BY J. C. ARTHUR.

International botanical congresses have been held at different times during the last half century. They have originated under various anspices, and for various purposes, but until the one held in Vienna during the last summer none had had direct connection with a preceding congress. Heretofore at each such gathering papers have been read, suggestions made, and resolutions passed, but no mandatory power was exercised. For want of a stable and self-perpetuating organization based upon a system of representation having the approval of botanists in general, it has been impossible to make rules for guidance in any line of botanical activity which any large number of botanists would accept as authoritative.

At the congress held in Paris in 1900 steps were taken to make the organization a permanent one, the proper officers and committees were appointed, and the adjournment was taken to meet again in Vienna in 1905. There are many ways in which a properly constituted body speaking with authority could be of inestimable service in directing the activity of the botanical world. But in one matter there has been for a long time a practically unanimous opinion. It is believed that only by means of such an organization can order be brought out of the present state of confusion, annoyance, and endless discord that exists in regard to the "hispid question" of nomenclature. For a long time modern botaulcal nomenclature was guided by the dictum of the De Candolles, representing the French people, and the Hookers, and in America Asa Gray, representing the English people. But as knowledge and the numbers of workers increased the subject became too great to be dominated by individuals, and control passed to the great centers of activity, Berlin for the Germans, Kew for the English, Geneva for the French, and what has been denominated the Neo-American school, with its center in New York, for most Americans; although a few strong individual workers still are able to be heard in opposition to all of these. The convenience of a uniform set of names for plants, and the inconvenience of repeated

changes and lack of recognized authority, are too great to let this confused state of affairs continue indefinitely. The hackneyed theme of nomenclature was therefore a prominent incentive for the establishment of an international society, and in the arrangement of its first deliberate program received large attention.

The meeting at Vienna began on Sunday, June 11, 1905, with the opening exercises of the exhibition held in connection with the congress. This was a large exhibition and very attractive and interesting, both to botanists and the general public. It contained extensive displays of apparatus, books, charts, colored plates, special herbarium sets, dried and living fungi and algae, pure cultures of various kinds illustrating particular kinds of investigations, historical matter, such as manuscripts, portraits and the working outfit of early botanists, and numerous other classes of objects, too many to be even enumerated. Each morning of the following week a demonstration in some line of work made a valuable feature in itself. Probably no single botanical display has ever equalled this one in the variety and value of its objects or in sustained interest.

The formal opening of the congress took place on Monday morning in the great hall of the university with much ceremony and pomp. In the afternoon the nomenclature section of the congress was organized in the lecture room at the botanical garden. Every morning and afternoon during the remainder of the week the congress listened to scientific papers by eminent scholars of Europe and America, and every afternoon for five days the nomenclature section met promptly and worked late in a most methodical, businesslike manner, trying to solve some of its problems.

The social events of the week were a notable part of the congress. They opened with a reception on Sunday evening; and every evening following had receptions, parties at the opera or in the park or at the Rathskeller in bewildering profusion. Many short excursions to places of scientific interest were also arranged for the latter part of some of the afternoons. The visiting ladies, presumably not deeply engrossed by the scientific side of the congress, were taken out for drives and to visit art galleries, etc., in the forenoon, attended teas and listened to music in the afternoon, and joined the men in the evening. Among the social features must be classed the long excursions arranged by the congress, a number preceding, and others following the week of the sessions, each occupying from a few days to a month or more.

All the events and exercises of the congress, unless we except the nomenclature section, hore a close resemblance to the large gatherings of scientific bodies which are now common on both sides of the Atlantie. The deliberations over nomenclature partook much more of the nature of a business organization. Each participant was the accredited representative of one or more botanical establishments or societies, or was a government representative, and was entitled to a corresponding number of votes. Each participant had before him a quarto pamphlet of one hundred and sixty pages, printed in four columns. This had been prepared by a commission appointed at the Paris congress of 1900. In onecolumn were the rules of nomenclature adopted at the Paris congress of 1867, which have been the only general rules for guidance in the naming of plants botanists have so far had, which by the growth of the science greatly needed revision, if indeed they did not require complete rewriting. In another column were the modifications or additions suggested by various societies and individuals since the appointment of the commission. The third column contained various comments, and the fourth column embodied the recommendations of the commission. This guiding document was wholly in French, and the official language of the congress was also French. On each side of the presiding officer sat a vice-president, one repeating motions and remarks in English, and the other in German, whenever deemed necessary, that all might fully understand the proceedings and vote effectively. No language was barred in discussion, but practically only French, German and English were heard. and these in nearly equal proportion.

Great earnestness was manifested: this with the lively debate, rapid passage of motions, and the strain of listening to three intermixed languages made it a memorable occasion to the hundred or more participants. But the interest was deeper than the surface or the day. The most influential workers in systematic botany, with the exception of Englishmen, who stand strangely aloof from participation in any organized efforts, were lending their best endeavors to effect a substantial advance in nomenclatorial practice. From the American standpoint the results were not all that were hoped for, action being particularly conservative. But there has been a distinct advance, and of such a nature that the evolution of a substantial system is confidently assured through the future activity of the society.

The first action of the organized body was to exclude cryptogams, mosses and liverworts from present consideration and place these groups in the hands of a special committee for a future report. A committee was also appointed to consider the nomenclature of fossil plants. In the main the rules of 1867 were approved, and the working of the law of priority strengthened. What to Americans seem like undue concessions to the old order of things were the decisions to exempt from the rule some 400 generic names now in use, and to disqualify specific names which duplicate the generic name, as Linaria Linaria, etc. It was voted by a moderate majority that beginning with 1908 descriptions must be in Latin to constitute publication, except in works whose publication was begun before that date and not fully completed. It is believed by American botanists that the greatest shortcoming of the congress was the failure to recognize the value of generic types, which constitute an advance in systematic methods that is certain to find favor as soon as well understood.

The proceedings of the congress will appear in due course of time in two printed volumes, the first containing the decisions regarding nomenclature, and the second the scientific papers read.

If one were to name the most important achievement of this congress, it would undoubtedly be the promotion of fraternity among active botanists in such a manner as to lead to effective organization. Over 600 members of the congress were registered, of which fully two-thirds may be denominated professional botanists, and half of these were men whose names are known to everyone familiar with current botanical literature. It was a more truly representative gathering than ever before discussed botanical problems of world-wide interest. Those in attendance considered the meeting highly successful, and this spirit of good-will toward the movement for a permanent authoritative organization is one of the bright auguries for the advancement of botanical science in many ways. The next meeting of the congress will be at Brussels in 1910, and the meeting following that may confidently be expected to be held in America.