

in which the ascription of the title 'Honourable' to Henry Cavendish was described as a persistent delusion, Dr. E. J. Holmyard writes: "This stricture appears to be based upon a misapprehension. It is only within the last hundred years that the title 'Honourable' has been conventionally limited to the children of peers below the rank of marquis, and that it was commonly given to Cavendish is shown both by the admission register of Peterhouse (where he is described as 'Honorabilis Henricus Cavendish') and by the fact that Wilson's 'Life' (London, 1851), written when many of Cavendish's contemporaries were still living, employs the title without comment." Dr. Holmyard, however, will find that the definition of the term given in early reference books (for example, "Encyclopædia Britannica", 3rd ed., 1797) is exactly the same as the one in force to-day, and allows no excuse for the ascription to Cavendish. Cavendish's father, Lord Charles Cavendish, was not a peer, and however loosely the term might have been used and accepted in those days, it seems quite clear that Henry Cavendish had no right to it, and that it was incorrectly applied to his name and has been as incorrectly accepted without question until now.

League of Nations Intellectual Co-operation Organisation

THE International Institute of Intellectual Co-operation (2 Rue de Montpensier, Paris I) has just published the first number of a new monthly *Information Bulletin*, as the official organ of the League of Nations Intellectual Co-operation Organisation, which comprises a committee of the League with its secretariat at Geneva, the Institute in Paris, committees of experts, and national committees. It is a counterpart in English of the Institute's *Bulletin de la Coopération intellectuelle*, most of the contents of which will be summarised in it. This first number contains a review by the director of the Institute of recent developments in this field, special articles on the re-organisation of education in China and on "Moral Disarmament", a summary of the month, reports of meetings held under the auspices of the League's Organisation, and notices of forthcoming congresses. A foreword by Sir Eric Drummond commends it to the notice of all those who are interested in the promotion of international co-operation in art, education, science, and scholarship and believe that its progressive development is an essential condition for the gradual realisation of the principles for which the League of Nations stands. The annual subscription is 10 shillings or 2 dollars: single copies, 1 shilling or 20 cents.

Soil Physics in Relation to Meteorology

DR. B. A. KEEN, of the Rothamsted Experimental Station, discussed "Soil Physics in Relation to Meteorology" at the G. J. Symonds Memorial Lecture for 1932 of the Royal Meteorological Society (*Q. J. Roy. Met. Soc.*, July). This new branch of physics has made it necessary to discard a number of generally accepted explanations of agricultural and horticultural matters connected with the soil. Russian

work on soil classification has, for example, led to the recognition of certain soil groups as a basis for a survey of the soils of the whole world, and it is found that the type of soil formed in any place is dependent not so much upon the geology of the neighbourhood as upon certain meteorological factors, especially temperature and rainfall. Analysis of vertical sections of the soil, or soil 'profiles', shows unmistakably that the amount of percolation of rain water decides whether certain alkaline salts derived from the weathering of rocks shall be washed downwards or not, and it is because of their effect upon percolation that these two meteorological factors are so important. As an offset to this case of underestimation of meteorological influence, Dr. Keen cites a case of overestimation, the subject being the aeration of the soil. The point that had to be explained was how it comes about that the composition of the soil atmosphere is so nearly the same as that of ordinary air, in spite of the fact that most biological activity in the soil tends to absorb oxygen and evolve carbon dioxide. A critical examination of the different processes leading to gaseous exchange between the soil and the atmosphere points to ordinary gaseous diffusion as the principal agent of exchange, meteorological processes being too slow. The rate of diffusion, moreover, is dependent upon total pore space rather than upon the size of individual pores, which would appear to dispose of the idea that 'heavy' soils—those with the smallest particles—are necessarily the most badly aerated. Another important point made in the lecture is that water is not conveyed to the surface of the ground by capillary action from nearly such great depths as had at one time been supposed, from which it follows that the good effect of a surface mulch of loose soil or other material is often unconnected with the reduction of evaporation from the surface.

The Newcomen Society

THE Newcomen Society for the study of the history of engineering and technology has just published its tenth volume of *Transactions*, containing the papers read during the year 1929-30, various notes and contributions, and a subject list of books and pamphlets relating to the history of technology, 1931-32. To mark the completion of ten years' labour, the Council has included in this volume a complete index to the whole of the *Transactions* and also an index to the various bibliographies. Both these indexes should prove of great use. As usual, the papers and notes cover a very wide field, ranging from ancient civilisations to the first steam engine in America and bell-founding; while the printing and illustrations leave little to be desired. The Society's financial position is sound, and the membership has increased slightly; more than a quarter of the members reside in the United States. Each year the Society holds a short summer meeting in the provinces, and it never fails in bringing to light the existence of historical industrial sites or directing attention to the industrial history of the district in which it meets. From time to time it has either taken the initiative or co-operated in the commemoration of the centenaries of