

laboratory diagnosis of enteric fever proved to be very valuable, and the agglutination technique which he had developed several years previously in Copenhagen was very extensively used. With his colleagues he was able to show that the vast majority of cases of enteric fever in inoculated troops was not typhoid, but paratyphoid fever. He promptly pressed for the 'triple inoculation' instead of the single antityphoid inoculation of all troops. When, in spite of vigorous opposition, he was able to bring about this reform, he felt that his most important work with the R.A.M.C. was accomplished. He had become interested in the medical problems of flying, and he transferred to the Air Force. He designed an ingenious apparatus for automatically controlling the supply of oxygen to pilots, according to the altitude.

Dreyer returned to Oxford after the War, and carried out research on the assessment of physical fitness by vital capacity measurement correlated with certain body measurements; the serum diagnosis of syphilis; immunity to tuberculosis; effect of light on bacteria; bacteriophage, and other subjects. A generous grant from the trustees of the late Sir William Dunn enabled him to build a new laboratory which was completed in 1926. His capacity for administration, and his genius for taking a wide view of science was recognised by his election to the Hebdomadal Council and to the University Chest. He was for some years a member of the Medical Research Council, and served on several of its sub-committees.

Dreyer had been elected a fellow of the Royal Danish Academy of Science and Letters before he came to Oxford. He was also Officier de l'Instruction Publique, and for his military service he was created

C.B.E. He was elected a fellow of the Royal Society in 1921.

Dreyer was a man of sound common sense, and his views on administration and on business matters were highly valued in the University, and in his own college, Lincoln, of which he had been a fellow since 1907. His great personal charm and his genial nature endeared him to his colleagues and he was a very welcome guest in common rooms and dining clubs in Oxford. He never suffered fools gladly, but he never bore malice against anyone. His lovable nature, great generosity and the power of inspiring his younger colleagues make the loss occasioned by his death on August 17 last the more deeply felt. He married in 1900 Margrethe Jørgensen, and had an ideally happy married life.

WE regret to announce the following deaths:

Mr. G. H. Bosch, who provided endowments for chairs of embryology and histology, medicine, surgery and bacteriology in the University of Sydney, aged seventy-three years.

Dr. Willard J. Fisher, research associate and lecturer in astronomy at the Harvard College Observatory, known for his studies of meteors, on September 2, aged sixty-six years.

Prof. D. A. Murray, emeritus professor of mathematics in McGill University, an authority on differential equations, aged seventy-three years.

Prof. F. L. Stevens, professor of plant pathology in the University of Illinois, author of works on fungal diseases of plants, who studied especially tropical parasitic fungi, on August 18, aged sixty-three years.

News and Views

Nobel Prize for Medicine and Physiology for 1934

It is announced that the 1934 Nobel Prize for Medicine and Physiology has been awarded jointly to Dr. George F. Minot and Dr. William T. Murphy, of Boston, Massachusetts, and Dr. George H. Whipple, of Rochester, New York State, for their research into liver therapeutics in connexion with anæmia (*Times*, Oct. 26). Dr. Minot is professor of medicine at Harvard University and Dr. Whipple is dean and professor of pathology of the University of Rochester, New York. The liver treatment of pernicious or Addisonian anæmia, which is now the standard treatment for the disease, was developed by Minot and Murphy about eight years ago from the experimental work of Whipple and his associates on secondary anæmia in dogs. Whipple maintained his animals in an anæmic condition by frequent withdrawals of blood, and tested the power of different foodstuffs to cause blood regeneration by adding definite amounts to a standard diet on which regeneration did not occur. Among the substances so tested was liver. Minot and Murphy tried it in pernicious anæmia and found that adequate amounts produced a remission which is maintained provided

the treatment is continued. Liver has little or no action in human secondary anæmias, but is effective in certain other anæmias which, like pernicious anæmia, are characterised by an increase in the amount of hæmoglobin in each red blood cell although the total amount per unit volume of blood is diminished.

LATER work has shown that the factor in liver which has proved so valuable in the treatment of pernicious anæmia can be obtained in extracts of much less bulk; it also appears to be produced by the action of normal gastric juice upon flesh foods. The deficiency in pernicious anæmia is a deficiency in the secretion of the stomach. The immediate and characteristic response to liver is an increase in the number of young red cells, or reticulocytes, in the blood; this is followed by an increase in the number of mature cells and in the percentage of hæmoglobin. Pernicious anæmia is a disease which was invariably fatal before liver treatment was adopted, although its course might show a series of remissions and relapses. With adequate liver treatment, patients may live indefinitely in normal health; and the