

potential changes occurring in tissues (the invention of a string electrometer; the first physiological application of the cathode ray tube and the loop oscillograph in 1907 and 1912).

Although Cremer was extremely critical and even sarcastic in the scientific sphere, he was humorous and cheerful in ordinary life. This mixture in his imposing personality was very manifest in speech and discussion, and will not be forgotten by his pupils and friends.

H. ROSENBERG.

We regret to announce the following deaths:

Mr. C. T. Kingzett, one of the founders of the Institute of Chemistry, and author of the "Chemical

Encyclopædia", and other books on chemistry, on July 29, aged eighty-two years.

Prof. W. R. Sorley, Knightsbridge professor of moral philosophy in the University of Cambridge, author of many well-known works on ethics, on July 28, aged seventy-nine years.

Mr. C. E. Stromeyer, chief engineer of the Manchester Steam Users' Association, president of the Manchester Literary and Philosophical Society in 1929-31, on July 23, aged seventy-nine years.

Prof. F. A. F. C. Went, For.Mem.R.S., extraordinary professor of botany in the University of Leyden, and emeritus professor of botany in the University of Utrecht, on July 24, aged seventy-one years.

## News and Views

### Dr. Griffith Evans

WE extend our congratulations to Dr. Griffith Evans, who will attain his hundredth birthday on August 7. Dr. Evans was a pioneer in the study of protozoology in connexion with infections, and the first man to associate trypanosomes with the production of disease. He was born at Tymawr, near Towyn, Merionethshire. After studying medicine for a short time with a medical practitioner at Towyn and Aberdovey, he entered the Royal Veterinary College, London, where he qualified as M.R.C.V.S. In 1877, he was sent to India in the Army Service Corps. It was there that his great work on blood parasites was carried out. On arrival in India, he was appointed to investigate an endemic disease which for many years had been fatal to cavalry and artillery horses; by microscopic examination of the blood, which revealed the specific bacillus in the blood of every patient, Evans at once proved the disease to be anthrax fever.

IN 1880, Dr. Griffith Evans's work on surra began; and upon studying the reports which had already been made upon the disease he at once reached the opinion that it was due to some parasite of the blood. His first act was to examine microscopically the blood of a surra patient: it was swarming with parasites. Though Koch had not yet made his classical postulates, and though Evans was ignorant of the nature of the microbes revealed to him, he immediately associated them with the production of the disease. They were the parasites which, at first called *Trichomonas evansi*, are now known as *Trypanosoma evansi*. Official opinion was strongly against him, but the Government printed his reports, and he had the gratification of knowing that his statements spurred on a number of younger men to continue investigations along lines which he had laid down. He returned to England in 1885, and after further work in Crookshank's

laboratory, King's College, London, retired from the army in 1890. In 1917 he was awarded the Mary Kingsley Medal by the Liverpool School of Tropical Medicine, in recognition of his distinguished scientific work, and on that occasion he wrote a short autobiographical memoir, which was published in vol. 12 of the *Annals of Tropical Medicine and Parasitology*.

### Alcohol and Road Accidents

EARLY this year, the Minister of Transport asked the British Medical Association whether it could usefully make any observations on the place of alcohol in the causes of road accidents, in the light of existing knowledge and experience. The Association thereupon appointed a special committee to consider the subject and the report of this committee has just been published (*Brit. Med. J.*, Suppl. July 27, 1935; p. 57). The committee confined itself to an examination of the scientific evidence on the effect of the consumption of alcohol on the functioning of the body, especially of amounts insufficient to produce the state commonly recognised as drunkenness. The Alcohol Committee of the Medical Research Council concluded that the direct effect of alcohol upon the nervous system is, in all stages and upon all parts of the system, to depress or suspend its functions; it is, in short, simply a narcotic drug. The earliest effects are an impairment of the faculties of judgment, concentration, self-criticism and the power of estimating risk, which are often accompanied by a sense of well-being and of self-satisfaction. At the same time, the power of making movements dependent on rapid and accurate co-ordination is adversely affected; the rapidity and accuracy of neuro-muscular co-ordination are diminished. The report reviews the experimental evidence on which the above statements are based, and points out that as little as three ounces of whisky produces these effects. The experiments were of course made in other connexions to determine the effects of alcohol upon the nervous and neuro-muscular systems; but

are applicable to motorists, whose movements are dependent on rapid and accurate co-ordination between the eyes, hands and feet. The committee also emphasises that the elimination of alcohol from the body is a slow process: 10–12 c.c., or the equivalent of one ounce of whisky, can be oxidised each hour, and the rate is not increased when the concentration in the blood is raised by drinking larger quantities. The committee concludes that the driving capacity of a driver, who has taken even small amounts of alcohol, must frequently be adversely affected, even when it has been consumed some hours before driving, and especially if taken in the absence of food.

#### Production of Oil in Great Britain

ONE of the most striking characteristics of the times is the tendency of man to make himself less dependent on the circumstances imposed by geographical conditions. Formerly it was necessary to settle, and for industries to develop, where sources of food and raw materials were readily accessible. Now the tendency is for these things to be done just where man chooses—but at a certain price. Modern civilisation demands oil and oil products, and our need is being in part met by the treatment of coal. In the House of Commons on July 24, the Secretary for Mines (Captain Crookshank) reported that the plant at Billingham for coal-hydrogenation is now working and will, when at full output, produce 45,000,000 gallons of motor spirit yearly—3½ per cent of our annual consumption. By August, the total production—including that from distillation of oil shale and coal—will reach 60,000,000 gallons, increasing to 90,000,000 gallons when the Billingham plant attains full output. Although petroleum can be got from the earth for relatively slight efforts, one of the chief merits claimed for coal-hydrogenation is the magnitude of the labour it requires and the employment it gives. This, however, is small in comparison with the size of the coal industry. The present Billingham output employs 1,900 miners and 1,000 plant employees, and it does not seem probable that the process can restore the former prosperity of the mining industry. Capt. Crookshank also stated that 43 applications had been received to prospect and work for oil in Great Britain.

#### Mr. Lloyd George's Scheme of National Reconstruction

MR. LLOYD GEORGE'S scheme of national reconstruction is outlined in a pamphlet entitled "Organizing Prosperity" (Ivor Nicholson and Watson, 6d.). His main thesis is that our economic system can be amended without being scrapped, and that the immense advantages of individual enterprise, energy and initiative which our present economic system fosters are not to be lightly sacrificed. They must rather be controlled and cultivated so that they may yield an ordered harvest for the nation. He gives first place to the land as a means of finding not only temporary employment during a period of exceptional trade depression, but also permanent employment for our surplus population. Other projects advocated include

housing and slum clearance, electrification of suburban railways, improvement of ports and docks, extension and improvement of electrical supply, road developments, water supply, telephone extensions and financial assistance for development of overseas markets. These various schemes would be financed by a 'prosperity loan', while the carrying out of the programme would be entrusted to a National Development Board consisting of a small body of persons of distinguished competence drawn from industry, commerce, finance, workers and consumers who would be appointed for a definite term and would be responsible to the Cabinet. But since a Cabinet of about a score of Departmental Ministers is an unsuitable body to give full and dispassionate consideration to bold schemes of national reconstruction, Mr. Lloyd George advocates a reversion to the War-time arrangement of an executive consisting of the Prime Minister and four or five Ministers without departmental duties.

#### Science and Vocational Advice

IN a Friday evening discourse delivered at the Royal Institution on May 10, and now available as a pamphlet, Dr. C. S. Myers discussed the "Scientific Approach to Vocational Guidance". He compared the giving of vocational advice with the giving of medical advice. Each is an art, yet each depends on the use of scientific knowledge and methods. The individual must be studied with regard to every relevant aspect of himself and his environment. In vocational guidance, the part played by psychological tests is essential, although relatively small. It is now possible to estimate intelligence fairly accurately, by means of 'verbal' and 'practical' tests, and as the degree of intelligence required varies in different groups of occupations, this is one very important deciding factor. But tests for character and temperamental qualities are not yet sufficiently reliable; and the chief contribution of the psychologist in this direction has been in the introduction of improved and systematic methods of assessment. Other qualities necessary for success in certain occupations are mechanical ability and manual ability. Tests for these abilities and others, based on a detailed study of some one occupation, can be applied in vocational *selection* where the problem is one of selecting the best person for a particular job. The co-operation of parents, teachers, school authorities and juvenile employment officers provides a necessary contribution to the data on which the vocational adviser's advice is based. The follow up of advised cases, and comparison with the results obtained from a control-group are now recognised parts of the experimental procedure. During the past nine years, the number of cases dealt with in Great Britain by the two bodies responsible for most of such research was 6,751; in 1925 the number of vocational guidance cases was less than 100.

#### T. A. Coward Memorial Sanctuaries

ON July 22, the Earl of Crawford and Balcarres opened the Nature sanctuary at Cotterill Clough.