

with a microscopic sward of fungal hyphæ, which give to it the appearance of a neatly-cut lawn. Rising scattered over this lawn are innumerable cabbage-shaped bodies from microscopic beginnings up to sizes as large as that of a pin head. These bright, almost pearly lustrous bodies, which give to the galleries a most fairy-like appearance, are the compound conidiophores of a species of fungus, presumably a hymenomycete, although cultures of the spores of the mature hymenomycete found growing from the combs failed to establish a connection between the mature form and the cabbages, or more properly termed *cauliflowers*, since they, like the cauliflower, contain organs of propagation.

Photographs showing the nests of three distinct species of Termite possessing three distinct forms of cauliflowers were shown, and attention was called to the fact that these three species of Termite, although building their nests side by side, often in contact with each other, begin immediately a deadly warfare with each other whenever the workers or soldiers, which latter possess large shear-like mandibles, of one nest trespass upon the domains of a neighbor. Unlike the wars of the real ants, in which, as Lubbock has shown, each nest is a unit and its inhabitants war with the inhabitants of any other nest of the same species, the wars of the Termites are race or species affairs. Termites of one species collected in Buitenzorg, Java, and taken to Tjibodas, some 15 or more miles distant, showed the friendliest relations with individuals of the same species collected there, while individuals of different species, though coming from nests actually almost touching each other in the same hill, fought in the arena of an inverted watch glass, invariably, until one or the other was killed, and often mutilated in a most shocking manner. The fights of these Termites offer unrivalled opportunities for a study of the psychology of these

lower animals. The fact that these Termites do actually live upon the 'cauliflowers' of the fungi found growing in their nests was proved by repeated examinations of their stomachs, in which the remains of characteristic conidiophores and half-digested conidia were discovered. The extreme sensitiveness of the insects to light prevented direct observations being made as to their method of eating the cauliflowers.

The three forms of conidiophores were remarkably distinct mycologically, and yet the general effect of the cauliflowers made up of these conidiophores grouped together in masses was much the same. Drawings illustrative of these differences were shown.

ERWIN F. SMITH,

WASHINGTON, D. C.

Secretary.

(To be concluded.)

ACTA OF THE INTERNATIONAL CONFERENCE ON SCIENTIFIC LITERATURE.*

OPENING MEETING, TUESDAY, OCTOBER 11

1. PROFESSOR DARBOUX moved that Sir John E. Gorst be the President of the Conference. The vote having been unanimously accepted—

2. Sir John Gorst took the chair and welcomed the delegates. It was then resolved:

3. That Professor Armstrong be the Secretary for the English language.

That Professor Korteweg be the Secretary for the German language.

That M. La Fontaine be the Secretary for the French language.

4. That the Secretaries, with the help of shorthand reporters, be responsible for the *procès verbal* of the proceedings of the Conference in their respective languages.

5. Professor Foster read out the names of delegates appointed to attend the Con-

* From *Nature*; a copy has not as yet been received by SCIENCE.

ference, and gave an account of the correspondence relating to the non-representation of certain countries.

The following resolutions were then agreed to:

6. That the ordinary hours of meeting be 11 a. m., to 1 p. m., and 2:30 to 4:30 p. m.

7. That each delegate shall have a vote in deciding all questions brought before the Conference.

8. That English, French and German be the official languages of the Conference, but that it shall be open for any delegate to address the Conference in any other language, provided that he supplies for the *procès verbal* of the Conference a written translation of his remarks into one or other of the official languages.

9. Professor Foster having formally presented the Report of the Committee of the Royal Society, copies of which were forwarded, in April last, to the several governments represented at the Conference, the discussion of the recommendations was opened, and it was resolved:

10. That the Conference confirms the principle that the Catalogue be published in the double form of cards and book.

11. That Schedules of Classification shall be authorized for the several branches of science which it is decided to include in the Catalogue.

12. That geography be defined as limited to mathematical and physical geography, and that political and general geography be excluded.

13. That anatomy be entered on the list as a separate subject.

14. That a separate schedule be provided for each of the following branches of science: Mathematics, Astronomy, Meteorology, Physics, Crystallography, Chemistry, Mineralogy, Geology (including Petrology), Geography—Mathematical and Physical, Paleontology, Anatomy, Zoology, Botany,

Physiology (including Pharmacology and Experimental Pathology), Bacteriology, Psychology and Anthropology.

15. That each of the sciences for which a separate schedule is provided shall be indicated by a symbol.

16. Professor Foster announced the reception of a letter from the German Chargé d'Affairs to the President of the Royal Society, stating that Geheimer Regierungsrath Professor Dr. Klein, of Göttingen, had been appointed German Delegate to the Conference.

The regulations to be observed in the preparation of cards or slips were then taken into consideration, and it was resolved:

17. That Italian should be added to the list of languages not requiring translation.

18. That for each communication to be indexed at least one slip, to be called a *Primary Slip*, shall be prepared, on which shall be either printed or type-written or legibly handwritten in Roman script:

(i.) *Title-entries*.—The author's name and the full title of the communication, in the original language alone if the language be either English, French, German, Italian or Latin.

In the case of other languages the title shall be translated into English or such other of the above five languages as may be determined by the Collecting Bureau concerned; but in such case the original title shall be added, either in the original script or transliterated into Roman script.

The title shall be followed by every necessary reference, including the year of publication, and such other symbols as may be determined. In the case of a separately published book the place and year of publication and the number of pages, etc., shall be given.

(ii.) *Subject-entries*, indicating, as briefly as possible, the principal subjects to which the communication refers. Every effort

shall be made to restrict the number of these subject-entries.

Such subject-entries shall be given only in the original language of the communication if this be one of the five previously referred to, but in other cases in English or in such other language as has been used in translating the title.

[The Belgian delegates stated that they abstained from voting on the part of this resolution relating to subject-entries.]

SECOND MEETING, WEDNESDAY, OCTOBER 12.

19. Professor Korteweg having expressed the desire to be relieved of his office, it was resolved that Professor Weiss be appointed Secretary for the German language.

The following resolutions were adopted :

20. That the registration symbols used in the Catalogue be based on a convenient combined system of letters, numbers or other symbols, adapted in the case of each branch of science to its individual needs, and in accordance, as far as possible, with a general system of registration.

21. That the authoritative decision as to the Schedules be entrusted to an International Committee, to be hereafter nominated by this Conference.

22. That the Conference is of opinion that the delegates should be requested to take steps in their respective countries to organize local committees charged with the study of all questions relating to the International Catalogue of Scientific Literature, and to report within six months to the International Committee.

23. That the International Committee (Resolution 22) be instructed to frame a report, not later than July 31, 1899, which shall be issued by the Royal Society and incorporated in the decisions of the Conference.

24. That in all countries in which or wherever a Regional Bureau is established, as contemplated in the 16th resolution of

the International Conference of 1896, the Regional Bureau shall be responsible for the preparation (in accordance with Reg. 7 of the Royal Society's Report) of the slips requisite for indexing all the scientific literature of the region, whatever be the language in which that literature may appear.

That each Regional Bureau shall transmit such slips to the Central Bureau as rapidly and as frequently as may be found convenient.

That in the case of countries in which no Regional Bureau is established, the Central Bureau, failing other arrangements, shall, upon special mandate, endeavor to undertake the work of a Regional Bureau.

[The Belgian delegates stated that they abstained from voting on this resolution.]

25. That the following recommendations of the Royal Society relating to the preparation of the Book Catalogue be referred to the International Committee for their favorable consideration, viz :

At determined regular intervals, not necessarily the same for all sciences, the Central Bureau shall compile from the slips and issue in a book form both an authors' and a subject-index of the literature published within that period.

This Book Catalogue shall be obtainable in parts corresponding to the several sciences for which slips are provided, and in such divisions of parts as may be hereafter determined.

In compiling the authors' index, in each of the sciences, the authors' names shall be arranged in alphabetical order, and each name shall be followed by the title of the paper and the necessary reference, and any other such symbols as may be determined.

The Book Subject Catalogue shall be compiled from the slips, as follows :

(i.) The subject-entries shall be grouped in sections corresponding to the registration letters on the slips, *i. e.*, to the several sciences.

(ii.) In each science the several subject-entries shall be arranged under headings corresponding to the registration numbers on the slips, the which headings and numbers shall be those contained in the authorized schedules of classification.

(iii.) The divisions indicated by registration numbers may be further subdivided by means of significant words or symbols.

(iv.) The nature of the subject entry may vary. Thus, as suggested in the cases of Mathematics and Physiology, it may be the title only; whilst in other sciences a special entry, more or less different from the title, may be provided on each slip. In all cases the number of subject-entries to be copied from a slip shall be determined by the number of registration numbers on the slip.

(v.) The mode of arranging subject-entries under a registration number, or under the subdivisions of a number afforded by significant words or symbols, may vary. They may either be arranged in the order of authors' names placed alphabetically, in which case the authors' names shall precede the subject-entry in the Book Catalogue, or they may be arranged either in an arbitrary order or in some order suited to the particular series of entries.

When in preparing an issue of the Book Catalogue it is found that a registration number has no entries collected under it the number and corresponding heading may be omitted from that issue.

To each part of the Book Catalogue corresponding to an authorized schedule there shall be appended an alphabetical index of the headings, and, if expedient, also of the significant words appearing in that part, showing on which page of the part each may be found.

After the publication of the first issue of the Book Catalogue the Director of the Central Bureau shall consult the Committees of Referees as to the desirability of

making changes in the classification, and shall report thereon to the International Council, who shall have power to authorize such changes to be made as they may think expedient.

26. That the following recommendations of the Royal Society providing for International Conventions in connection with the Catalogue be adopted:

Each region in which a Regional Bureau is established, charged with the duty of preparing and transmitting slips to the Central Bureau for the compilation of the Catalogue, shall be called a 'constituent region.'

In 1905, in 1910, and every tenth year afterwards, an International Convention shall be held in London (in July) to reconsider, and, if necessary, revise the regulations for carrying out the work of the Catalogue authorized by the International Convention of 1898.

Such an International Convention shall consist of delegates appointed by the respective governments to represent the constituent regions, but no region shall be represented by more than three delegates.

The rules of procedure of each International Convention shall be the same as those of the International Convention of 1898.

The decisions of an International Convention shall remain in force until the next Convention meets.

27. That the following recommendations of the Royal Society relating to the constitution of an International Council, which shall be the governing body of the Catalogue, be adopted:

Each Regional Bureau shall appoint one person to serve as a member of a body to be called *The International Council*.

The International Council shall, within the regulations laid down by the International Convention, be the Governing Body of the Catalogue.

The International Council shall appoint its own Chairman and Secretary.

It shall meet in London once in three years at least, and at such other times as the Chairman, with the concurrence of five other members, may specially appoint.

It, shall, subject to the regulations laid down by the Convention, be the supreme authority for the consideration of and decision concerning all matters belonging to the Central Bureau.

It shall make a report of its doings, and submit a balance sheet, copies of which shall be distributed to the several Regional Bureaux, and published in some recognized periodical or periodicals, in each of the constituent regions.

28. That the following recommendations of the Royal Society relating to International Committees of Referees be referred for consideration to the International Council when constituted :

The International Council shall appoint for each science included in the Catalogue five persons skilled in that science, to form an International Committee of Referees, provided always that the Committee shall be as far as possible representative of the constituent regions. The members shall be appointed in such a way that one retires every year. Occasional vacancies shall be filled up by the Committee itself, subject to the approval of the Chairman of the International Council, and a member thus appointed shall hold office as long as the member whose place he fills would have held office.

It shall be the duty of the Director of the Central Bureau to consult the appropriate Committee or Committees, by correspondence or otherwise, on all questions of classification not provided for by the Catalogue Regulations; or, in cases of doubt, as to the meaning of those Regulations.

In any action touching classification the Director shall be guided by the written de-

cision of a majority of the appropriate Committee or by a minute if the Committee meets.

Provided always that when any addition to or change of the schedule of classification in any one branch may seem likely to affect the schedule of classification of some other branch or branches, the Committees concerned shall have been consulted; and provided also that in all cases of want of agreement within or between the Committees, or of other difficulty, the matter shall have been referred for decision to the International Council.

All business transacted by the Committees shall be reported by the Director to the International Council at their next ensuing meeting.

THIRD MEETING, THURSDAY, OCTOBER 13.

The following resolutions were adopted :

29. That the Committee contemplated in Resolution 21 be constituted as follows : Professor Armstrong, Professor Descamps, Professor M. Foster, Dr. S. P. Langley, Professor Poincaré, Professor Rücker, Professor Waldeyer and Professor Weiss.

That this Committee be at liberty, if any of those named are unable to serve, to appoint substitutes, and also to co-opt two new members.

30. That the International Committee be termed the ' Provisional International Committee.'

31. That the Provisional International Committee shall be governed by the decisions of the Conference, but shall have the power of introducing such modifications in detail as may appear necessary.

32. Dr. Adler, referring to Resolution 20, said that he desired to place on record his view that the concluding words—"and in accordance, as far as possible, with a general system of registration"—the addition which he had agreed to as an amendment of his original Resolution, must not be re-

garded as modifying the first part of the Clause, or in any way throwing open the whole question of notation and classification.

33. Professor Rücker having made a statement as to the probable cost of the undertaking, and the delegates having stated what assistance in their opinion might be expected from their respective countries, it was resolved :

That the delegates to this Conference be requested to obtain information, and to report at any early date to the 'Provisional International Committee,' as to what assistance, by subscription or otherwise, towards the support of the Central Bureau may be expected from their respective countries.

34. M. Mascart called attention to Resolution 22 as being, in his opinion, incorrect in English, the intention being that the local Committee therein referred to should report to the International Committee.

35. The Royal Society was requested to undertake the editing, publication and distribution of a verbatim report of the Proceedings of the Conference.

36. It was resolved that the *procès verbal* of the Conference be signed by the President and Secretaries.

37. On the motion of Professor Armstrong, the thanks of the Conference were accorded to the Society of Antiquaries for the use of their rooms.

38. On the motion of Professor Klein, a vote of thanks to Sir John Gorst for presiding over the Conference, and his conduct in the chair, was passed by acclamation.

39. On the motion of M. Darboux, a vote of thanks was passed to the Royal Society for their work in preparation for the Conference and their cordial reception of the delegates.

(Signed) JOHN E. GORST, *President*.

HENRY E. ARMSTRONG,

H. LA FONTAINE,

E. WEISS, *Secretaries*.

CURRENT NOTES ON METEOROLOGY.

WEST INDIAN SERVICE OF THE WEATHER BUREAU.

THE *Monthly Weather Review* for July contains a paper by Professor E. B. Garriott on the West Indian Service of the United States Weather Bureau. The Service was undertaken under an Act of Congress approved July 7, 1898. Observations by regular observers of the Weather Bureau were begun at Kingston, Jamaica; Santo Domingo; St. Thomas; Port of Spain, Trinidad, and Willemstad, Curaçoa, on August 9th. Observations at Santiago were begun on August 11th, and at Bridgetown, Barbadoes, on August 31st. Regular reports have for some years been received from Havana, Cuba; Nassau, Bahamas, and Hamilton, Bermuda. The central station is at Kingston, and all other stations of the system cable daily, to Washington and to Kingston, reports of observations taken at 6 a. m. and 6 p. m., 75th meridian time. When the weather conditions are unusual, or there are signs of an approaching hurricane, special observations are telegraphed. Additional daily morning and evening reports are telegraphed to Washington via Galveston, Texas, from Tampico, Vera Cruz and Coatzacoalcas, and from Merida, Yucatan. Arrangements have been made for the prompt distribution of hurricane warnings from Washington to West Indian and Southern coast ports in the threatened district. The Service is at present an emergency service, but it is expected that, with the cooperation of the European governments having possessions in the West Indies, and of the countries bordering on the Gulf of Mexico and the Caribbean Sea, a permanent system of stations can be established, which shall permit the forecasting of hurricanes and northers, and shall carry out a study of the climatologic conditions of the West Indies.