indigenous Lepidoptera the appearance of which is to be recorded, and three immigrants. This has been at the expense of a considerable reduction in the bird migration list, as many of those subjects had been reported on continuously for many years. has been an extension in the selected observations on trees, chiefly in regard to leafing times. The modern system of Latin bird names is now used, although observers are warned that the old system is still used in some reference books. Particular stress is laid on the importance of recording the effects of abnormal weather upon the vegetation, etc. Spring and early summer appearance dates of the peacock and red admiral butterflies should help gather additional information regarding the question of their hibernation. A valuable addition to the recording of flowering of plants and leafing of trees is the recording, as well as the date, of the sheltered or open position of the plant. On the whole, the amount of observation called for has been considerably increased, but individual phenologists are encouraged to send in returns of any one group if they

### Norman Lockyer Observatory

Bulletin No. 2 of the Norman Lockyer Observatory, Sidmouth, recently issued, contains an appreciation of the late Sir Robert Mond, chairman of the Observatory Corporation for twenty-one years and a generous benefactor to the Observatory. A further note of a personal nature gives an account of the unveiling of the memorial to the late director, Dr. W. J. S. Lockyer, at which Sir Robert Mond presided just three months before his death. Part of the memorial alluded to is the Oxford microphotometer, a description of which is given in the present Bulletin by the director, Mr. D. L. Edwards, together with illustrations of representative tracings of stellar spectra and of several line-contours, obtained with the instrument. Mr. D. R. Barber contributes two papers. The first is a detailed account of the magnificent auroral display of January 25, 1938, which appears to have been visible over practically the whole of Europe and the North American continent. The second paper deals with the objective prism-spectra of Finsler's Comet obtained at its apparition of 1937. In a preliminary investigation (N.L.O. Bull., No. 1), Barber had found that a visual comparison of the intensities of the cometary bands at 4700 and 3880 A. due to C(IV) and CN(IV)radiation respectively indicated that the former was about 2½ times stronger than the latter, a result in the opposite direction from that deduced from slit spectrograms secured at the Mt. Wilson and the Lick Observatories. The Sidmouth spectrograms have now been analysed by means of the new microphotometer, and Barker confirms his first result with, however, a reduction of the ratio of relative intensities from  $2\frac{1}{2}:1$  to  $1\frac{1}{4}:1$ .

### Literature for Adult Education

An important factor in the success of discussion groups or public lectures as a means of education for citizenship is the provision of books and other suitable material for reading. A pamphlet, "Printed Page and the Public Platform", which has recently been issued by the Office of Education, United States Department of the Interior (Washington, D.C.: Gov. Printing Office, 20 cents), analyses the different factors involved and gives an account of experiments and experience in the United States which should be highly useful to those interested in adult education in Great Britain. The necessity for close co-operation between libraries and such discussion groups is emphasized, and a number of practical suggestions are detailed to facilitate co-operation. The scope and functions of reading lists are critically discussed and the importance of having the reading material as accessible as possible to those taking part in the discussions or attending lectures is recognized. Equally important is the suitability of the material, and while the criticism is not specifically directed at scientific literature, it applies equally to that intended for the general public. Able exposition is a first condition of success, involving an understanding not only of the subject handled but also of the readers to whom the book or article is addressed, and if pamphlet literature admittedly presents special difficulties, the problem is one which deserves greater attention because of its greater appeal to many readers in spite of the distribution difficulty.

## The International Seismological Summary

THE I.S.S., compiled at Oxford, is a work which increases in volume and range as it progresses. The volume for January, February and March 1933, which commences the sixteenth volume, has just appeared, and deals with 165 epicentres, 67 being new and 98 repetitions from old epicentres. Nine of the earthquakes mentioned have foci which are below normal. The epicentres have, in general, been determined from observations of P alone, instead of by the old method of using S-P differences. This is said to make very little difference in the case of well-observed earthquakes, but is greatly to be preferred on theoretical grounds. During the last five years, the range of numbers of earthquakes with determinable epicentres recorded in the I.S.S. has been from 569 in 1932 to 653 in 1930. It appears, therefore, that notwithstanding the greater number of stations sending readings, and the greatly improved registration, the numbers of such earthquakes have reached a probable limit. In this volume, stations which send additional readings to the usual P, S, L and M are thanked especially, and for the future all are requested to classify wherever possible their L readings into LQ and LR, and to state whether the initial P reading is compressional or dilatational.

## The Medical Press and Circular

The issue of January 25 of the Medical Press and Circular is a centenary double number. This journal is, as the name suggests, the combination of two, namely, the Dublin Medical Press, founded in Dublin in 1839, and the Medical Circular, founded in London in 1852, the union taking place in 1866. Prof. Rowlette of Dublin contributes a short history of the journal during the hundred years, with biographical

notes on the various editors. Dr. Cecil Wall and Mr. Walter Spencer discuss the progress of medicine and of surgery, respectively, during the period; an illustrated article on "Some Medical Gelebrities of the Victorian Age", as depicted in cartoons of Vanity Fair, is contributed by Sir St.Clair Thomson, the cartoons being reproduced together with actual portraits; and a chronological list of medical societies and journals in Great Britain and Ireland is furnished by Mr. Reginald West. Other articles and reviews complete a very interesting number.

# Art and Psychiatry

Under the auspices of the Government Federal Art Project and of the Bellevue Hospital psychiatric department, the Harlem Art Centre in New York City has organized the first exhibition of its kind in the United States, consisting of pictures showing the work of disordered minds. The artists include moronic children, chronic alcoholics, advanced epileptics, manic-depressives and general paralytics. Most of the exhibits indicate mental conflict, being shapeless, lurid and grotesque. The idea underlying the art classes at Bellevue Hospital is to attempt a cure of the mentally sick by encouraging them to express their conflicts and at the same time to give psychiatrists a clearer picture of their patients' emotional life.

### Earthquake in Ecuador

Several earthquakes of sufficient intensity to crack buildings shook a considerable area in Ecuador on the night of February 1, 1939. Altogether nine tremors were felt at Vallechillos and four other towns, and five tremors at Quito. Quito was ruined with the loss of 40,000 lives on February 7, 1797, and simultaneously there was volcanic eruption in Guadeloupe. In the present instance, Cotopaxi, the highest volcano in the world, is in eruption. It was in 1768 and 1877 that previous disastrous eruptions of Cotopaxi took place.

### Announcements

The council of the Institution of Electrical Engineers has elected Sir Archibald Page, chairman of the Central Electricity Board, and a former president of the Institution, to be an honorary member.

M. EMMANUEL DE MARGERIE has been elected a member of the Section of Mineralogy of the Paris Academy of Sciences in succession to the late L. de Launay.

THE Goethe Medal for Art and Science has been awarded by the German Chancellor to Dr. Theodor Kitt, professor of veterinary pathology in the University of Munich.

RESEARCH CORPORATION, of 405 Lexington Avenue, New York, from time to time makes awards to universities for the work of men of science. The Corporation has now made grants to Columbia University, New York, of 2,500 dollars each and Research Corporation plaques, to be made the basis of awards to (1) Dr. H. S. Taylor, of Princeton University, "for his work in the field of catalysis, wherein he has advanced the theory of catalytic action and the art of using catalysts in industrial operations in this field"; (2) Dr. V. Bush, of Massachusetts Institute of Technology, for his work "in the development of powerful and rapid methods of computation and the solution of equations through the invention of automatic apparatus".

On December 22, the French Minister of Public Health inaugurated the new laboratories of the Pasteur Institute at Garches near Paris where Pasteur made his studies on rabies in 1884.

THE King has commanded that the recently founded British College of Obstetricians and Gynæcologists shall be known as the Royal College of Obstetricians and Gynæcologists.

The Royal Sanitary Institute will hold its Annual Congress at Scarborough on July 3-8 under the presidency of the Earl of Harewood. Further information can be obtained from the Secretary of the Institute, 90 Buckingham Palace Road, S.W.1.

THE sixth Biennial Congress of the International Hospitals Association will be held at Toronto next September. Further information can be obtained from the Secretaries of the Association, 17 Bloomsbury Square, W.C.1.

THE Mary Putnam Jacobi fellowship of 1000 dollars is offered to a woman graduate of an approved medical school for post-graduate work in the medical sciences. If the appointed fellow is not resident in the United States, she should preferably undertake work there. Applications should be sent to the Secretary of the Fellowship Committee, Dr. Phebe L.-DuBois, 150 East 73rd Street, New York City, before April 1.

The German Society for Balneology and Climatology will hold its annual meeting at Vienna on March 23–26, when the following subjects, among others, will be discussed: meteorological and physical report; medical report, importance of high mountain climate in treatment of tuberculosis and asthma; physiology of sport in high mountains; drinking wells and artificial salts; natural and artificial mud baths; and artificial climate. Further information can be obtained from Die Reichanstalt für das deutsche Bädewesen, Furstenstrasse 124, Breslau 16.

The annual mortality from malaria in India averages 2,000,000, an exceedingly high figure even in a population of more than 300,000,000, 30 per cent of whom suffer from the disease. Two thirds of the malaria-stricken in India have no quinine.

Erratum.—In Nature of January 7, p. 23, "A Rapid Visual Test for Vitamin A Deficiency", para. 4, last sentence, for "hæmeralopia" read "hemeralopia".