scale of 1/200,000, each sheet embracing one square degree, and including at least one point whose coordinates shall be fixed with satisfactory precision; for this the polyhedrical projection will be employed. In view of the enormous extent of the territory a complete new survey will be dispensed with, any trustworthy material already existing being employed and supplemented by reconnaissances and astronomical determinations of position. It is reckoned that about 8,000 kilom. have already been surveyed on the scale of 1/100,000, and that about 1,700,000 kilom., or one fifth of the total area of Brazil, have been mapped on other scales. To resurvey the whole on the 1/100,000 scale would, it is calculated, occupy 690 years, and the small state of Rio de Janeiro alone four years. But a map free from important errors and giving a good general representation of the country could be made in twenty-one years, or less if existing material is taken into account. Thus it is hoped that a satisfactory mapping of half the whole area may be completed in time for the Centenary celebration, the other half being left for the second century of independence.

SCIENTIFIC MEETING OF THE BRITISH MEDICAL ASSOCIATION

DURING the four years of the war, the scientific meetings of the British Medical Association were suspended and only the political meetings of the representatives were held. The last ordinary annual general meeting was held in July, 1914, and it had been arranged to hold the following meeting at Cambridge, under the presidency of Sir Clifford Allbutt. This meeting was abandoned, because of the strain on the profession owing to the war. The London correspondent of the *Journal* of the American Medical Association writes that it has been found impossible for Cambridge to arrange to receive the association this year, but it hopes to do so in 1920. It was therefore suggested that a special meeting might be arranged this year for the discussion of clinical and scientific subjects, but on a smaller scale than usual. At a meeting, the proposal was laid before Lieutenant General Sir John Goodwin, the director general of the army medical service, and representatives of the medical services of the British navy and air force and of the medical services of the Dominions and of the United States. In opening the proceedings, Sir Clifford Allbutt said that the time had come to relay old tracks and make plans for reconstruction, but that it had not been considered advisable to hold a full dress meeting this year. A short scientific meeting could be held this year in London without any attempt at large organization or elaborate entertaining. Dr. J. A. MacDonald, chairman of the council, said that the main object would be to bring together workers from at home, the Dominions and the United States to garner knowledge and ideas from those who had studied war medicine and surgery. Lieutenant General Sir John Goodwin thought that such a congress was most desirable. Much scientific work of the highest value had been done during the war, and the results were now being analyzed. It would be an immense advantage that they should be examined. All possible facilities would be given to assemble research workers from the forces overseas. Colonel A. M. Whaley, United States liaison medical officer with the War Office, welcomed the idea on behalf of the American medical officers serving in Europe. Approval was also expressed by representatives of the Canadian, Australian and New Zealand medical service. All agreed that the meeting would be valuable in crystallizing the knowledge gained during the war. In view of the approaching departure of many medical officers, it was felt that the meeting should be held as soon as possible. It was provisionally agreed that the meeting should be held early in April and should last two or three days.

PROPOSED MAGNETIC AND ALLIED OBSERVATIONS DURING THE TOTAL SOLAR ECLIPSE OF MAY 29, 1919

SPECIAL magnetic and allied observations will be made at certain stations inside and outside the shadow belt of the total solar eclipse of May 29, 1919, by the Department of

Terrestrial Magnetism of the Carnegie Institution of Washington, and by various magnetic observatories, institutions and individuals who have offered their cooperation. The stations of the Department of Terrestrial Magnetism will be probably: (1) La Paz, Bolivia; (2) Huancayo (north of belt of totality); (3) Near Sobral, Brazil; (4) Lle Principe or Libreville, French Congo; (5) Stations outside belt of totality by field parties as found possible. At station 3 complete magnetic and electric observations will be attempted.

The general scheme of work proposed by the Department of Terrestrial Magnetism is as follows:

1. Simultaneous magnetic observations of any or all of the elements according to the instruments at the observer's disposal, every minute from May 29, 1919, $9^h\ 58^m$ A.M. to $4^h\ 32^m$ P.M. Greenwich civil mean time, or from May 28, $21^h\ 58^m$ to $4^h\ 32^m$ May 29, Greenwich astronomical mean time.

(To insure the highest degree of accuracy, the observer should begin to work early enough to have everything in complete readiness in proper time. Past experience has shown it to be essential that the same observer make the readings throughout the entire interval. If possible, similar observations for the same interval of time as on May 29 should be taken on May 28 and 30, to afford some means of determining the undisturbed course of the magnetic declination.)

2. At magnetic observatories, all necessary precautions should be taken to insure that the self-recording instruments will be in good operation not only during the proposed interval but also for some time before and after, and eye-readings should be taken in addition wherever it is possible and convenient. It is recommended that, in general the magnetograph be run on the usual speed throughout the interval, and that, if a change in recording speed be made, every precaution possible be taken to guard against instrumental changes likely to affect the continuity of the base line.

3. Atmospheric-electric observations should be made to the extent possible with the observer's equipment and personnel at his disposal. At least observations of potential gradient and conductivity (preferably both positive and negative) should be made.

4. Meteorological observations in accordance with the observer's equipment should be made at convenient periods (as short as possible) throughout the interval. It is suggested that, at least, temperature be read every fifth minute (directly after the magnetic reading for that minute).

5. Observers in the belt of totality are requested to take the magnetic reading every thirty seconds during the interval, 10 minutes before and 10 minutes after the time of totality, and to read temperature also every thirty seconds, before the magnetic readings.

It is hoped that full reports will be forwarded as soon as possible for publication in the journal of *Terrestrial Magnetism and Atmospheric Electricity*. Those interested are referred to the results of the observations made during the solar eclipse of June 8, 1918, the publication of which was begun in the September, 1918, issue of the journal. A summary of the magnetic results obtained is given in the March, 1919 issue.

LOUIS A. BAUER

WASHINGTON, D. C.,

SCIENTIFIC NOTES AND NEWS

CHARLES LEANDER DOOLITTLE, Flower professor of astronomy, emeritus, at the University of Pennsylvania and director of the Flower Observatory, died on March 3, aged seventy-five years.

DR. WILLIAM WILLIAMS KEEN had conferred on him the honorary degree of Doctor of Laws by the University of Pennsylvania on University Day. In conferring the degree, Provost Smith paid the following tribute to Dr. Keen: William Williams Keen, voluminous writer on medical subjects, especially surgery, in which you have an international reputation; corresponding member of learned societies in England, Scotland, Belgium, France and Italy; honored at home and abroad by ancient univer-