

panion memoir to, and an extension of, the same writer's "Studies among the Snow Crystals during the Winter of 1901-2," published in the *Monthly Weather Review*, 1902, XXX., 607-616, pls. I.-XXII.

J. G. C. Cottier: "A Summary of the History of the Resistance of Elastic Fluids"; a posthumous paper, published by permission of the literary executor of Mr. Cottier.

W. P. Stewart: "Local Forecasting at Escanaba, Mich."; brings out several points of local interest, and also the fact that, owing to the protection afforded by Lake Superior, cold waves are more severe to the east and west than at Escanaba.

Dr. Irving Langmuir: "Lightning Phenomena"; note on the curious "beaded trails" of several lightning flashes.

Professor Cleveland Abbe: "Salton Sea and Local Climate"; "the practical question is not how much the Salton Sea can affect climate, but how its waters can be used for irrigating the lands that surround it."

"Tornado at Maple Plain, Minn.," and "Hail-shooting in Italy"; short notes.

Dr. P. Polis: "The New Public Weather Service of Germany"; an interesting account by the head of the Aachen Observatory, who has lately been in the United States studying our weather service.

#### NILE FLOOD, 1906

An important report on "The Rains of the Nile Basin and the Nile Flood of 1906," by Capt. H. G. Lyons, director general of the Survey Department of Egypt (Cairo, 1907), has been received, and illustrates, in a most striking way, the progress which meteorology is making in Egypt. Here is a report of seventy pages, dealing with the rainfall of a region concerning which practically nothing was known a few years ago. And we learn from this same report that "it is also proposed to investigate the upper region of the monsoon current over the Sudan plains by means of kites carrying self-registering apparatus." The charts given by Capt. Lyons are of much interest, especially those of the seasonal and annual rainfall. These charts extend south to Lake Nyassa. Four isobaric

charts cover an area between the equator and lat. 10° N., and east as far as long. 80° E.

#### SENSIBLE TEMPERATURES

A FURTHER contribution to the discussion concerning the "subjective" or "sensible" temperatures, *i. e.*, the temperatures which human beings actually feel, and which depend on temperature, humidity, wind, insolation, and many other factors, is contained in the *Meteorologische Zeitschrift* for October, 1907 (W. Knoche: "Die äquivalente Temperatur: ein einheitlicher Ausdruck der klimatischen Faktoren Lufttemperatur und Luftfeuchtigkeit"). This paper deals with the so-called "äquivalente Temperatur," as originally suggested by von Bezold. If we imagine the water vapor contents of unit volume (1 cu. m.) condensed, and the resulting latent heat of evaporation expended in warming a cubic meter of dry air to a certain temperature, the increase of temperature resulting from the latent heat of evaporation, added to the then prevailing air temperature, gives the "äquivalente Temperatur." This method of expressing the relation of temperature and humidity is followed out for several different stations and climates, and is found to give an excellent indication of the temperature which we actually feel.

R. DEC. WARD

#### TWO RECENT INTERNATIONAL SCIENTIFIC CONGRESSES<sup>1</sup>

IN two congresses composed of members of such dissimilar outlooks as were the congresses at Heidelberg and Amsterdam the differences in the conduct of the congresses were very noticeable. It is generally admitted that in all scientific congresses there are two elements of value, the intellectual and the social. Both elements are to be combined in proper proportion to make the mixture most agreeable and profitable to the individual. In the congress of physiology most emphasis was placed on the presentation of papers; in the congress of psychiatry, neurology and psychology more time and opportunities were given

<sup>1</sup> Physiology, at Heidelberg, August 13-16; Psychiatry, Neurology and Psychology, at Amsterdam, September 2-7, 1907.

for meeting our Dutch hosts and the visiting delegates from other countries.

The physiological congress was composed of teachers of physiology and of other members of national physiological societies, of whom there were about 300 in attendance. Germany supplied less than one third of the members, and sixteen other countries were represented by over 200. The number of papers on the program was about 200. Over half of these were, or included, demonstrations, experiments or lantern views. There were three sections with seven or eight sittings each.

Any one interested in one or more of the subjects—neurology, psychiatry, psychology, care of the insane—could be registered as a member of the Amsterdam congress, and the number of members was correspondingly large, 800. The number of papers was small, 86, if the special papers on asylum management be excluded; with the latter there were 121. The scientific papers were divided as follows: 6 in three general sessions; 17 general discussions and 38 other papers in the section of neurology and psychiatry; seven general discussions and eighteen other papers in the section of psychology and psychophysics. Each section held five sessions.

In both congresses the projection lantern was extensively used for the illustration of results. At the physiological congress there were also many demonstrations on animals which gave to the congress a unique character. Short demonstrations were usually given as parts of the papers that could be illustrated by experiment, and one might see not only the apparatus, but also the obtaining of results by the men who were most familiar with the method. The plan just mentioned might be followed to the advantage of the members in some of our national societies, although it has the slight drawback that it entails considerable extra work on the members of the department where the meetings are held. At the physiological congress microscopic exhibits were also on view during the sessions. It was possible, therefore, to examine the stained sections at leisure, with more profit than from a single brief projection on the screen, and it gave the opportunity of discussing methods

and results with the investigator or one of his assistants. This is a most efficacious way to have disputed or doubtful matters cleared up.

An arrangement at the physiological congress of considerable value for the convenience of the members was the posting in each section of the numbers of the papers being read or discussed in the other sections. This was possible because of telephone connections. This enabled the members to move from room to room, or rather from section to section, to hear papers and discussions and to take part in the discussions of the topics that were of special interest to them. At our scientific meetings, and especially at the convocation week gatherings, this method would be exceedingly valuable.

At both congresses there was about an equal number of social meetings, excursions, a dinner, etc. The impression formed by the writer was that at the Heidelberg congress the social gatherings were more formal in character, though not in dress, than at Amsterdam. The meetings were about the same general character, but in some way there did not seem to be so many opportunities of meeting the foreign members as there were in Amsterdam. The formation of country groups was most marked in Heidelberg, probably because the social side usually included sitting at table, while at the congress of psychiatry the formation of such groups was the exception. The different occupations of the members of the two congresses had probably much to do with the social character of the meetings, for the neurologists and psychiatrists must have not only an interest in things (diseases and cases), but also in people, whereas physiologists are occupied with problems dealing little with social matters. The writer would not have the impression left that each congress failed in certain respects toward the visiting members, but there is solely the matter of emphasizing more or less certain aspects of the functions of scientific congresses. At both the members were hospitably and even royally welcomed, at both the scientific papers were equal to the best. It is not intended as a reflection on the committee in either place to say that the scientific side at Heidelberg and the social

side at Amsterdam were the impressive parts of the congresses.

S. I. F.

JOINT MEETING OF MATHEMATICIANS  
AND ENGINEERS

ON the occasion of the annual convocation of the American Association for the Advancement of Science in Chicago during the Christmas holidays, 1907, it is proposed to hold a meeting of mathematicians and engineers under the joint auspices of Sections A and D of the American Association and the Chicago Section of the American Mathematical Society.

The program includes (1) a session on Monday afternoon, December 30, to consider the present status of the teaching of mathematics to students of engineering, both in this country and abroad; (2) a banquet on Monday evening for the promotion of acquaintance and good fellowship among mathematicians and engineers; (3) a symposium on Tuesday morning, December 31, on the topic "What is needed in the teaching of mathematics to students of engineering?" (a) What range of subjects? (b) To what extent in the various subjects? (c) By what methods of presentation? (d) What should be the chief aims?

The joint sessions will be held in the Ryerson Physical Laboratory, University of Chicago. Prominent engineers and mathematicians have already promised to take part in this program. It is hoped that a large number of those interested may thus be brought together to discuss these matters of the highest mutual importance. Announcements giving full details of the program and speakers will be mailed in advance of the time of the meeting.

G. A. MILLER,

*Secretary of Section A of the American Association*

W. T. MAGRUDER,

*Secretary of Section D of the American Association*

H. E. SLAUGHT,

*Secretary of the Chicago Section of the American Mathematical Society*

THE CONVOCATION WEEK MEETINGS OF  
SCIENTIFIC SOCIETIES

THE American Association for the Advancement of Science and the national scientific societies named below will meet at the University of Chicago during convocation week, beginning on December 30, 1906.

*American Association for the Advancement of Science.*—December 30–January 4. Retiring president, Professor W. H. Welch, The Johns Hopkins University, Baltimore, Md.; president-elect, Professor E. L. Nichols, Cornell University, Ithaca, N. Y.; permanent secretary, Dr. L. O. Howard, Cosmos Club, Washington, D. C.; general secretary, President F. W. McNair, Houghton, Mich.

*Local Executive Committee.*—Charles L. Hutchinson, chairman local committee; John M. Coulter, chairman executive committee; John R. Angell, Thomas C. Chamberlin, Joseph P. Iddings, Frank R. Lillie, Charles R. Mann, Robert A. Millikan, Charles F. Millsbaugh, Alexander Smith, J. Paul Goode, local secretary.

*Section A, Mathematics and Astronomy.*—Vice-president, Professor E. O. Lovett, Princeton University; secretary, Professor G. A. Miller, University of Illinois, Urbana, Illinois.

*Section B, Physics.*—Vice-president, Professor Dayton C. Miller, Case School of Applied Science; secretary, Professor A. D. Cole, Vassar College, Poughkeepsie, N. Y.

*Section C, Chemistry.*—Vice-president, Professor H. P. Talbot, Massachusetts Institute of Technology; secretary, Professor Charles L. Parsons, New Hampshire College, Durham, N. H.

*Section D, Mechanical Science and Engineering.*—Vice-president, Professor Olin H. Landreth, Union College; secretary, Professor Wm. T. Magruder, Ohio State University, Columbus, Ohio.

*Section E, Geology and Geography.*—Vice-president, Professor J. P. Iddings, University of Chicago; secretary, Dr. Edmund O. Hovey, American Museum of Natural History, New York City.

*Section F, Zoology.*—Vice-president, Professor E. B. Wilson, Columbia University; secretary, Professor C. Judson Herrick, University of Chicago.

*Section G, Botany.*—Vice-president, Professor C. E. Bessey, University of Nebraska; secretary, Professor F. E. Lloyd, Desert Botanical Laboratory, Tucson, Arizona.

*Section H, Anthropology.*—Vice-president, Professor Franz Boas, Columbia University; secretary, George H. Pepper, American Museum of Natural History, New York City.