground for persecution, but such persecution has always been inflicted by positive statutory enactment. The common law has taken account of Christianity, for the purpose of punishing blasphemy and malicious ridicule of Christian doctrines and rites. The common law has recognized these as crimes against the State, and not as sins against God.

7. The principle upon which blasphemy is punished would oblige a common law court to protect the worship and regard the sentiments of Mohammedans or Hindus, if their forms of religion were to be widely prevalent in a community over which it had jurisdiction. This protection, of course, could

be given only to the extent that their rites and wor ship did not infringe upon the laws of natural morality and justice.

8. Every code of morality is intimately connected with the system of religion from which it springs, and in which it finds a sanction. As every civil code, in its formation and growth, adopts the moral code of the people for which it furnishes rules of government, so the common law of England and the United States has absorbed, and is still absorbing unto itself, the moral principles of Christianity. Hence the Christian system is the moral source of an undetermined but very large part of our common, as well as of our statute law. In this sense, Christianity has contributed enormously to the common law, as it has to the code of Justinian, and the legal systems of all Christendom.

Unless taken with the limitations here suggested, the maxim under discussion is comparatively meaningless. In the form in which it is commonly stated, it is calculated to confuse the mind and mislead the judgment of those unable to supply in thought the requisite limitations. Taken in its literal meaning, it recognizes no distinction between civil law and the sources from which the law may have been derived. It takes no account of the distinction between civil laws made compulsory by physical penalties, and the obligations of morality and religion whose penalties are subjective to the individual offender. Literally understood, the maxim contains a dangerous principle, liable to be used in justification of judicial decisions which may infringe upon real liberty of conscience.

MISCELLANEOUS
PAPERS AND ADDRESSES

I

ALEXANDER VON HUMBOLDT

DELIVERED AT THE
HUMBOLDT CENTENNIAL ANNIVERSARY, ROCHESTER, SEPTEMBER 14, 1869

WE have met to record our profound appreciation of the services to science and to mankind rendered by the great naturalist to whom Germany gave birth a hundred years ago to-day.

Since then what changes have passed over human society and human thought! At that time Frederick the Great was at the height of his power and renown, and Prussia had just assumed that commanding position which in our own day has enabled her almost to realize the German patriot's longing for a united Fatherland. Maria Theresa still ruled Austria and its dependencies. France bore the outward semblance of glory and strength, but was in reality preparing, under the weak and profligate Louis XV., for all the convulsions of the Revolution. England under Clive had laid the foundations of her Indian empire, and was just trying her hand in taxing her American colonies. These in turn were organizing those forces of growth and resistance which have made them the peer of the great powers of the old world. Feudal Europe had not yet felt the shock of our own and the French Revolution.

In science, the contrast with the present was not less strongly marked. The Newtonian theory had but just taken undisputed possession of Europe.

The laws of physical optics had not been verified, and many of them had not been suggested as hypotheses. Geology, as a science, was virtually unknown. Werner and others were developing the elementary distinctions of mineral masses, but it was not till Humboldt had reached manhood that the relations of fossils to the relative age and connections of strata were scientifically studied. Galvanism, and its pregnant relation to chemical and electrical action, had not been discovered. Chemistry was in its infancy. Animal and vegetable morphology as they are now understood, existed only in the minds of a few solitary thinkers, like Goethe and Oken, Cuvier and Geoffroy St. Hilaire. Botany and astronomy were the only sciences of observation which may be said to have taken on a permanent form. Though the system of Jussieu had not been published, it had been exemplified in the Royal Gardens at Versailles. Humboldt's teachers and fellow-students were in great part the creators of the sciences which they cultivated and taught. As a consequence all natural investigation was through labor in details. The work of differentiation was so absorbing and so necessary, that comparatively little attention could be given to those broad and fundamental relations, analogies, and laws which unite all the sciences into that harmonious and beautiful whole which the Platonists designate as "the one in the many." Manifold were the workers who, in widely separated quarries, were hewing stones for the Temple of Science; but very few among them all were able to see "with prophetic eye" the places which each and all were to occupy in the completed structure.

There are two great classes into which scientific men naturally fall. The first consists of those who with praiseworthy diligence collect facts, make experiments, and form subordinate classifications. The second is made up from those few great minds who are pre-eminently comprehensive and architectonic, who discover far-reaching laws and analogies among facts and principles standing widely apart from each other, who are able to combine the vast body of ascertained truth into a coherent order which represents the all-embracing thought of the Creator. These are the legislators of science, who stand apart from common men with the world's great poets, artists, and statesmen. Among these Humboldt occupied a distinguished place.

The condition of scientific inquiry, when he entered upon active life, was such that the labor of this class of thinkers was pre-eminently in demand. With a kind of prophetic sagacity he saw in this disorganized and dislocated condition of science his own career and vocation. His education, taking place during a period of such rapid development of scientific knowledge and thought, made him intimately familiar with the history of discovery. He had constantly seen the manifold instances in which new sciences had grown out of investigations apparently most foreign from their subject-matter and processes. The whole history of modern science had passed under his own eye; and it has been wisely said "that no conception can be understood except through its history." It was his intimate knowledge of the incidents and processes of the growth of science that so well fitted him for the great work of his life.

From his first entrance upon scientific pursuits he set before himself consciously the task of effecting an organization of the total results of modern physical experiment and discovery into one grand and coherent system. All his special studies and vast scientific observations were ancillary to this one purpose. While ranging over earth and scientific literature in pursuit of the special and exact knowledge of particular sciences, his mind was always fixed upon those vast generalizations and far-reaching analogies which after maturing in his mind for more than half a century were given to the world in his "Cosmos." In the preface to this work, after alluding to the varied scientific attainments on which so much of his life had been spent, he adds the following significant and characteristic statement: "The actual object of my studies, nevertheless, has been of a higher character. The principal impulse by which I was directed, was the earnest endeavor to comprehend the phenomena of physical objects in their general connection, and to represent nature as one great whole, moved and animated by internal forces." I believe that in this paragraph we have the key to Humboldt's scientific character. Let us glance for a moment at the processes by which he was able measurably to accomplish so magnificent a purpose.

His training was as broad and thorough as the task which he set before his mind. Carefully educated at home in the elements of learning, he afterward enjoyed the best advantages of university education which his country afforded. So far was the future naturalist from neglecting literature, that his first literary attempt was a dissertation on a

subject of Greek antiquities. At Göttingen he studied philology under the celebrated Heyne, the editor of Pindar and Homer, and natural history under Blumenbach, the father of ethnology. After some hesitation regarding a profession, he engaged in the study of mining, under the auspices of Werner at Frieburg. Subsequently, he was for five years in governmental employ, as a superintendent of mining. During this period he explored most of the mining districts of Germany, and afterward made similar explorations in other European countries. Shortly after this he received permission to join a scientific expedition projected by the French Directory. The unsettled state of the French government, however, defeated this design, and he joined the young French botanist, Bonpland, in a tour through Spain. Here he was received with honor, and favored by the Spanish Government with extraordinary facilities for exploration in all its colonies in America He embarked on his expedition to this continent in 1799. The succeeding five years were spent in scientific explorations in North and South America. After his return to Europe, he resided in Paris, with occasional absences on diplomatic service, for nearly twenty years. During this time he was employed in the classification and description of the facts and illustrative collections acquired during his travels in America. In 1829, under the patronage of the Emperor of Russia, he organized and directed a scientific exploration of the Russian dominions in Central and Northern Asia. The numerous volumes, drawings, maps, and charts, describing his travels, studies, and experiments, during the more active period of his life,

I cannot refer to in detail. His later years were passed in his native city of Berlin, engaged in the preparation of his most widely known work, the "Cosmos." It is through this work and his "Aspects of Nature," that he has been made most familiar to English readers of the present generation.

The question naturally suggests itself, upon what special grounds does the vast reputation of Humboldt rest?

In the first place, his scientific attainments for breadth and exactness combined, probably approached the utmost limits of human capacity. His knowledge of languages and literature, both ancient and modern, would also have given him a high place among literary scholars. This familiarity with literature gave him that capacity for bringing all the observations on nature scattered through ancient and modern writers to bear upon every subject of his own observation or study, which so pre-eminently distinguished him. His remarkable treatise on mediæval geography is an example in point.

Again, he was the first great scientific explorer. Other travelers from Herodotus down, have observed and described much that was new, strange, and full of interest, to which the world has gladly listened. But Humboldt first illustrated the necessity of mastering the best results of all science and literature as a preparation for travel and observation. Up to his time, knowledge of foreign and barbarous countries was due mainly to the crude and inadequate reports of sailors and merchants. He was the pioneer among the brilliant throng of

explorers who illumine the annals of modern science. The vast additions to scientific knowledge which he accumulated in his travels, prove the sagacity of Carlyle's remark "that the mind sees what it brings means of seeing: to Newton and to Newton's dog 'Diamond' what a different pair of universes!"

He was, moreover, the father of the science of physical geography, in the broad sense of the term. Comparative climatology, as represented in isothermal lines in their bearing on all departments of natural history; the division of the earth's surface into botanical and zoölogical provinces; the recognition of the relation of the internal heat of the earth's mass to volcanoes and mountain ranges, which in the hands of Van Bach and Lyell formed the basis of dynamic geology; the fixation of a vast number of points on the earth's surface by accurate astronomical observations; the establishment of the relation between the "conditions of life" and the growth, dispersion and varieties of plants and animals; the observation and statement of the connection between the forces of external nature and the development of political societies, and their increase in wealth and civilization—are all due, in a greater or less degree, to Humboldt. In studying the great "Physical Atlas" of Berghaus and Johnston, it has seemed to me that scarcely a page or map fails to furnish some monument of the great naturalist's observation or thought. While studying the earth as a whole, he never lost sight of its cosmical relations, and always regarded its phenomena as representative of those uncounted bodies and systems which range the awful depth of the celestial spaces.

Finally, though great as an observer and almost unrivaled for his contributions to knowledge, his work as an organizer of science and of scientific inquiry deserves the most distinguished honor. As we have already hinted, the work to which he consciously gave his life, was the interpretation to his own and all coming time of the relations, and interdependencies of all physical truth—showing the sciences to be branches from one common root, fed by a common vitalizing sap, parts of one all-embracing thought, pervaded by common laws, and subject in their formation and growth to the limitations of a uniform method. He stands among the foremost of those "many-sided" men who have so conceived and stated the fundamental principles of all physical knowledge that a general scientific education has been made possible to man. The mass of details in the subject-matter of special sciences has become so vast and complicated, that without these constructive generalizations no human mind could comprehend their significance or scope. His labors have so developed the "one in the many" that the "plan" of the universe of matter can be grasped in outline by an ordinary mind in the time properly devoted to a liberal education. This worthy and manly thought burned in his mind from youth to old age. It was a constant inspiration in his years of dangerous wandering over the swamps of the Orinoco, the Cordilleras and the Andes, and the dreary steppes of Tartary. It grew constantly in breadth and clearness with advancing years, till so far as human power would permit, it was realized in his green and beautiful old age. Borrowing a word from the language of his early study and love,

he called his work "Cosmos"—order, beauty, proportion. This was the thought which under the name of the "eternal archetype," ineffable in perfection and beauty, floated before the mind of Plato, and as the "*philosophia prima*," haunted the imagination but eluded the grasp of Francis Bacon. For the "regeneration of our intellectual system," says Comte, "it is necessary that the sciences, considered as branches from one trunk, should yield us as a whole their chief method and most important results. The specialties of science . . . can never of themselves renovate our system of education."

Specialists have criticized the "Cosmos," perhaps justly, in its details. Others have pointed out deficiencies in the realization of the ideal. But the author's admirers can listen calmly to these criticisms, however just, with the firm belief that comparative failure in such an attempt does not detract from the title to greatness. How few departments of natural science can be historically treated without doing homage to the great man whose birth we at this time commemorate! The impression which he has made is of such a character that it cannot be essentially affected by time. His observations of nature are so exact that they cannot be superseded. His travels are now the best authorities for consultation on the countries which he explored. New phenomena may be observed, but what Humboldt saw and described, he saw and described exactly. His theories are in general so cautiously and so solidly constructed, that very few of them have been outgrown by advancing inquiry. He is the Aristotle of modern physical science.

The scientific world does well at this time to call

up in grateful and admiring remembrance the mind and the works of this great German. From the banks of the Neva to the Golden Gate of the Pacific, from the palm-clad tropics to the land of the midnight sun, his name and fame are on the tongues of admiring eulogists. This homage springs not from the sycophants who flutter in the train of political power, but from the "sceptred sovrans" of human thought. While the kings, nobles, and statesmen with whom Humboldt was contemporary are dead and forgotten, his memory is as green as the mountain pine and his reputation as solid as the Alps; for he lived not for himself, but for others. His life and work took hold of the moral and intellectual interests of man.

We English-speaking Americans, join with our German-speaking fellow-citizens in this festival. Humboldt was a man as well as a German, and he was an honor to manhood. We join in this commemoration, and we claim the privilege to do so, because we are a part of that vast German people which has made an impression so tremendous, and at the same time so beneficent, upon the world's life. The language in which I speak to you to-night, though strangely modified in the lapse of centuries since our fathers crossed the German Ocean, is still, in the eye of the scholar, a Teutonic tongue. We are, then, brothers in a common reverence for a mighty name in the annals of science. We are brothers in a common manhood, in a common blood. We are brothers in a common allegiance to our glorious republic. For its life you fought by our side in the times that tried men's souls. This magnificent heritage of liberty and law is yours and

it is ours. Your own patriotic poet, Arndt, has sung that the German's fatherland is not

> In Prussia's or in Swabia's land,
> Nor where the Rhine's rich vintage streams,
> Nor where the northern sea-gull screams;
> But where the German accent rings,
> There is the German fatherland.

II

PROFESSOR MORSE AND THE ELECTRIC TELEGRAPH

DELIVERED AT THE MORSE MEMORIAL MEETING, ROCHESTER, APRIL 26, 1872

WE have come together to render our respectful homage to the name and memory of one of the great benefactors of humanity. We join with the sisterhood of American cities in a simultaneous recognition of the genius, labor, and thought which have made the name of Morse known and honored throughout the world. Still more, we would make this an occasion of recording our obligations to those silent thinkers—almost unknown outside of the annals of science—whose achievements made the invention of the telegraph possible and practicable.

Almost from the time of Franklin the idea of making electricity useful for the transmission of intelligence floated before the minds of men. Le Sage in 1774, Lomond in 1787, and Reusser in 1794, constructed instruments by which thought was communicated through wires of great length. But the discovery of Volta, in 1800, of the pile which bears his name, gave a new impulse in this direction. In 1819, Professor Oersted made his great discovery of the action of the electric current upon the magnetic needle. This was soon succeeded by the discovery of electro-magnetism by

Arago and Ampère in Paris, and Seebeck in Berlin. The world was then furnished with the three conditions for the construction of the electric telegraph in its present form. The Voltaic battery, the deflection of the magnetic needle by electricity, and the magnetization of soft iron during the passage of an electric current, are the three great factors in scientific progress upon which the invention of the telegraph depended.

From 1830, when the suggestion of the employment of these discoveries for telegraphic purposes was suggested by Ampère, the minds of men of science in all civilized countries seemed simultaneously directed to the means by which these discoveries might be made available for the conveyance of intelligence. In all scientific centers in Europe and America success, more or less complete, followed these efforts. This is not the place to discuss the vexed question of precedency between Cook and Wheatstone, Steinheil and Morse, in the actual invention of the telegraphic apparatus. The honor of successful endeavor belongs to them all, but to no one of them does the world owe a greater debt of honor than to our own countryman. His invention has been found so cheap, so simple, so easy of manipulation, that it has been more widely adopted than any other. The honors and emoluments which foreign nations have bestowed upon Morse are proof enough of the distinguished place which he holds among the inventors of the telegraphic instrument. It is not necessary to Morse's fame that the reputation of his fellow-inventors should be undervalued. In honoring him we honor them. It would be injustice to his memory did we omit to mention

those who at the same time were laboring at the solution of the problem.

There are three classes of agents who have conspired in giving to man the control of the telegraph. In the first class, we should place those students of science, who, in the pursuit of truth for its own sake, brought to light those laws and forces upon which the whole working of the instrument depends. In the second class, we place those indefatigable inventors whose patient thought and persistent experiment perfected the mechanism which made the laws and forces of electricity available to the service of man. In the third class, we place those men whose foresight, administrative capacity, and capital organized the telegraph lines into a system, made them a financial success, and brought them within the reach of the whole brotherhood of man. In each of these classes of workers our countrymen have borne a distinguished part.

The science of electricity was born on our soil; and names worthy to be associated with that of Franklin have never been wanting in the annals of American science. The name of Morse alone is our title to a pre-eminent position in the second class named. In the capacity to organize and administer associated capital, our countrymen yield the palm to none. What in other lands has been the work of government has among us been accomplished by private enterprise, and with such success that the highest foreign authorities admit that in our country "the telegraph system is far more complete and extensive than in the old world." In this work of perfecting the organization and admin-

istration of the telegraphic system, our own city and our own State have taken a most important part. The names of Hiram Sibley and Cyrus W. Field are enough to establish our claim. Had the Atlantic cable failed, as once seemed likely, we were ready to grasp the honors and rewards of an overland line to Europe and Asia, which would have been sure of success.

In looking over the history of this great invention, we are impressed with the unity of scientific labors and practical ends. When Galvani was speculating in his laboratory on the twitching muscles of a dead frog, when Oersted was experimenting with electric currents passing over magnetic needles, when Ampère was watching the effect of electric action upon soft iron, they would have been laughed to scorn had they claimed to be the most practical men of their age. But, in fact, they were doing more for the material interests of man than all the bankers, merchants, and manufacturers of that day. It is ever thus, thoughts go before things. The discovery of forces and laws must precede mechanical invention. Science must always clear the path for successful art. The Glasgow professor, Adam Smith, by his speculations upon the wealth of nations, wrought a vaster and more beneficial result than the statesmen of his age, prolific as was that age in great men. The philosophers and lawyers who elaborated by ages of thought the magnificent fabric of the Roman law were thinkers and speculators, but they shaped by their speculations the whole foundations of jurisprudence for the civilized world.

We also see that no great discovery or invention

comes by accident. Divine Providence presides over the growth of art, science, and civilization. Science had reached such a state at the close of the eighteenth century that a thousand thinkers were hot with action over the facts and laws which were the conditions precedent of the telegraph. Though the great men whose names we recall at this time had failed in their efforts, the work which they sought to do would have been done. Had neither Morse, nor Wheatstone, nor Steinheil invented the telegraphic instrument, it would inevitably have come to light in their generation. The doubt and obscurity which hang over all great discoveries and inventions are not due to the misrepresentation and ambition of men, but to the fact that all great movements in science and art are conditioned by what has preceded them, and spring from the aggregate intelligence and common thought of the greatest minds of an age. God's purposes never depend on the genius or power of any one man.

Thus speaking, we do not detract from the honor due to the genius of any one whom we have named. He must be a very able man who in this age of mental activity makes an appreciable impression on the profession or line of inquiry which he adopts as the channel of his thought. The fact that Morse's name is linked forever with an invention world-wide in its application and immeasurable in its beneficence, is enough for his fame, enough for his immortality.

If material wealth is so dependent on the development of scientific laws and the increase and diffusion of knowledge among men, we see the necessity of an alliance close and intimate between the men

of capital and the men of ideas. For if the knowledge of the facts and laws of material science is necessary to the accumulation of capital, a knowledge of the facts and laws of the moral and political sciences is necessary to its preservation. The prevalence of unsound moral, political, and economical ideas among the population of Paris has made that city in our day as unsafe as Mexico for the residence of a capitalist or the investment of his funds. Even now the sceptre of the International Society casts its grim shadow over the civilized world. Let some moral or economic heresy take possession of a people, and the savings of generations will evaporate like the feathery snowflakes beneath an April sun.

Nor can these blessings and safeguards be secured by the mere elements of knowledge such as may be learned in the common school. Great reservoirs of knowledge must be maintained. Investigators must be supported and rewarded. Knowledge must be increased as well as diffused. It is no accidental coincidence that Galvani and Volta, Oersted, Ampère and Arago, Wheatstone and Morse were each and all professors connected with institutions of learning. Have not science and learning then some claims upon the colossal fortunes which their votaries have made possible?

III

PAUPERISM AND ORGANIZED CHARITY

FROM A PAPER PUBLISHED IN THE
EIGHTH ANNUAL REPORT OF THE NEW YORK STATE BOARD OF CHARITIES, 1875

ALL legislation regarding pauperism should have in view the reduction of its amount as well as the relief of that already existing. It becomes a matter of great moment to determine how far modes of relieving paupers, public or private, tend to increase the evil. . . Private charity to the unfortunate is, indeed, a duty. The unfortunate and deserving poor will be always with us, and the exercise of charity is not only a necessity for the suffering poor, but a valuable discipline of character on the part of those who bestow it. In times of war, famine, commercial distress, or pestilence, charity on a large scale must be exercised. Even in the most prosperous communities, there is always a considerable number of persons who present appeals to both public and private benevolence which cannot, and ought not, to be overlooked. The same general principles which make it a duty of the State to maintain almshouses, make it the duty of the State, within certain narrow and well-defined limits, to render assistance to the unfortunate in their own homes. While this duty is quite generally admitted, it is not so well understood that it is just as much a duty to give alms wisely as it is to give them at all.

Some few writers, however, have taken the ground that all legal provision for the poor, of whatever kind, should be abolished. This view was adopted by Dr. Chalmers as the only remedy for the enormous evils which had grown up under the English poor-laws. He was a strenuous advocate of the old Scotch system of providing for the poor by voluntary collections in the parish churches, to be disbursed by the clergy and elders of the establishment. But Dr. Chalmers, in his own time, failed to carry conviction to the public mind; and the conclusive facts and arguments of Dr. Alison, with the Report of the Poor-Law Commission, led to the enactment of a system of relief by legal taxation for the whole of Scotland. It seems clear that, in the absence of an established church and an organization of the whole territory into parishes, no adequate relief for suffering could be secured without the intervention of the civil authorities. Where an established church exists, the duty of caring for the poor devolves upon the officers of the parish; and this merely changes the form of administration, but does not, in any material degree, affect its spirit. If, however, there were no parish assessments for the poor, the charitably disposed alone—almost universally a minority of the population—would have to bear the entire burden; and parishes which embrace the more dissipated and degraded of the population, would soon find the voluntary expense of providing for the poor greater than they could possibly bear.

Cherbuliez, a French writer upon the subject, adopts, from an economical point of view, the theory of Dr. Chalmers. But France, also, has es-

tablished churches and a great number of wealthy institutions which have come down from the mediæval period, the outgrowth of private benefactions, for the care of the unfortunate classes. The administration of many of these is such that it is accompanied by all the evils attributed to legal charity, without the remedial power which always resides in the State, when there is sufficient intelligence to employ it.

In a country like ours, without an established church, if every religious denomination were to provide for its own poor members, it would distribute the burden, morally binding upon all, with great inequality. The unfortunate classes, also, not connected with any religious body, would either be in danger of suffering from want of care, or be seriously demoralized by receiving assistance from various organizations at the same time. In the present state of our society it seems clear that legal provision for charitable purposes ought to be made.

It hence becomes a matter of the highest importance that this relief, whether furnished by individuals or the State, be so administered as not only to ameliorate present suffering, but also to reduce the number of those who require aid. The sick man who is cured in a hospital is rendered able to care for himself. Pauper children trained in orphan asylums, or in well-regulated families, in a little time cease to be paupers, and come to be productive members of society. Under certain conditions the principles here illustrated may be applied to the poor at large. Pauperism is a disease of the body-politic, and every effort should be made to prevent its becoming chronic or contagious.

Special investigations have proved beyond question, that the great mass of our pauperism is hereditary. The fecundity of the pauper class, in spite of all those natural conditions which would seem likely to increase the death-rate among them, is something frightful. Frequently three generations of paupers have been found in one almshouse. Nothing is more unfounded than the common idea that the inmates of our poor-houses in general are the victims of unavoidable misfortune. Of those who have reached adult age, and are not idiotic, probably more than two-thirds of those supported by the State, at a cost of nearly $3,000,000 a year, are paupers by their own criminal acts. And worse than all, this voluntary degradation tends by a natural law to reproduce itself. This atavism of poverty and crime, unless broken in upon by the separation of children from their parents and their absorption into the healthy portion of the community, will go on in an increasing ratio for all time.

A large proportion of those who are thus maintained wholly or in part by charity have been trained to the system under conditions and circumstances foreign to our country and institutions. In all the countries of Europe the class of population that is a pauper class by inheritance is especially marked and easily recognized. The characteristics which make them such, have been inherited from a long line of ancestors, which often may be traced back for centuries with a tolerable degree of certainty. It may be instructive to glance at some of the conditions which have produced this state of things in the old world, and which we have reason to fear may come to exist in the new.

Italy is pre-eminently a country of brigands and beggars, and they have a common origin. In the later periods of the Roman republic, the custom was introduced of furnishing corn, paid for from the public treasury, to the poorer classes of Roman citizens. At first they were required to pay a portion of the market value for what they received. It eventually came to be furnished free of cost. On the accession of Julius Cæsar to the supreme power, three hundred and twenty thousand Roman residents received gratuitously a certain quantity of corn every month. These laws had been, in a great degree, introduced by successive aspirants to power for the purpose of securing votes. Those in the neighboring country who possessed the right of suffrage, were induced to leave their farms and flock to Rome, in order to live without severe labor by becoming recipients of the public bounty. Though various attempts were made in Rome to reduce the expenditure for this purpose, the general policy became permanent, and continued till the downfall of the Western empire. The practice was introduced into Constantinople by Constantine, and prevailed in Alexandria also. We have reason to suppose that the example of these great cities was more or less imitated by the other great municipalities of the Empire.

Besides this, the relation of client and patron in Rome introduced another form of the same vicious practice, which, from the fact that the dole of food given to the beneficiary was placed in a little basket provided for the purpose, took the name of *sportula*. Clients were in the habit of testifying their respect for their patron by escorting him to

places of public resort when he went abroad. These courtesies he acknowledged by inviting some of the number to partake of the evening meal. Subsequently, the custom of bestowing on each client a portion of food, on every visit to the *atrium* of his patron, was substituted; and this again was changed to giving away to each a small sum of money as a reward for the part taken in helping to sustain the pomp of their patron. This practice, alluded to with reprobation by Juvenal, was also a part of the system by which the poorer citizens were subsidized with a view of adding to the pomp and show of the aristocracy.

The evils resulting from these modes of distributing legal charity were foreseen by thoughtful men at that time. Cicero remarks, "The practice was agreeable to the people to whom it insured an abundance of food without the necessity of work. But it was calculated to exhaust the treasury and make the people live in idleness." Public games and gladiatorial shows were provided, free of expense to the people, for a similar reason. "Bread and the circus" (*panem et circenses*) became the cry of the demoralized populace, and every administration, however despotic, was obliged to yield to the demand. The self-reliance and personal dignity of the citizen were thus destroyed, and, with them, the vigor of the Roman State departed.

In like manner the largesses given to the people of Athens, from the public revenue, to enable them to attend, free of expense, upon theatrical representations and frequent public festivals, wrought a demoralization in the Athenian citizen analogous to that which was produced among the Romans by the

distribution of corn. The "theoric fund," so called, absorbed so large a part of the public revenue that it diminished the power of the Athenians to carry on the war against Philip; while an extravagant fondness for the amusements and festivals which the fund provided, led the Athenians to turn a deaf ear to the exhortations of Demosthenes, urging them to engage in foreign military service against this most dangerous and powerful enemy of the State.

The fundamental principles upon which these largesses were given, were the same both at Rome and at Athens. The proceeds of taxation upon property were given to the poorer classes of citizens in the shape of a kind of "out-door relief," which resulted in demoralization and idleness, the decay of patriotism, and the disposition to make amusement the chief end of life.

During the period of persecution the early Christians were subject to extraordinary sufferings. They were drawn as a body from the poorer class of the people, and were obliged, in their persecution, to make common cause with each other. The duty of caring for the distressed among their number was earnestly enforced and discharged with alacrity. As wealth increased among them, large amounts of property were put into the hands of the clergy for the purposes of charity, both in the shape of periodical contributions and permanent endowments. After Christianity became the religion of the State, the wealth consecrated to the care of the poor rapidly increased. The income from this property was absorbed in ransoming prisoners likely to be sold as slaves, and in caring for the immense

numbers whose means of living were destroyed by the numerous incursions of the barbarians.

A large portion of the poorer class of the population had also been in slavery. When this was abolished, they were thrown upon their own resources, before the habit of self-reliance and foresight requisite to provide for their own wants in time of confusion and disorder had been fully formed. In this state of things the resources of private charity were strained to the utmost and of necessity a large portion of the population could be saved from starvation only by charity.

It is difficult to estimate adequately the disorder, confusion, and poverty of the long period from the overthrow of the Roman Empire to the establishment of the State system of modern Europe. The common people were alternately slaves, *coloni*, and serfs. When they became free laborers, their compensation was barely sufficient to keep them above the starvation point. In times of pestilence, famine, and war, the number thrown upon charity must have been largely in excess of that in any modern society in proportion to the population.

The great mass of the laboring population were affected by the ignorance, vice, and want of self-respect incident to a more or less pronounced servile condition. The churches and the monasteries were the channels through which the benevolence of the wealthy was distributed for the relief of suffering. The almoners of the public benevolence thought only of the task before them, and the accumulation of the means of relieving suffering. Economical laws were unthought of. When European society gradually settled down into a coherent organization,

when labor was better protected and rewarded, and the means of subsistence were put within the reach of the laboring classes, the habits, generated in the preceding centuries, of receiving relief through the channels of benevolence remained. The ignorant, the idle, the vicious, were only too ready to live upon the public bounty after it had ceased to be necessary; and a great pauper class was formed throughout Europe from the residuum of ancient and mediæval servitude. The institutions of benevolence, founded and enriched during those ages in which the state of society rendered them necessary, remained, with income largely increased long after the special necessity for their existence had passed away. The doles given out at the monasteries and through the various benevolent agencies, contributed powerfully to perpetuate the pauperism which they were originally designed to relieve. As the Italian beggar of to-day has a pedigree that runs back to the time of the Gracchi, so the degraded paupers which generation after generation fill the English poor-houses are the lineal descendants of Saxon thralls and Norman villeins.

Political progress has wrought their personal freedom; but the weak and the ignorant among them yet retain the stamp of their far-off origin, and the habits which were engendered in their forefathers, who thronged the doors of the monasteries to receive the proceeds of unwisely directed Christian charity, still cling to their descendants. Emigration has brought numbers of the pauper class from various foreign countries to our own shores; and, although better opportunities for obtaining a livelihood and the influence of new scenes and condi-

tions have lifted a large proportion of them into a higher sphere of existence, there yet remain among us large numbers, unchanged in character and tendencies. They can be recognized by any thoughtful visitor to the homes of the poor in our cities, and among the crowds who resort to the offices of the superintendents of the poor as eager applicants for out-door relief.

In England, as early as 1349, beggary and vagabondage received the attention of Parliament. The Ordinance of Laborers of that year provides that "none shall under colour of pity or alms give anything to such which may labor, or presume to favor them in their sloth; so that thereby they may be compelled to labor for their necessary living." A similar act passed in 1376, is referred to by Eden in his "History of the Poor." From this it is evident that long before the suppression of the monasteries, pauperism and mendicancy had become dangerous and oppressive. The abolition of villeinage was the immediate occasion of these acts; and the subsequent suppression of the monastic establishments only threw upon the public those who had been partially assisted by the monasteries, which, in systematically feeding beggars, had unwittingly fed beggary itself, and helped to spread the disease which legislation now in vain attempted to eradicate. . . The evil was so deeply rooted that no merely penal remedies could reach it. As a consequence, the poor-law system was adopted in the reign of Elizabeth. Its provisions were, on the whole, wise; but through faulty administration and unwise compassion, the principle of out-door relief was so expanded in its application, that it came to

reach a large segment of the agricultural population.

In times of sickness or special scarcity they came, as a matter of course, to depend upon the regular parish allowances. They began to look forward to relief thus afforded or to the almshouse, as the regular concomitant of old age. The self-respect of the English peasantry broke down. They lost all habits of accumulation. They married recklessly, trusting to the parish to maintain their children, if they were unable to do so themselves. They were subjected to physical and moral degradation. The poor-rates kept on increasing until they threatened to absorb the entire rental of many districts.

This state of things has been attributed by English economists to the great expansion of out-door relief. Although they have failed to take account adequately of many causes which combined to produce this unfortunate social condition, it is clear that out-door relief, so widely distributed that it carried with it no disgrace and came to be a part of the agricultural laborer's legitimate means of support, was among the most efficient influences which make the condition of the agricultural laborer so disgraceful to the Christianity and civilization of England.

The legislative reforms, introduced under the influence of the Poor-Law Commission, have done much to remedy the evils here alluded to, but the class of persons described still remains. The problem of pauperism in England still awaits solution. . .

In order to draw attention to possible abuses in

the administration of charity, it may not be improper to give a few hints in the way of application of the principles immediately or remotely involved in the preceding discussion.

It is clear that all official persons chargeable with the care of the poor should be experienced and intelligent. The work of caring for the poor should, so far as possible, be removed from the domain of party politics. In no part of public administration are intelligence and experience of greater value. It is, therefore, of the highest importance that good and able men in charge of the poor be retained in their offices independently of the ordinary changes in political parties. Frequent changes in superintendence always prevent efficient administration of existing laws, and render impossible the accumulation of practical experience, without which the best laws fail to secure the end for which they were enacted. Charitable relief should be administered only to those who will really be benefited thereby. The greatest possible care should be exercised that neither public nor private charity be so given as to furnish the means of vicious indulgence, or encourage continuous improvidence and idleness. This makes necessary frequent visitation at their own homes of those aided, and a careful scrutiny into their resources, habits, and capacities for labor. . .

It should be borne in mind that there are among our destitute poor all possible varieties of character, the virtuous and vicious, the industrious and the indolent. We find the hardened and deceitful "dead beats," and the decent and honest; those who are deserving of the severest reproba-

tion, and others who should be met with tender compassion and respectful sympathy. No iron rule ought to be applied. There should be an adjustment of general principles to particular cases, which careful visitation and skillful and often prolonged inquiry alone can enable us to accomplish.

Many ignorant people are not familiar with the working of our savings bank system, and are consequently too timid to trust their earnings in such institutions. There is no duty more binding upon the State, than so to frame and execute laws concerning such organizations that the savings thus entrusted to them shall never be put in peril. When once the habit of saving has been formed, it tends to grow stronger, to generate habits of forethought and prevent useless expenditure. The cumulative nature of interest might be explained and impressed upon the minds of the poor. Many such persons pass through life without reaching the idea that their savings may be made to earn money as really as their labor. Relief extended in the way of practical information and wise counsel, is often vastly more valuable than gifts of food, clothing, or money.

The skepticism of the benevolent regarding the worthiness of those upon whom charity is bestowed keeps back very much from the truly destitute. This skepticism will pass away when it is known that the character and necessities of each person aided are subject to intelligent scrutiny. Every person who by reasonable foresight, economy, and industry is able to provide for himself and fails to do so is a dishonest man. If he has not sufficient sense of duty to induce him to provide for himself,

it is simply just that he should be subjected to the stern teaching and discipline of hunger and cold. Under ordinary circumstances, whoever interferes with this discipline or renders it nugatory, does the individual and society alike a serious injury.

From the nature of the case the number of persons and organizations engaged in the care of the poor in the large cities is very numerous. This affords a wide range of opportunity for the dishonest poor to obtain aid from several sources at the same time. Instances illustrating this evil are by no means rare. Nothing can prevent this overlapping of charitable societies but the organization of a central bureau in each town or city to which reports can be furnished of the names of all persons who receive aid. . . Such bureaus would tend also to expose the character of many professedly benevolent societies which are either wastefully and inefficiently conducted, or are positively fraudulent. It would, moreover, be a ready means of detecting and bringing to justice persons who collect money ostensibly for benevolence, but in reality for themselves. In more than one case has it been found that the legislature of the State has made appropriations considerable in amount to such organizations. Private individuals have been victimized to a still greater extent. Such a central bureau would bring to light the evils so likely to grow up from the excessive amount of the machinery of benevolence. This evil oftener arises from thoughtlessness and ignorance than from bad intentions. The excessive individualism of our people blinds them to the advantages of co-operation, comprehensive views, and intelligent oversight. . .

Charitable relief should, as far as possible, be made temporary in its character, and stopped the very moment it ceases to be absolutely necessary. In order to effect this the circumstances of the recipients should be re-examined at frequent intervals in the manner we have already described. Those who are proper recipients of aid one week may not be so the next. The great danger is that those who have once experienced the convenience of outdoor relief will relax efforts on their own behalf, and invent excuses for rendering the temporary relief permanent. Relief acknowledged at first as a gift and gratefully received, is at length demanded defiantly as a right. Special care should be taken to assist the unemployed in securing work, and this assistance should be so given as to teach the unemployed the art of getting work for themselves. They should be impressed with the economical maxim that it is just as much the duty of every man to *find* work for himself, as to *do* it after it is found. A charity bureau, such as we have described above, might be made available as a sort of Labor Exchange, where persons seeking employment and persons seeking laborers might be brought together. By this means the indolent and unworthy might the more readily be detected.

The intimate connection between ignorance and pauperism is sufficiently obvious. While the various forms of vice reduce large numbers to the condition of paupers, it still remains true that the great majority of them are also ignorant. In general, skilled labor is always in demand. It is the unskilled laborer who is first thrown out of employment in times of commercial revulsion. Hence, the

importance not only of general education, but of adequate training and proper length of apprenticeship in all forms of industry. Whatever appliances, in the form of technical training or apprenticeship laws, tend to increase the skill of men engaged in industrial pursuits, tend also to increase the productive value of labor, and to diminish the burden of pauperism. Depreciation of mechanical skill, as shown in the difficulty of securing thoroughness and finish in mechanical constructions has, during the past few years, been forced upon the attention of all careful observers. Hence it follows that thought and money judiciously expended to remedy the evil above alluded to, can hardly fail to have a beneficial effect in reducing pauperism.

In times of scarcity the suggestion is often made that those likely to become paupers should be employed by the municipalities or by the State upon public works, or in some form of business where the capital is supplied from the public funds. This plan of action seems to many, at first sight, both economical and benevolent; but the experience of those countries that have resorted to this mode of meeting the wants of the poor, shows a very different result. It was tried in France, in 1545, in 1685, in 1699, and in 1709. Large workshops were opened, under the name of *ateliers de charité*, having the two-fold object to furnish employment to the unoccupied, and also to reduce mendicancy. In the reign of Louis XVI., in 1786–1788, this system was revived, and extended throughout France. In 1790 each department of France had placed at its disposal a sum of money for this purpose. Again, in 1791 the constituent assembly tried the same plan for

the relief of poverty on a still larger scale, but like previous attempts of the same kind it failed. The medicine was worse than the disease; for the larger the scale on which the workshops were established the greater became the number who needed employment. In 1830, it was given another trial without success; and during the revolution in 1848, when the workshops had the name of *ateliers nationaux*, it reached its climax. From one hundred and ten thousand to one hundred and twenty thousand men were employed at one time. All French economists agree that the results were disastrous in the extreme, enormously expensive to the State, and of no real service to the unemployed. It drew labor and capital away from the natural channels of business, and tended to put off indefinitely the resumption of the healthful processes of trade and manufacture, while it enormously increased the public burden. It was demonstrated that the direct system of out-door relief, judiciously employed, would have been much cheaper for the State, and much less injurious to the poor. This system, by which the State entered upon the transaction of business, and became the common employer of labor, was made more dangerous by its having been adopted as a part of the socialist creed, under the formula of the "right to labor." The workshops soon became mere clubs for political discussion and intrigue, and seminaries of principles subversive of all property and social order. The money sunk in the business reached such an amount that national bankruptcy was imminent. The workshops were closed; the socialist rebellion against the government broke out the next day; and Cavaignac's

cannon swept the misguided workmen by thousands into eternity. Thus ended the system in France.

Numbers of European socialists are collected in our large cities, eagerly watching for an opportunity to realize their notions here. Though the danger with us is slight, we should be warned by experience and avoid the adoption of a system so capable of abuse, and so useless for any good purpose. The fundamental fallacies of the socialist doctrines are so well put by Leon Faucher that we translate the following passage:

> The right to employment and the right to receive assistance are in the thought of the socialist, who puts forward these grand phrases, nothing but a means for changing the distribution of wealth. For this the State has no capacity. The laws which regulate the partition of wealth in society are like those which regulate the movements of the physical world, superior to all the agency of legislation. These laws form a kind of gravitation which holds within its sway all human intellects and wills. The State should see to it that the burdens of society are distributed among its members in proportion to their wealth. It pertains to the State to remove the obstacles which arrest or injure the development of intelligence or production; but it ought never to forget that, although it is the collective force and represents the association of individual men, it can never absorb those individualities into itself.

It is well known that a prolific cause of both crime and pauperism is found in the ill-drained and badly ventilated tenements into which are crowded the abject poor of our cities. For the class of our population that makes no savings and lives on the earnings of the passing day, disabling sickness and death stand in necessary connection. When the limit of credit is reached the resort to public or

private charity is inevitable. The tendency of such unhealthful dwellings to reduce vitality, to increase the resort to stimulants, and to promote drunkenness, is notorious. Out of this grow the vices of licentiousness and all forms of unhealthful dissipation. Fraud, theft, and robbery follow naturally from the craving on the part of the poor for costly criminal indulgencies. Hence we believe that any organizations which shall, at a reasonable price, secure homes for the poor, combining the conditions of healthfulness and privacy, will be an effective mode of aiding them, and at the same time of reducing the activity of one of the recognized causes of pauperism. . .

All interference with the natural movement of productive labor, either by unnatural stimulation, or by obstacles thrown in its way, alike tends to increase pauperism. The failure of a manufacturer to fulfill his contracts with a body of laborers by indulging in reckless speculation, or by extending his business beyond what his skill or capital will justify, brings disaster and poverty upon operatives, not in one locality alone, but often throughout the civilized world. In like manner the refusal of a large body of mechanics at a critical period to meet their contracts to perform labor for a certain price and for a certain length of time, not seldom by causing bankruptcy of contractors, entails suffering and poverty equally widespread and disastrous. The success which in England has attended committees or courts of arbitration, composed of operatives and employers, or of persons independent of both classes, has been such as to warrant the attempt to introduce them here. A calm and intelligent ex-

amination of the elements of difference between the parties jointly engaged in production and equally necessary to great manufacturing industries, is much more likely to result in a fair distribution of profits than the clumsy machinery either of strikes or "lockouts." The commercial world is an organism vital in every part. An injury or dislocation in one portion imperils the whole system. Those who control the reciprocally acting elements of production, labor, and capital, should understand that their interests, moral and pecuniary, are, when rightly understood, in complete harmony with each other.

The dissemination of a knowledge of economic laws; the practicability of resorting to various forms of co-operation; moral instruction designed to show that labor and capital are dependent for protection upon the same law of reciprocity; stern legal repression of all attempts of capital to oppress labor, and of labor to oppress capital; furnish a field of thought and action which should engage the attention of the philanthropist and legislator.

The subject, one aspect of which we have had under consideration, is a vast one. It is closely related to our whole moral, social, and economical life. We are conscious that many points will occur to the intelligent reader which have not been alluded to, and that the topics taken up have been very inadequately discussed. Our single aim has been to aid, in a practical way, the philanthropist and the public official in the discharge of their arduous and perplexing duties. The professed political economist we have not attempted to address nor instruct. Experience has taught that even such an elementary

discussion as we have been able to give may be useful to the dispenser of charity among the poor. We have seen that nothing so effectually dries up the sources of charity as the suspicion that it is so bestowed as to do injury rather than good. The suffering which society is bound in duty to alleviate is appalling in amount, and the burden which it imposes is liable to increase with our population. An intelligent study of the problem of misery is incumbent on all who love their fellow-men. Americans have been prone to assume that the terrible enigmas of pauperism, as they are propounded to the old world, would never trouble the new.

We have been profuse in our provision for the relief of suffering humanity, but have not studied, as we ought, the means of reaching and eradicating its causes. The published reports of the charity commissions in our various States contain useful statistics and many valuable discussions, but we do not recall a single systematic treatise on pauperism which has been issued from the American press. European literature is rich on the subject; but, while the general principles which underlie its discussion are universal, considerable modifications in the rules of action which they supply are necessary in order to make them practically useful in a social order so inchoate and peculiar as our own. We hope that ere long some person will take up the subject who shall combine broad experience in the care of the poor, with a thorough comprehension of economical principles, and their connection with the equally authoritative laws of Christian charity.

IV

MEANS OF RELIEF FROM FOREIGN PAUPERS

READ BEFORE THE
CONFERENCE OF STATE BOARDS OF CHARITIES, SARATOGA, SEPTEMBER, 1876

THERE is an element of the "pauper question" in our country which requires the attention of every citizen. The unprecedented emigration to the United States within the past few years, although attended with much good, is also fraught with great dangers and evils. Of the persons who emigrate a large proportion are men of broken fortunes who from some cause or other have been unsuccessful in their own country. A still larger number of them are persons who expend their entire property in paying the cost of emigration to their new home. Among these a large number, from the difficulty of getting employment and the discouragements natural to being separated from the friends of their early life, or illness induced by the voyage and change of climate, are thrown upon the public for support. But this is an evil incidental to emigration, and should be accepted as a matter of course. There is evidence, however, to show that a large number of persons actually paupers or discharged criminals, have been sent over into our country either by governmental aid, or by the assistance of relatives who wish to avoid the disgrace and trouble attendant upon their support. Hence the class of emigrants, while containing a large

number of most excellent and healthful additions to our population, has an undue proportion of the dependent and criminal classes.

Of the population of the State of New York about one-third are of foreign birth, and from that one-third about two-thirds of the paupers supported at the expense of the State are derived. This fact alone will show that the evil to which we have alluded is a serious one. It repeats itself in various degrees of intensity in our maritime States, and, to a certain extent, in all the States of our Union. While we gladly throw open our territory, and extend the protection of our institutions to emigrants from foreign countries who are able and willing to earn their own support, we cannot and ought not to relieve the old countries of Europe from the care of their dependent population.

Certain propositions regarding the duty of the nations to their dependent population seem to be clear:

First. A nation is a moral organism which owes certain duties to its members, and to which its members owe certain duties in return. The bond between government and subject is a reciprocal one. Therefore every citizen or subject is bound to maintain by his property and defend by his life the government which extends to him its protection; and, on the other hand, by the common practice of civilized peoples, the government should assume the care of its subjects when they are unable to care for themselves.

Secondly. This obligation of a nation toward its dependent classes, cannot be transferred to another without that other's consent. Commercial nations

recognize this principle in their provisions, through the consular system, for the care of shipwrecked, discharged, or disabled seamen. The foreign consuls of civilized nations provide for their maintenance, and return them to their homes.

Thirdly. It is clearly an offense against the comity of nations for any government, national or municipal, to throw the burden of caring for its dependent population upon any foreign country. But it has been proved beyond all question, that both foreign municipalities and foreign nations have provided at the public expense for the transportation of considerable numbers of their pauper class to the United States. It is also beyond all question that paupers and criminals in considerable numbers have been sent to the United States by their relatives.

Fourthly. A nation becomes bound to support a foreign-born pauper only through his naturalization. Naturalization involves a reciprocal contract. The naturalized party repudiates his allegiance to the country in which he was born, and takes upon himself all the obligations of a citizen. He becomes bound to pay taxes according to his ability, and if necessary, to serve in the army or navy against domestic or foreign enemies; but an alien is free from a large measure of these obligations, and the State, on its part, comes under no obligation to maintain him, if he becomes dependent. The American sailor or resident living in England, who becomes a pauper, appeals naturally and rightfully to his own consul for protection and aid. There is no reason, in the nature of the case, why we should maintain paupers who are subjects of Great Britain or Ger-

many, who are landed upon our shores in a dependent condition, or in such a state of mental or bodily health that they must necessarily become dependent. We are no more bound apart from the general law of humanity, to maintain such persons, than we are to pay the interest on the English national debt, or furnish conscripts for the German army.

The question arises, how shall this transference of the pauper population of the old countries of Europe to our shores be stopped. This is confessedly a difficult problem. The emigrant commission system which has so long existed in some of our maritime States, has undoubtedly prevented the introduction of many paupers and criminals, but it has on the whole proved in this respect a failure; and constitutional difficulties have now been interposed to set it aside entirely for the future. So far as the question of international law is concerned, we have an undoubted right to send back such dependent persons to the countries to which they belong. If they have become naturalized, we of course are bound to take care of them ourselves.

It may be questioned whether the establishment of national bureaus will protect us against this influx of paupers and criminals. A system which has failed to so great a degree in the States, under the influence of local supervision and where local interests were at stake, would be still more likely to fail to meet the evil through a bureau established by the general government. Besides there are several classes of persons whose interests will all the while lead them to evade the law. First, there is the shipping interest which, of course, desires to

promote the emigration of all persons whose passage money is paid. Secondly, there is the land interest, which seeks to sell to the emigrant vast tracts of unoccupied land held on speculation. Next, there is the railroad interest, whose profits are largely increased by the transportation of emigrants to distant portions of our country. There are also political interests, which may be indirectly promoted by the increase of emigration. All these considerations render it extremely difficult to meet the evil through a bureau of emigration alone. Of those who enter our country from the dominion of Canada along its immense border very few could be reached by an emigrant commission, however efficient and active. All along the northern border of New York, and indeed in all Northern States, the poor-houses and orphan asylums contain a very large percentage of dependent persons of both European and Canadian birth, who have sought a refuge within our limits. The recent special statistical examination of poor-house inmates, conducted by the New York Board of Charities, has shown that of the large number of alien paupers found in our northern counties, few if any had landed in New York or Boston or could have been reached by any emigration bureau for the purpose of examination or the exaction of head money.

Whatever may be done by a bureau with officers in our large seaports for meeting this danger, it seems to me that such efforts ought to be supplemented by other modes of action. I beg leave to suggest two. First, by requiring of the United States consuls, at all the large ports from which emigrants are shipped, to take care that no de-

pendent or criminal goes on board an emigrant ship without sending evidence of the fact to the authorities of the port to which the ship is bound, we may prevent much of the evil under which we suffer. This course would exclude a large proportion of the class of paupers and criminals who, heretofore, have been surreptitiously landed in our country. I purposely avoid going into the details of the process. It might be provided for by act of Congress, and the duty be imposed upon the consuls to examine emigrants and obtain authentic evidence regarding the residence, history, and character of all persons reasonably suspected of being paupers or criminals. When paupers or criminals were found among passengers, the shippers would not care to take them for fear of subjecting themselves to the penalties of our law. Concert of action among our consuls would enable them to secure evidence which could not be obtained after the pauper or criminal was once across the Atlantic. When a pauper is once here he is likely to be thrown on our care for life. If he should be supported out of the head-money for five years, after that time he is sure to be a burden on the taxpayer. The cost of maintaining such persons in a poor-house or prison is a trifling evil, compared with the moral contamination which they bring, and the character of the progeny which in some cases they leave behind them. The hereditary character of pauperism and crime is the most fearful element with which society has to contend. The expenses of this preventive process would be light, and the labor distributed among a large number of consuls could not be onerous. We thus

might establish a kind of moral quarantine, and those whom the consul permitted to embark without protest would have, by presumption, a clean bill of health.

Secondly, provision might be made by law, either by Congress or by the several States, as the principles of constitutional law might require, giving authority to the Boards of Charities in the several States to send back to the countries to which they belong every alien pauper, who has become such within a certain specified time after landing upon our shores. The expenses of re-transportation might be borne by the general or State governments. The expense, however, in either case would be a trifle compared with that of maintaining a pauper during the average term of such pauper's life. It is by no means clear that the principles of international law would not justify us in insisting that the expense of such re-transportation of paupers should be borne by the countries from which they come—it being a fair presumption that the countries themselves had either actively transported among the emigrants such paupers, or winked at the process when undertaken by individuals or municipalities. This, however, would be a matter for negotiation. It is clear that the extradition of such paupers or criminals would be an immense saving to all our States. The average term of life of all paupers cannot be less than from ten to fifteen years. The maintenance of such paupers cannot be less in the aggregate than fifteen hundred dollars apiece. The cost of sending them across the Atlantic, estimating transportation at the usual rates both by land and water, could not be more than fifty dollars *per*

capita on the average. The moral and economic advantages, in other respects, which such an expurgation of our population would confer, can hardly be estimated. If we take this course with regard to foreign nations, they will be open to take the same course regarding our own citizens. The obligation and the right would be reciprocal. We may ask of other nations what they may ask of us. We are ready to discharge the same duty that we require of them to discharge toward us. Such a demand would be equitable and just. The principle that each nation should care for its own pauper, insane, and dangerous classes is beyond all possible question, and the plan which we propose is a simple application of it to the existing state of things.

The law of settlement in its bearing on municipalities has been enforced with much rigidity, both in Great Britain and in our own country, and we are familiar with its bearing on the pauper question. No town will support a pauper who has a settlement in another town, and almost all the States have passed laws providing for the transportation out of the State of paupers that have no legal settlement within its borders, to the States where such paupers belong.

This law has been applied for a considerable time and with uniformly good results. The same principle which the States of the Union have acted upon, relatively to each other, regarding the support of paupers, may be applied to foreign nations. A non-naturalized pauper, having a legal settlement in Canada, would in that case be transported to Canada. Another, having a settlement in Ireland or Scotland or Germany, would be transported

there. The plan which we propose is the same as that which we have in operation among ourselves. Many of the maritime States have taken action in sending alien paupers to their homes in foreign countries already, but this has not been recognized as a fixed and uniform policy. If the States or the general government, as the case may be, should make regular appropriations for the purpose of sending back, under the limitations naturally suggested by humanity and good sense, all alien paupers that have been smuggled into our States, foreign governments and "national philanthropists" would soon cease to regard our country as a "Botany Bay" to which they can with impunity send their paupers to be supported and their criminals to plunder. That they have done so in the past is an offense which ought, ere this, to have been a subject for negotiation and remonstrance by the Department of State.

It might be feared that measures of the character recommended would be distasteful to our foreign-born fellow-citizens. In reply, we would say that no class of persons are more decided in their opinions regarding the injustice of the transportation of paupers and criminals to our own country. The foreign-born citizens immigrate often for the purpose of escaping the burden of taxation and military conscription. When they come to the United States, and are naturalized and have assumed their proper share of our responsibilities, they are by no means anxious to take on in addition a part of the public burdens of the countries which they have voluntarily left. It will be found, as soon as any active measures are taken to remedy the

evils we have alluded to, that our foreign-born citizens will give them their hearty support.

I now beg leave to call attention to some facts tending to show that the class of persons referred to have been systematically sent to our shores by nations and municipalities acting under regularly enacted laws. I will remark in passing that the English people years ago suffered a modified form of the evil we have been discussing, and that out of it grew the present Irish poor law.

Before the establishment of the Irish poor law, great numbers of the Irish poor emigrated to England. The burden to England became so great that the strongest representations were made to induce Parliament to remedy the evil. In a letter to the agriculturists of England, published in 1830, and quoted in the "Quarterly Review" of that year, it was represented that the poor of Ireland were compelled, through want, to migrate to England "in hordes," and "that owing to the absence of a poor law in Ireland, English property was virtually rated to maintain a great part of the Irish pauper population." England and Ireland brought their products to a common market. It was said that the English agriculturist paid a heavy tax out of the produce of his land toward the support of the Irish poor, while the Irish agriculturist, receiving the same price for goods, paid no poor-rate at all. This influx of Irish pauperism into England for support was one of the strongest motives which led to the enactment of the Irish poor law. The injustice to the English rate-payer was so evident, that Parliament supplied the remedy at an early day. What was an intolerable grievance to England, with

Ireland a part of the British empire, would have been still more so had she been a foreign nation.

The "Edinburgh Review," for March, 1831, speaking of the increase of paupers, says: "They can be disposed of only in one of two ways, that is, either by placing them on unoccupied and uncultivated lands at home, or moving them to the colonies." After showing that the first of these methods was impracticable, it took up the advocacy of the second, and gave its approval to a bill, then before Parliament, for aiding paupers to remove to the colonies. Canada was the colony most prominent in the writer's mind. He goes on to say, in advocacy of the bill: "Nothing, therefore, can be a greater mistake than to suppose that those who consent to make an advance for the removal of paupers are making a sacrifice to get rid of an accidental and transitory evil. The fact is, they are making a comparatively small sacrifice to rid themselves of an evil which is deeply seated, which is rapidly spreading, and which, if it be not effectually counteracted, will at no distant period sink all classes below the level of that which is now lowest." It is known to all persons of experience, that a very large percentage of persons belonging to the hereditary pauper class, sent at first to Canada, migrate as soon as possible to the United States. The measure thus advocated in 1831, and which shortly after became a law, was virtually a law to facilitate the transportation of English paupers to the United States. . . That the policy of shipping paupers to America is well recognized and understood in England, appears not only from the statute books, but from allusions made to the topic in treatises on

pauperism. Fawcett, in his "Lectures on Pauperism," says: "The most popular remedy to get rid of our own paupers is to ship them off to America. Now, the advocates of such a policy overlook the fact that the United States are beginning to be burdened with their own pauperism, and, therefore, would very properly object to being made a receptacle of the pauperism of the old world." We think that every New York taxpayer will coincide with the opinion so naïvely expressed by Professor Fawcett. Scrope, in his "Political Economy," after speaking of the terrible consequences of the Irish famine, says: "Thousands upon thousands fled from a country so afflicted by Providence and neglected by its own rulers, and the depletion occasioned by the famine itself, and the constant outflow of the peasantry to seek a living in the United States of America, which set in then and has continued ever since, have together solved the problem of the redundancy of population in Ireland. . . It [emigration] offers the true solution of the problem, how to deal with able-bodied pauperism wherever it exists."

It may be remarked that these English writers unwittingly used in their discussion the term British colony and the United States as somehow convertible terms. It would not be courteous to put a law on the statute-book, or to organize an association, or to provide money for the transportation of paupers to the United States; but when they come to speak of actual facts in the case, they recognize the United States as the country which the paupers emigrating from England ultimately and actually reach. The people of the United States are always ready to receive an industrious and able-bodied

emigrant, however poor he may be; but they are not willing to support that class of indolent and hereditary paupers that have been smuggled into our country by the connivance or direct agency of foreign nations.

Frequent complaints have been made of the number of paupers and dependent persons who have been introduced into our country from various parts of Germany and Switzerland. It is quite difficult to reach direct proof of such transportation of paupers to our shores, but that considerable numbers have been sent here is almost universally believed; and the positive evidence upon which this general conviction rests, might be reached by a certain amount of time and labor. That convicts have been pardoned on condition that they should emigrate to the United States, is unfortunately only too evident.

In a debate on this subject in the United States Senate, March 19, 1866, Mr. Sumner referred to an "official correspondence, showing that the authorities of Basel, in Switzerland, had recently undertaken to pardon a person found guilty of murder, on the condition that he would emigrate to America—meaning thereby the United States." Also, he showed that it has been "the habit in the island of Newfoundland to pardon persons convicted of infamous offenses, on condition that they would come to the United States; and there are several very recent instances of pardons in the kingdom of Hanover, in Germany, on similar conditions. For instance, I have here," he says, "a copy of two scraps from a German newspaper. One is from the 'Luneburg Advertiser,' of September 10, 1865, to wit:

'Within the last few months, our chief justice has pardoned three of the greatest criminals in the kingdom, on condition they emigrate to the United States—Henry Gieske, for theft; J. Sander, for arson; and John Winter, for robbery. The two former are already on their way to New York from Hamburg.' Then there is another scrap from the same newspaper of the date November 12, 1865. 'The culprit Camman, who was condemned to death for highway robbery and murder, has had his punishment commuted to emigration to America.' . . I have," he continues, "seen a gentleman who narrated to me an incident that occurred to him in one of the prisons of Baden-Baden, during the last year. Visiting that prison he himself heard the jailer, or an officer of the prison, make a proposition to a criminal to the effect that he should be pardoned on the condition that he would emigrate to the United States."

In the same debate, Mr. Grimes, of Iowa, said: "I am as conscious as I can be of a fact that is not within my own personal knowledge, that the exportation of criminals from Germany to this country has been going on for years. Last year I saw a gentleman, a citizen of my own town, who visited his fatherland, and when he came back told me that he came in company with a detective, who brought several criminals to New York and turned them loose there. The government of one of the little German principalities paid all the expenses of the transportation of those criminals, and of the detective who brought them over in charge, and when they landed he gave them a certain sum of money with which to start, and probably within a short time

they were in Sing Sing." A joint resolution was then passed by the Senate protesting against such acts as unfriendly and inconsistent with the comity of nations.

The intimation that municipalities have been active in sending paupers to our country is very clearly illustrated by the following quotation from the last volume of the Cobden Club Essays, "On Local Government Taxation in Ireland," by W. Neilson Hancock, LL. D. Speaking of the power given by Parliament to local authorities in Ireland to raise taxes for sending paupers out of the country, Mr. Hancock writes as follows: "The poor law of 1838 sanctioned the principle of an emigration rate, but the original act prohibited assistance being given to emigrants going to other than British colonies, thus excluding emigration to the United States. When the pressure of the famine came, the most munificent contributions to alleviate the distress came from the United States, and Parliament repealed the restriction in 1849, and it was found afterward that of the Irish agricultural classes eighty-four per cent. usually emigrated to the United States. By the act of 1838, emigration rates were only to be levied when the majority in value of rate-payers of an electoral division voted for the rate. In 1843, the guardians were allowed to impose emigration rates not exceeding in one year sixpence in the pound or two and a half per cent., but these were only to be applied to relieve persons who had been three months in the workhouse. In 1847, after only four years' existence, both these restrictions were abolished. In 1849, provision was made for borrowing money for emigration, but Parliament

thought it necessary to impose a limit. The entire sum borrowed to assist emigration was not to exceed eleven shillings and fourpence in the electoral division, and two shillings and eight pence on the union at large, or fourteen shillings in the pound; this would, at the then valuation of Ireland, have amounted to about nine million pounds. All the guardians did expend on emigration in twenty years after 1849 was only one hundred and nineteen thousand two hundred and eighty pounds, or about six thousand pounds, or half a farthing in the pound, in the year. It thus appears that all attempts of Parliament to regulate what persons were to emigrate, where they were to go to, or how much was to be spent on them, eventuated in restrictions that had either to be promptly repealed, or were so wide of the mark as to be practically inoperative." It should be borne in mind that this whole paragraph is shown by the context to bear upon paupers in the strict sense of the term.

It seems from this that the local authorities in Ireland have spent one hundred and nineteen thousand two hundred and eighty pounds, or about six hundred thousand dollars, in assisting emigration. At the average rate of passage, this would provide for the transportation of something like twenty-four thousand persons to America. Probably something like ninety per cent. of these landed ultimately in the United States, whether their nominal destination was Quebec or New York. From this very inadequate estimate of the number of paupers that have been sent from Ireland, we may infer the number that has been transported from the United Kingdom, under sanction of act of Parliament, by

local authorities, by friends, and in various surreptitious modes for the past twenty years. These statements will to some extent account for the fact that two-thirds of the paupers of the State of New York are foreign-born, and will account also for the number of paupers who have been maintained heretofore out of the proceeds of the head-money by the emigrant commission at Ward's Island and elsewhere in the State. A similar state of things must exist to a greater or less extent in all the Northern States. The magnitude of the evil has not been duly recognized because so little attention has been given to the facts.

We believe it to be the imperative duty of the general government to take measures at once to prevent persons, actually paupers or criminals, from being sent to our country and also to give power to the States if need be to send such persons, when found, back to the countries from which they came and to which they belong. . . If the United States and the States in the proper exercise of their several powers were to adopt and carry out with vigor the two classes of measures which we have hinted at, we believe that the evil which we have described would be greatly diminished if not entirely abated.

V

POLITICAL ECONOMY AND ITS ETHICAL RELATIONS

RESPONSE TO A TOAST
AT THE ADAM SMITH CENTENNIAL, NEW YORK, DECEMBER 12, 1876

I AM glad to take part in this festival in honor of the labors of a great scholar, teacher, and benefactor of his fellow-men. In our day the imposing and tangible results accomplished in the various departments of physical science, have thrown into the shade the equally great achievements of those who have cultivated what the French aptly designate as the Moral and Political Sciences. The beneficent influence of these sciences upon the public welfare, is slow in development and makes but a slight impression on the popular mind. A thousand men are familiar with the labors of Watt, Davy, Stephenson, and Morse, where one recalls in gratitude the name of him whose achievements we at this time commemorate. His work must be looked at through the long perspective of a century, in order to be adequately estimated even by the statesman or the economist.

As a teacher, I am gateful for the homage which the civilized world at this late day is offering to the memory of one of the great ornaments of the profession to which I have the honor to belong. I join with all my heart in a formal recognition of the service which Adam Smith, as a representative

teacher, has rendered to man. It has become a habit with a certain class to represent those lines of thought which find their subject-matter in the impulses and faculties of man's moral and intellectual nature, as the unburied remains of mediæval scholasticism, as unpractical and economically useless. Those departments of inquiry whose foundations are sought in the analysis of the constitution and laws of mind, in the "ought" and "ought not" of conscience, whose proofs and illustrations are gleaned from the literature and history of the past, are flippantly denounced as "metaphysics," and denied a place among the positive sciences. Teachers are called upon to reject these subjects from the curriculum of liberal study, and replace them by those which are conversant only with the laws of organic or inorganic matter.

Economic laws, though acting upon material phenomena, find their origin and limitations in the moral and active powers of man. Political economy, as a science, is an outgrowth of ethics. It was the gross violation of natural rights by the economical legislation which disgraced and impoverished the seventeenth and eighteenth centuries, that directed the minds of thoughtful men in their search after remedies. Francis Hutcheson, to whom belongs the honor of having first made the elements of economic science a subject of public instruction, was, like his pupil and successor whom we honor at this time, a professor of moral philosophy in the University of Glasgow. In their application of moral laws to human action, they were met by those obligations which arise out of the exchange of property and services. They found that the whole

system of commercial legislation rested on the belief that all gains in trade by an individual or a nation were measured by the losses which they were able to inflict on those with whom their business was transacted. The monstrous assumption prevailed that the successful merchant grew rich only by getting the better of his customers, and that the business of a statesman was to contrive the ways and means by which his own people could most successfully enrich themselves by impoverishing their neighbors. By a profound examination of the constitution of man and the history of trade, they demonstrated the opposite principle, that in all legitimate and permanently profitable trade there is a gain to both parties in the transaction. They showed that all tricks and deceit by individuals or legislation and diplomacy by nations, designed to secure profit by inflicting a corresponding loss on others, were as inconsistent with sound economy as they were subversive of public and private morality. They saw that all exchanges of commodities or services involve the transfer of "rights," and hence that all deceit, compulsion, and "interference legislation," designed to prevent the equivalence of the values exchanged, work an injury to natural rights as well as to profitable commerce. In the minds of its early cultivators, political economy was conceived to be the application of morality to the commercial intercourse of men. As all trade is an exchange of personal rights, they assumed that the science of exchanges must rest on a moral basis. The aim of Adam Smith, as well as of all who have worked out the principles of political progress, was to relieve society from obstructive and oppressive

legislation, and to prove to men and nations that honesty and justice are not only the best, but the only policy worthy of the thought of a merchant or a statesman.

Were we called upon to name three men whose labors within the last two centuries have been most conspicuously far-reaching and pervasive in their beneficial influence upon social progress, we should name Hugo Grotius, Jeremy Bentham, and Adam Smith. Neither of these men, with a partial exception in the case of Grotius, was, in the vulgar sense of the term, a politician, nor even a practical man. They were quiet scholars, devoting themselves to the study and discussion of moral principles in their bearing upon the individual and social well-being of their fellow-men.

Grotius collected the scattered fragments of the ancient poets, historians, and philosophers, which recognized the obligation of States to each other, formulated the principles which they involved, traced them to their origin in the laws of mind, and impressed upon the civilized world the conviction that a State in its corporate capacity is to be regarded as a moral being, responsible to other similar societies, and to God.

Bentham, starting on the assumption that the State was made for man and not man for the State, studied the principles which underlie municipal law, the rationale of punishment, the discipline of prisons, the duty of the State to educate and reform the criminal as well as to punish him. He attacked the injustice and absurdities involved in the English common and chancery law. He ridiculed the statute which fixed the rate of interest, and became

in this respect the teacher of Adam Smith. Though encumbered with a faulty and inadequate theory of morals, writing unreadable English, and having personal peculiarities which made him a butt of ridicule for his contemporaries, he trained and left behind him a school of thinkers who have been the active agents in a vast system of law reform which has renovated English jurisprudence, affected the thought of our age, and made its mark from India to Australia.

Adam Smith lived in an age of great statesmen and reformers, and though hardly thought worthy of mention among them when living, has contributed to the material and moral well-being of man in methods so various and vital that his life and work are more significant to the historian of civilization than are those of any of the able and brilliant men who in his day were rulers of States or leaders of opinion. Though the treatise of Condillac, embodying in a systematic form doctrines similar to those of the "Wealth of Nations," was published in the same year; though many able thinkers preceded him in the discussion of special economic principles, yet by the breadth of his learning, the comprehensiveness of his views, the freshness of his style, and the force of his logic, he was the first to reach the public ear. He may therefore justly be considered the founder of economic philosophy.

All systems of government and forms of law have for their end, to secure to man *liberty of person*, *liberty of conscience*, and *liberty of exchange*. In the degree to which a government recognizes and defends these rights, does it serve its legitimate purpose. Personal slavery has substantially passed

away from countries which claim to be civilized. Liberty of conscience is making rapid progress through the separation of Church and State. The liberty of exchanging the products of a man's free activity, which is evolved in the freedom of his person, remains to be vindicated. The right to fix the price at which he will exchange the products of his labor for those of other men, is an incident of his right to the products themselves. These rights are natural and universal, and the State may not interfere with them, except for the public service and in accordance with laws which bear equally on every citizen.

While some of the motives to labor and production may be those which appeal to self-interest, it does not follow that political economy is not a moral as well as a material science. The motives which move men to action are various, but it is none the less true that all action should be limited and controlled by moral laws. If it is conceded that most men are induced to labor by self-interest, it is equally true that duty prompts to the same end, and that conscience ought to have supreme authority in deciding what modes of production are permissible to a moral being, and what are not.

In the process of ascertaining the laws which should control exchanges so as to secure to a nation the greatest amount of wealth, economic science always finds that these laws are coincident with the highest morality. It demonstrates that there is a higher law to which self-interest must be made subservient, if it would not defeat its own ends. It matters little whether we apply to any system of financial legislation or mode of production the

tests of moral or economic science, for if we make no mistakes in our analysis, the results will harmonize. No mode of production can be economically safe for a nation to adopt which is in itself morally wrong. Political economy is a demonstration in material facts of the precepts of morality.

We oppose all obstructions to the freedom of exchange created by law or custom not made necessary for revenue, as alike injurious to natural rights and to national wealth. Slavery, the Roman *colonat*, serfdom, the mercantile system, the debasement of currency either by reducing the standard of coin or making forced loans and partial confiscations through irredeemable legal tender notes, monopolies, the colonial system, were all at the same time violations of moral and economical laws. Those in our country who are battling for free trade and a sound currency can never speak with the authority which belongs to their principles, until they take the ground that they are seeking, not only to increase the national wealth, but also to vindicate private rights and promote public morality.

The "Wealth of Nations" is throughout a practical application of Smith's discussion of the moral constitution of man. Even conceding, which we do not, that a high protective tariff promotes national wealth, it cannot be justified on moral grounds, for if it protects at all, it must tax the many for the benefit of the few, while at the same time it does injustice to the nations with which we trade. However great the services which Adam Smith has rendered to the economical well-being of the world, we believe that he has done still more for its moral education. His work has inculcated a gospel of hon-

esty, peace, and reciprocity wherever it has been read. It has everywhere vindicated the harmony of moral and physical laws, and shown that the impulse to accumulate defeats itself, unless held in control by the authority of conscience.

It is often said that the great economist's work, and the science which he founded, are wanting in constructive ideas; that they are a collection of negations only. This charge may be brought with equal justice against all attempts to develop and illustrate the fundamental laws of matter or of human action. The world's great moralists and reformers have spent their lives in the demolition of organized forms of evil. But they have not destroyed at random. They smote down obstructions which stood in the path of progress. Slavery and feudalism have fallen, that man might have a right to his own body. Church and State have been ruthlessly rent asunder, that conscience might be free. Hoary aristocracies have been crushed, that all men might be equal before the law. With the removal of obstructions that hinder the movement of civilization, humanity sweeps onward by its own inherent force.

Our science stands related to economical legislation, as general jurisprudence stands related to the law of contracts and crimes, as physics to engineering, astronomy to navigation, or geology to mining. It will become a most important factor in the constructive politics of the future. As society becomes more complicated and its differentiations more com plete, economic laws will become more and more indispensable as controlling forces in the organic life of society and the State. But hitherto the world

has been governed too much. Those only sigh for paternalism and "interference legislation" who have lost faith in man and the ever-active moral and social laws which impel and guide his movements in the path of progress. We would not unduly limit the function of the State; we would seek to keep it within its natural and proper limits. As we deny the right of the State to fix a man's religious creed or mode of worship, so we deny its right to fix the ratio of exchange in the transfer of services or commodities. The attempt on the part of the State to do either, is contrary to all considerations of sound policy. In our efforts to promulgate economic laws, the high vantage-ground of morality should be taken. So doing, we add to the weight of self-interest the authority of a moral motive. Had our people understood that the legal tender act was a legislative lie, a futile attempt of the government to cheat its home creditors by a solemn enactment that seventy-five cents are equal to a dollar, that it was simply an attempt to repeal the Ten Commandments, our rulers would never have dared to put such legislation on the statute-book. If our people had understood that the enormous tariff on iron which existed during the war was but a skillful contrivance to pick the pockets of every farmer who bought an axe or plow, to increase the expenses of sending every bushel of wheat which passed over a railroad to the sea, to double the price of every cannon ball expended by the army or navy, for the benefit of two per cent., or less, of a special class of manufacturers, a storm of indignation would have rolled over the land in denunciation of the outrage. Our people are yet unconscious of the fetters of commercial

restriction which bind them. Some of our statesmen, in their dense ignorance, tell us that the laws of economic science are applicable only to the old world. They affect to view with lofty scorn the experience of the past.

As a nation, we have been proud of our efforts to give an elementary education to all our citizens, but we have been exceptionally neglectful of economical science in our schools and colleges. The instruction given has been so hampered by compromises, disguised by half-truths and ephemeral party and local issues, that it has excited little interest, and spoken without emphasis or authority. It is useless to attempt economical reform in our country until the young men who are to be the leaders of thought and action are well grounded in the elements of our science. We must train our politicians and editors, lawyers and clergymen, in its principles, before we can effectively reach the people. We should see to it that no well-established institution for higher education is without the means of giving economic instruction. Then financial reform will no longer be a voice crying in the wilderness, but we shall be able to organize such an agitation as destroyed slavery in our country, crushed feudalism in France, and abolished monopolies and repealed the corn-laws in Great Britain.

Our situation and antecedents are such that we have been able to illustrate certain social and economical truths as they have never been illustrated before. We have shown the advantages to farmers of owning the land which they till. We have shown the practicability of voluntaryism in the support of religion. Our English brethren, while in many im-

portant respects in advance of us in economic theory and practice, are in some things behind us. They have an enormous church establishment, which offers bounties of immense value in wealth and social position to those who will accept a certain phase of religious faith. They give an artificial value to land by the political influence and social consideration attached to its possession. They submit to a system of conveyancing which involves obstructions to land transfers as annoying and relatively as expensive as that which our tariff system imposes upon the sale of movable commodities. By the time that Great Britain secures voluntaryism in religion and free trade in land, we shall have made great progress toward the reform of our obsolete and anti-social financial policy. Meanwhile, the American economists have before them no holiday task.

We may best render honor to the memory of Adam Smith by giving range and completeness to the science which he founded, and doing our utmost to shape the economical legislation of the future of our great republic in accordance with its principles. In this great reform every available means of affecting the public mind should be laid under contribution. There should be no carpet-knights, nor shallow *dilettanti* in this warfare. We should fight financial heresies as John Hampden fought the ship-money, as Stein and Hardenberg fought feudalism in Prussia, as Bright and Cobden fought the corn-laws. When the whole system of obstructionism has been swept from our statute-books, when our citizens shall know exactly what taxes they pay, then the vast army of inspectors and detectives which form a cordon around the vast line of our

boundaries by land and sea, may be disbanded. Then we may expect a reorganization of our civil service, and an economy of administration which now exists only in the dreams and hopes of the patriot. Then we shall scorn to take a mean advantage, through restrictive legislation, of our rivals in the race of production and exchange, asking of our neighbors no favor but reciprocity and fair dealing.

VI

CURRENCY LEGISLATION

ADDRESS BEFORE THE FREE TRADE CLUB, NEW YORK, JANUARY 16, 1879

IT promotes clearness in all financial discussions to restrict the term "money" to those divisions of the precious metals which have substantially the same market value, whether used as coin or as bullion. A partial exception to this principle is found in the copper and silver coinage of small denominations, which is a legal tender only for very small sums. These coins are made lighter than the bullion value which their legend indicates, for the simple purpose of preventing their exportation as bullion, and securing at all times abundance of small change. Restricting the term money, as we have indicated, enables us to keep always in mind the radical distinction between it and all forms of credit which are used for the purpose of exchange, and which may be included under the general term "currency." Money then, properly speaking, is a commodity having its exchangeable value within itself.

Bank-notes, bills of exchange, checks, pass from hand to hand, serve the purpose of exchange, and are properly called "currency," but the material which thus passes is in itself nearly worthless, and is simply representative of exchangeable values. Simple promises to pay money or other commodities at some time or place do have an intrinsic value; but their worth is dependent solely upon the confi-

dence of the purchaser in the promises of those who have issued them. These forms of credit, bank-notes included, fall under the general rules of commercial law, and depend for their commercial value not upon themselves, but upon the trustworthiness of the promises to pay, written upon them. They can never be legitimately made a legal tender for debts or the fundamental basis of any financial system. All credit currency is limited to the range of territory in which the makers of the promises and their trustworthiness are known.

The exchangeable value of money, let me repeat, depends not upon the stamp of the government which has issued it, but upon the weight and fineness of the metal of which it consists. It may be sold as bullion without serious loss wherever in the commercial world it may be carried, and consequently gives its possessor the widest possible range of choice over the widest possible range of territory.

The most important desideratum in a coinage law is so to fix the weight and purity of the coin, that when melted it shall as nearly as possible have the same value as bullion that it had as coin. The laws regarding coinage should as far as possible be determined by the estimate of the commercial world concerning the market value of those portions of the precious metals which are stamped as coin. Government cannot create the value on the metal coined, but it recognizes and assays it and stamps it; so that when it is used for purposes of exchange, there can be no doubt regarding the weight or purity of the pieces. It is worthy of remark that the principle of jurisprudence here recognized, and which

should condition all legislation on money and instruments of credit, was followed by Lord Mansfield in the enormous additions which he made by his decisions to the commercial law of England. By the study of the Roman law, the usage of Italian cities and the Hanse Towns, by the aid of expert witnesses and special juries of merchants, he mastered the whole system of common commercial usages, reduced them to principles and organization, and incorporated them in his remarkable decisions, which are a possession for all time.

The moment government attempts by laws or decrees to mark these divisions of the precious metals with a value greater or less, by any considerable degree, than the price of an equal weight of bullion in the market, it sets aside all definiteness in exchanges, and introduces an element of uncertainty in all reciprocal transfers of those rights whose values are estimated in the terms of the coinage.

Our treasury notes when issued during the war represented, really, forced loans; the passing of the "Legal-tender Act" was a law intended to fix the market value of these notes. After they had passed into circulation—the treasury notes being a forced loan in the first instance—the "Legal-tender Act," by requiring them to be received at their face value in payment for all existing debts, had the additional effect of a confiscation act to the amount of the difference in exchangeable value between specie and the treasury note.

The right of the general government under the constitution to make a forced loan, or to take the property and lives of the citizens for the common

defense, may be conceded. When such extreme measures are adopted we can understand them, and the immediate loss, whatever it be, may be definitely ascertained. But when the "Legal-tender Act" was passed, it gave to every citizen who was a debtor the right to confiscate an undefinable portion of his debt at his own will. If such a debtor had made a mortgage of one thousand dollars before the war, it gave him the right to cancel it by treasury notes whose market value might range anywhere between par and fifty per cent. of their face value. It gave to the debtor the right to pay off his debt of one thousand dollars with six hundred dollars, seven hundred dollars, or seven hundred and fifty dollars according to the price of "greenbacks" measured in specie at the time when he saw fit to make the payment. We know nothing in the history of Eastern despotism more tyrannical, more unjust, more contrary to every principle of public policy.

From China to the United States, and through thirty centuries of time, governments of all sorts have constantly interfered with money and credit, and almost invariably for evil. The man who counterfeits a coin by debasing it, who alters a bank-note, a bill of exchange or a check, is a felon in the eye of the law in every civilized nation; but nations themselves, in their corporate capacity, have continually engaged in practices which are the same in character, criminality, and result.

Down to 1355, Scotch and English money was of the same value. At this time the Scotch government began the debasement of coin. In 1390, Scotch coin was current in England at only one-half its nominal value. In 1660 it was debased,

according to Pinkerton, to one-twelfth the value of the English coin of the same denomination. In Germany the original gold *florin* passed through successive steps of debasement until it reached one-sixth of its original value. In Spain a gold *maravedi* contained, in 1220, eighty-four grains of gold, and by the end of the seventeenth century it was debased to less than one-half the value of an English penny. The misery, injustice, and immorality which these fluctuations in the coinage produced are very inadequately set forth by the old historians and chroniclers, by reason of their want of economical knowledge; but enough may be gleaned from them to show that the evil in question may be classed properly with slavery, feudalism, and the pestilences and wars which were the chronic diseases of the body-politic during a great part of the period of time to which we have alluded. Every petty sovereign guarded jealously the prerogative of coinage, with the distinct idea that it was one of the most effective means of robbing his subjects, paying the expenses of war, and maintaining his hordes of retainers.

The debasement of the standard of money below its normal rate quite generally involves the necessity of raising it again when the debasement becomes intolerable. A sudden elevation of the standard, after the period of debasement, works the same evil to the debtor-class that depreciation brings to the creditor-class. Governments have wrought nearly as much evil by their unwise methods of restoring the degraded standard of currency as they have in debasing it. "The Roman citizens being bound to pay into the imperial treasury a certain

number of pieces of gold, or *aurei*, Heliogabalus, whose cunning appears to have been in no wise inferior to his proverbial profligacy, increased the weight of gold in the *aureus*, and thus obtained by a trick an addition to his means of dissipation."

In the reign of Philip the Bold, in 1285, the value of French coin had been so much debased as to cause violent complaints on the part of the clergy and landholders, because of the consequent reduction of their income. To appease this discontent, and in compliance with an injunction of the pope, the king issued new coins about three times the value of the base coins of the same denomination which they replaced. This caused terrible suffering among the laborers and the debtor-classes. "The people," says Le Blanc, "being reduced to despair, pillaged the house of the master of the mint, as he was believed to be the chief adviser of the measure, and besieged the Temple in which the king lodged."

The new coinage introduced into England in 1552, to replace the base money which had been previously issued, was more than four times the value of most of the coin, of the same denomination, which it replaced. It was estimated that the loss was one hundred million dollars in the process. It also produced the most violent commotions among the poor throughout England. In fact, legislative interference to restore a standard of value always produces suffering scarcely less than that occasioned by its debasement.

A somewhat similar variation in the measures of exchangeable value has often been brought about by the adoption of a double standard, consisting of

gold and silver. The theory of a double standard proceeds upon the idea either that gold and silver have naturally and always a constant ratio of exchange with each other, or that legislation on the part of one or several States of the commercial world is able of itself to establish and perpetuate such a constant ratio. But all experience proves the negative of both these suppositions.

Gold and silver have never, in the history of the world, maintained a constant ratio of exchange with each other. Herodotus gives the relation of silver to gold as 13 to 1; Plato, as 12 to 1; Menander, as 10 to 1; Livy speaks of the relation (B. C. 189) as 10 to 1; Suetonius tells us that Julius Cæsar exchanged silver for gold in the ratio of 9 to 1. The most usual proportion among the early Roman emperors was that of 12 to 1. From Constantine to Justinian it ranged between 14 and 15 to 1. Since the discovery of America it has ranged from 14 to 1, to 17½ to 1. Between 1853 and 1876 silver varied in value measured in gold from 61½ to 47 pence an ounce. During the year 1875 there were seventy-eight different variations of the price of silver quoted in the London market. In 1876, the variations were one hundred and fifty-one; in 1877, they were ninety-eight. During this period it is probable that the variations in the price of wheat can scarcely have exceeded those of the price of silver.

Where the law gives the debtor his choice to discharge his obligations either in gold or in silver, the natural tendency is to select the cheapest form of money. This would introduce an element of uncertainty into all time-contracts, and ultimately the

coinage which comes to be permanently the cheapest, measured by the legal ratio, will drive out the dearer, thus introducing practically a single coinage of the baser of the two metals.

In looking over the history of the various substances which have been used as the measures of value, we detect a tendency in commerce to pass from the use of the less to that of the more valuable material. Hence the fact, so unmistakable in the commercial world at the present time, that the drift is toward a single gold standard. Our late legislation on the "silver question" was openly avowed to have been adopted to protect the special interests of two classes of persons, debtors and silver miners, involving all the possibilities which we have noted, and in addition the adoption of a ratio between gold and silver which has made the silver dollar of the new coinage worth in the world's market from eighty-two to eighty-five cents—legislation which will not be likely permanently to raise the value of silver.

From the facts of financial history the following conclusions may be drawn:

1. The tendency is manifest from the remotest periods to pass, in the selection of the medium of exchange or substance of money, from the less to the more valuable material—from shells, cattle, salt, skins, and wheat to iron and copper, to alloys of copper and tin, from these to silver, and from silver to gold—that is, to a single standard, and that formed out of the most valuable material adapted to the purpose of division and circulation.

2. This tendency manifests itself in different countries and ages, just in proportion to the de-

velopment of commerce and the extent of commercial transactions, and this tendency is subject to limitation only in the case of money of small denominations, used in retail trade, in what is called "subsidiary currency," not used as the measure for large transactions.

3. As trade enlarges its area and commodities increase in the rapidity of their movements, as the percentage of profit on single transactions tends to grow less, it becomes more and more necessary that the standard of value should be single, common, and stable, not only in each nation but throughout the commercial world.

4. A double standard involves the necessity of regulation by law of the relative value of the two substances selected for money. But all experience shows that no two commodities subject to the law of supply and demand can be kept by any human power at the same ratio with each other.

5. By the action of Gresham's law the cheaper money tends to drive out the dearer money, and a double standard tends, to a limited extent, to make all the uncertainties and fluctuations incident to a debased currency chronic in any country which adopts it. Hence the slow but definite movement of public opinion and practice all over the world is toward the adoption of a single standard.

6. The effect of our silver legislation, by making legal a false ratio between gold and silver, is that of a new Inflation Act for the special protection of silver miners and debtors, and an attempt to set aside the practice and convictions and spontaneous tendencies of nearly the whole commercial world.

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