

and Stimpson. During these years Dr. Stimpson was actively engaged in investigations, the published results of which would have made his a well-known name among the scientists of the world.

In 1871 came the great fire destroying the Academy's building with all it contained, sweeping away all the results of Dr. Stimpson's life-work, as well as swallowing up in the general ruin the private fortunes of the most active supporters of the Academy. The loss of his papers was a severe blow to Dr. Stimpson, from which he never recovered. After the fire he was taken to Florida, where he died the following May.

At the beginning of 1872, the assets of the Academy, exclusive of the lot, were \$23,000, \$10,000 of which represented the insurance on the burned building. No money was available for building, but it was decided to borrow and erect on the lot two buildings, one for the museum and one for rental. The courage and hopefulness thus evinced was but a part of that characterizing Chicago after the fire, and, as in the case of many a private interest, the too sanguine view was but the prelude to further disaster. The buildings were completed in 1873, involving a financial burden of \$80,000, afterward increased to \$100,000.

In the general depression of business following the fire, the income of the Academy was insufficient to meet expenses and interest, until in 1881 the mortgage was foreclosed and the society was homeless.

During this time, however, the scientific work was carried forward with commendable zeal and success. The records show the interest to have been well sustained and the papers meritorious, while the museum prospered notwithstanding the financial stress.

3. *Decline.* Following the loss of the property, interest flagged, hope died out, and for ten years it became a bare struggle for existence. The museum building was retained by rental for two years, after which the collections were transferred to the Exposition Building, where they remained for several years under the care of the curator, J. W. Velie. The meetings were desultory and not well sustained. Two series of valuable bulletins were issued, however, during this period.

4. *Revival.*—In 1891 it was decided by the city authorities that the old Exposition Building should be removed. This revived the question of the disposition of the collections. A proposition involving its transfer to Chicago University was not favorably received by many of the members, when an opportune benefactor appeared in the person of Mathew Laflin, and settled its location at Lincoln Park. This agreement contains a provision by which the commissioners of the park are to add \$25,000 toward the erection of the building and to bear all the running expenses, including salary of curator and assistants to an amount not exceeding \$5,000 annually. The final arrangements were completed April 1, 1893, since which plans have been accepted and the construction will soon be under way.

Within these two years interest in the Academy has greatly revived, many new members have been enrolled, and active investigations set on foot along many different lines. Sections have been formed in astronomy, microscopy, chemistry, and other lines of work.

The disposal of the museum frees the Academy from a heavy burden, thus making the income available for publications which are to be renewed at once.

One of the enterprises now engaging the attention of the Academy is a geological and natural history survey of Chicago and vicinity. This will include the preparation of a topographic map of the area on a scale of about one and one-half inches to the mile, with contour intervals of five feet, and accompanying reports upon the geology, paleontology, zoölogy, botany, and archæology of the district. The work is in charge of a board of managers, and is being prosecuted as actively as possible. In the preparation of papers many noted scientists both in and out of Chicago are giving assistance.

In connection with this work the board has also undertaken the collection of views from all parts of Illinois and adjacent parts of Indiana, Michigan, and Wisconsin, illustrating interesting features of geology, topography, and other points of interest.

These will be mounted, classified, and deposited in the Academy building, where they will be accessible to all who may wish to consult them.

The president of the Academy is Dr. S. H. Peabody, ex-president of Illinois University and superintendent of the Liberal Arts exhibit at the World's Fair. Dr. Peabody has been an active worker in the Academy for many years.

The present hopeful outlook for the society must be attributed in large measure to the untiring zeal and energy of its efficient secretary, Professor W. K. Higley. Among those identified with more or less of the history of the Academy the following are still among its loyal supporters: Dr. E. W. Andrews, G. C. Walker, E. W. Blatchford, B. W. Thomas, B. F. Culver, C. M. Higginson, Professor G. W. Hough, Dr. N. S. Davis, S. W. Burnham, S. H. Peabody, and others. Prominent in the past but no longer appearing on the active roll are the names of Professor M. Delafontaine, E. Colbert, J. D. Caton, Professor H. H. Babcock, ex-Gov. Wm. Bross, J. H. Rauch, J. W. Foster, and others.

### IS IT A SCIENCE?

BY WILLIAM L. SCRUGGS, ATLANTA, GA.

IN the current discussions of international questions we often encounter the words commonwealth, state, and nation in the alternate form, as if they were synonymous and convertible terms. Now, a commonwealth may be a state or a nation, or both; a state or a nation may be a commonwealth. But the term nation implies the unity of a people of the same race, descent, and language under one government; whereas a state may be composed of people of diverse origin united under one government of whatever form; whilst a commonwealth is the unity of a people under a free or representative government.

Again, we have the commonly accepted statement that "states or nations are bodies politic or societies of men united together for the purpose of promoting their mutual safety and advantage by the joint efforts of their united strength." This is Vattel's definition, derived from Cicero. But states and nations are not equivalent terms, nor are "societies of men united together for the purpose of promoting their mutual safety and advantage" necessarily either "states or nations." The old Hudson Bay Company was such a "society of men united," but it was neither a nation, state, or commonwealth. Pirates and robbers are so united, but they have none of the essential elements of statehood. The political bodies corporate in the United States, the people of which constitute our national government, are literally within Vattel's definition; but they are neither "states" nor "nations" in the strict legal sense. They have a local police system or automatic government, but none of the elements of sovereignty or nationality. The very form of their local autonomy is prescribed by a superior power; they can have no diplomatic relations even between themselves, much less with foreign powers; they cannot declare war or enter into public treaties; they cannot establish post-offices and post-roads; they cannot levy and collect import duties; their very local legislation must conform to that of an external and paramount authority; and their citizens are such only by reason of the fact that they are citizens of the United States. Hence, so far from being "sovereign," these political bodies corporate are not even "states" in any just sense. They would be more properly denominated dependencies, provinces, or commonwealths.

Again, conforming to custom, we are in the habit of speaking of "the law of nations," when it is manifest there is no such thing. Law is a rule of conduct prescribed by some superior power able to enforce obedience. But sovereign states acknowledge no superior; all are equal. They recognize no common paramount authority; nor have they established any common magistracy to interpret and apply rules for the regulation of their reciprocal relations. They have no common code illustrated by judicial decisions. True, there is an established *usage* or custom in the intercourse of nations which by common consent has the moral force of law; the real meaning of which is, that there are certain forms of public *opinion* which nations, no less than individuals, cannot very well afford to disregard, although the duties thus imposed are enforced by moral sanction only. The old

Romans called this *jus enter gentes*, the French denominate it *droit des gens*, the Spaniards call it *derecho de gentes*, and we, for lack of a more specific term, call it international law. But *law* it is not; and, besides, if we admit the term at all, "law of nations" and "international law" are certainly not equivalents. The one implies an impossible condition of things, the other, though more approximately correct, would be more accurately described as international ethics or morality.

Furthermore, we are in the habit of describing what we call "international law" as "the natural law of individuals applied to nations," and when we are asked what this "natural law of individuals" may be, we reply readily that it is "the law of nature applied to moral actions," and that it consists of "rules which are common to all mankind," quite independent of the accidents of time, place, and circumstance. Now, this is little else than mere words without any definite import, for in reality there are not, and never have been, any such "rules." There is not a single, universal, fixed "rule" of human conduct which all men of all ages and countries have recognized in practice; there is no uniform moral code, written or unwritten, which peoples of all countries have even professed to obey.

But, we are told, there are certain "principles of justice, discoverable by right reason and established by usage," which *ought* to regulate the mutual relations of nations. But who shall accurately define "justice," and who shall give us an authentic standard of "right reason?" Public opinion in each sovereign state establishes a criterion of justice which rises no higher than the intellectual development or civilization of the people of that particular state; and what the people of one may consider "right reason" is often deemed wrong reason by those of another. Thus some regard all moral distinctions as merely conventional, others believe moral distinctions to have been "written in the heart of man by the finger of God." Most Christian peoples believe, or at least believe they believe, there is "a positive law, audible in conscience, which enjoins certain actions and forbids others," according to their respective suitableness or repugnance to the social nature of man. Others believe that conscience itself is merely the result of education and environment, consequently that there cannot be, in the very nature of the case, any positive moral standard. No matter how it originated, I presume that most people will agree that what we call "conscience" is nothing more than that faculty of the mind which takes cognizance of its own thoughts; that, even in the most latitudinal sense, the term can imply no more than a moral standard of action in the mind, and that this standard is always relative, that is, high or low, according to the degree of intellectual development.

We are in the habit of evading the consequences of these propositions by assuming, first, that moral distinctions have had eternal existence in the mind of the Creator, which never changes; and, second, that to Christian peoples *only* have been revealed the will of God. This would limit what we call "international law" to Europeans and their descendants on this continent; and it, moreover, assumes as a fact that, in our international relations we are governed by rules which, in their very nature, are unchangeable, which is absurd. For, reason about it as we may, we cannot get rid of the fact that our standard of morality is progressive, and therefore ever changing. There is always an advance from lower to higher conceptions of humanity and justice, and corresponding changes in public sentiment as to what is right and expedient in our international relations. The general consensus of the Christian world touching the abstract propositions of right and wrong is not what it was even one short century ago, and a century hence it will not be exactly what it is to-day. The time was when the most enlightened nations, including the one through which was derived our form of religion, spared neither age nor sex in battle. Later on, they spared non-combatants, but put all prisoners to death. Further on, the lives of prisoners were spared, but they were reduced to slavery. As civilization advanced, prisoners of war were ransomed by the payment of money or its equivalent. Finally, they were put on parole and regularly exchanged. Not many centuries ago, Christian nations went to war for the avowed purposes of conquest and selfish aggrandisement. After this, war was still held to be justifiable if waged for the

declared purpose of opening new avenues of trade. Later on, war could be justified only on grounds of reasonable apprehension for national safety, or for the vindication of national honor. Perhaps the time is not very remote when Christian peoples will realize that there is a higher method of settling international disputes than that adopted by the ants and beetles, and then the principle of arbitration will be universally accepted.

Hitherto, what we call our international law has been deemed inapplicable to pagan nations and savage tribes, and in our dealings with both we have not always been governed by our own rules of justice. Our apology for this has been the assumption that such peoples are not themselves governed by the rules of justice which we acknowledge. But, if we are subject to a system of ethics which we profess to believe of divine origin, is not that, of itself, an all-sufficient reason for not departing from it in our dealings with other than professedly Christian peoples? It would seem that, if we are more than a community of hypocrites, our relations with the indigenous peoples of this continent ought to have taught us this wholesome lesson long ago.

To sum up, then, our so-called international law is but public opinion sanctioned by usage among those who call themselves Christians. But this public opinion necessarily changes with the progressive stages of intellectual development. Therefore it is not, and cannot be, a "fixed rule" of conduct in the reciprocal relations of nations. We err in calling it a "science," because our conceptions of its fundamental principles are neither clearly defined nor easily referable to known facts. And we err in limiting its application to so-called Christian nations, because we thereby contradict our professions and impair confidence in our sincerity.

#### BRITISH STONE CIRCLES.—II. STONEHENGE.<sup>1</sup>

BY A. L. LEWIS, LONDON, ENGLAND.

IF the circles at Abury (or Avebury) claim the first notice on account of their great superiority in size above all others, Stonehenge naturally, and for many reasons, takes the next place to them. Stonehenge is eighteen miles south of Abury; the nearest town to it is Amesbury (three miles), but as Amesbury is not on any line of railway, Salisbury (Great Western or South Western railways) is the most convenient place from which to visit it; the distance is eight miles, six by road and two across the plain after leaving the road, and there is now no refreshment house on the way. The British entrenched hill, on which the Roman, Saxon, and Norman city stood, and which, under the title of Old Sarum, returned representatives to Parliament till 1832, at which time it was uninhabited, will attract notice, and may be visited either in going or returning.

The outer circle at Stonehenge is 100 feet in diameter, and if it were ever completed (which is a point in dispute) consisted of 30 stones, averaging 13½ feet in height; they were roughly squared and had two knobs or bosses worked on the top of each, and they were connected by smaller stones, each of which had a hole at each end, made to fit on the knobs of the upright stones on which it rested; these arrangements are found in no other circle, and are of themselves sufficient to render Stonehenge perfectly unique. One stone of this circle, still standing in its place, is shorter and slighter than the others, and this has led to doubts as to whether the outer circle were ever complete. Inside the outer circle were, first, a circle of small stones, the original number of which is uncertain, and, second, inside these five trilithons or groups of three stones, two upright and one connecting their tops, these capstones, like those of the outer circle, were kept in their places by holes fitting on knobs cut on the tops of the uprights, but while each upright of the outer circle had two knobs, and the chain of capstones was continuous, the uprights of the trilithons had but one knob each, and each pair of uprights with its capstone was separate from its neighbor; these trilithons were arranged in the form of a horseshoe, the highest (of which the uprights were 22 feet above ground) being in the centre, and the opening of the horseshoe, which is 44 feet wide, being toward the northeast. Inside this horseshoe of trilithons was a horseshoe

<sup>1</sup> No. I., Abury, appeared in No. 529, March 24.