

tion of oil and gas, data necessary for correlation of horizons and the construction of stratigraphical and production maps. While there is clearly nothing strikingly new in this communication, the paper will have done good if it directs the attention of those primarily concerned to the fact that, while geology may be substantially aided by the applications of its contact sciences, its principles as governing the understanding of sub-surface oil pools can never be superded.

#### Mining Research at Birmingham

THE Executive Board of Mining Research of the University of Birmingham has issued a report on the work of the Mining Research Laboratory for the year 1931. The Laboratory receives grants from the British Colliery Owners' Research Association, the Department of Scientific and Industrial Research, and the Miners' Welfare Fund, which supports work in connexion with the problems of safety in mines. The report bears witness to the wide range of sciences—physics, chemistry, geology, and physiology—which are focused upon the problems of the coal industry. Much attention continues to be given to spontaneous combustion, as underground heatings are a prolific source of danger and accident. For some years the Laboratory has examined the hydrogenation of coal. While this problem has come to be regarded as technically solved, economic success seems to be so remote that the work has been suspended. Attention is being turned to problems connected with the use of compressed gas for road transport.

#### Social Conditions of Miners in India

THE September part of the most recent volume of the *Transactions of the Mining and Geological Institute of India* contains an important paper by Mr. R. R. Simpson, chief inspector of mines in India, upon the social conditions of miners in India, together with an animated discussion upon it. The paper is particularly interesting in itself, and all the more so because it discusses in detail a number of the very numerous recommendations made by the Royal Commission sent out in 1929 to inquire into Indian labour conditions, which made its report in 1931. The members who discussed the paper expressed varying views, and evidently looked upon Mr. Simpson's paper as a peg on which to hang the discussion of the recommendations of the Royal Commission. The paper and discussion occupy considerably more than fifty pages, and, therefore, do not lend themselves to any ready abstract, but both are well worth careful study on the part of those who wish to understand thoroughly Indian labour conditions.

#### Exhibition of Chemical Plant at Cologne

"ACHEMA VII", the seventh exhibition of chemical plant and equipment organised by the Deutsche Gesellschaft für chemisches Apparatewesen ("Dechema"), is to be held at Cologne on June 2–11, 1933. Similar exhibitions have been held since 1920 in Hanover, Stuttgart, Hamburg, Nürnberg, Essen,

and Frankfurt-am-Main. The exhibition next year will be associated with meetings of the Verein deutscher Chemiker and other technological associations, in particular the Deutsche Brennkrafttechnische Gesellschaft and the Deutsche Kautschukgesellschaft, and with a Rubber Exhibition which will form the summer exhibition of the city of Cologne and will remain open until October 1933. The three principal halls around the congress hall in the Rheinpark will contain examples of acid-proof stoneware and other ceramic products, technical instruments for measurement and control, non-metallic and non-ferrous plant, laboratory apparatus and instruments, and machinery, with examples of complete plant and processes, raw materials and products. The rubber section will illustrate historically the development of methods for the production of rubber and of its industrial applications. An exhibition of such character will necessarily attract international interest, and nowhere more than in countries where chemical industries and the manufacture of chemical plant have reached a high standard of attainment. Particulars of the exhibition can be obtained from "Dechema", Seelze, near Hanover.

#### Mosquito Control

UNDER the title of "A Mosquito Summary", Mr. John F. Marshall, director of the British Mosquito Control Institute, Hayling Island, Hants., has recently issued an illustrated pamphlet of an essentially practical character. In a short and concise manner it explains how to recognise a mosquito, how such insects breed and how to distinguish anophelines from culicines in all stages of life. The manner in which mosquitoes carry disease and methods of controlling these insects are also summarised. The pamphlet, which is obtainable from the Institute (price 9d.) should prove useful to health officers and others concerned with mosquito eradication.

#### Dairy Research

WE have received the annual report for the year ended July 31, 1931, of the National Institute for Research in Dairying at the University of Reading. In common with other Institutions, a restricted income has necessitated a percentage reduction upon all salaries and wages and a curtailment of research work, the Government's grants for 1931–32 being less than previously by nearly £2,000. An account is given of the work of the various departments, with brief abstracts of scientific contributions made by the staff. An obituary notice, with portrait, of the late director, Dr. Stenhouse Williams, is included.

#### Bishop's Ring and the Andean Eruption

MR. J. FRASER PATERSON, writing from Broken Hill, Australia, says:—"The rare phenomenon known as Bishop's ring was visible in the western sky at 5 P.M. on Saturday, July 23. This date is about ten and a half weeks after the Andean eruptions. The colour of the ring was sepia."