

ANSWER TO BRYAN ON EVOLUTION

(This article was submitted for publication to the New York Times, New York Herald, Brooklyn Eagle and New York Evening Post. All of these papers had extended unlimited facilities to Bryan in his attack upon what they knew to be scientific truth. None of these papers would print this answer to Bryan's attack upon believers in evolution as enemies of civilization.

This answer to Bryan was also submitted to Scribner's, Harper's, the Century and The North American Review. It was submitted to all of these newspapers and magazines, with the assertion that nothing was desired, or would be accepted for it, except space for its presentation; that it might be published as a letter to the Editor, or as an article, as preferred; and that the writer wanted no advertising, and preferred to have his name omitted, unless such a course could be misunderstood as an unwillingness to assume responsibility for opinions expressed, in which event he had no objection to the printing of the name.

The writer of this answer to Bryan on evolution does not desire advertising and hence prefers to have the authorship of this article ascribed to a New York lawyer. He has however no desire to evade responsibility for the opinions expressed, and has therefore authorized the publisher—the Call Printing Co., 390 Sixth Ave., N. Y. City—to furnish the writer's name and address to any one interested in knowing).

CALL PRESS
390 Sixth Avenue
New York
1922

INDEX

I.	THE POLITICIAN AND THE MAN OF SCIENCE	2
II.	SCIENTIFIC TRUTH AND POLITICAL SUCCESS	3
III.	PHYSICAL AND INTELLECTUAL SLAVERY	4
IV.	THE EVIDENCE OF EVOLUTION	4
V.	THE GENERATION OF ORGANIC CHANGES	8
VI.	MIND AND MATTER	9
VII.	SCIENCE AND AUTHORITY	10
VIII.	BELIEF IN GOD INDISPENSABLE TO CIVILIZATION?	12
IX.	THE EXISTENCE OF A GOD CANNOT BE AFFIRMED ON GROUNDS OF REASON	13
X.	EVIL AND SUFFERING NEGATIVE OMNIPOTENT POWER OR BENEVOLENCE	13
XI.	BELIEF IN A PERSONAL GOD	14
XII.	THE MUNDANE ORIGIN OF CHRISTIANITY AND ALL RELIGIONS	14
XIII.	GENESIS IMPEACHED BY EVOLUTION	15
XIV.	CONFLICT BETWEEN THEOLOGY AND SCIENCE	15
XV.	THE DISCARDED RELIGIOUS BASIS OF MORALITY TO BE SUP- PLANTED BY ETHICS, OR NATURAL MORALITY	16
XVI.	REASONS RENDERING THE CURRENT CREED UNTENABLE AND THE CREED OF SCIENCE AN INDISPENSABLE NEED	17
XVII.	THE CREED OF SCIENCE OF THE FUTURE	19
XVIII.	EVOLUTION AND THE PUBLIC SCHOOLS	21
XIX.	RELIGION AND GOVERNMENT	22

ANSWER TO BRYAN ON EVOLUTION

In an article in the New York Herald of March 19, 1922, Mr. William Jennings Bryan attacks evolution as unproven, asserts that it is subversive of the Bible and religion, scores its expounders and adherents as opponents of civilization and morality, and as arrogant and snobbish, charges evolution with a share in "responsibility for the world's bloodiest war," and contends that the teaching of Darwinism in the public schools constitutes the teaching of irreligion.

THE POLITICIAN AND THE MAN OF SCIENCE

Mr. Bryan is a very eloquent orator and has had considerable popularity as a politician. But those most successful in stirring the emotions of multitudes are not necessarily best qualified for interpreting and expounding science, whose researches must be pursued with painstaking care and industry, totally free from the distractions of popular approbation or disapprobation. The limelight is not coveted by the man of science, nor can the force of tradition or authority or deluded majorities be permitted to deter him in the pursuit of truth or fetter his inquiries.

SCIENTIFIC TRUTH AND POLITICAL SUCCESS

Mr. Bryan's injection of evolution into politics creates a novel situation. Mr. Bryan is not injuring his political prestige any by a defense of the Bible and religion. The fate of Colonel Ingersoll in politics indicates just how far any man of unorthodox religious convictions can get in this country, even where (as in the case of Ingersoll) he rendered distinguished services to the country as a soldier. In daring the advocates of evolution to come down from the tree Bryan has doubtless in mind the political fate of other distinguished exponents of science.

Mr. Bryan concludes his article in the New York Times of February 26th with a derisive challenge to adherents of evolution, as follows:

"Let these believers in 'the tree man' come down out of the trees and meet the issue. Let them defend the teaching of agnosticism or atheism if they dare."

Let us see if we cannot accommodate Mr. Bryan.

The American people, may, in the course of time, cast off the fetters of traditional theological untruths; but until that yet remote day Mr. Bryan will jeopardize no votes by opposing evolution and scientific truth, and his defense of traditional falsehoods and Biblical untruths will constitute a distinct political asset to him, regardless of what it would mean to the nation to have ignorance enthroned and the light extinguished.

In England it is otherwise, and we find a man like Balfour (who represented England at the recent arms conference in about as ideal a manner as it is possible to conceive) relied upon as spokesman for the nation, despite the fact that he is an adherent of evolution, a scientific agnostic and author of "A Defense of Philosophic Doubt." (Instead

of saying despite that fact, it would probably be better to say because of it, since there seems to be intelligent discrimination and the ability to appraise capabilities in England.)

PHYSICAL AND INTELLECTUAL SLAVERY

Physical slavery became a political issue in this country and now Mr. Bryan, for weal or woe, has dragged evolution into the arena of politics. Intellectual emancipation—the shattering of the paralyzing fetters of traditional falsehood—is the logical correlative of physical emancipation.

Judge Douglas championed the legal and popular side of the slavery argument; but Abraham Lincoln, from the high plane of moral principle, ultimately attracted to his standards the intellect and conscience of America. Just as surely as physical chains were cast off human beings, so surely will the fetters of intellectual serfdom be broken and cast off the minds of men.

Mr. Bryan's ability to sway masses by appeals to the emotions rather than to the reason might enable him to delude vast majorities on the subject of evolution and do irreparable damage to scientific truth and popular enlightenment. The close vote whereby the teaching of evolution was retained in the public schools in Kentucky recently, would indicate the susceptibility of political institutions to the misguided and misinformed activities of politicians. Mr. Bryan's campaign against evolution and scientific truth cannot be permitted to extend—unopposed—to the point where he may mislead and misinform too many superficially thinking persons.

THE EVIDENCE OF EVOLUTION

Herbert Spencer very candidly told Gladstone that he was as ignorant as a plowboy about questions of science. It is not in any attempted derogation of Mr. Bryan's capabilities or repute as an orator and politician that it must be said that his ignorance of evolution and science—as manifested in the articles in question—is colossal. With characteristic profundity of thought Mr. Bryan asserts: "The development of the grain of wheat into ripened grain is not evolution—it is growth. . . . Growth we see everywhere, but evolution nowhere." The veriest tyro of evolution could inform Mr. Bryan that we do not observe the processes whereby modifications of preëxisting forms of life have been effected because the span of human life is too short—we would have to live millions of years to "see evolution." We can see the results of evolution, however, and arrive at the unavoidable conclusion of its operations through past geologic ages, if we take the trouble to view in a Museum of Natural History the fossil remains of now extinct animals, and compare them with skeletons of existing species.

Mr. Bryan says, apropos of the proof of evolution: "Evolutionists have so little upon which to base their belief that man is a descendant of the brute," etc. "There is no satisfactory proof of evolution in either plant life or animal life. The proof relied upon is so flimsy that no court would consider it sufficient to convict an habitual criminal of even the smallest offense."

Again, in attacking the theory of natural selection or survival of the fittest, Mr. Bryan says: "There is no evidence in the plant world that one species ever came out of another or from another, and yet evolution must be abandoned as an hypothesis unless it can prove a change from species to species." And in his article in the *New York Times* of February 26th, Mr. Bryan avers: "Neither Darwin nor his supporters have been able to find a fact in the universe to support their hypothesis."

And Francis P. LeBuffe, S. J. Regent and Professor of Jurisprudence, Fordham University School of Law, writes to similar effect in the *New York Times* of March 19th: "Yet in face of all this mud throwing we make the categorical assertion that there is not a single scientific fact which proves that man has evolved from any preceding animal whatsoever, and we further assert that from a purely scientific viewpoint the evolution of man is one of the ranking hoaxes of all time."

The idea that evolution represents—that all phenomena issued out of, and are ultimately resolvable into, elemental material forces—is traceable in Thales's attribution of all things to water as the elemental substance, six centuries before Christ, as well as in earlier Greek speculation, and it is discernable in the philosophy of Descartes, Spinoza and other writers of the Sixteenth and Seventeenth centuries, no less than in the writings of the group of eminent modern scientists of the Nineteenth century, who established the hypothesis on an unassailable foundation of scientific fact—Darwin, Huxley, Tyndall and Spencer.

Evolution implies that the material universe and its contents had their origin and potentiality in nebulous vapors. All terrestrial life, plant and animal, has been naturally evolved: man is a link in the chain of organic life, of which the prior links have been birds, reptiles and fishes.

"The germ out of which a human being is evolved," says Spencer, "differs in no visible respect from the germ out of which every animal and plant is evolved." Spencer cites Von Baer who shows that the human germ in its earliest stages has the characteristics of the germ of plants and animals, and that at the first conspicuous structural change the characteristics of plants become lost and those of all vertebrata alone are exhibited; and that eventually it ceases to resemble the rudiments of fishes, reptiles and birds, and retains those characteristics common only to mammals (quadrupeds and bipeds), and ultimately those only common to man.

The *Encyclopædia Britannica* (11th Ed. p. 33) quotes Meckel as follows: "There is no good physiologist who has not been struck by the observation that the original form of all organisms is one and the same, and that out of this one form, all, the lowest as well as the highest, are developed in such a manner that the latter pass through the permanent forms of the former as transitory stages," citing Aristotle, Haller, Harvey, Kiehmeyer and Autenrieth.

"In fact there is a period when, as Aristotle long ago said, the embryo of the highest animal has the form of a mere worm, and, devoid of internal and external organization, is merely an almost structureless lump of polype—substance. Notwithstanding the origin of organs, it still for a certain time, by reason of its want of an internal bony skeleton, remains worm and mollusk, and only later enters into the series of the

vertebrata, although traces of the vertebral column even in the earliest periods testify its claim to a place in that series."

Huxley, accredited with being one of the most cautious scientists, while discarding the theory of spontaneous generation, asserted that by "an act of philosophic faith" he could conceive "living to be evolved from not living matter," and endowed life fungi with the power for determining, through affinity for surrounding "phosphates, carbonates and oxalates," new protoplasm. Tyndall asserted that in matter is contained "the promise and potency of all terrestrial life." Spencer defines life as "the continuous adjustment of inner to outer relations."

Science teaches that the elements of the organic kingdom—oxygen, hydrogen, carbon and nitrogen—are also constituents of the inorganic kingdom; and that plants are composed of the same elemental substances as animals—animal tissue containing more nitrogen. Vegetable cells are fundamentally the same as animal cells, containing the same constituents.

Such supposed distinctive characteristics of animal life as powers of locomotion, nervous response to stimuli, and peculiar respiratory and digestive system, have been shown to be common to both plant and animal life. The oft-cited capacity of filaments of the Sundew and Venus' fly-trap for reacting to stimuli would indicate that the latent power of contractility possessed by plants differs from the consciousness of animals only in degree, not in kind. The last referred to plant is as carnivorous as any animal; it closes upon the insect that has irritated it and then proceeds to digest its prisoner by the secretion of a fluid similar to the manner in which digestive juices are secreted.

The most distinguishing characteristic of plant life is its capacity for manufacturing, through chlorophyll, its own tissue out of CO_2 ; yet fungi, of which yeast, bacteria and all parasitic plants are illustrations, being devoid of chlorophyll, indispensable to the formation of starchy plant tissue, are forced to subsist on other vegetable and animal matter, like animals. The similarities between plants and animals invest the hypothesis of the evolution of organic from inorganic matter with plausibility, for the bond between plants and matter is strong.

The iron of the earth enters into the composition of the blood of the veins, while the chlorine of the sea is found in digestive secretions. Calcium and phosphates abounding in the earth are the same substances that go to constitute our bones or nervous organization. The nucleus of the cell is largely endowed with the same element whose inertness in the air serves to neutralize the activity of oxygen. In fact the elemental constituents of organic life—oxygen, hydrogen, nitrogen and carbon—occur in nature in such common things as air, water, volcanic gases, or coal.

In regard to the essential identity of the animal and vegetable worlds, and the evolutionary origin of the distinct types or species found in each, the Encyclopædia Britannica (11th Ed. p. 32) says: "Instead of regarding living things as capable of arrangement in one series like the steps of a ladder, the results of modern investigation compel us to dispose of them as if they were the twigs or branches of a tree. The ends of the twigs represent individuals, the smallest groups of twigs species, larger groups genera, and so on until we arrive at the source of all

these ramifications common plan draw up any characters by from all the converge toward be said of the flowering and gradations between and Gymnosperms completely rule alone consider a definite front

If it is possible another metaform of a common vegetable and few main branches these into smaller

The concentration trend of scientific some seem to nebulous vapors be endowed with beauty, humanly able as ever.

The evolution design than a of such functions be unintelligible of rudimentary of Mr. Bryan created and e

In the fact in the "Origin find political evolution. Movement Darwin irreft is derived from origin in animal muscles and the of physical strength memory or intelligence. Consciousness. A of defense, or some extent acts of animal

"From the a man by Pind down to the present day;

these ramifications of the main branch, which is represented by a common plan of structure. At the present moment it is impossible to draw up any definition based on broad anatomical or developmental characters by which any of Cuvier's great groups shall be separated from all the rest. On the contrary the low members of each tend to converge towards the lower members of all the others. The same may be said of the vegetable world. The apparently clear distinction between flowering and flowerless plants has been broken down by the series of gradations between the two exhibited by the Lycopodiaceæ, Rhizocarpeæ and Gymnospermeæ. The groups of Fungi, Licheneæ and Algæ have completely run into one another, and when the lowest forms of each are alone considered, even the animal and vegetable kingdoms cease to have a definite frontier.

If it is permissible to speak of the relations of living forms to one another metaphorically, the similitude chosen must undoubtedly be that of a common root, whence two main trunks, one representing the vegetable and one the animal world, spring; and each dividing into a few main branches, these subdivide into multitudes of branchlets and these into smaller groups of twigs."

The conclusion of the material origin of life to which the whole trend of science points, does not reduce the ultimate mystery any, as some seem to fear; for the question of the origin of matter (or of the nebulous vapors whence all things issued) and how it (or they) came to be endowed with the capacity for generating such phenomena as natural beauty, human intelligence and moral character, remains as unaccountable as ever.

The evolutionary hypothesis comports more with the supposition of design than any other theory, for the existence in the human anatomy of such functionless structures as the appendix or wisdom teeth, would be unintelligible on any other hypothesis than that they are the remnants of rudimentary structures. According to the special creation hypothesis of Mr. Bryan, Father Le Buffe and Genesis, man has been separately created and endowed with useless characters.

In the face of the irrefutable evidence carefully amassed by Darwin in the "Origin of Species" and the "Descent of Man," we still occasionally find politicians and preachers contending that there is no proof of evolution. Moving over his subject like a glacier (as it has well been said), Darwin irrefutably proves not only that the physical structure of man is derived from that of animals, but that human intelligence has its origin in animal consciousness. The similarity between the bones, muscles and tissues of the human and animal frames, marks the identity of physical structure; while there is not a faculty of the mind from memory or imagination to reason but has its parallel in animal consciousness. Whether in evading traps, in banding together for purposes of defense, or in using weapons, animals exhibit reasoning power to some extent no less than man—instinct cannot account for many of the acts of animals.

"From the rough comparison of the skeleton of a bird with that of a man by Pierre Dulon, in the 16th century (to go no further back) down to the theory of the limbs and the theory of the skull at the present day; or from the first demonstration of the homologies of the

parts of a flower by C. F. Wolff, to the present elaborate analysis of the floral organs, morphology exhibits a continual advance towards the demonstration of a fundamental unity among the seeming diversities of living structures. And this demonstration has been completed by the final establishment of the cell theory, which involves the admission of a primitive conformity, not only of all the elementary structures in animals and plants, respectively, but of those in the one of these great divisions of living things with those in the other. Not a priori difficulty can be said to stand in the way of evolution, when it can be shown that all animals and all plants proceed by modes of development, which are similar in principle, from a fundamental protoplasmic material." *Encyclopædia Britannica* (11th Ed. p. 33).

THE GENERATION OF ORGANIC CHANGES

One of the chief difficulties to the general acceptance of evolution consisted in the inability of science to explain the process whereby modifications, or distinct species, in the animal or vegetable world arose. Lamarck's theory that use of a structure by an organism was a factor in producing such modifications, obviously did not explain modifications in the vegetable world. Darwin's theory of natural selection, or survival of the fittest, supplied the missing explanation how modifications in the animal and vegetable world are produced, and it also explains the "persistence of some forms of life unchanged through long epochs of time, while others undergo comparatively rapid metamorphosis." *Encyclopædia Britannica* (11th Ed. p. 33).

Darwin's theory of natural selection, or survival of the fittest, implies that organisms possessing characters (hereditary or acquired) adapting such organisms to environment survive, and that organisms lacking such characters, or failing to acquire them through the reciprocal action and reaction between structure and environment, become ultimately extinct.

The theory of natural selection, or survival of the fittest, reduces natural adaptations to a matter of natural necessity, yet until the evolutionary hypothesis was definitely enunciated, the existence in man and animals of useless characters was a fact unintelligible on any hypothesis of ultimate design.

As to geological evidence of evolution, the *Encyclopædia Britannica* (11th Ed. p. 34) summarizes it as follows: "Both Darwin and Wallace lay great stress on the close relation which obtains between the existing fauna of any region and that of the immediately antecedent geological epoch in the same region; and rightly for it is in truth inconceivable that there should be no genetic connection between the two. It is possible to put into words the proposition that all the animals and plants of each geological epoch were annihilated, and that a new set of similar forms was created for the next epoch, but it may be doubted if any man who ever tried to form a distinct mental image of this process of spontaneous generation on the grandest scale ever imagined ever really succeeded in realizing it."

The summary of the evidence and proof of evolution set forth in the *Encyclopædia Britannica* will not deter politicians or preachers

prejudiced against evolution from asserting that there are no facts to support it, but it will prevent the opponents of evolution from either attempting to prove their own statements, or to refute the proof given.

The *Encyclopædia Britannica* says (11th Ed. p. 34) that "it seems established as a historical fact that the world has come to accept evolution 1st, because of Darwin's theory of natural selection, and 2nd, because of Darwin's exposition of the evidence for the actual occurrence of organic evolution." And at p. 35, "The vast bulk of botanical or zoölogical work on living and extinct forms published during the last quarter of the 19th century increased almost beyond all expectation the evidence for the fact of evolution. The discovery of a single fossil creature in a geological stratum of a wrong period, the detection of a single anatomical or physiological fact irreconcilable with origin by descent with modification, would have been destructive of the theory and would have made the reputation of the observer. But in the prodigious number of supplementary discoveries that have been made, no single negative factor has appeared, and the evolution from their predecessors of the forms of life existing now or at any other period must be taken as proved."

The same authority (p. 35) shows the fallacy of such popular notions as that embodied in the search for the "missing link," or the attempt to show the descent of man by comparing the "highest member of a lower group with the lowest member of a higher group." It is erroneous "to suppose, for example, that the gorilla and the chimpanzee, the highest members of the apes, were the existing representatives of the ancestors of man and to compare these forms with the lowest members of the human race. Such a comparison is necessarily illogical, as the existing apes are separated from the common ancestor by at least as large a number of generations as separate it from any of the forms of existing man." Instead of conceiving of the distance between man and existing apes as capable of being spanned by a "missing link," man and ape may be conceived as branches of a common trunk of the geneological tree.

I would respectfully recommend to Mr. Bryan and Father Le Buffe a little more diligent application to the study of science and especially to the proof of evolution. A good many of their perplexities would never exist with a better knowledge of their subject.

MIND AND MATTER

Thought is accompanied by chemical change similar to that attending the use of a muscle: it causes an increased flow and consumption of blood in the brain. The power to think is weakest and consciousness is least vivid when physical powers are most depressed. As far as physical evidence would lead us to infer consciousness, as Spencer avers, ceases "when the physical processes on which it depends" have terminated. But mind, though indissolubly bound up with matter, can never be ultimately conceived of in terms of matter and force; and how matter and force happened to be endowed with the capacity for generating mind is a problem that perpetually challenges the admiration and wonderment of the mind.

SCIENCE AND AUTHORITY

Mr. Bryan further hazards the assertion that "the attitude of these scientific speculators ought to alarm the Christian people of the nation;" that "the spiritual leaders of the nation—Christian and Jewish, Catholic and Protestant—ought to resent the arrogance of the men of science who swagger along and push the preacher and priest off the side-walk as army officers were once inclined to do in the countries where militarism was rampant;" and that we have had "enough of intellectual snobbery in this and other countries." And in his article in the *New York Times* of February 26th, Bryan says: "It flatters the egotist to be told that there is nothing that his mind cannot understand."

It has been well observed that there is no pride like the pride of ignorance. Alluding to men of science Tyndall says: "They have but one desire—to know the truth. They have but one fear—to believe a lie. They have as little fellowship with the atheist who says there is no God, as with the theist who professes to know the mind of God." Tyndall asserted that he saw in matter the "promise and potency of all terrestrial life;" and he further averred that there is nothing in that belief inconsistent with those virtues to which the term Christian is usually applied. Tyndall and all true scientists constantly reiterate that the doctrine of the material origin of life does not dissipate the ultimate question or reduce the mystery any; for "granting the nebulæ and its potential life, the question whence came they? would still remain to baffle and bewilder us."

The creed of science and evolution is perhaps best stated in Tyndall's oft-quoted words—"Let us lower our heads and acknowledge our ignorance, priest and philosopher, one and all."

It was in vain that men like Galileo or Roger Bacon invoked the fiction that theology and science are supreme in their respective domains in the hope of thus propitiating the ecclesiastical powers and letting in a little gleam of scientific enlightenment upon the darkness of the times. If, as Bryan maintains, we find pride issuing from scientific quarters, it is a most remarkable thing. The scientist, distinguished above others not in the conscious possession of superior knowledge, but for truer knowledge of the helplessness of human ignorance, distinguished solely for his willingness to learn from all times and people, should be the last to harbor the delusion that one person could know it all. The firm enunciation of hostile but established facts should be closely distinguished from the spirit of vain glory most remarkable when issuing from sources affecting to know the real worth of human vanity.

Science has no concern for noisy triumph, and cares for credit not half so much as for achievement. The following words of Bulwer are more in accord with what we would expect of the follower of science: "I ask no simple man to get up from his easy chair and say 'Here comes a philosopher,' but if, after hearing me, as he sits undisturbed, he feels inclined to philosophize, I steal away and leave him to muse. . . . Truth makes on the ocean of nature no one track of light—every eye looking on finds its own."

While it is the part of wisdom to attach some weight to widely prevailing opinions, it is by no means the part of wisdom to regard

them as conclusively true. The cases of Socrates, Galileo, Bruno, Spinoza, and others in history may be cited to prove that persuasive majorities have not always been right and individuals wrong: he will still be denounced as a consummate egotist who asserts that it is possible for majorities to err.

Men commonly form their opinions from the attitude great men of the past have taken. There is no argument more common than that a person has inordinate assurance who assumes to differ with men of genius and learning. If opinions are shaped according to the eminent authorities that have indorsed them, then on every important question in history or science must we hold two opinions, for an exhaustive array of illustrious authorities are to be found on both sides of nearly every question of importance to man. Witchcraft has been believed in by all orders of men, from judges to Popes—learned English and American jurists, and Papal Bulls, all condemning the practice of that art. Did not Sir Isaac Newton lend the weight of his illustrious name in support of some of the most manifestly improbable of Biblical prophecies?

Since what men think therefor should be given some, but not conclusive, weight in estimating the merits of a position, the criterion of accuracy is to be looked for elsewhere than in the authority of received opinions. That criterion of the truth or falsity of a position is only found on considering the merits of a question in the abstract. Not all the authority in the world could make two and three equal six even to the most credulous mind. Many of the most momentous of men's opinions throughout history, stamped with the indelible marks of authority, were as extravagant as the assertion that two and three are six; but as the propositions were more obscure or complex, authority had little difficulty in promulgating them, while people in general had slight chances for detecting the discrepancies.

There is no greater foe of foolish and unreasoning pride in the world than the scientist, Bryan to the contrary notwithstanding. The theme of the true scientist has ever been the fallibility of human opinions and the essential littleness of all our knowledge. Man has been justly compared to an ant on a struggling ant hill. Far out as the mind can conceive or senses range there is nothing but infinite space and unending worlds, with startling prospects of infinite systems on infinite systems. As the scientist pictures us our opinions are apt to be rude and inconsequential.

Science contends that undue humility and submissiveness are bad for "him that gives and him that takes." It deters the formation of independent powers of judgment, while it encourages a type of manhood that has made possible all the aggressions of history. During early times and among the races and tribes of immature development, paternalistic, unimpeachable, political and ecclesiastical authority may have had uses in supporting those too weak to stand alone. But science counsels the formation of independent judgments as the only enduring guaranty of safety.

Science has consistently opposed that receptive attitude which makes persons hesitate to repudiate false claims or spurious assumptions proceeding from authority howsoever exalted. It insists that there shall be no authority higher than the truth, and it will subject its own results to as penetrating a test as the claims of other authorities. That which

is disproven will be rejected, and no amount of authoritative seals will avail to save it.

Due respect should always be paid doctrines having wide acceptance, for they frequently approximate the truth, while distrust for individual opinions is commendable. But respect for accepted doctrines should not be carried to the extent of concluding all tests: an appeal from the doctrines of authority to the facts of experience is imperative, for authoritative doctrines must ever invite investigation and suffer no impairment. Every scientific fact from the discovery of Galileo and Copernicus of the earth's rotation to Newton's discovery of gravitation, conflicted with accepted conclusions.

Thus, freeing the mind from all predilections or cherished hypotheses—"washing the mind clean of opinions," as Bacon says, and postponing accepted authorities to demonstrable facts—is one of the most imperative demands of truth.

The aim of science is not antagonism to prevailing opinions or rebellion against authority, but the demand that no amount of human pomp be permitted to obscure the truth.

Looking back over history, science sees that one of the bulwarks of human arrogance and human abuse of power has been the supposed obligation to accept commands on the authority of persons, rather than evidence. Crafty political or ecclesiastical leaders have often been enabled to divert to self-aggrandizement the implicit obedience of a following not able to judge independently of the justice of the acts commanded. Science contends for the imperativeness of freedom of inquiry and independent powers of judgment as the strongest safeguard against tyranny and imposition.

Science is essentially just. It asks no indorsement of any of its doctrines not supported by evidence, and it enjoins the necessity of subjecting all of its conclusions to the most exacting tests. In contending for the same principle in realms of learning or government, science aims merely to preserve truth against untruth, human freedom against craft and imposition.

BELIEF IN GOD INDISPENSABLE TO CIVILIZATION?

Bryan says, "Now as to Darwinism or evolution applied to man. . . The natural effect, and, as I shall show, the actual effect, is to destroy faith in the Bible and to weaken belief in God. Belief in God is fundamental; anything that weakens this is destructive of civilization." Again: "If in a day belief in God could be banished from the minds and hearts of men, the foundation of civilization would be gone."

President Harding indulges in similar platitudes in saying recently that "no nation can prosper, no nation can survive, if it ever forgets Almighty God."

It ought not to be forgotten by either Mr. Bryan or President Harding that Col. Ingersoll rendered as distinguished services to civilization and this country—risked as much in the service of both—as either of them is ever likely to, and Col. Ingersoll did not profess belief in God or religion, but he did maintain (in his best speculations) that the existence of a Diety is incapable of being known and could not be truthfully affirmed by any one on grounds of reason.

Now, if Col. Bryan can prove there is a God, let him do it and thus solve an enigma that has baffled the profoundest thinkers and most truthful minds since the dawn of speculation. If he cannot prove it, then let him admit what science proclaims it to be the duty of reasoning beings to assert—that the origin of phenomena or the existence of a hereafter is a profound and unfathomable mystery. Men may say that they believe these things, but they can never truthfully say that they know them.

THE EXISTENCE OF A GOD CANNOT BE AFFIRMED ON GROUNDS OF REASON

Let me here restate the reasons (so admirably presented by Herbert Spencer in *First Principles*) why neither priest nor politician can ever truthfully assert that the existence of God can be affirmed on grounds of reason.

Three suppositions are possible respecting the origin of phenomena (or of the universe, to simplify terms). Either the universe always existed without being created, it created itself, or it was created by an external agency.

The universe cannot be conceived as having always existed without being created, because nothing could exist uncaused, and eternal, uncreated existence is unthinkable. The universe cannot be conceived as having created itself, because self-creation is equally unthinkable, and everything within our experience has had a cause. Since the universe cannot be conceived as having always existed without being created, nor as having created itself, it might be supposed that the hypothesis of creation by an external agency is unavoidable. Creation by an external agency is equally unthinkable, however, because when we inquire into the origin of the external agency, we are immediately confronted with the three possible suppositions—eternal, uncreated existence, self-creation, or creation by an external agency—none of which proved capable of explaining the origin of the universe, and none of which proved to be conceivable.

The same intellectual necessity which prevents us from conceiving the universe as having eternally existed without cause, or as having created itself, also debars us from ever conceiving an external agency, or Deity, as having externally existed without cause, or as having created itself. If we are debarred on grounds of reason from assuming an eternally existing, uncreated universe, we are equally debarred from assuming an eternally existing, uncreated Deity, since eternal, uncreated existence is equally unthinkable, whether in respect of the universe or of a Deity.

Debarred as we are, on grounds of reason, from explaining the origin of phenomena, we are powerless to affirm or deny anything respecting the origin of things, other than that it is a profound mystery.

EVIL AND SUFFERING NEGATIVE OMNIPOTENT POWER OR BENEVOLENCE

Moreover, the existence of evil and suffering in life and nature would negative, on grounds of reasons, either Infinite Power or Infinite

Benevolence. John Stuart Mill asserted that the author of the Sermon on the Mount was more benignant than the author of nature. Leibnitz, in considering the problem of evil and suffering, came to the conclusion that this is the best of possible worlds, not the best conceivable; and thus, asserts Mill, he was forced to save the goodness of the Creator at the expense of his power. Mill's own singular conclusion that the evidence of natural phenomena points to a Deity of limited power, testifies to the unavoidable inability to see why such agencies as suffering and evil exist. (Of course, a limited Deity is as inconceivable and self-contradictory a proposition as a limited absolute, which would not be an absolute, but a relative.) Even on the most optimistic construction that through suffering, evil, and natural calamities men advance to more desirable political and social conditions, the resort to such devices to effect ultimate improvement would be inconsistent with conceptions of Omnipotent Power and Benevolence.

In the face of these insuperable difficulties, on grounds of reason, to the affirmation of a Deity, as well as to the affirmation of Infinite Power and Benevolence, the charge that men of science destroy the foundations of civilization and morality reveals the shallowness of such accusations, whether sponsored by preachers or politicians.

BELIEF IN A PERSONAL GOD

Bryan deplores the college man's disbelief in a "personal God," as conceded by the head of Hamilton College. Mr. Bryan's mind, as a pulpit orator at Princeton recently admitted, is mediæval. Conceptions of a personal Deity are purely anthropomorphic—they vary according to the prevailing conceptions among different peoples. Religious worship has developed (as Comte has shown) from the stages of Fetichism (or worship of inanimate objects), Polytheism (or worship of many Gods), and Monotheism (or worship of one God); and the Deities of the various races and tribes have always been a reflex of the distinguishing characteristics of such races and tribes.

Any conception of a "personal" God would necessarily limit the Absolute and hence annihilate it.

THE MUNDANE ORIGIN OF CHRISTIANITY AND ALL RELIGIONS

Respecting Mr. Bryan's charges that Darwinism destroys faith in the Bible, it may be squarely admitted that science (for it is synonymous with evolution and Darwinism) does destroy faith in the Bible as a book of any scientific value, and it directly negatives Biblical miracles and the manifest improbabilities of Biblical accounts.

That Christianity was influenced by previous thought is obvious. Buddhism, Judaism, and the rites of the magicians, all left their impress upon the Christian religion; while the ethical conceptions of Lao-tsze of the Confucian era, and Socrates of later times, were unexcelled by those of Christianity.

Science in denying that the sun could have stopped in its course,

that the waves could have been stilled, rivers turned to blood, or the dead raised to life, or that Christ could have walked on the waves, merely maintains the immutableness of natural law against the manifest improbabilities arising out of the mysticism of primitive minds.

The Christian doctrine of original sin has the merit of being an attempt at the logical solution of an overwhelming difficulty—the difficulty of accounting for the evils of life. But the notion of man as a fallen instead of a gradually ascending being has capitulated to evolution. Conceptions of a vindictive Deity (by those who entertain them) are fast yielding to the demand that ideas of divine benevolence be at least not reduced beneath those of human benevolence. Bacon's disbelief in a God who would "eat his children as soon as they are born" expresses the early rebellion of intelligent minds against conceptions of a vindictive Deity as portrayed in the Old and parts of the New Testament.

GENESIS IMPEACHED BY EVOLUTION

Science and evolution directly negative the account of the origin of things contained in Genesis of the Old Testament. Science shows that man and other forms of animal life were not specially created, as alleged in Genesis, but that all forms of life on our planet are modifications of preëxisting forms of life naturally produced, and that all life evolved out of the primeval nebulous vapors. Scientific research in biology, geology and palæontology, as heretofore set forth, shows that the earth and all life therein were not created carpenter fashion in six days (the Creator resting on the seventh, as the writers of Genesis undoubtedly used to do), but that the earth and all life it contains were the gradual product of countless centuries of time, inconceivable in duration.

CONFLICT BETWEEN THEOLOGY AND SCIENCE

Furthermore, the elemental tenets and dogmas of Christian theology, implying the special creation of Adam and Eve, their fall, with the supposed necessity for blood atonements, are false and crude conceptions based upon primitive ideas of a vindictive Deity appeasable only by blood, and embodying the sacrificial idea running throughout older religions.

The history of religions further reveals the identity of some of the miraculous elements of the various creeds known to mankind, the inconsistency between many revealed and scientific facts, and the very fallible nature of much of Biblical narration imputing deception and vindictiveness to the Deity in true anthropomorphic style.

It is hard to appreciate the logic upon which Father Le Buffe bases his belief in original sin, with its imputation of unreasoning vindictiveness to a Deity; or Baptism, with its imputations of divine injustice; in the Virgin Birth of Christ (Buddha, who antedated Christ, was likewise alleged to have been born of a Virgin), the divinity of Christ (one of the most common features of religions is the ascription of divinity to religious founders), the Incarnation, the Atonement, the Resurrection, the Trinity (reflecting Greek conceptions of plural gods), and Hell (ascribing a degree of cruelty to a Deity, which would subject a human being to just execration and criminal prosecution). It is likewise diffi-

cult to follow the reasoning whereby he places implicit acquiescence in the accuracy of Biblical lore, or in the infallibility of an institution, "in matters of faith and morals," which must be charged with condemnation of Galileo's proof of the earth's movements, the denial of evolution and the crimes of the Inquisition.

The ethics of Christianity are unquestionably elevated in some respects, while they are unquestionably open to criticism in other respects. Such Christian teachings as those inculcated by the Sermon on the Mount, the parables laying bare pretentious claims to exemption from human frailties, to hypocritical disdain of the publicans and the sinners, doctrines inhibiting the judging of others, the eagerness to detect the mote in another's eye, enunciating the superiority of simple affirmations over oaths and of the spirit over the letter, doctrines proclaiming the greatness of unostentatious service, the brotherhood of man and charity for all—undeniably reflect exalted ethical ideas and moral standards. On the other hand, the Scriptural guarantees to those who shall believe, but injunctions against those who shall not, make professions of faith instead of conduct the test; while instances abound where not only a literal reading, but an intelligible understanding, discloses the assumption made by almost every creed known to mankind—that Christianity is alone true to the exclusion of all other religions. Such parables as that setting forth the inability of the branch to bear fruit unless abiding in the vine, involve the idea that truth is conferred upon a restricted portion of humanity, and that by far the vast majority of the inhabitants of this globe were destined to barrenness of good works—a notion consistently rejected by reasoning beings. The alleged empowering of the disciples of Christ with the capacity to work miracles as a sign to the doubting, unquestionably reflects the same species of charlatanism and sorcery attendant (in the Old Testament accounts) upon the rescue of the Israelites from Egyptian captivity by Moses.

THE DISCARDED RELIGIOUS BASIS OF MORALITY TO BE SUPPLANTED BY ETHICS, OR NATURAL MORALITY

Bryan, commenting on the effects of Darwinism on morality, alleges: "Evolution paralyzes man's consciousness of responsibility and blots out his thoughts of a hereafter with its rewards and punishments." He also characterizes evolution and Darwinism as "paralyzing to morals," and alleges that the teaching of them is "undermining morality." "Morality rests on religion," affirms Bryan.

Mr. Bryan thus indicts not only the distinguished exponents of evolution in the 19th century, Darwin, Huxley, Spencer and Tyndall—men of exemplary lives, careers of self-sacrifice rather than self-exploitation,—but he indicts men of the caliber of the late James Bryce, John Burroughs and Andrew Carnegie, and men now living, such as Balfour, Pres. Emeritus Eliot of Harvard, Pres. Angell and ex-Pres. Hadley of Yale, Pres. Butler of Columbia, Pres. Hibben of Princeton, Pres. Lowell of Harvard, to mention no more. Mr. Bryan will never be able to convince any considerable portion of thinking citizens that these men have not had as keen and disinterested a concern in morality and civilization as he professes to have.

Science and evolution show that morality does not rest on religion, but it began to develop just when primitive man discovered that respect for the lives and property of others was the surest way of insuring each in the right to life and property against the depredations of a stronger neighbor. Prior to that stage of man's development, the doctrine that "might makes right" insured a state of society in which the physically strongest had all the possessions, while the rights of the weakest were practically non-existent. Moreover, Darwin shows that in the love and protection of the young, universally exhibited by animals, may be discerned the rudiments of those domestic affections which we characterize as virtues in humans. The current religion teaches that morality is based upon the ten commandments—that the moral sense, and all respect for the lives or property of others, originate in the fact that God miraculously gave to Moses on Mount Sinai the Ten Commandments for the observance and moral guidance of mankind. Science and evolution, however, show that morality and respect for the rights of others, began to develop just at the point of human development when primitive man discovered that respect for the lives and property of others was the surest way of guaranteeing each security in his possessions and rights against the aggressions of a stronger neighbor. That religion has helped to encourage the practice of morality during the past is undoubtedly true; but that "morality rests on religion" is as untrue as Bryan's allegation that evolution lacks proof. And with the growing disbelief in the divine inspiration of the Bible in the world of education, the true origin of morality as enjoined by the nature of things will have to be accepted and taught.

If the authority of the Bible or of religion, as divinely originated or inspired, be destroyed, morality and civilization will be swept away, allege scientific novices like Bryan, despite the fact that all educators to-day deserving of that name champion evolution against Genesis, and the natural origin of ideas of right and wrong against any alleged miraculous origin of morality. It was to supply the true basis and authority of morality, after the false, miraculous basis was destroyed, that systems of ethics by such thinkers as Herbert Spencer have been devised, resting upon the truism that morality has natural sanctions and that right and wrong are enjoined and penalized by the order of things. And in this country, ex-Pres. Eliot of Harvard, fifteen years ago, prophesied a religion of the future of similar tenor, which will harmonize with the researches of science.

REASONS RENDERING THE CURRENT CREED UNTENABLE AND THE CREED OF SCIENCE AN INDISPENSABLE NEED

It may be advisable here to restate the reasons rendering what might be termed the "creed of science" one of the most imperative needs of the times. In the first place comparisons between religions establish that throughout all known religions, whether of India or Israel, Brahmanism, Buddhism, Judaism, Christianity or Mohammedanism, may be discerned the identical elements of divinely originated or divinely guided prophets or ecclesiastical leaders, each religious cult having its holy books or sacred writings. Whether the founder be Buddha, or Christ, divinity is

invariably ascribed to him, and divine inspiration is attributed to the representative holy books, whether Koran, Vedas, or Bible. The same incidents portraying the alleged miraculous birth of Christ, the announcement thereof by strange lights in the heavens, and his marvelous wisdom in teaching the greybeards when a youth, were related to Buddha; while Christianity undeniably draws upon Greek Mythology for conceptions of the Trinity and evil Deities, and upon previous religious ceremonials for rites in connection with Easter festivals.

The Gospels of the New Testament were not begun until half a century after the estimated date of Christ's death, and, translated into various languages, they have been revised under the constant vigilance and custody of ecclesiastics. Such reputed occurrences as Christ's miraculous birth, the changing of water into wine, the multiplication of the loaves and fishes, the driving of the demons out of men into swine, Satan's temptations of Christ, the miraculous capacity of Christ to vanish, the cure of the sick by the touching of the hem of Christ's garment, the raising of the dead to life, the calming of a tempest and the walking on the waves, Christ's reappearance after death, and the power of Christ's followers to perform miracles as an evidence of the supernatural origin of Christianity, must obviously all be rejected as untruthful narrative.

In regard to the Scriptural accounts of the teachings of Christ, while most of such counsels could be safely taken as a guide to conduct, some of Christ's alleged doctrines would not only appear unacceptable, but open to criticism. Such doctrines as the brotherhood and natural equality of men, the dignity of labor, the greatness of service, the superiority of discreet humility over vain glory, charity for human frailties and the immunity of no mortal from fault—all reflect exalted conceptions of morality and enunciate true principles of conduct. But Christ's ideas of Hell, as disclosed by the account of Dives and Lazarus, reveal conceptions of divine charity far inferior to the sentiments of charity manifested by himself; his admonitions that all believing shall be saved, but all disbelieving shall be damned, unworthily emphasize beliefs rather than conduct as the test of life; and his alleged counsel that they who will not leave father or mother to follow him are unworthy of him, would subordinate natural affection to religious opinions.

Upon considering the resemblances between the many elements of the various religions, and how they would suggest rather the permanence of tradition than a record of actual events,—in reflecting further upon the palpable inaccuracies of alleged inspired Biblical writings,—the wonder is not that religious unrest and discontent are so prevalent, but that any institution based upon an alleged divine revelation and the inerrancy of Biblical intelligence, could have endured so long intact.

But in addition to the infirmities of orthodox ecclesiastical institutions respecting Biblical foundations, such organizations have been pervaded internally by many abuses (such as the sale of indulgences giving rise to the Reformation), their methods in discouraging education and suppressing religious liberty have invariably been intolerant (witness the abuse of the Inquisition in Spain and the Netherlands, no less than corresponding iniquities in suppressing religious liberty by the Reformation), and their dogmas and theological doctrines have been

at variance with the conclusions of science (and this is true of both Catholicism and Protestantism).

Darwin's doctrine of the evolution of man discredits Biblical accounts of the origin of our planet and of man, and renders inadmissible theological assumptions of the special creation of man, his fall, with the resulting necessity for the atonement. With the disproof of the assumption that Christ's death could have been ordained by the Deity to atone for original sin, such dogmas as the Virgin birth and divinity of Christ, the atonement and the Resurrection, necessarily fall. The sacramental conception that the performance of certain rites (such as baptism shortly after birth, marriage, or communion, or extreme unction at death) is indispensable to salvation, involves the assumption that the decrees of nature may be sanctified by mortal hands, and that there is a vindictive Deity who would assign irresponsible infants, or even unrepentant adults, to a place of perpetual fire.

THE CREED OF SCIENCE OF THE FUTURE

Is it to be wondered at therefore that the profoundest thinkers, the leading educators, and best minds of our own day are convinced of the necessity for some new institution, whose teachings shall conform to science, to supplant the miraculous aspects and Biblical untruths of the current religion? What then will this religion of the future—this creed of science—be like, representative neither of Rome nor the Reformation, but based upon the researches of Darwin, Spencer, Huxley, and Tyndall, and co-laborers in the domain of evolution?

FIRST: The creed of science (the creed of the future) will assume no knowledge of the supernatural, or of another life, but the origin of things and the existence of a hereafter, will be recognized as an inscrutable mystery. No religions or philosophies since the dawn of recorded events have shed the slightest light on the question of the origin of phenomena, or of any possible immortality, and these questions are regarded by science as incapable of being known.

SECOND: The impenetrableness of the origin of phenomena being accepted, assent to no creeds or dogmas will be longer prescribed as a condition to membership in the ethical society of the future which will supplant the current religion. Christ will be regarded as a man, whose reputed life and teachings are for the most part exemplary, and constitute a worthy ideal which all might aspire to emulate with profit. The ascription of divinity—and miraculous birth—to Christ, in all Christian sects, except Unitarianism, will be regarded as merely reflecting a common characteristic of most religions of antiquity to deify religious leaders. The lives, alleged sacred writings and teachings of other great religious leaders will be studied with profit, and likewise the careers and philosophies of such characters as Confucius, Buddha, Socrates, Bruno, Spinoza, to mention no more.

THIRD: Instead of vainly endeavoring to obtain light on the ultimate origin of things and man's destiny from the alleged sacred writings of men of intelligence far inferior to our own, scientific research will be pursued and the results pertaining to such branches as

astronomy, palæontology, biology and geology, will be studied with a view to obtaining any light that can possibly be shed over the riddle of the universe and man's destiny. Light on these ultimate questions can only come through the researches of science—it will never come from the alleged inspired writings of superstitious, primitive minds.

FOURTH: As the order of nature prospers right conduct and ultimately discourages wrong, future ethical organizations will teach that morality has natural sanctions, and that right is distinguished from wrong in that the former affects human well-being favorably, the latter unfavorably. Morality originates in the order of nature: the current religion laudably teaches morality, but it falsely teaches that ideas of right and wrong were miraculously, instead of naturally, implanted in men. Respect for the lives, property and rights of others generally, will continue to be enjoined by ethics founded in the nature of things; but instead of teaching that such moral ideas first dawned upon the human intelligence with the giving of the Ten Commandments to Moses on Mount Sinai, it will be shown that they originated just when primitive man, emerging from the chaotic conditions of society due to the earlier law that "might makes right," decided that respect for the rights of others was the surest method of insuring each in his rights against the aggressions of stronger neighbors.

"There is nothing in evolution," says Tyndall, "inconsistent with those virtues to which the term Christian is usually applied."

FIFTH: Instead of strengthening a possessory title over individual members by discouraging the investigation of traditional doctrines, future ethical organizations will encourage the individual to think for him or herself and to accept nothing that has not been satisfactorily inquired into. Instead of a retrogressive paternalism there will then be a progressive individualism. Instead of encouraging a type of character that has made possible all the aggressions of history, there will then develop a self-reliant type of individual, incapable of being duped, but considerate of the rights of others.

SIXTH: All concern for personal salvation or future rewards, whether through religious entreaty, rites or practices, will be regarded as essentially selfish compared with disinterested devotion to the advancement of human conditions in general.

Realizing that the reform of abuses is facilitated by the firm assumption of obligations rather than by their delegation, the alleviation of conditions will in the future be more and more effected by learning to rely upon the forces at our disposal rather than by futile and indolent petitions for supernal assistance. Prayer and ridiculous adulation of a Deity—such fulsome and unreasoning praise as is to be found in any orthodox prayer book—will be regarded as a waste of energy and misdirected activities. "Invest that conception with your highest and holiest thought," says Tyndall regarding religious conceptions, "but be careful about pretending to know more than is given man to know."

SEVENTH: Instead of substituting party loyalty for loyalty to truth, instead of substituting the strengthening of parties for devotion to the general interest, the ethical organization of the future will

make parties instruments for the general good, will utilize parties only insofar as they more effectively minister to the greatest good of all, and will never permit the love of power to take the place of disinterested concern for the public well-being.

EIGHTH: Such institutions must attract members purely voluntarily through the appeal to reason and intelligence, and compulsion or coercion in joining such associations, or in retaining membership therein, will never be tolerated.

NINTH: The supervisors or leaders of such institutions must be selected by popular vote in which the leaders and general members may equally participate. This will eliminate the objectionable feature of some religious organizations of a self-perpetuating hierarchy.

TENTH: Instead of an altar with "holy carpets" (such as in Oriental religions), "sacred relics" and symbols, and religious rites, ceremonials and sacraments in general, there will be a place of assemblage devoid of all mystic camouflage (a survival for the most part of the mystical rites of the ancient magicians), but in which art, painting, architecture, sculpture and music shall abound as heretofore.

Instead of a priest or minister talking at a compliant, inaudible congregation, an ethical leader or scientific expert will discuss problems of science and ethics with the members of the society with a view to stimulating interest in, and inquiries relative to, the subjects discussed.

ELEVENTH: The constitution, laws, and amendments thereto, of such organizations, shall be adopted by a majority vote of the adhering members, and the alteration or repeal thereof shall be submitted for popular ratification or rejection.

These articles roughly constitute what might be termed the basis (rooted in reason and framed in the light of science) upon which the creed of the future will rest—the **creed of science**—and the "Gates of Hell shall not prevail against it," to borrow a familiar Biblical expression commonly invoked.

EVOLUTION AND THE PUBLIC SCHOOLS

In regard to evolution in the schools, Bryan, in his New York Times article of February 26th, says: "Christians do not dispute the right of any teacher to be agnostic or atheistic, but Christians do deny the right of agnostics and atheists to use the public school as a forum for the teaching of their doctrines." Mr. Bryan then contends, just as he does in his New York Herald article of March 19th, that the teaching of evolution in public schools, but the exclusion of the Bible therefrom, constitutes the teaching of "irreligion" and does not maintain the neutral attitude toward religion which should prevail.

Natural science (and this unavoidably presupposes evolution) is as important a part of the public school curriculum as history, mathematics, spelling and grammar. Evolution describes the general development of the material universe and all life therein, but it does not purport to be able to shed any light on the question of the origin of phenomena

(which, as we have heretofore emphasized, evolution proclaims to be an insoluble mystery to all).

Agnosticism—i. e., that the origin of things is an insoluble mystery—should, and will, be taught in the public schools because it is scientific fact and truth. Schools are designed to abolish ignorance and spread the light of truth. If the parents of children so taught wish to send them to denominational schools and churches, where theism is taught, they have the constitutional right to do so. But the public schools will in due time be teaching evolution and that nothing is known about the origin of things.

RELIGION AND GOVERNMENT

The fight for the injection of religion into public schools was lost when Art. I of Amendments to the U. S. Constitution was adopted, providing that "Congress shall make no law respecting an establishment of a religion, or prohibiting the free exercise thereof." Not only would it be inequitable to provide for the teaching of some particular form of religion by taxes imposed upon adherents of the various religions, but the prohibition against religion in the public schools eliminates the old, interminable controversy as to which religion is the true one—a question that the parents of school children have never been able to decide for themselves.

Eventually the oaths, to which Mr. Bryan alludes, will be eliminated from courts, affidavits and inaugural ceremonies, so that even the processes of government must be ultimately purged of mediæval fictions, and the assumption of knowledge of the existence of a Deity. The fact that Chinamen have been known to lie without restraint after swearing on a Bible, but fear to lie after swearing by the head of a chicken—the fact that the phrase "In the year of our Lord," so common in legal instruments would have no significance to a Buddhist, a Mohammedan or to the aboriginal American Indian—would serve to emphasize the irrelevance of, and complications due to, the injection of religion into law.

Religious symbols will be totally eliminated from political institutions after reason and intelligence have so far prevailed as to render such a move a popular success. It will not be attempted by politicians prior to that time.

The universal outcry against Pres. Roosevelt's suggestion that "In God we trust" be eliminated from coin in this country, indicates how far steeped in superstition and mediævalism too large a part of the electorate still remains.

EVOLUTION AND THE WORLD WAR

I cannot conclude this article without considering Mr. Bryan's animadversions on the causes of the world war. He says, in his New York Herald article of March 19th, that "Darwinism has not only been undermining Christian faith, but it furnished Nietzsche with the basis of his godless philosophy and thus shared in the responsibility for the world's bloodiest war." As a man who fought in that war, and who had

an understanding of the causes of it that was not shaped by anything Bryan did or said during that crisis, I am keenly interested in Bryan's attempt to revive the discredited theory that evolution and intellectual progress (for they are synonymous) caused the world war.

I shall answer Bryan by quoting from a book I wrote and had published at my own expense in August, 1916, entitled "The U. S. and the World Crisis," in which I advocated the abandonment of neutrality by the U. S., the suppression of propoganda (aided by Bryan) to stop the shipment of munitions to the Allies, and considered the charge that the world war was due to science and lack of religion.

In regard to Bryan's understanding of the causes of the world war, I wrote as follows: "Because of Bryan's ultra-pacifist tendencies, Germany proceeded on the assumption that she could terrorize our citizens indefinitely on the seas, and it was not until after Bryan was permitted to quit the Cabinet that Germany revised her estimate. How a man like the ex-Secretary of State, professing to have any regard for freedom and democracy, could advocate the cutting off of munitions to the Allies, thus insuring the permanent serfdom of Belgium, is incomprehensible to the generality of his fellow-citizens."

In regard to Bryan's charge that evolution and irreligion had any part in the responsibility for the world war, I wrote as follows:

"It is frequently asserted that the European war is a direct result of 'irreligion,' 'infidelity,' 'lack of Christianity,' 'Atheism,' etc. At various times well-known prelates and publicists have ascribed the war to lack of religion. Waiving the consideration for the moment of how many of the world's disastrous wars heretofore were directly due to struggles for religious supremacy, the attempt to shift responsibility for this war on the spirit of irreligion must fail dismally.

Has not the Kaiser, the chief cause of this atrocious war, appealed to religion and God at every step of his domineering and autocratic career? Did he not start this war by invoking the assistance of the Most High, and appealing at every stage of the success of German arms for further divine favor? Has he not entreated the youths, backing with their lives his execrable schemes for world power, to have faith in God? Have not the German and Austrian rulers, divines and statesmen uttered perfervid appeals to God and to religion to sustain them in their unhallowed designs?

The most powerful arraignment of militarism, and uncompromising opposition to war, have come not from rulers who bolster up their pretensions by invoking the doctrine of divine right, but from science and philosophy, which are charged with responsibility for wars of political or ecclesiastical ambition. While war has been the sport and mainstay of innumerable monarchs from Alexander the Great to the Kaiser, unprovoked war has been execrated by thinkers from Aristotle to Spencer. It is true, as Dr. Alexis Carrel pertinently remarks, that progress in the science of preserving life does not begin to compare with the advancement in the science of destroying life. But the destructiveness of modern scientific appliances does not reflect on science—it reflects upon the abuse of beneficent arts by the malevolence of men. Water, an indispensable element to life, will also consume life, while fire will prolong or destroy life according to the use to which it is put.

Any useful factor in life may, if abused, prove fatal to life, and the fact that scientific achievements may be perverted to the task of destroying life is no more a reflection upon scientific progress than the fact that water will destroy life implies that water should be abandoned as an injurious agency of life.

Neither the principles of religion nor science can be charged with responsibility for this world calamity, which can more properly be ascribed to the ambition, avarice and malevolence of emperors, blindly acquiesced in by the victims of their imperial designs—their subjects.”

In conclusion I wish to say that Mr. Bryan's advocacy of peace and his defense of righteous living are entirely creditable. But there are obviously more things in heaven and earth than are dreamt of in his philosophy, and Mr. Bryan does not perceive that not only is he attempting to deride others who profess the same devotion to the ideals of peace and righteousness, but he is rendering as great a disservice to morality and education by his misguided opposition to evolution and scientific progress as he rendered to world peace by his erroneous assumption that peace could be restored to the world in any other manner than by the suppression of German militarism with superior force.