

extending the validity of the original agreement until 1947. Progress in collaboration has recently been effected by instituting a scheme which facilitates joint membership of two or three of the societies under payment of a reduced total fee; and by giving members a wide choice of publications up to a specified limiting value. The provisions of the deed aim primarily at 'roping in' as many as possible of the 14,000 (?) scientific chemists now practising their profession, with the view of promoting the progress and status of chemistry in its threefold aspect of science, profession and technical applications. Nothing appears to be said about the obligations of the profession to the community, but there is little doubt that these could be and would be far better met by a united profession than by what has been called "a disunited rabble"

#### Rockefeller Foundation's Gifts to the National Central Library

At a time when the Trustees of the National Central Library are faced with difficulties beyond the normal, as a result of the loss by enemy action of about half its books and the greater part of its London building, the emergency grant of £2,200 which has recently been made by the Rockefeller Foundation comes as a most welcome gift. Some of the books lost will be irreplaceable, but, fortunately, many of them can be bought as the demand for them arises. The timely aid of the Rockefeller Foundation will be appreciated by many thousands of persons who will benefit by the valuable additional service thus placed at their disposal. The grant is also another illustration of the practical sympathy of the United States with the difficulties which have to be dealt with by those responsible for the work of cultural institutions in the British Isles. By helping the National Central Library, the Rockefeller Foundation is indirectly helping all other libraries which make use of the national service. The Rockefeller Foundation is also continuing to provide money for the upkeep of the Bureau of American Bibliography at the National Central Library.

#### Physical Society: Annual General Meeting

THE sixty-seventh annual general meeting of the Physical Society was held on July 25 in the lecture theatre of the Science Museum, with Prof. Allan Ferguson in the chair. The reports of the Council and of the treasurer were adopted and the following officers for 1941-42 elected. *President*: Dr. C. G. Darwin; *Hon. Treasurer*: Dr. C. C. Paterson; *Hon. Secretary (Business)*: Dr. W. Jevons; *Hon. Secretary (Papers)*: Mr. J. H. Awbery; *Hon. Librarian*: Dr. L. C. Martin; *New Members of Council*: Prof. E. N. da C. Andrade and Dr. H. Shaw. Prof. Ferguson will undertake the duty of acting-president until Dr. Darwin is able to take office. The Council has to record a very successful year's work in difficult circumstances. Despite exceptionally heavy losses by death, the membership of the Society is scarcely affected, standing at 1,070 members at the end of 1940, as compared with 1,084 members twelve months earlier.

For the science meetings of the Society, the Council has adopted a new policy which has been justified by its complete success, the majority of the meetings having been devoted to discussions and to lecture-surveys. Discussions have been held on colour, the liquid state, the electrical and general physical properties of plastics, and the teaching of the fundamentals of electric and magnetic theory. Lecture-surveys have been given on contact-angles (Prof. Allan Ferguson), anemometry (Prof. P. A. Sheppard), gravity meters (Dr. J. McG. Bruckshaw), the magnetic hysteresis cycle and its interpretation (Prof. L. F. Bates), and some mechanical properties of glass (Prof. W. E. S. Turner). An outstanding event was the formation, within the ambit of the Society, of a Group for the discussion of scientific and technical problems relating to colour. The Group has already held three very profitable meetings, and its success encourages the initiation of similarly constituted groups for the discussion of problems of special interest to experts on the subjects to which the groups are devoted.

#### A Clouded Yellow Butterfly Invasion

ONE of the most interesting entomological features of the summer of 1941 is the invasion of clouded yellow butterflies (*Colias croceus* or *Edusa*) from the Continent which, since the first week of July, have been seen in Lancashire and Cheshire and various other parts of the north of England. This immigration has nothing to do with the War; it is one of the more spasmodic immigrations of insects which occur from time to time, the classic example being the 'great *Edusa* year' of 1877, when flights ranged from the Orkneys to Land's End and Ireland. Several were seen in 1933, 1926, 1913, 1872, 1864, 1862 and 1859 and odd specimens in the north in other years like 1930. The greenish-white variety *helice* Hubn. has also been seen, while the rarer pale clouded yellow (*C. Hyale*) was observed in 1860, 1872, 1891, 1900-1, and at least one specimen has been noted at Ness, west Cheshire, during the present immigration of clouded yellows. A few clouded yellows from south Europe reach the south of England almost every year, arriving during May or June; third brood larvæ are sometimes found in autumn on trefoil, lucerne or clover, and attempts at hibernation have been noted, but there is no record of surviving the winter here. Excepting in 1892, the common and pale clouded yellows are seldom abundant immigrants together.

#### Mineral Composition of Crops

IT is generally recognized that the mineral composition of crops has an important bearing on human and animal health, and increasing attention is being paid to the interrelationships between such fields of investigation as soils, fertilizers, plant composition and the nutritive value of food. Although it is true that several nutritional diseases can be directly traced to the deficiency or excess of particular minerals, as yet the data are usually quite insufficient for the laying down of direct recommendations for agricultural practice. A valuable review and com-

pilation of this subject has been made by K. C. Beeson entitled "The Mineral Composition of Crops with Particular Reference to the Soils in which they were grown" (U.S. Dept. Agric. Misc. Pub. No. 369). The question is approached from two main aspects, namely, the soil characteristics associated with nutritional diseases in man and animals, and the various factors which affect the mineral composition of plants. In the first case, bone diseases, anaemias, goitre and selenium poisoning are among the instances discussed, while as regards the crops, fertilizers, climate, irrigation, age and part of the plant are shown to have an important influence on its chemical composition. More than six hundred references are quoted, which cover work carried out in various parts of the world. The publication concludes with extremely useful tables giving the chemical composition of a large number of crops, figures for many of the minor elements being included.

#### Rediffusion of Broadcasting over Electric Mains

IN the report of the council of the Incorporated Municipal Electrical Association presented at the annual general meeting at York on June 12, one of the topics raised was broadcasting over the electric mains. In the last annual report it was intimated that in the event of legislation being promoted in this matter, the Association would press for the inclusion of a clause which would authorize electricity undertakers themselves to operate the rediffusion of broadcast programmes over their distributing mains if they so desired. Before the War, the business of rediffusion of broadcast programmes was a growing one and was, for some reason or other, outside the field covered by the electrical industry; but the Post Office was taking a special interest in the various rediffusion companies. The *Electrician* of June 13 says that it is probable that the Post Office holds the right to take over such wireless relays if it wishes, and that the further development of broadcasting over the mains might, without adequate protection, become a Government monopoly, with the added privilege of using, without cost to the Post Office, the already existing supply mains, which were put into the roads, etc., after long research and considerable expense by the electrical industry.

#### Earthquake of April 15 in Mexico

FURTHER details are now available concerning the great earthquake which took place on April 15, 1941, in Mexico (see NATURE, April 26, 1941, 507). It is stated in the news-magazine *Time* that at the tropical city of Colima, with a population of 20,000, the first shock caused the dam guarding the water supply to collapse, that it disrupted power lines and caused half the buildings in the town to collapse. The cathedral, rebuilt after the earthquake of 1932, was again destroyed, and during the night forest fires blazed round the town due to the scattering of the charcoal burning dumps by the earthquake. At least 36 people in Colima lost their lives. The shock was felt from Jalisco in the north to Oaxaca in the

south, while in Mexico City just as lunch time was beginning, towers and signs swayed, church bells tinkled gently, windows rattled and pavements cracked. Mexico's tallest skyscraper, a seventeen-story office building at the corner of the Paseo de la Reforma and the Avenida del Ejido, shook and cracked and a five-story section of glass and facing stone collapsed. Fires broke out, one destroying the El Monte lumberyard after firemen had fought the blaze for six hours. No one was killed in Mexico City though 800,000 dollars worth of damage was done to property. Altogether the earthquake caused near 2,000,000 dollars worth of damage to property and at least 84 people were killed, including 27 at Tuxpan in the State of Jalisco.

The U.S. Coast and Geodetic Survey, in co-operation with Science Service and the Jesuit Seismological Association, has determined the epicentre of this earthquake and its aftershocks from instrumental reports from twenty-one seismographic stations. The epicentre of the first earthquake at 19h. 9m. 53s. G.M.T. on April 15 was at lat. 18° 8' N., long. 103° 0' W., which is some 70 miles south-east of Colima, and the depth of focus normal. Strong aftershocks on April 15 at 23h. 42.6m. G.M.T. and on April 16 at 1h. 37.9m. G.M.T. had their epicentres slightly north of that of the main shock.

#### Beit Memorial Fellowships for Medical Research

AT a meeting of the Trustees of the Beit Memorial Fellowships for Medical Research held on July 23 it was noted that out of the thirty present fellows thirteen have already been seconded at their own request for more direct service during the War, and that six others have undertaken research work for Government departments on problems arising out of the War.

The following elections of new fellows were made, all with permission for each fellow to be seconded at any time for war duties: *Senior Fellowship* (£700 a year) to Dr. T. R. R. Mann, to continue his work on intracellular metallo-protein compounds, especially of red blood cells, at the Molteno Institute of Biology, University of Cambridge. *Fourth Year Fellowships* (£500 a year) to Dr. J. F. Danielli, to continue his work on the permeability of muscle fibres and of capillaries, at the Biochemical Laboratory, University of Cambridge; Dr. C. O. Hebb, to continue her studies of physiological problems in relation to high altitudes, at the Department of Physiology, University of Edinburgh; Dr. H. Lehmann, to continue his work on the influence of shock and of the suprarenal glands on glycogen synthesis, at the Biochemical Laboratory, University of Cambridge. *Junior Fellowships* (normal value £400 a year) to Dr. E. F. Gale, to study bacterial amine production as a cause of non-specific infantile diarrhoea, at the Biochemical Laboratory, University of Cambridge; Mr. W. Holmes, to study the regeneration of nerve fibres after injury, at the Department of Zoology, University of Oxford; Dr. M. F. Lockett, to identify renal pressor substances responsible for experimental high blood pressure, at the Pharmacological Laboratory, University of Cambridge.