

annually, and to make a comparison of the yield and value of timber with growth. The distribution of wild life and the nature of their habitat are also mapped and tabulated in the same census.

The best land for private ownership, in growing timber and for summer homes, the areas adapted for use as parks, forest preserves, game preserves, boys' and girls' camps, or for whatever purpose the state may use them, are delineated so that they may be entered for the purpose of constructive use and not in a chaotic manner as land was entered in the pioneer days.

Throughout his address, Mr. Bordner emphasized the necessity of a life pattern that is not limited to the bounds of a man-made environment.

We are concerned, therefore, with the evaluation of land for diverse uses, to which land can be and should be put by our present and future population in Wisconsin. The evaluation of land for agricultural and forest, industrial and urban use is vital, but there are other uses just as vital, if our civilization is to reach beyond the immediate future.

### THE FIFTH INTERNATIONAL BOTANICAL CONGRESS

THE Fifth International Botanical Congress meets in Cambridge from August 16 to 23 under the presidency of Professor A. C. Seward, of the University of Cambridge. The honorary treasurer is Dr. A. B. Rendle, British Museum (Natural History), and Mr. F. T. Brooks, Botany School, Cambridge, and Dr. T. F. Chipp, Royal Botanic Gardens, Kew, are honorary secretaries.

According to the preliminary program, vice-presidents of the congress have been elected as follows:

Professor L. H. Bailey (Ithaca), Professor F. O. Bower (emeritus professor, Glasgow), Dr. J. I. Briquet (Geneva), Professor L. Buscalioni (Bologna), Professor R. H. Chodat (Geneva), Dr. L. Cockayne (Wellington, New Zealand), Professor P. A. Dangeard (Paris), Professor F. E. W. Elfving (Helsingfors), Professor H. G. A. Engler (Berlin-Dahlem), Professor Boris Fedtschenko (Leningrad), Professor Carl von Goebel (Munich), Professor V. Grégoire (Louvain), Professor R. A. Harper (New York), Professor B. Hayata (Tokyo), Professor J. Holmboe (Oslo), Professor H. O. Juel (Uppsala), the President of the Linnean Society (London), Professor L. Mangin (Paris), Dr. E. D. Merrill (New York), Dr. S. G. Navashin (Moscow), Professor B. Němec (Prague), Sir David Prain (formerly director, Royal Botanic Gardens, Kew), Professor Christen Raunkiär (Copenhagen), the President of the Royal Horticultural Society (London), Professor C. Schröter (Zurich), Professor Hugo de Vries (Lunteren, Holland), Professor F. A. F. C. Went (Utrecht), Professor R. Wettstein-Westersheim (Vienna).

The presidents and vice-presidents of the sectional programs are as follows:

*Bacteriology*—President, Professor R. E. Buchanan, department of bacteriology, Iowa State College. *Vice-presidents*, Professor R. Burri (Liebefeld bei Bern, Switzerland), Professor H. R. Dean (Cambridge), Professor Orla Jensen (Copenhagen), Professor J. C. G. Ledingham (London), Dr. S. A. Waksman (New Brunswick, New Jersey).

*Phytogeography and Ecology*—President, Professor H. C. Cowles, University of Chicago. *Vice-presidents*, Professor L. Diels (Berlin-Dahlem), Professor K. Domin (Prague), Professor C. E. H. Ostenfeld (Copenhagen), Professor Pavillard (Montpellier), Dr. Ruebel (Zurich), Professor C. Skottsberg (Gothenburg), Professor W. Szafer (Cracow), Professor A. G. Tansley (Oxford).

*Genetics and Cytology*—President, Professor O. Rosenberg, Botanical Institute, Stockholm. *Vice-presidents*, Professor E. Baur (Müncheberg), Dr. A. F. Blakeslee (Cold Spring Harbor), Professor V. Grégoire (Louvain), Sir Daniel Hall (Merton, London), Professor H. Kihara (Kyoto), Professor B. Němec (Prague), Miss E. R. Saunders (Cambridge), Professor N. I. Vavilov (Leningrad), Professor O. Winge (Copenhagen).

*Morphology (including Anatomy)*—President, Professor J. C. Schoute, Groningen, Holland. *Vice-presidents*, Dr. A. Arber (Cambridge), Professor L. Buscalioni (Bologna), Professor C. J. Chamberlain (Chicago), Professor F. E. Fritch (London), Professor C. M. H. Glück (Heidelberg), Professor E. Küster (Giessen), Professor W. H. Lang (Manchester), Professor N. E. Svedelius (Uppsala).

*Mycology and Plant Pathology*—President, Professor L. R. Jones, University of Wisconsin. *Vice-presidents*, Dr. O. Appel (Berlin-Dahlem), Professor A. H. R. Bulter (Winnipeg), Dr. E. J. Butler (Kew), Dr. A. Jacewski (Leningrad), Dr. R. Maire (Algiers).

*Plant Physiology*—President, Dr. F. F. Blackmann, Botany School, Cambridge. *Vice-presidents*, Dr. W. L. Balls (Cairo), Professor P. Boysen Jensen (Copenhagen), Professor V. H. Blackman (London), Professor E. Demoussy (Paris), Professor H. H. Dixon (Dublin), Professor L. Jost (Heidelberg), Professor M. Korczewski (Warsaw), Professor Lepeschkin (Tucson), Professor B. E. Livingston (Baltimore), Professor F. E. Lloyd (Montreal), Professor H. Lundegårdh (Stockholm), Professor N. Maximov (Leningrad), Professor W. J. V. Osterhout (New York), Professor W. Ruhland (Leipzig), Professor A. Ursprung (Fribourg, Switzerland), Professor F. A. F. C. Went (Utrecht).

*Paleobotany*—President, Dr. D. H. Scott, East Oakley House, Basingstoke, England. *Vice-presidents*, Professor E. W. Berry (Baltimore), Professor P. Bertrand (Lille), Professor W. Gothan (Berlin), Professor T. G. Halle (Stockholm), Dr. W. J. Jongmans (Heerlen), Professor Kraüsel (Frankfurt), Professor A. Renier (Brussels), Professor B. Sahni (Lucknow), Dr. G. R. Wieland (New Haven).

*Taxonomy and Nomenclature*—President, Professor Dr. L. Diels, Botanischer Garten und Botanisches Museum, Berlin-Dahlem. *Vice-presidents*, Dr. N. L. Brit-

ton (New York), Dr. E. De Wildeman (Brussels), Dr. R. E. Fries (Stockholm), Professor B. Hayata (Tokyo), Dr. A. W. Hill (Kew), Professor H. Lecomte (Paris), Dr. E. D. Merrill (New York), Professor R. Pampanini (Florence), Professor Hans Schinz (Zurich), Dr. O. Stapf (Kew), Professor R. Wettstein-Westersheim (Vienna).

### THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE draft of the program for the meeting of the British Association at Bristol from September 3 to 10 has now been completed and is summarized in the *London Times*. There will again be some 300 papers. The botanical section's addresses are unusually numerous, but the president this year is Professor F. O. Bower, emeritus professor of botany in the University of Glasgow. A number of the delegates to the International Congress of Botanists at Cambridge will go on afterwards to this meeting.

The president's address this year will also follow the modern rather than the older style. The model which passed in review the advancement made in every department of science will not be adopted by Professor Bower. His address will be purely botanical and will consist largely of a statement concerning his own work, and his subject will be "Size and Form in Plants."

It is interesting to note, according to the *Times*, that at a meeting in Bristol in 1898 Sir William Crookes prophesied a world-scarcity of wheat unless agriculture sought the aid of chemistry. This year one of the subjects of the agricultural section will be the relation of nitrogen to our food supply.

A meeting in Bristol is also a natural stimulus to the archeological, geological and engineering interests. There will be lectures on Roman remains in Gloucestershire and on geological formations such as those at Cheddar. Modern engineering has an important representative in the Bristol Aeroplane Company. There will be papers on recent progress in air-cooled aero-engine development and on the present position of the high-speed heavy oil engine. The latter will be associated with another lecture, by Lieutenant-Colonel

V. O. Richmond, the designer of the airship R 101, which is driven by heavy oil engines. There will also be lectures on the construction of R 100 by Mr. B. N. Wallis and on the Graf Zeppelin by Herr W. E. Doerr, and films of all three airships will be shown.

Much attention will be given by the section of mathematical and physical sciences to wireless problems. A discussion on the meteorological relations of atmospheres will be shared by Dr. R. A. Watson-Watt, Professor E. V. Appleton and Mr. M. A. Giblett. Professor Appleton will also read a paper on wireless echoes and wireless demonstrations will be given by the B.B.C. Town-planning will be fully discussed by the geography section and the position of the British dyestuffs industry will be discussed in the chemistry section by Professor G. T. Morgan, Sir William Pope, Professor J. F. Thorpe, Professor A. G. Green and others.

The public lectures will be more numerous than usual. Bath, Cheltenham, Gloucester, Devizes and Chard, for instance, have all asked for lectures on economic subjects. Sir Josiah Stamp will lecture at Bath on the price level and scientific control. Weston-super-Mare, having chosen a health subject, will hear Professor Winifred Cullis on "Breathing under Difficulties"; Swindon will have a lecture on some branch of aeroplane engineering by Wing Commander Cave-Brown-Cave, and Cirencester will have a description of Gloucestershire excavations by Dr. R. E. Mortimer Wheeler.

One of the subjects for Bristol is the bearing of research on the improved production of apples. Sir Daniel Hall will give this lecture on market day. Sir Arthur Keith will speak on the contribution of Dr. John Beddoe, the Bristol anthropologist, to modern anthropology. East African archeology and astronomy will be the other subjects at Bristol.

The centenary meeting of the British Association will be held next year in London, probably with General Smuts as president. It will take place at the end instead of the beginning of September, and its chief meetings will probably be held at the Central Hall, Westminster.

## SCIENTIFIC NOTES AND NEWS

THE eightieth birthday of Dr. William H. Welch was celebrated in the Kitasato Institute for Infectious Diseases in Tokyo on April 8. The main address was made by Dr. Kitajima; other speakers were Dr. Madsen, of Copenhagen; Professor Kofoid, of the University of California, and Dr. Kitasato.

A DINNER was recently given in London by the Physiological Society in honor of the eightieth birth-

day of Sir Edward Sharpey-Schafer, professor of physiology at the University of Edinburgh.

IN honor of Dr. George F. Arps, professor of psychology and dean of the College of Education of the Ohio State University, a dinner was given on the tenth anniversary of his deanship. Dr. W. O. Thompson, president emeritus; Julius F. Stone, chairman of