Order Calycinæ (3 families).
Order Glumaceæ (5 families).
Order Hydrales (1 family).
Order Epigynæ (7 families).
Order Microspermæ (2 families).
Sub-class DICOTYLEDONEÆ.
Order Thalamifloræ.
Sub-order Ranales (12 families).
Sub-order Parietales (12 families).
Sub-order Polygalales (4 families).
Sub-order Caryophyllales (13 families).
Sub-order Geraniales (11 families).
Sub-order Guttiferales (6 families).
Sub-order Malvales (11 families).
Order Heteromeræ.
Sub-order Primulales (4 families).
Sub-order Ericales (7 families).
Sub-order Ebenales (4 families).
Order Bicarpellatæ.
Sub-order Polemoniales (5 families).
Sub-order Gentianales (6 families).
Sub-order Personales (8 families).
Sub-order Lamiales (4 families).
Order Calycifloræ.
Sub-order Rosales (12 families).
Sub-order Myrtales (9 families).
Sub-order Passiflorales (6 families).
Sub-order Celastrales (13 families).
Sub-order Sapindales (8 families).
Sub-order Umbellales (3 families).
Order Inferæ.
Sub-order Rubiales (2 families).
Sub-order Campanales (3 families).
Sub-order Asterales (4 families).

CHARLES E. BESSEY.
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BOTANICAL SOCIETY OF AMERICA.

THE most successful meeting which this young but flourishing society has yet held has just closed at Toronto. Although only three years old, both the attendance at the meeting and the great variety and strength of the papers read would be worthy of a much older organization. Every facility was afforded to the Society, through the courtesy of the Local Committee of Arrangements for the meeting of the British Association. The sessions, presided over by Dr. John M. Coulter, were held in the lecture hall of the handsome Biological Building in which this department of the University of Toronto is quartered. Besides the members, there were present a considerable number of British, Canadian and United States botanists. Foreign botanists had been invited by the Council to sit as associate members of the Society for this meeting. Among those present were Professor H. Marshall Ward, Professor F. O. Bower, Mr. Harold Wager, Mr. J. Bretland Farmer and Mr. J. Reynolds Green.

The officers of the Society are elected by ballots distributed by the Secretary by mail, and returned to him by the members. The Council canvassed the vote for officers and announced at the first meeting of the Society that the following had been elected for the year 1898: President, N. L. Britton, of New York; Vice-President, J. C. Arthur, of Lafayette, Ind.; Secretary, C. R. Barnes, of Madison, Wis.; Treasurer, Arthur Hollick, of New York; Councillors, B. L. Robinson, of Cambridge, Mass., and F. V. Coville, of Washington.

A very cordial invitation was sent by the Director and Trustees of the Missouri Botanical Garden urging the Society to hold a meeting in the spring of 1898 at the Garden, as their guests. The Society was obliged reluctantly to decline this invitation, inasmuch as it desires to cooperate with the A. A. A. S. at its semi-centennial next August in Boston, and it was not felt expedient to hold two meetings so close together.

The proposal to amend the constitution so as to reduce the dues met with no favor. It was unanimously laid upon the table, as was also the proposition to establish one or more medals to be awarded for valuable research. The discussion over the last proposition brought out the fact that the Society prefers to expend such funds as it receives for the promotion of research rather than for its reward.

Nine new members were elected. To

secure membership a candidate is first proposed by three members of the Society, who vouch for his eligibility under the constitution, which requires that he be actively engaged in research and the author of at least three contributions to knowledge in botanical lines. After notice of his candidacy has been sent to all members of the Society, written objections to him may be filed with the Secretary by any member. The Council then considers the candidates proposed and recommends such as it thinks proper. These names are then presented to the Society. One-fifth of the votes cast, if negative, will defeat any candidate.

The address of the retiring President, Dr. Charles E. Bessey, of the University of Nebraska, was delivered on Tuesday evening. A full abstract of the address is printed elsewhere in this number.

The following papers were read at the opening sessions on Wednesday:

B. L. Robinson: A case of ecblastesis and axial prolification in *Lipidium apetalum*.

J. C. Arthur: Movement of protoplasm in cœnocytic hyphæ.

John M. Coulter: Pollen grains and antipodal cells.

Frederic E. Clements (presented by C. E. Bessey): The transition region of the Caryophyllales.

D. P. Penhallow: A revision of the species *Picea* occurring in northeastern America.

Edward L. Greene: Bibliographic Difficulties.

William Fawcett: The botanical gardens of Jamaica. Read by title.

Mr. Fawcett, finding himself unable to be present, sent his paper by post, but it unfortunately was not received in time to be presented. The Council had invited Drs. D. T. MacDougal and D. H. Campbell to present, in connection with this paper, their report upon the island of Jamaica as a site for the proposed tropical laboratory. It was intended that Dr. Fawcett's account of the botanic gardens should present, by means of lantern illustrations, an idea of the facilities already provided there. Although obliged to forego this, Dr. MacDougal spoke of the physical features and climate of the island, and Dr. Campbell discussed its botanical resources. The great interest with which the report was listened to indicates the desire which every botanist feels to have this proposed laboratory in early operation.

The Council also invited Mr. Herbert J. Webber to present before the Society an account of his remarkable discoveries in connection with the fertilization of Zamia. Mr. Webber spoke of the development of the pollen tube and of its spermatozoids and of the way in which they effect the fertilization of the egg. After the meeting Mr. Webber displayed the preparations in which he had made his discoveries. These were examined with the greatest interest.

It will be seen by an inspection of the foregoing list that the papers presented touched all of the great fields of botanical science, with the exception of phyto-geography. Sessions of two hours in the morning and three and a-half in the afternoon were barely sufficient for the completion of the program. At the next meeting, which is to be held in Boston in connection with that of the A. A. A. S., the reading of papers will probably have to be begun a day earlier.

C. R. Barnes,
Secretary.

THE INTERNATIONAL MATHEMATICAL CONGRESS.

The meeting at Zurich, August 9th–11th, of the International Congress of Mathematicians was in every way a success. More than two hundred members took part. America sent seven representatives, including, however, three Cambridge graduates, now transplanted to Pennsylvania, Profes-