THE TENNESSEE EVOLUTION CASE

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FOREWORD

HE following paper was read by Mr.
Robert S. Keebler of the Memphis Bar,
at the annual meeting of the Tennessee

Bar Association held at Memphis on June 26-27, 1925. Before the reading of the paper was concluded, the convention was thrown into an uproar; and on a motion to expunge the paper from the record of the Association's proceedings, the President sustained a point of order that the paper was in conflict with the objects of the Association "to foster legal science, maintain the honor and dignity of the profession of law, to cultivate professional ethics and social intercourse among its members, and to promote improvements in the law"; and in doing so, the President took occasion to administer a sharp rebuke to Mr. Keebler for reading a paper "that instead of being confined to the legal question, discussed a religious issue." The ruling of the President was sustained by a vote of 86 to 53.

The paper is now being printed for general distribution by friends of fair play and intellectual freedom who believe that the Tennessee Bar Association did dishonor to itself and discredit to the profession by attempting to suppress a noteworthy contribution to the legal discussion of an historic public act of Tennessee involving fundamental principles of the law.

THE TENNESSEE EVOLUTION CASE

By Robert S. Keebler

STATEMENT OF THE FACTS

The legislature of the state of Tennessee at its last session enacted the following law, which became effective on March 21, 1925:

"An act prohibiting the teaching of the evolution theory in all the universities, normals and other public schools of Tennessee, which are supported in whole or in part by the public school funds of the state, and to provide penalties for the violation thereof.

"Section 1. Be it enacted by the General Assembly of the state of Tennessee, that it shall be unlawful for any teacher in any of the universities, normals and all other public schools of the state to teach any theory that denies the story of the divine creation of man as taught in the Bible and to teach instead that man has descended from a lower order of animals.

"Section 2. Be it further enacted, that any teacher found guilty of a violation of this act, shall be guilty of a misdemeanor, and upon conviction shall be fined not less than \$100 nor more than \$500 for each offense." (Chapter 27, Public Acts of 1925.)

This was no dull, cold, lifeless act of the sort which make the law a dismal science. It flashed lightning and rolled thunder. Hailed by some as a signal triumph of the Christian faith against the atheistical tendency of science, by others as clear ecclesiastical tyranny and a recrudescence of the Inquisition, and by still others as a triumph of asinity which would defeat its own aim, the law attracted the attention and provoked the opinions of lawyers, scientists, ecclesiastics and teachers throughout the nation.

It was inevitable that the constitutionality of a law touching alike the fundamentals of government, of religion and of science should be contested. Within a month the test came. John Thomas Scopes, a teacher of science in the Dayton High School, and using a textbook prescribed by the Uniform Textbook Commission of the state, was arrested for teaching this book in violation of the new law; and a formal indictment was lodged against him by a special session of the Rhea County grand jury in these words:

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"That John Thomas Scopes, heretofore on the 24th day of April, 1925, did unlawfully, wilfully, teach in the public schools of Rhea County, Tennessee, which said public schools are supported in part and in whole by the public school fund of the state, certain theory and theories that deny the story of the divine creation of man as taught in the Bible, and did teach instead thereof that man has descended from a lower order of animals, he, the said John Thomas Scopes, being at the time, and prior thereto, a teacher in the public schools of Rhea County, Tennessee, aforesaid, against the peace and dignity of the state."

The trial is scheduled to take place on next July 10 at Dayton.

Upon the finding of this indictment the World's Christian Fundamentalist Association wired William Jennings Bryan, the outstanding fundamentalist layman of America, requesting that he assist in the prosecution of the case. The American Civil Liberties Union of New York City at once countered by agreeing to bear the expenses of the defense; and some of the most eminent lawyers of the nation tendered their services gratuitiously to Mr. Scopes. Mr. Bryan, who will conduct the prosecution, retired to his home at Miami some two weeks ago for the purpose of preparing his jury speech; while Clarence Darrow. Dudley Field Malone and Bainbridge Colby, who are associated with John R. Neal as counsel for the defendant, have been studying fossils in the American Natural History Museum. No such distinguished array of imported talent has ever before appeared in a Tennessee court. The case is without a parallel in the history of our jurisprudence. Public interest has been aroused beyond the borders of our own nation; and distinguished jurists, scientists and men of letters in England, France, Germany and elsewhere throughout the world have commented upon the case; for the most part in amazement that such an act could be possible in our age and in our nation. So eminent a scholar as Prof. George Gilbert Murray of Oxford University said:

"The most serious setback in civilization in all history—that is my considered judgment of the Scopes trial."

To appreciate the significance of the situation, a word of history must be noted. No interest in life touches men so deeply as their religion. Throughout ecclesiastical history orthodoxy has sought to uproot heresy by all the power at its command, whether by edict, excommunication, law or the sword. A cardinal point of the Christian faith is that the Holy Bible was given by inspiration of God. There have always been those, sometimes in the majority and sometimes in the minority, who interpret the Bible literally and refuse to accept an allegorical or figurative interpretation. They have insisted that the Bible is inerrant in all its details, historical and scientific as well as religious.

In the Scriptures the earth is pictured as flat. It is founded on an underlying sea. It is stationary. The heavens are like an upturned bowl or canopy above it. The circumference of this vault rests on pillars. The sun, moon and stars move within the firmament to illumine man. There is a sea above the sky, the waters which are above the heavens. Through the windows of heaven the rain comes down. Within the earth is Sheol where dwell the shadowy dead. This cosmic system is suspended from vacancy. It was all made in six days, each with a morning and an evening, only a few thousand years ago.

While geography and geology were discovering the earth, and astronomy the heavens, the literal interpretation of the Bible repeatedly came into conflict with science. As early as the year 400 A. D. the great St. Augustine, next to Jesus and St. Paul the most influential authority of the early Christian church, said:

"There is some question as to the earth or the sky, or the other elements of this world * * * respecting which one who is not a Christian has knowledge derived from most certain reasoning or observation, and it is very disgraceful and mischievous, and of all things to be carefully avoided, that a Christian, speaking of such matters as being according to the Christian Scriptures, should be heard by an unbeliever talking such nonsense that the unbeliever, perceiving him to be as wide of the mark as east and west, can hardly restrain himself from laughing."

Columbus was confronted with the literal interpretation of the Scriptures by the Council of Salamanca, which demanded how could the world be round when the Scriptures plainly stated that it had four corners. Copernicus was excommunicated for teaching that the sun was the center of our solar system and that the earth revolved about it. The Italian philosopher Bruno, whose doctrines represented the most advanced stage of scientific thought at the time, was burned at the stake for heresy in the year 1600. The astronomer Galileo was compelled to go to Rome in the year 1633 and to renounce upon his knees the truths he had maintained, and he was sentenced to the dungeons of the Inquisition. A most illuminating and scholarly treatment of the progressive conflicts between science and theology can be found in Andrew D. White's "History of the Warfare of Science with Theology in Christendom." (D. Appleton & Co., 1923.)

By the year 1859 most theologians had adjusted themselves to the facts of geography and astronomy. They had accepted the fact that the world is round; that the sun is the center of our solar system, and that there are countless other suns throughout the vast universe of which our solar system is but an infinitesimal part. In 1859 Charles Darwin published his epoch-making book, "The Origin of Species," in which he announced:

"Not only the various domestic races, but the most distinct genera and orders within the same great class, for instance, mammals, birds, reptiles and fishes—are all the descendants of one common progenitor, and we must admit that the whole vast amount of difference between these forms has primarily arisen from simple variability."

He did not attempt to decipher the great underlying cause behind this vast unfolding of nature, "in writing about which," he says, "I am aware I am traveling beyond my proper province. An Omniscient Creator must have foreseen every consequence which results from the laws imposed by Him."

Darwin did not originate the doctrine of evolution. As a philosophical concept, it was held by the Greek philosophers Anaximander, Empedocles, Anaxagoras and the great Aristotle. The Latin poet Lucretius sang of the creation of the world out

of chaos and of the progressive evolution of life. St. Augustine spoke of the creation of things by a series of causes, and Thomas Aquinas expounded and upheld St. Augustine's view. The German philosopher Leibnitz gave examples of the graduation of characteristics between living and extinct forms of life as proofs of the universal connection between species. Buffon, a discriple of Leibnitz, held that all animals were possibly derived from a single type. Erasmus Darwin, grandfather of Charles Darwin, and a sturdy, observant reasoner, held that all animals were derived from a single filament. The French scientist Lamarck (1744-1829) is, however, regarded as the true founder of evolution. He published his views in the year 1801, stating the doctrine of evolution with remarkable clarity.

But it was reserved for Charles Darwin to produce the scientific proofs of the doctrine of which philosophers had dreamed and poets sung. A most tireless and painstaking investigator, a most acute observer, a man of the most transparent honesty and judicial fairness, he announced his views only after he had gathered his data through thirty years of exhaustive investigation in various parts of the world. His famous book precipitated a discussion in England which lasted for a generation. The Christian literalists refused to accept the new pronouncement of science. They had surrendered the outer walls to geography and astronomy, but they were determined not to surrender the citadel to evolution. For note its implications: If man was created by evolution and not by fiat, then man was not born a perfect creature in the Garden of Eden, and was not forced to toil and earn his daily bread as a result of sin, and the Pauline doctrine that Christ came to atone for Adam's original transgression in eating the forbidden fruit of the tree of knowledge, became a figure of speech. The literalists would not accept such heresy.

The transition from a literal to a poetic interpretation of the Genesis story was not easily made in England. The great Gladstone entered the arena and splintered his theological lances on Huxley's shield of logic. Oxford and Cambridge were for years in open revolt against the new learning. But gradually under the influence of leaders like Spencer, Huxley, Tyndall, Wallace, Lyell, Galton, Tylor, Lubbock, Bagehot,

Lewes, Kingsley, and Farrar, men came to understand each other; the new doctrine was accepted, and science and theology once more lay down in peace together; so that now in England and on the continent, the controversy over evolution seems like a page torn from the history of the past.

In our own country the warfare is now at its height. Our Christian churches are divided between Fundamentalists and Modernists, and heresy trials and excommunications are the order of the day. The Fundamentalists, who predicate their belief upon the literal inerrancy of the Scriptures, have organized an interdenominational association. At their seventh annual conference, held in Memphis last month, they proclaimed to the world a declaration of principles from which the following is quoted:

"On the points of difference mentioned by these opponents of Christianity dwelling within her camp, whose rationalistic conceptions deny the inspiration of the Bible * * * Fundamentalists hold:

"Of the Scriptures, that the whole Bible was written by men supernaturally inspired; that it has truth without any admixture of error; that as originally written, it is both historically and scientifically true and correct; and, therefore, is and shall remain to the end of the age the only complete and final revelation of the law of God to man."

"Of the creation, that the Genesis account of creation is to be accepted literally and not allegorically or figuratively; that man was created directly in God's own image and in His own likeness; that the Genesis account of creation is to be accepted literally and not allegorically or figuratively; that man was created directly in God's own image and in his own likeness; that man's creation was not a matter of evolution or evolutionary change of species or development through interminable periods of time from lower to higher forms; that all animal and vegetable life was made directly, and God's established law was that they should bring forth only 'after their kind.'"

It was in the midst of this theological warfare and under the influence of the Fundamentalist propaganda, with Mr. Bryan as its chief spokesman, that the Tennessee Anti-Evolution law was passed. A similar law was recently defeated in the Kentucky legislature by a single vote. Oklahoma also passed a law providing that no textbook should be adopted by its public schools teaching the Darwinian theory of creation as against the Bible account of creation. Repealed by the last legislature, the religious forces of the state are seeking to reenact it by the referendum or initiative. The Georgia legislature refused an appropriation to the state library lest it circulate books on evolution. In Texas and Florida the University teachers have refused to employ teachers who believe in evolution. It is reported that the Fundamentalists are at work in fifteen states. Their program is nation-wide. Our state board of education has recently made the Bible an elective study in the high schools of the state, and Wells' "Outline of History" and VanLoon's "Story of Mankind" have been barred from the state library.

As lawyers, whatever may be our religious convictions or scientific beliefs, we cannot but be profoundly interested in the legal aspects of this situation. Is our Anti-Evolution law constitutional? Does it violate any sanctions of our state constitution or of our federal constitution? These are the questions which I propose to discuss.

THE PUBLIC SCHOOLS AND THE POLICE POWER

It is fundamental that the legislature has power to enact any law not in conflict with the state or federal constitutions. Mr. Bryan's attitude is that the state is the proprietor of its public schools, and as the employer and paymaster can determine what shall be taught, and in what manner, within its classrooms. In his own words, as reported by the Associated Press on June 19:

"Mr. Scopes has the right to say anything he wants except in the school room, where he is an employe of the state. He can speak on the corners, or hire a hall. The law deals with him as a representative of the state, and the real question involved in the case is whether he can misrepresent his employer and demand pay for saying what his employer does not wish said. He also demands that his employer furnish him an audience to listen while he says what his employer does not wish said."

Is Mr. Bryan right? Has the state autocratic power over what shall be taught in its schools? Has the legislature the same proprietary rights in our public schools which Mr. Voliva has in his private schools at Zion City, Ill.? May the state command that the flat system of geography shall be taught, or outlaw the multiplication table, or proscribe the rules of syntax? Is the power of the legislature limited only by its own caprice? Can works of science be barred from our public libraries and scientists from our halls of learning?

Thomas Jefferson considered his founding of the University of Virginia as of equal importance with his writing the Declaration of Independence; for he considered that no people could be free when shackled by ignorance, and that the public schools must be forever the cradle of freedom.

Henry William Blair, in a speech before Congress in 1876, said:

"Sirs, the one indispensable thing is the power to think, and whatever people has that power, and most of it, will be most free. Virtue results from it, because virtue is the child of conscience, and a safe conscience must be instructed by intelligence. The common school then is the basis of freedom; and the system is an absolute condition precedent to the spread and perpetuity of Republican institutions throughout the country and the world. Ignorance is slavery. No matter what the existing forms of the government, ignorance will reduce them to the one form of despotism as surely as gravity will bring the stone to the earth. Knowledge is liberty; and no matter what the forms of government, knowledge generally diffused will carry liberty, life and power to all men and establish universal freedom so long, and only so long, as people are universally made capable of its exercise by universal intelligence."

Public education has come to be regarded as the fundamental requisite of our government. By far the greater majority of the children of our state cannot hope to receive any education beyond that imparted to them by our public schools and universities. Increasingly our public funds are being diverted to education. In the exercise of a power so necessary, the legislature must be endowed with a wide measure of dis-

cretion. The establishment of public schools is an exercise of the inherent police power of the state, and is restrained only by the constitutional limitations imposed upon the exercise of such power.

"In order that a statute or ordinance may be sustained as an exercise of the police power, the courts must be able to see that the enactment has for its object the prevention of some offense or manifest evil or the preservation of the public health, safety, morals or general welfare * * * The mere restriction of liberty or property rights cannot of itself be denominated public welfare and treated as a legitimate object of police power."

Constitutional Law, 12 C. J., Sec. 441.

The legislature may refuse to establish public schools; or having elected to establish public schools, it may determine for what term its schools shall remain open, and it may select the textbooks and course of study to be pursued therein.

Leeper vs. State, 103 Tenn., 500. Schools, 24 R. C. L., Secs. 92-93.

The power to select implies the power to exclude; and it is therefore argued that the legislature may exclude from its curriculum the teaching of any theory which it may wish to exclude, and that the reason of the legislature in taking such action shall not be inquired into by the courts.

This view would seem to have some support in the case of Waugh vs. University of Mississippi, 237 U. S. 589 (1915); in which case a Mississippi statute prohibiting the existence of Greek letter fraternities in the state's educational institutions was held, on demurrer, to be constitutional, although the plaintiff had alleged that the fraternity to which he belonged was a moral and disciplinary force. The court said:

"This need not be denied. But whether such membership makes against discipline was for the state to determine. It is to be remembered that the University was established by the state, and is under the control of the state, and the enactment of the statute may have been induced by the opinion that membership in the prohibited societies divided the attention of the students and distracted from that singleness of purpose

which the state desired to exist in its public educational institutions. It is not for us to entertain conjectures in opposition to the views of the state, and annul its regulations upon disputable considerations of their wisdom or necessity."

But a careful analysis of the court's opinion will show that the court merely regarded the statute as coming within the discretionary limits of the state's police power.

There have been suggestions in other cases that the authority of the state over its schools exceeds its police power; that the state is owner and proprietor and, therefore, has absolute authority. In our own case of Leeper vs. State, supra, in which the constitutionality of the Uniform Textbook Act of 1899 was being considered, our Supreme Court said:

"It is immaterial whether we consider this act as deriving validity from the police power of the state or the public character of the schools. It is evident that the basic principle of it is the power of the legislature to subserve the general welfare by prohibiting certain contracts and throwing around others restrictions tending to promote the general welfare and protect the citizen from oppression, fraud and wrong * * * The legislature may prescribe the course of study that shall be pursued and the system of instruction that shall be adopted; and to protect and complete its control it must have the power to prescribe the books that shall be used and the mode in which the books shall be obtained."

Our court wisely based its decision upon "the power of the legislature to subserve the general welfare." The state has no regulatory power over the discipline and management of the public schools and the course of study pursued therein which transcends its police power. The proprietary right of the state is confined to its title deeds. Mr. Voliva may with impunity teach that the world is flat. The Koreshans may teach that the world is a cell and that we live on the inside. Their schools are not supported by public taxation and their patrons are voluntary. But the schools of the state are sup-

ported by taxes to which all must contribute, of whatever sect or creed. Not only so, but the state may compel the attendance of its youth in some approved educational institution; which, for the vast majority, means their compulsory attendance at state schools. On my private driveway I may race my car at any speed I choose, but the state may regulate my speed upon the public streets. That same authority which the state may exercise over its public thoroughfares, over its public parks, over its public buildings, and over other public property, it may also exercise over its public schools, but no higher or greater; and that power is its police power.

It is not for the legislature to determine the limitations to be placed upon its police power. It is of the essence of a constitutional government that the power to determine when the legislature has exceeded its authority shall rest with the courts.

"The legislature is the sole judge as to all matters pertaining to the policy, wisdom and expediency of statutes enacted under the police power. But, on the other hand, whether legislation purporting to be enacted in the exercise of the police power is really such, and whether regulations prescribed by the legislature are reasonable or are otherwise constitutional, are questions for the judiciary."

Constitutional Law, 12 C. J., Sec. 443.

In determining whether the Anti-Evolution law is a valid exercise of the police power of the state, we are confronted by two constitutions. What are the limitations imposed by the constitution of the State of Tennessee?

THE CONSTITUTION OF TENNESSEE

We pass over as unimportant the obvious fact that the caption of this act is broader than the act itself in that the caption purports to prohibit the teaching of the "evolution theory," which comprises all life upon our planet, whether vegetable or animal, while the act itself merely prohibits the teaching "of any theory that denies the story of the divine creation of man as taught in the Bible and to teach instead that man has descended from a lower order of animals."

We pass over, too, the capricious construction of which this act is capable, in that the offense prohibited is the dual one of teaching a theory that denies the Biblical story of creation and affirms instead the evolution theory. One might with impunity teach some fantastic theory of his own, neither Biblical nor Darwinian. Viewed thus narrowly the act is vicious class legislation (See Art. 11, Sec. 8, Constitution of Tennessee).

We also pass over any ingenious argument to the effect that the evolution theory and the Bblical theory are not in conflict. The legislature thought there was a conflict; as assuredly there is, unless we choose to give to Genesis a poetical and figurative interpretation, for which the literalists who enacted this law will not stand.

We come to the real essence of the controversy. Art. 11, Sec. 12, of our State Constitution provides:

"KNOWLEDGE, LEARNING AND VIRTUE, BEING ESSENTIAL TO THE PRESERVATION OF REPUBLICAN INSTITUTIONS, AND THE DIFFUSION OF THE OPPORTUNITIES AND ADVANTAGES OF EDUCATION THROUGHOUT THE DIFFERENT PORTIONS OF THE STATE BEING HIGHLY CONDUCIVE TO THE PROMOTION OF THIS END, IT SHALL BE THE DUTY OF THE GENERAL ASSEMBLY IN ALL FUTURE PERIODS OF THIS GOVERNMENT TO CHERISH LITERATURE AND SCIENCE."

Does this act violate the duty of the legislature "to cherish science?" What is science? Webster's New International Dictionary (1924 Edition) defines it as

"Accumulated and accepted knowledge which has been systematized and formulated with reference to the discovery of general truths or the operation of general laws."

Granted that the legislature may refuse to establish schools "to cherish science." Granted that there is no over-shadowing power to compel it. Still, if the legislature does establish schools for the teaching of science, does it not become mandatory upon the legislature to cherish science and not heresy?

Who is to determine whether this act tends to cherish science? Manifestly our courts must determine whether the act is patently an obstruction to the progress of science or whether it tends to cherish it.

By this act the legislature has set up the Genesis story of creation as scientifically true with respect to the origin of man. How are we to know what is accredited by science except by a study of the treatises and teachings of the accepted masters of science?

Is the Genesis story of creation accredited by science? Which story? For there are two distinct and hopelessly conflicting accounts of creation in the first and second chapters of We must assume that the legislature intended to set up the story in the first chapter of Genesis as scientific fact. may be confidently asserted that there is not in the world today even one great scientist who believes in the accuracy of the Genesis story of creation. Science considers the light of this world as dependent upon the sun, moon and stars. Genesis story there were three days with morning and evening, light and darkness, before the sun, moon and stars were created. Science considers that life upon this planet is dependent upon the sun. In the Genesis story life appeared upon the third day, while the sun was not created until the fourth day. In Genesis vegetation is complete two days before animal life appears. Geology shows that they appeared simultaneously, even if animal life did not appear first. In Genesis birds appear together with aquatic creatures and precede all land animals; according to the evidence of geology, birds were unknown until a period much later than that at which aduatic creatures abound, and they were preceded by numerous species of land animals, particularly by insects and other creeping things. According to Genesis, the earth, sun, moon and stars and all forms of animal and vegetable life were created in six days. The Hebrew word means solar days, not eons or cycles of time. Science says that life upon this earth began some twenty-five or thirty millions of years ago; while the earth itself is believed to be at least a hundred millions of years old. According to Genesis, the first man, Adam, was a perfect man

who walked and talked with God in the Garden of Eden. According to science, man had his origin with the lower forms of life and has been ascending through the ages in his physical, mental and moral attributes. According to science, the Genesis story of creation was not original with the Jews.

"The great discoveries by Botta and Layard in Assyria were supplemented by the researches of Rawlinson, George Smith, Oppert, Sayce, Sarzec, Pinches and others, and thus it was revealed more clearly than ever before that as far back as the time assigned in Genesis to the creation a great civilization was flourishing in Mesopotamia; that long ages, probably two thousand years, before the scriptural date assigned to the migration of Abraham from Ur of the Chaldees, this Chaldean civilization had bloomed forth in art, science and literature; that the ancient inscriptions recovered from the sites of this and kindred civilizations presented the Hebrew sacred myths and legends in earlier forms—forms long antedating those given in the Hebrew Scriptures; and that the accounts of the Creation, the Tree of Life in Eden, the institution and even the name of the Sabbath, the Deluge, the Tower of Babel and much else in the Pentateuch, were simply an evolution out of earlier Chaldean myths and legends. So perfect was the proof of this that the most eminent scholars in the foremost seats of Christian learning were obliged to acknowledge it." White's "History of the Warfare of Science with Theology," Vol. II, pp. 370-371.

Dr. Arthur Stanley, dean of Westminster Abbey, who probably did more than any other clergyman of his time to save what is essential in Christianity, said in his memorial sermon at the funeral of Sir Charles Lyell, the great geologist:

"It is now clear to diligent students of the Bible that the first and second chapters of Genesis contain two narratives of the creation side by side, differing from each other in almost every particular of time and place and order. It is well known that, when the science of geology first arose, it was involved in endless schemes of attempted reconciliation with the letter of Scripture. There were, there are perhaps still, two modes of reconciliation of Scripture and science, which

have been each in their day attempted, and each has totally and deservedly failed."

On the other hand, is there any agreement among the scientists of today on the subject of evolution? Does science believe in evolution? The general acceptance of this doctrine is so pronounced that the evolution of man "from a lower order of animals" is no longer regarded as a theory but as a fact. Scientists differ as to the contributing factors which entered into this progressive evolution of life, but not as to the fact itself. The theory is so universally accepted that in the 1924 edition of **Webster's New International Dictionary**, the word "Evolution" is defined as follows:

"The development, not of an individual organism, but of a race, species, or other group; phylogeny; in general, the history of the steps by which any living organism or group of organisms has acquired the morphological and physiological characters which distinguish it. Hence the theory that the various types of animals and plants have developed by descent with modification from the pre-existing types, as opposed to the old theory of the separate creation of each species. This theory, which involves also the descent of man from the lower animals, is based on facts abundantly disclosed in every branch of biological study, especially by paleontology, embryology, comparative anatomy, experiments in hybridization, etc. . . . The indications are that all animals and plants are the descendants of a very few simple organisms (or perhaps of but one) not very unlike some of the simplest protozoans. The various living and existing types do not form a single series but a genealogical tree whose branches exhibit very different degrees of divergence from the parent stock. Many branches have died out completely, and are known only by fossils. Close resemblance between two forms, as between man and the anthropoid apes, does not necessarily, therefore, indicate descent one from the other, though it does furnish good evidence of origin from common ancestors at a comparatively recent date. Lamarck was the first prominent modern zoologist to adopt and formulate it. Its general acceptance, however, was largely brought about by its clear exposition and demonstration by Darwin. Modern theories of evolution differ only in regard to the

various factors influencing it, their relative importance, and the ways in which they act."

The Encyclopedia Britannica, 11th Edition, in its treatment of Evolution, says:

"Since Huxley and Sully wrote their masterly essays in the 9th edition of this Encyclopedia, the doctrine of Evolution has outgrown the trammels of controversy and has been accepted as a fundamental principle. Writers on biological subjects no longer have to waste space in weighing evolution against this or that philosophical theory or religious tradition; philosophical writers have frankly accepted it, and the supporters of religious tradition have made broad their philacteries to write on them the new words."

The New International Encyclopedia (1923 Edition) says:

"The proof of man's origin from some other primate is now past dispute. In fact, no scientist now doubts man's descent, less directly from all lower forms of life, and more immediately from a common ancestor with the anthropoid apes."

The Americana says:

"The evolution conception is no longer a debated question. The particular methods, and, above all, the so-called factors, or initiating and guiding causes of evolution are still open to debate, and indeed are continuously and vigorously debated. When one reads of disagreements among biologists concerning the merits of Darwinism, it is not a disagreement concerning the 'fact of evolution,' for which the term 'Darwinism' is too often synonymously used in popular writing and speaking, but it is a disagreement concerning the value of Charles Darwin's explanation of the causes of evolution, namely, his theories of natural and sexual selection."

Henry Drummond, co-worker with Dwight L. Moody, and one of the greatest religious forces of the last generation, said:

"Science for centuries devoted itself to the cataloging of facts and the discovery of laws. Each worker toiled in his own little place—the geologist in his quarry, the botanist in his garden, the biologist in his laboratory, the astronomer in his observatory, the historian in his library, the archaeologist in his museum. Suddenly these workers looked up; they spoke to one another; they had each discovered a law; they whispered its name. It was Evolution. Henceforth their work was one, science was one, the world was one, and mind, which discovered the oneness, was one."

Drummond's "Ascent of Man" (James Pott &

Co., Publishers, 1894), pp. 8-9.

After reciting in detail the evidences from comparative anatomy and paleontology of the evolution of man, Mr. Drummond says:

"Take away the theory that man has evolved from a lower animal condition, and there is no explanation whatever of any of these phenomena. With such facts before us it is mocking human intelligence to assure us that man has not some connection with the rest of the animal creation, or that the processes of his development stand unrelated to the other ways of Nature. That Providence, in making a new being, should deliberately have inserted these eccentricities, without their having any real connection with the things they so well imitate, or any working relation to the rest of his body is, with our present knowledge, simply irreverence." Ib. p. 97.

It is half pathetic, half ludicrous to note the efforts of our State Textbook Commission to find a new textbook on biology to take the place of the one taught by Prof. Scopes and which is now under the ban of their Index Purgatorius. There is no biologist in the world of sufficient standing to write a recognized textbook on the subject, who does not believe in evolution. The Textbook Commission recently selected James Edward Peabody and Arthur E. Hunt's "Biology and Human Welfare" (Macmillan Company). At the time of announcing this selection the commission, in order to justify its action, stated to the press that the book was in conformity with the Tennessee Anti-Evolution Law and quoted from it the following brief statement as to the primate mammals:

"Some of these animals while resembling the human species in many characteristics, must of course be

recognized as having evolved (developed) along special lines of their own, and none of them are to be thought of as the source of origin of the human species. It is futile, therefore, to look for the primitive stock of the human species in any of the existing animals."

This is a very elementary and, as far as it goes, an accurate statement of evolution. When Mr. Hunt's attention was called to the fact that his textbook had been chosen because of its compliance with the Tennessee Anti-Evolution Law, he said:

"The book really doesn't treat of Evolution. It is designed for students of from 13 to 15, and Evolution is not an elementary subject. Of course, both myself and Mr. Peabody are evolutionists. Scientists don't speak of the general doctrine as theory any more. It's fact. The manner of man's evolution may still be theory, but not the fact that he evolved. I think it is a much finer conception of a much greater God than is the Bible story that God made man from a lump of clay by blowing the breath of life into him. Evolution holds out hope that man may evolve to still better things."

Memphis Commercial Appeal, June 12, 1925.

Our legislature may undoubtedly, within reasonable bounds, prescribe what sciences shall be taught in our public schools; but under our constitution, with the solemn duty resting upon it to foster science, the legislature cannot prescribe for our public schools courses in biology, geology, botany or other science, and then deliberately set aside the fundamental principles of these sciences and set up theories of its own.

This act purports to apply not only to our public schools but also to our normal schools and State University. In our institutions of higher learning, all scientific subjects should be taught, and the ultimate recesses of human knowledge should be explored, if science is to continue its earnest and ceaseless quest after truth. No avenue should be blocked. No inquiry of the human mind should be foreclosed. That the legislature should attempt to do so is a gratuitous affront to that body of earnest men who are seeking to guide aright the inquiring

minds of our youth; and it is a deliberate violation by the legislature of its fundamental duty to cherish science.

If the legislature can still the voice of our teachers in proclaiming and stop the ears of our students in hearing the universal voice of science, it must for the sake of consistency abolish our dictionaries and encyclopedias, burn our books of geology, biology, astronomy, embryology, archaeology, and all kindred sciences; it must publish an index purgatorious covering all original thought or investigation, and put a guard at every road and station throughout our state to prevent the progress of science from encroaching upon the solitude of our medieval minds.

Can the legislature by its own fiat create a new heaven and a new earth? Can it reverse natural law, change the tides and seasons, formulate new rules of mathematics and new postulates of science? If it purports to foster science, must it not foster science according to scientists and not according to its own pronouncements? If the legislature can by fiat establish the Genesis story of creation as scientific fact, it can by fiat stop the rivers in their courses, turn back the tides, make the moon a phantom, the sun a dragon, change the colors of the flowers, and make this world as different from that which science beholds as Stygian darkness from the Elysian fields.

If our constitution means anything, it means that science must be free to pursue its painstaking researches; nay, more, that the legislature instead of retarding and making a mockery and caricature of science, must sustain and nourish it.

Again, our State Constitution provides:

"THAT ALL MEN HAVE A NATURAL AND IN-DEFEASIBLE RIGHT TO WORSHIP ALMIGHTY GOD ACCORDING TO THE DICTATES OF THEIR OWN CONSCIENCE; AND THAT NO MAN CAN OF RIGHT BE COMPELLED TO ATTEND, ERECT OR SUPPORT ANY PLACE OF WORSHIP, OR TO MAINTAIN ANY MINISTER AGAINST HIS CON-SENT; THAT NO HUMAN AUTHORITY CAN, IN ANY CASE WHATEVER, CONTROL OR INTER- FERE WITH THE RIGHTS OF CONSCIENCE; AND THAT NO PREFERENCE SHALL EVER BE GIVEN, BY LAW, TO ANY RELIGIOUS ESTABLISHMENT OR MODE OF WORSHIP." Art. 1, Sec. 3.

As we have seen, our forefathers wrote into our State Constitution the duty of our legislature to cherish science. But not so with religion. The genius of our government is the complete separation of church and state. For what other reason did the Pilgrims, the Quakers and the Huguenots come to our shores? What is the meaning of the life of Roger Williams or William Penn, or the ringing guaranty of religious freedom imbedded in every constitution in our Union? Religion needs no favors of government. There is something within man older than law, more fundamental than constitutions, more commanding than decrees of court or acts of parliament, which aspires toward righteousness. It is the glory of this nation that Jew and Gentile, Scythian and barbarian, bond and free, may worship God according to the dictates of their own conscience, and without the imposition of any alien creed or dogma upon them.

So insistent are our courts that this religious freedom be unviolated, that the authorities are divided as to whether the Bible may even be read in the public schools.

"The tendency of recent constitutions and also of judicial decisions considering and applying them, has been in favor of extending the scope of constitutional guaranties to the exclusion of religious exercises from public schools. And the weight of recent authorities and of reason would seem to be with those cases which hold that prayer and the singing of hymns as a part of the public exercises of the school are in violation of constitutional provisions against taxation for the support of religion, even though pupils may be excused from attending such exercises on application by themselves or their parents. The mere reading of a particular version of the Bible without comment has been held not to constitute an infringement of constitional guaranty * * * but other authorities hold that the Bible is a sectarian book and that the reading in the public schools of any portion or any version of

it for religious purposes is a violation of constitutional guaranties."

Constitution Law, 12 C. J., Sec. 451. Schools and School Dists., 35 Cyc., pp. 1126-27. Schools, 34 R. C. L., Secs. 115-116. State vs. School Dist., 76 Wis., 177. People vs. Board of Education, 245 Ill., 334. Herold vs. School Directors, 135 La., 1034.

"The exclusion of the Bible from the public schools is uniformly held valid, even in the absence of any restrictions in the state constitution, on the ground that its distinctive feature is its claim to teach a system of religion revealed by direct inspiration from God, and that the reading of the Bible in school is religious instruction.

Schools, 34 R. C. L., Sec. 115.

Enough has already been said to show that this act was inspired by religious zealots who believe in the literal inerrancy of the Scriptures, and that its object is to set up the Scriptural story of creation as against the universal teaching of science.

According to Mr. Bryan,

"This case deals with education and religion—who shall control the public schools—and whether they shall be allowed to undermine religion. Religion and education are the two greatest subjects known to man." Associated Press, June 10, 1925.

If the legislature may favor the theological dogmas of a particular sect of Christians, it may also favor the theological dogmas of any other religion. Christianity needs no favors of the law, and under our constitution is entitled to none. If the Anti-Evolution law is constitutional, the legislature may also enact that no ancient history shall teach anything casting doubt upon the fact that Mohammed was the inspired prophet of God. The legislature may also enact that geography shall teach nothing inconsistent with the Scriptural statement that the earth has four corners, with a firmament above and a firmament below and waters under the earth; and that geology shall teach nothing inconsistent with the age of the earth as set out in the Biblical chronology. It may also enact that the public schools

shall teach nothing inconsistent with the Mormon belief that Joseph Smith received a direct revelation from God by means of the Urim and Thummim; or that he is the Latter Day Prophet of Israel.

If the legislature can set up the Genesis story of creation as a norm for science, it can set up the Koran as a norm for history, the Rig Veda as a norm for medical science, the book of the Mormons as a norm for American history, and Grecian mythology as a norm for physical geography.

Our constitution must not be violated to favor the peculiar dogma of any sect or creed, even though that sect be our own and that creed be our most cherished and sacred tradition.

Again, our State Constitution provides:

"FREE COMMUNICATION OF THOUGHTS AND OPINIONS IS ONE OF THE INVIOLABLE RIGHTS OF MAN, AND EVERY CITIZEN MAY FREELY SPEAK, WRITE AND PRINT ON ANY SUBJECT, BEING RESPONSIBLE FOR THE ABUSE OF THAT LIBERTY." Art. 1, Sec. 19.

Next to our constitutional guaranty of religious freedom, no right is more sacred in Anglo-Saxon jurisprudence than liberty of speech and the press. Our institutions can live only in an atmosphere of intellectual freedom. Without it progress must cease and freemen revert to slaves.

Speaking in behalf of this fundamental right of free-born men, Lord Erskine said in the case of Stockdale before the Kind's Bench in 1789:

"From minds thus subdued by the terrors of punishment there could issue no works of genius to expand the empire of human reason. Under such terrors all the great lights of science and civilization must be extinguished; for men cannot communicate their free thoughts to one another with a lash over their heads. Genius breaks from the fetters of criticism; but its wanderings are sanctioned by its majesty and wisdom when it advances in its path. Tempests occasionally shake our dwellings and dissipate our commerce; but they scourge before them the lazy elements which, without them, would stagnate into pestilence. In like manner Liberty herself, the last and best gift of God to his

creatures, must be taken just as she is. You might pare her down into bashful regularity and shape her into a perfect model of severe, scrupulous law, but she would then be liberty no longer; and you must be content to die under the lash of this inexorable justice which you had exchanged for the banners of Freedom."

The legislature may indeed prescribe textbooks to be used in our schools. Acting within the proper scope of its police authority, it may exclude some subjects and include others. It may exclude the teaching of biology or zoology from our grammar schools as subjects too advanced for youthful minds; but under its duty to cherish science it could not exclude these subjects or any other proper subjects of scientific inquiry from our State University, whose duty it is to turn out men equipped for life with all the learning which science and literature can And the legislature cannot dictate to any teacher, whether in a public school or in a university, the words which he shall use in addressing his students. His intellectual freedom, the finest and highest asset of mankind, may not be despoiled. Assuredly a teacher may be discharged for incompetency, but he cannot be awed into silence nor coerced into intellectual dishonesty. He is being paid with money exacted alike from Fundamentalists, Modernists, Jews, Gentiles, white and black, who have set up a constitution guaranteeing to our citizens that inalienable right of intellectual freedom. If his speech contaminates the public morals, if it incites to treason, if it endangers the peace of the state or the safety or morals of its citizens, the teacher may be commanded into silence, but no more so in the classroom than on the public street or in the courtroom or the public forum. If the teacher may be coerced by the legislature, the lawyer pleading the sacred rights of our citizens may likewise be coerced and dictated to by the legislature, and no man dare express any thought in public or private in conflict with this our Caesar's will.

It is the insistence of Fundamentalists that the teaching of Evolution tends to undermine the public morals; that any theory depicting man as descending from brute creation degrades and brutalizes man.

To argue that the teaching of Evolution tears down re-

ligion is to confuse religion with an outgrown theology. To argue that the teaching of Evolution brutalizes man is likewise to argue that man is debased by the Genesis story that man was formed from the dust of the ground, or that the rose with its exquisite fragrance can smell only of the muck from which it sprang. It is a gross libel of the greatest and noblest minds and souls which have arisen among us both in the ranks of science and the Christian church during the last fifty years.

To call the roll of science: Maxwell, Kelvin, Raleigh and Lodge in England, and Chas. D. Walcott, Henry Fairfield Osborn, Edwin G. Conklin, John C. Merriam, John M. Coulter, A. A. and W. A. Noyes, Jas. R. Angell, Jas. H. Breasted, T. C. Chamberlin, Dr. C. G. Abbott, in our own country, have all been ardent Evolutionists and devout Christians. To call the roll of the church: Rev. Cannon Driver of Oxford, Dr. Arthur Stanley, Dean of Westminster Abbey, and all the great ecclesiastics of England today; Henry Drummond, Henry Ward Beecher, Lyman Abbott, Shailer Matthews and a host of other religious leaders of broad vision and deep experience, have believed in Evolution, and have seen science and religion, as twin sisters, effectively co-operating in leading the world toward better things.

As to the moral influence of the doctrine of Evolution, Henry Drummond has this to say:

> "But one verdict is possible as to the practical import of this great doctrine, as to its bearing upon the individual life and the future of the race. Evolution has ushered a new hope into the world. The supreme message of science to this age is that all Nature is on the side of the man who tries to rise. Evolution, development, progress are not only on her programme, these are her programme. For all things are rising, all worlds, all planets, all stars and suns. An ascending energy is in the universe, and the whole moves on with one mighty idea and anticipation. The aspiration in the human mind and heart is but the evolutionary tendency of the universe becoming conscious. Darwin's great discovery, or the discovery which he brought into prominence, is the same as Galileo's—that the world moves. The Italian prophet said it moves from west to east; the English philosopher said it moves from low

to high. And this is the last and most splendid contribution of science to the faith of the world. Up to this time no word has been spoken to reconcile Christianity with Evolution, or Evolution with Chris-Because the two are one. What tianity. And why? is Evolution? A method of creation. What is its object? To make more perfect living beings. What is A method of creation. What is its ob-To make more perfect living beings. Through what does Evolution work? Through love. Through what does Christianity work? Through love. Evolution and Christianity have the same Author, the same end, the same spirit. There is no rivalry between these Christianity struck into the Evolutionary processes. process with no noise or shock; it upset nothing of all that had been done; it took all the natural foundations precisely as it found them; it adopted man's body, mind and soul at the exact level where Organic Evolution was at work upon them; it carried on the building by slow and gradual modifications; and, through processes governed by rational laws, it put the finishing touches to the Ascent of Man."

Drummond's "Ascent of Man," pp. 340, 342.

THE CONSTITUTION OF THE UNITED STATES

We come now to inquire whether this Anti-Evolution act violates any provision of our federal constitution. That constitution was a fitting consummation of the Magna Charta, the Petition of Right and the Bill of Rights in England, and our own Declaration of Independence which solemnly declares:

"We hold these truths to be self-evident, that all men are created equal; that they are endowed by their Creator with certain inalienable rights; that among them are life, liberty and the pursuit of happiness; that to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed."

It is elementary that the personal, civil and political rights guaranteed by the first ten amendments of the federal constitution are limited in their application to the federal government.

Barron vs. Baltimore, 7 Pet. 243. Constitutional Law, 12 C. J., Sec. 444.

But the Fourteenth Amendment declares:

"NO STATE SHALL DEPRIVE ANY PERSON OF LIFE, LIBERTY OR PROPERTY WITHOUT DUE PROCESS OF LAW, NOR DENY TO ANY PERSON WITHIN ITS JURISDICTION THE EQUAL PROTECTION OF THE LAWS."

The right to life includes the right of the individual to the unimpaired exercise of all his faculties, subject only to such restraints as may be imposed under the police power reserved by the states. Freedom of speech, freedom of the press, freedom of the human intellect are the cornerstones of Anglo-Saxon institutions; and the only limitations which a state legislature may place upon these sacred rights are those justified by its power to protect the public health, safety and morals.

Constitutional Law, 12 C. J., Secs. 467, 468, 965.

The Supreme Court of the United States has recently laid down two great landmarks in our law. One is the case of Meyer vs. State of Nebraska, 272 U. S. 390, in which the issue was whether an act was constitutional which was passed by the legislature of the state of Nebraska in 1919 providing that "no person, individually or as a teacher, should in any private, denominational, parochial or public school teach any subject to any person in any language other than English, and that languages other than the English langauge might be taught as languages only after the pupil should have attained and successfully passed the eighth grade." In this case an instructor in a parochial school was convicted of teaching the German language to a child of ten years who had not passed the eighth grade. The conviction was sustained by the Supreme Court of Nebraska, which held that the salutary purpose of the act was clear and that it came within the police power of the state. The case was carried to the United tates Supreme Court under the Fourteenth Amendment. In reversing the state courts and in holding the act unconstitutional, the Supreme Court, through Mr. Justice McReynolds, said:

"Determination by the legislature of what constitutes proper exercise of police power is not final or

conclusive but is subject to supervision by the courts. The American people have always regarded education and the acquisition of knowledge as matters of supreme importance which should be diligently promoted. * * * Mere knowledge of the German language cannot reasonably be regarded as harmful. * * * Plaintiff in error taught this language in school as part of his occupation. His right thus to teach and the right of parents so to engage him to instruct their children, we think, are within the liberty of the amendment."

"That the state may do much, go very far indeed, in order to improve the quality of its citizens, physically, mentally and morally is clear; but the individual has certain fundamental rights which must be respected. The protection of the constitution extends to all, to those who speak other languages as well as to those born with English on the tongue. Perhaps it would be highly advantageous if all had ready understanding of our ordinary speech, but this cannot be coerced by methods which conflict with the constitution—a desirable end cannot be promoted by prohibited means.

* * *"

"The power of the state to compel attendance at some school and to make reasonable regulations for all schools, including a requirement that they shall give instruction in English, is not questioned. Nor has challenge been made of the state's power to prescribe a curriculum for institutions which it supports. Those are not within the present controversy. * * * No emergency has arisen which renders knowledge by a child of some language other than English so clearly harmful as to justify its inhibition with the consequent infringement of rights long freely enjoyed. We are constrained to conclude that the statute is arbitrary and without reasonable relation to any end within the competency of the state."

While this case arose in a parochial school, the decision of the Court is not placed upon that ground. The act purported to affect both public and private schools, and no distinction is made by the Court which would give any encouragement to the contention that the act would have been constitutional if it had applied only to the public schools; for the inalienable right of teachers to teach and of pupils to learn applies to all alike in public or in private schools; and so long as such teaching does not interfere with the prescribed course of discipline, no teacher of any public school can lawfully be restrained from imparting to his pupils the knowledge at his command in whatever field of literature or science.

The other decision referred to is the Oregon School Law Case, decided by the Supreme Court on June 1. In this case the constitutionality of a law was assailed which was enacted in 1922 by the Oregon State Legislature under the influence of the Ku Klux Klan, providing that after September, 1926, all children in the state between the ages of 8 and 16 should be compelled to attend the public schools. Again the Supreme Court reversed the state courts and held the act to be unconstitutional as violating the Fourteenth Amendment. Mr. Justice McReyonlds in delivering the unanimous opinion of the Court, said:

"Under the doctrine of Meyer vs. Nebraska we think it entirely plain that the act of 1922 unreasonably interferes with the liberty of parents and guardians to direct the upbringing and education of children under their control. * * * The fundamental theory of liberty upon which all governments in this Union repose, excludes any general power of the state to standardize its children by forcing them to accept instruction from public teachers only. The child is not the mere creature of the state; those who nurture him and direct his destiny have the right, coupled with the high duty, to recognize and prepare him for additional obligations."

The proponents of the Anti-Evolution Law can derive no comfort from this opinion. It is a trumpet-like declaration of the rights of teachers to teach and of children to learn. "The child is not the mere creature of the state." He has certain inalienable rights, including the right to the expansion of his intellectual powers from whatever quarter; and those who nurture him and direct his destiny, not excluding the teachers of our public schools, have the right, coupled with the high duty, to prepare him for the obligations of life. There is no conflict here with the power of the state to standardize the course of instruction in its schools and to prescribe the textbooks. The legislature can do that, but the legislature cannot say to the

pupil: "Thus much shalt thou learn and no more;" nor can the legislature say to the teacher: "Thus much shalt thou teach and no more;" for the teacher can teach and the pupil can learn, as a matter of inalienable right, any knowledge within the limits of the human intellect so long as the prescribed course of study is not neglected nor the discipline of the school disturbed.

With respect to the learning which may be imparted in our public schools, the legislature can prescribe that which is good, as enlightening the human mind, and can proscribe that which is bad, as debasing the human morals; but the legislature cannot prescribe that which is bad nor proscribe that which is good without violating the constitutional rights of our citizens.

Again the Constitution of the United States declares:

"NO STATE SHALL PASS ANY LAW IMPAIRING THE OBLIGATION OF CONTRACTS." Article 1, Section 10.

I hesitate to raise any objection to the Anti-Evolution law upon any narrow or local ground; but it is a matter of great consequence to the University of our State that its right to teach all the sciences should remain unimpaired; and that right is guaranteed by certain contracts existing between the State of Tennessee and the United States of America.

In 1794 our territorial legislature established Blount College, the first strictly nondenominational college established in America. This college was sustained and nourished by land grants from the United States government. Through varied changes of name it came in 1879 to be known as the University of Tennessee. Under the Morrill Act of 1862, congress donated to the several states 30,000 acres of public lands for each senator and representative in congress, with the stipulation that the lands should be sold and the proceeds "inviolably appropriated to the endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as

the legislature of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." The State of Tennessee accepted this gift and in 1869 our legislature appropriated this fund to the University of East Tennessee, as the State University was then called (Acts of 1868-9, Chapter 12).

By the Hatch Act of 1887, congress appropriated certain moneys from the sale of public lands to each state and territory for the establishment of agricultural experiment stations,

> "in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science."

By an act passed in 1887 (Acts of 1887, Chap. 222) the legislature of Tennessee assented to the conditions of the Hatch Act and authorized the University of Tennessee to accept our state's share of this fund.

By an act of congress approved August 30, 1890, commonly known as the New Morrill Act, congress appropriated to each state and territory for the more complete endowment and maintenance of colleges for the benefit of agriculture and mechanics arts, the sum of \$25,000.00 annually to "be applied only to instruction in agriculture, the mechanic arts, the English language and the various branches of mathematical, physical, natural and economic science, with special reference to their applications in the industries of life and to the facilities for such instruction."

In 1891 the legislature of Tennessee (Acts of 1891, Chap. 36) empowered the University of Tennessee to accept this money.

By an act of congress approved March 16, 1906, commonly known as the Adams Act, congress appropriated to each state and territory the sum of \$30,000.00 a year "to be applied only to pay the necessary expenses of conducting original researches or experiments bearing directly upon the agricultural

industry of the United States, having due regard to the varying conditions and needs of the respective states or territories." The state assented to this appropriation and it was set apart to the University.

By virtue of its assent to the stipulations imposed by congress, the States of Tennessee in accepting these donations has solemnly covenanted with the federal government that our State University shall be a college dedicated to the pursuit of science; and under any reasonable construction of these contracts the legislature cannot lawfully restrict the spirit of inquiry and investigation within the walls of our State University nor evict science from her portals.

- I, therefore, solemnly indict the Anti-Evolution Law of Tennessee as unconstitutional upon the following grounds:
 - 1. It violates the sacred duty imposed by the constitution of the State of Tennessee upon the legislature to cherish science.
 - 2. It violates our constitutional guaranty of religious freedom.
 - 3. It violates our constitutional guaranty of intellectual freedom.
 - 4. It violates the Fourteenth Amendment of our federal constitution.
 - 5. In so far as our university is concerned, it violates a solemn contract between the State of Tennessee and the United States of America.

I am sorry that my state should bear the ridicule and odium of this senseless law. Here among our native hills men are trying to set up a new Inquisition. Jesus was crucified for heresy, and Socrates was put to death for corrupting the youth of Athens, and all the great saints and martyrs of mankind have been persecuted in the name of religion. I am sorry that this untimely offspring of the Middle Ages can claim a birthplace in the old Volunteer State, which has always boasted its fealty to freedom's cause. This act violates the fundamental principles of education. It lays a ruthless hand at the very foundations of all science. It sweeps away all the bulwarks of human freedom which through slow and painful centuries our fathers have erected. It violates the sovereign integrity of the human

intellect. It re-enacts the story of Eden and says to the youth of our state: "Of the fruit of the tree of knowledge ye shall not eat, neither shall ye touch it, lest ye die."

It may be that to eat of the fruit of this tree will open the eyes of our youth to a new world, a world far different from that pictured in the childhood stories of the race, a world ruled by law and not by chance. It may be that some of the theological notions inherited from a credulous past will be done away. If so, we may be content to rest serenely upon the promise of our Master, "Ye shall know the truth and the truth shall make you free."

We may know that whatever rubbish of the centuries is penetrated in this irrepressible quest after truth, the essential verities will remain. God remains. Virtue remains. There remains that "great far-off divine event toward which the whole creation moves." And man remains as the consummate product out of all the travails and labors of a hundred million years; behind him a gradual upward climb from a morass of palaeozoic protoplasm to that symmetry of body, that breadth of intellect, that poignancy of conscience which stamp him forever in the image of his Maker; and before him a still upward climb over precipices of prejudice and ignorance and through mists of uncertainty and doubt until at last he shall stand again upon the summit of the Mount of Transfiguration to commune in simple fellowship with God.