

Throughout the year, except possibly in October, the excess of *S* at Bombay compared with Poona is almost as marked as is the excess there of vapour pressure. An interesting point confirming that it is mainly the annual variation of vapour pressure that causes the annual variation of *S* and not the annual variation of temperature is to be noted at the onset of the monsoon in June. Temperature falls but vapour pressure and cloudiness increase in the monsoon current, with the result that *S* continues high. The lowest observed value of *S* at Bombay was 0.41 gm.cal./cm.² and the highest 0.66 gm.cal./cm.². At both places the maximum for *S* is in the monsoon and the minimum in the winter.

FORECASTING MONSOON RAINFALL

IN Scientific Notes of the India Meteorological Department (8, No. 95) V. Doraiswamy Iyer and C. Seshachar have usefully extended some work done by Sir Gilbert Walker in 1921 on the forecasting of the monsoon rainfall of Mysore State as a whole from the three factors: mean atmospheric pressure over India in the preceding May, Zanzibar rainfall in the same month, and Java rainfall for the period October-February. The multiple correlation coefficient obtained in this way was + 0.57.

It is shown by means of a map of normal monsoon rainfall (June-September) that Mysore includes two regions of widely different rainfall, the *Malnad*, which is a narrow strip of country adjoining the Western Ghats, with a monsoon fall varying from 30 in. to more than 300 in., and the *Maidan*, or plain country, which lies farther to the east and includes most of the State, with a fall of less than 30 in. Monthly normals show that in the *Malnad* July is much the wettest month, followed by June and August, whereas the rainfall of the *Maidan* is greatest from May to October with a much less pronounced maximum spread over September and October. It is known, further, that a strong monsoon circulation favours the rainfall of the *Malnad*, whereas a weak monsoon is more productive of the heavy convectional showers that give the *Maidan* a large part of its rainfall. The expectation that higher correlation coefficients might be expected for each of these regions considered by itself, when the factors used are those most suitable to each rainfall regime, than the one found by Walker for the whole State was fulfilled.

Using a number of new factors, which included sunspot numbers, multiple correlation coefficients of 0.60 and 0.70 were found for the *Malnad* and *Maidan* regions respectively. The work was extended in the case of the *Maidan* to the period September-November so as to include the two wettest months for that region, and for forecasting the rainfall of this period a multiple correlation coefficient of 0.75 was found. The factors used in this case were the *Malnad* rainfall for the previous June-August, Bangalore mean winds at 2-3 km. height in July and August and mean India pressure gradient in July and August. The effectiveness of each of the three formulæ is roughly illustrated by graphs of calculated and observed rainfall over a long period of years. These suggest that the forecasts would be of value to engineers concerned with water supply and to agriculturists, in spite of occasional failures due to the fact that the basic correlation coefficients fell very far short of unity.

FORTHCOMING EVENTS

(Meeting marked with an asterisk is open to the public)

Saturday, March 7

GEOLOGISTS' ASSOCIATION (at the Geological Society of London, Burlington House, Piccadilly, London, W.1), at 2.30 p.m.—Mr. W. P. D. Stebbing: "A Review of References to Geology and Allied Subjects from the 16th Century" (Presidential Address).

Monday, March 9

ROYAL GEOGRAPHICAL SOCIETY (at Kensington Gore, London, S.W.7), at 5 p.m.—Capt. D. L. Leach: "The Survey of Sarawak".

Tuesday, March 10

CHEMICAL ENGINEERING GROUP (SOCIETY OF CHEMICAL INDUSTRY) (joint meeting with the INSTITUTION OF CHEMICAL ENGINEERS) (at the Geological Society, Burlington House, Piccadilly, London, W.1), at 2.30 p.m.—Mr. N. Fleming: "Noise and its Suppression".

ILLUMINATING ENGINEERING SOCIETY (at the Royal Society of Arts, John Adam Street, Adelphi, London, W.C.2), at 2.30 p.m.—Discussion on "Advance Planning in Lighting Reconstruction", to be opened by Mr. Howard Robertson.

ROYAL INSTITUTION (at 21 Albemarle Street, London, W.1), at 2.30 p.m.—Sir Lawrence Bragg, F.R.S.: "Metals", 2: "Metal Geography".*

Friday, March 13

ROYAL SOCIETY OF ARTS (INDIA AND BURMA SECTION) (at John Adam Street, Adelphi, London, W.C.2), at 1.45 p.m.—Colonel Sir Arthur Olver: "Animal Husbandry in India".

APPOINTMENTS VACANT

APPLICATIONS are invited for the following appointments on or before the dates mentioned:

LECTURER (WOMAN) IN MATHEMATICS—The Secretary, Somerville College, Oxford (March 10).

EDUCATIONAL PSYCHOLOGIST—The Secretary for Education, Education Offices, York (March 12).

DEPUTY BOROUGH ELECTRICAL ENGINEER—The Town Clerk, Town Hall, Sunderland (endorsed 'Appointment of Deputy Borough Electrical Engineer') (March 14).

ENGINEERING ASSISTANT—The Chairman, Mid-Kent Water Company, Snodland, Kent (March 15).

ORGANIZER OF AGRICULTURAL EDUCATION for the Administrative County of Kesteven—The Clerk to the County Council, County Offices, Sleaford, Lincs. (March 16).

LECTURER IN ANATOMY—The Secretary and Registrar, University, Bristol (March 16).

SCIENTIFIC ASSISTANT (WOMAN NOT LIABLE FOR NATIONAL SERVICE)—The Deputy Director, Imperial Bureau of Pastures and Forage Crops, Agricultural Research Building, Penglais, Aberystwyth (March 21).

TEACHER WITH HIGH QUALIFICATIONS IN BIOLOGY—The Headmaster, The School, Dartington Hall, Totnes.

BIOCHEMIST (MAN OR WOMAN) IN THE PATHOLOGICAL LABORATORY—The General Superintendent and Secretary, Salford Royal Hospital, Salford, Lincs.

REPORTS and other PUBLICATIONS

(not included in the monthly Books Supplement)

Great Britain and Ireland

The Advancement of Science: the Report of the British Association for the Advancement of Science. Science and World Order: Transactions of a Conference of the Division for the Social and International Relations of Science. Pp. 120 + vi. (London: British Association.) 5s. [102]

The Future of Auditing. By a Group of Accountants in Industry. (A Series of Four Articles reprinted from *The Accountant*). Pp. 28. (Potters Bar: Gee and Co. (Publishers). Ltd.; London: The City Library.) [102]

Medical Research Council: Industrial Health Research Board. Emergency Report No. 2: Hours of Work, Lost Time and Labour Wastage. Pp. iv + 26. (London: H.M. Stationery Office.) 6d. net. [112]

Other Countries

Rubber Research Institute of Malaya. Abridged Annual Report, 1940. Pp. 19. (Kuala Lumpur: Rubber Research Institute of Malaya.) [92]

U.S. Department of Agriculture. Technical Bulletin No. 784: The Wheat Jointworm in Oregon, with Special Reference to its Dispersion, Injury and Parasitization. By T. R. Chamberlin. Pp. 48. (Washington, D.C.: Government Printing Office.) 10 cents. [92]

Records of the Geological Survey of India. Vol. 75, Professional Paper No. 11: A Study of Certain Indian Coals. By E. R. Gee. Pp. iii + 46 + v. (Calcutta: Geological Survey of India.) 2 rupees; 3s. [112]