

and deposited in centers of botanical research where they may be consulted by future investigators in both taxonomy and morphology.

Some years since the writer made a morphological study of certain members of the family Nymphaeaceæ and among them the northern *Nymphaea advena*. More recently I have made a study of certain tropical species of the same family and among them a species of the genus *Nymphaea*. This species showed such striking resemblances to the well-known species *N. advena*, that it was sent to specialists in taxonomy to verify the determination. The reports from these workers showed a difference of opinion; some claiming that it was a new species, while others claimed that it was a variety. However, the embryology showed certain very marked differences, which may be of sufficient importance to make it a distinct species. Had these two lots of material been studied by different workers, and considered as one species, or by one worker without having the specimens examined by taxonomists, the confusion might have been easily increased rather than diminished.

When we take into consideration the large number of families and genera which are still untouched by the morphologist we must naturally expect that future work will bring to light many new and important facts; and these facts will in turn present certain questions which will make it imperative that certain other species already studied should be restudied in the light of said new facts. It will then be very important that the investigator know positively whether the species in question is the same or merely closely related to the species studied by the first investigator. Johnson,¹ in his studies on Piperales, has recently called attention to the fact that closely related genera may show wide variations in the development of the tapetum, megaspore, embryo-sac and endosperm. From my studies in *Nymphaea* I am inclined to believe that we may also find wider variations between species of the same genera than we have supposed.

Under present conditions two workers in

different localities working upon supposedly the same species may honestly present different results or the second may unintentionally and unjustly give expression to criticism on the results of the first worker.

Would it not be well for the plant morphologists at the next meeting of the American Association for the Advancement of Science to consider methods for cooperation and preservation of types.

MEL. T. COOK.

ESTACION CENTRAL AGRONOMICA,
SANTIAGO DE LAS VEGAS, CUBA.

THE INTERNATIONAL CATALOGUE OF SCIENTIFIC LITERATURE.

THE first meeting of the International Convention of the International Catalogue of Scientific Literature was held in London, July 25-26, 1905. The supreme control of the catalogue is vested in this body and in beginning the undertaking in 1900 it was agreed that its meetings should be held in London in 1905, in 1910 and thereafter every ten years. The following named delegates were present at the convention:

Austria—Professor Dr. August von Bohm, K. K. Hofbibliothek, Vienna.

Belgium—M. Paul Otlet (Secrétaire-General de l'Office International de Bibliographie, Brussels). M. H. La Fontaine (Directeur de l'Office International de Bibliographie, Brussels).

France—Professor G. Darboux (Secrétaire Perpétuel de l'Institut de France). Dr. J. Deniker (Bibliothécaire du Muséum d'Histoire Naturelle, Paris).

Germany—Professor Dr. O. Uhlworm (Director des Deutschen Regionalbureau).

Greece—His Excellency Mons D. Métaxas (Ministre Plénipotentiaire de S. M. le Roi des Hellènes).

Holland—Professor D. J. Korteweg (University of Amsterdam).

India—Lieutenant-Colonel Prain, I.M.S., F.R.S.

Italy—Cav. Ernesto Mancini (Accademia dei Lincei, Rome). Professor Raffaello Nasini (University of Padua).

Japan—Professor K. Matsubara (University of Tokyo).

Mexico—His Excellency Don Francisco A. de Icaza.

Russia—Professor I. P. Borodin (Imperial Academy of Sciences, St. Petersburg).

¹ Johnson, Johns Hopkins University Circular No. 178. May, 1905.

South Africa—R. Trimen, Esq., F.R.S.

United Kingdom—Professor H. E. Armstrong, F.R.S. Professor J. Larmor, Secretary Royal Society. Dr. P. Chalmers Mitchell.

Smithsonian Institution—Dr. Leonhard Stejneger (United States National Museum).

Professor H. E. Armstrong having been appointed chairman of the convention, the following resolutions were passed:

On the motion of the chairman, seconded by Dr. Stejneger, it was *Resolved*: That, in view of the success already achieved by the International Catalogue of Scientific Literature and of its great importance to scientific workers, it is imperative to continue the publication of the catalogue at least for a further period of five years.

On the motion of the chairman it was *Resolved*: That the convention approves of the proposal for an amalgamation of the *Zoological Record* published by the Zoological Society of London with Volume N of the International Catalogue in accordance with paragraph 24 of the Report, p. 10, and authorizes the executive committee to carry the proposal into effect.

On the motion of Dr. Stejneger it was *Resolved*: That it is the desire of this convention that the executive committee, as soon as practicable, take into consideration the question of issuing cards.

On the motion of Dr. Stejneger, seconded by Dr. Deniker, it was *Resolved*: That the report of the committee of schedules be adopted.

On the motion of the chairman it was *Resolved*: That the report of the executive committee be adopted and that all matters therein not dealt with by this convention be remitted to the executive committee with power to act thereon.

The report of the executive committee to the international convention covered some twenty-three pages and contained the following statements of interest:

* * * It appears that the date originally contemplated for the completion of the fifth issue (1906) will be exceeded by about six months only. Taking into account the delay which arose in the organization of the work by the regional bureaus, which involved the postponement of the publication of the first annual issue by almost a year, if the result contemplated be achieved, a most satisfactory conclusion of the first stage of the enterprise will have been arrived at in so far as the issue of the printed catalogue is concerned.

REGIONAL BUREAUS.

At the present time Bureaus are established in

thirty-two separate regions. The only countries which have not yet established bureaus are Serbia and Bulgaria, in Europe, and the South American states. Spain has joined during this year.

Taking into account the character of the enterprise, the successful manner in which the collection of the material has been organized, and the care with which the indexing has been accomplished are little short of remarkable, and reflects the greatest credit on all concerned.

Necessarily there have been very many difficulties connected with a work of such intricacy carried on in various countries by independent organizations; but so great has been the desire to accomplish the work, that these have all been met without the slightest disagreement arising.

It is surprising to what an extent it has been possible for the various bureaus to make use of the schedules provided by the international conference which authorized the enterprise: Obviously in such a case only experience could lead to the establishment of a common system of indexing likely to give general satisfaction.

EXTENSION OF THE ENTERPRISE.

At the meeting of the International Council in May last year, a proposal to extend the scope of the catalogue by the publication of additional series of volumes dealing with such subjects as—(a) medicine and surgery, (b) agriculture, horticulture and forestry and (c) technology (various branches), was discussed and the opinion expressed that it was desirable that the executive committee should take the matter into further consideration in order that it may be brought under notice at the meeting of the convention this year.

After considering this question fully and discussing it with those interested in the work of the catalogue, the executive committee are of opinion that it is undesirable at present to extend the scope of the catalogue. It would be unwise to increase the responsibility of the organization so long as it is not in possession of an adequate working capital. Moreover, it is desirable that the energies of the bureaus should be directed, at all events during the next few years, to perfecting the catalogue in order that it may render all the assistance that was contemplated at its inception to scientific workers in those subjects which, after much discussion, were selected for treatment.

In order to give the work its necessary completeness, the indexing of scientific communications must be carried beyond the mere titles to a far greater extent than has hitherto been the case.

Marked progress in this direction is taking place, but until the cooperation of authors and publishing bodies has been secured it will always be difficult for the bureaux to deal effectively with the literature which they are required to index. The collection of the necessary subject-matter should become automatic in proportion as effective action is taken to secure the proper indexing of papers at the time of issue; at the same time the cost to the regional bureaux should be reduced in a corresponding manner.

At the meeting of the International Association of Academies in London last year, it was resolved to ask the several constituent academies to cooperate in the production of the catalogue in their several countries by securing the indexing of scientific journals at the time of issue. The central bureau is satisfied that it is imperative that the several regional bureaux should in every way exert their influence in order to bring about such cooperation between publishing bodies generally and the International Catalogue of Scientific Literature.

Assuming the catalogue to be established as a permanent enterprise, it can not fail to exercise an influence in various directions on the work of scientific inquiry. The suggestion has already been made to the central bureau that it should be prepared to give information as to the state of knowledge in particular subjects—as is already done, for example, by the authorities of the *Bibliographia Zoologica* in Zurich. The inclusion on the staff of the central bureau of persons able to collate such information would add much to its efficiency, and it is to be hoped that it may be possible at no distant date.

For such a purpose and in the general interests of scientific workers, it is desirable, moreover, not only that the central bureau should be provided with lists of new species but also that physical constants should be recorded on special slips in order that complete lists of such data may be tabulated.

Another suggestion which has been made to the central bureau is that at the end of ten years a decennial index of each subject should be prepared, which, if not a reproduction of the ten separate volumes, should be at least a key to them.

The present price of each annual issue is fixed at seventeen pounds to contracting bodies. Although it is most important that the price should be reduced, it is not possible, at present, to take any steps in this direction. But it will be de-

sirable to authorize the executive committee to make reductions whenever this becomes possible.

The originators of the catalogue always looked forward to the amalgamation of their enterprise with some of the existing agencies by which scientific literature is indexed, often at a considerable cost and with far more limited opportunities for collecting the necessary material than are now at the disposal of the International Catalogue. The executive committee have, therefore, great pleasure in recommending that during the period 1906–1910 the publication of the zoology catalogue be carried out in conjunction with the Zoological Society of London, by whom, during the past forty years, the well-known index of zoological literature, *The Zoological Record*, has been issued.

The agreement would be that the volumes are issued with a double title page, as volumes of the International Catalogue and as volumes of the *Zoological Record*, in both cases appropriately numbered in continuation with the volumes already issued. The cost of printing and publishing would be charged to the International Catalogue, together with a sum equal to that hitherto expended by the central bureau on special expert assistance. All further costs on account of the revision and arrangement of the material would be borne by the Zoological Society. The International Catalogue would receive the proceeds of all subscriptions and sales. The Zoological Society would appoint a committee of experts to prepare for press the material supplied by the central bureau. The committee of experts would be responsible for the scientific accuracy of the volume, whilst the central bureau would see that the volumes are produced in general accordance with the principles adopted in the catalogue as a whole.

SCHEDULES.

The schedules accepted for use during the first period of five years have been found in practise to answer remarkably well, except in the case of physics, which has proved to be far too narrow in its provisions.

A proposal to issue the zoology volumes in parts has been made. It appears desirable to adopt this proposal; the experience gained in connection with this subject will be of value in determining whether a similar course should be adopted in regard to other volumes.

SCIENTIFIC NOTES AND NEWS.

THE British Association for the Advancement of Science will meet next year at Lei-