

more than two hundred, ranged over pure and applied mathematics, logic, philosophy, grammar, comparative philology, international languages, and even politics. Some early papers dealt with the algebra of invariants. He then turned to calculus and differential equations. His 'space-filling curve' has been described as one of the most remarkable results in the theory of aggregates. The investigations of the foundations of geometry and arithmetic are of great importance, but his crowning achievement is his system of mathematical logic, with its elaborate symbolism (the 'Peanese' ridiculed by Poincaré), which has been used in England by Russell and Whitehead. Peano applied his logical methods to grammar, and this led to other linguistic studies, including the invention of the international language Interlingua. As a contrast to his abstract work may be mentioned his methods for the approximate solution of problems in practical mathematics. He stands out in the history of science as one of the few modern thinkers who have combined profound originality with a wide range of activities.

#### The Indian Mathematical Society

THE jubilee commemoration volume of the *Journal* of this Society contains, in addition to the usual research papers, an account of the history of the Society. It began in a very modest way in 1907, when Mr. V. Ramaswamy Aiyar, then deputy collector at Gooty, formed the "Analytical Club", the object of which was to subscribe for mathematical periodicals and circulate them among the members. In 1909 appeared the first number of the *Journal*. By the end of 1910, the name of the Society had changed twice, first to the "Indian Analytical Club" and then to the "Indian Mathematical Society". The number of members, originally about twenty, is now nearly three hundred. A central library is maintained at Poona, and conferences are held biennially in different parts of India. The Society is conducting an inquiry into the present conditions of mathematical teaching and examinations in schools and colleges, with the view of introducing certain reforms, and is also trying to set up prizes for research. It is considering the advisability of dividing its *Journal* into two parts, an advanced part for the publication of research papers, as at present, and a new elementary part, similar to the *Mathematical Gazette* or the *American Mathematical Monthly*. The achievement of which the Society is most proud is the discovery of the great Indian mathematician Ramanujan, whose contributions began to appear in the *Journal* in 1911. In the present volume, the place of honour is given to two papers developing Ramanujan's results.

#### The Automatic Telephone

WE think that an elementary knowledge of automatic telephony is almost a necessity to every well-educated young man. We therefore welcome the brief description in pamphlet form of the processes involved in making a call on the automatic systems of the British Post Office. It forms an excellent supplement to the demonstrations given daily on the

automatic telephone equipment installed at the Science Museum by the Post Office. The various ways in which a call can be made are described and illustrated by four simple diagrams. It is possible with the aid of the pamphlet to understand the main features of automatic telephony without going too deeply into technicalities and manufacturing expedients. The pamphlet (price 6d.) is published by H.M. Stationery Office, and is useful for reference.

#### Regulations for the Electrical Equipment of Buildings

THE Institution of Electrical Engineers has just published the tenth edition of its regulations for the wiring of buildings. The ninth and preceding editions were entitled the "I.E.E. Wiring Rules". This publication is very opportune, for the wide use of luminous discharge tubes and 'all electric' receiving sets has introduced several new problems as to the necessary requirements and precautions required for ensuring satisfactory results and providing immunity from fire and shock. The regulations do not take the place of a detailed specification but are supplementary to it. We think that any wiring system which complies with the instructions laid down in this little book (price 1s.) will be found satisfactory. The Wiring Regulations Committee has obviously taken great pains in its preparation. The definitions of the technical terms used are clear and the instructions for testing the completed installation are very good.

#### Congress of Anthropological and Ethnological Sciences

THE September issue of *Man* is devoted to the first session of the International Congress of Anthropological and Ethnological Sciences which was held in London on July 30–August 4. A group photograph in three sections of the members of the Congress forms the frontispiece of the issue, and a general survey by Prof. J. L. Myres, one of the general secretaries, opens the report. Full summaries are given of Lord Onslow's presidential address on "Anthropology in Administration" and of the Huxley Memorial Lecture by Sir Aurel Stein, as well as of the evening discourses delivered by Prof. T. C. Hodson on the census of India, by Dr. R. R. Marett on the tendency of anthropological studies and by Prof. J. B. S. Haldane on "Anthropology and Human Biology". The proceedings in each of the eleven sections among which the work of the Congress was distributed are briefly reported either by the sectional president or the secretary. As some delay is inevitable before the volume containing the full account of the proceedings with abstracts, etc., is available, this very full report is not only welcome, but also will be extremely useful for purposes of reference until a more authoritative source is available.

#### Boots Pure Drug Company's Medical Products

MESSRS. BOOTS Pure Drug Co., Ltd., Nottingham, have issued a small booklet about the therapeutic uses of medicinal glucose or anhydrous dextrose. Glucose is usually given by mouth but may be administered by rectum or intravenously. Its great advantage over other forms of carbohydrate in the