

with the upsurge of world population; and by training a steadily increasing body of nutritionists, qualified in all the aspects of the subject—scientific, social and economic—which now make up the full study of nutrition, the College will provide the workers needed not only to help in the fight against hunger and malnutrition, but also to deal with the different nutritional problems of the well-fed countries.

The Department of Microbiology, already known for its research, but hitherto greatly hampered by lack of space, now has fully air-conditioned research laboratories and is probably one of the best equipped non-medical microbiology departments in any university in Britain. At present its undergraduate teaching is confined to ancillary courses, but if the University decides to introduce a B.Sc. (Special) degree in microbiology, Queen Elizabeth College will be among the first to provide courses for it. The large teaching laboratory, with about forty student places, is admirably fitted for the purpose. The University has just instituted a readership in microbiology tenable at the College, and from October 1961 the reader will be head of the Department.

The Department of Biology has the whole of the ground and first floors and part of the lower ground floor of the new building for zoological and botanical teaching and research. In its old premises it had little room for research workers. Now it has accommodation for twenty, including the teaching staff, and already six postgraduate research workers have been

added to the Department, including one post-doctoral Research Fellow. The two teaching laboratories each have sixty places for undergraduates, and the College, which already had one of the biggest entries in the University for the B.Sc. (General) degree, hopes to be able to increase the number still further. Britain needs specialists, but it also needs many scientists with a broad and balanced education for industry, for teaching, and for many other important walks of life. This need is well filled by graduates with a London B.Sc. (General) degree, and the College aims at seeing that this degree is accorded the importance it deserves.

It is most fitting that this new building should be named after Sir John Atkins, the first Fellow of the College. Sir John was largely responsible for the foundation of the College. As a young doctor he felt so strongly the need for a college where domestic subjects could be taught with a proper scientific background that in 1911, by his own efforts, he raised the necessary funds for the erection of the main buildings in Campden Hill Road. He joined the Governing Body in 1912 and still serves on it. Through all these years he has watched over the interests of the College, and cherished its aims. For thirty-six years, as chairman of the Council, he guided it through the most crucial stages of its development. The Sir John Atkins Laboratories will be a permanent reminder of all that past, present and future generations of students owe to him.

## DAMAGE BY RHIZINA UNULATA IN CONIFEROUS PLANTATIONS

THOSE who attempt to establish, or re-establish, forests artificially on land on which there was never any natural forest, or from which every remnant of a natural forest soil has long since disappeared, are always liable to encounter fresh trouble. This fact is brought home forcibly in a recent publication by the Forestry Commission which is concerned with a fungous disease which, significantly, has been observed to be serious mainly in plantations recently established on non-forest soils\*.

The title, *Group Dying of Conifers*, is unfortunate. Groups of trees may die for a variety of reasons as, for example, from strikes by lightning, from deposition of toxic materials, like manure heaps, within the stand, from attacks by fungi other than *Rhizina*, and so on, and why this forest record is not simply entitled *Rhizina undulata* with an appropriate equivalent in English is misleading and difficult to understand. A suitable name would appear to be the 'fire-site fungus'.

*Rhizina undulata* Fr. ex Fr. is described as 'colonizing' the sites of fires lit during forestry operations in pole-sized stands. From these sites it spreads outwards over a limited period of years, with the result that groups of dead trees occur within the stand. In some cases these breaks in the canopy give access to strong winds and form starting points of what may develop into serious windthrow. *Rhizina*

has been recognized as a parasite since 1894, and has been described from both eastern and western States in the United States as well as from Europe. Significantly, it does not appear to attack leaf-tree species, only conifers. The first record of so-called 'group-dying' in Great Britain seems to have been in 1936, but it is only since 1953 that *Rhizina* has been frequently observed associated with groups of dead trees in the British Isles.

Messrs. Murray and Young, on the basis of a study of dead groups of trees in 58 forests or estates in Britain, 50 of which are situated along the western seaboard, have clearly confirmed that the fungus becomes recognizable on fire sites, and a very large proportion of the dead groups were associated with fires. This has led to the prohibition of all fires, even those lit for the brewing of tea, in or near the plantations of the Forestry Commission. This means of control can be strongly recommended to other forest owners, although it is often difficult to overcome the passion for tidiness which seems normally to be associated with artificial plantations.

The general history of the disease and its behaviour are described together with a more detailed survey of two infested forest areas in Scotland. There is an excellent description of the fungus itself; but in discussing the nature of the attacks and the behaviour of the fungus the authors have obviously been handicapped by inadequate experience of site examination and by the prevailing ignorance of soil organisms, including fungi, and of their relationship

\* Forestry Commission. Forest Record No. 46: *Group Dying of Conifers*. By J. S. Murray and C. W. T. Young. Pp. 19 + 12 figures. (London: H.M.S.O., 1961.) 3s. net.

to the organic matter in the soil. It is unfortunate that no full description of any of the sites or soils examined is published although it may have been recorded elsewhere. It has been found that Sitka spruce is especially susceptible to attack, and not solely because it happens to occur in no fewer than 38 of the 58 areas examined. A point which is not made clear is whether *Rhizina* exists in the soil before the plantation is established—possibly associated with the organic matter therein—and Sitka spruce is most often planted on soils with a high content of organic matter or on grass- or rush-covered sites. *Rhizina* may exist in close association with grasses, for example, and only when the organic

matter is altered or consumed by fire does it virulently attack the feeding roots of the trees. What, for example, happens when *Rhizina* encounters the mycorrhizal fungi usually associated with conifers? There is a great need for more research into the occurrence and behaviour of all the micro-organisms found in the soil, and it is important for foresters that soil research should be based, where possible, on the soil of the natural forest. While the natural forest is a reality which has stood the test of time, the artificial forest still remains an illusory concept nowhere brought to satisfactory permanency, and liable to be seriously disturbed by organisms, like *Rhizina*, beyond the forester's control.

## TRENDS IN JUVENILE DELINQUENCY

FOR some years the World Health Organization has taken an interest in the problem of juvenile delinquency. In 1949, at the request of the United Nations, the Organization carried out a study of the psychiatric aspects of the origin, prevention and treatment of juvenile delinquency as a contribution to the United Nations programme for the prevention of crime and treatment of offenders. Since then, representatives of the World Health Organization have taken part in many conferences and have regularly attended meetings of the United Nations Consultative Group on the Prevention of Crime and the Treatment of Offenders; and the Organization has, through its Regional Office for Europe in Copenhagen, organized a seminar on the psychiatric treatment of offenders.

In 1959, again at the request of the United Nations, another study was carried out by a psychiatric consultant, Dr. T. C. N. Gibbens, senior lecturer in forensic psychiatry in the University of London, who was appointed by the World Health Organization to complement the earlier study with a review of present trends in juvenile delinquency, based on his own personal experience, the recent literature and first-hand information obtained during visits to a number of countries—Australia, Denmark, the Federal Republic of Germany, Israel, Lebanon, Poland, Sweden and Yugoslavia. Dr. Gibbens's report, which was submitted to the second United Nations Congress

on the Prevention of Crime and Treatment of Offenders, has now been published with some minor amendments\*.

The new forms or manifestations of juvenile delinquency consist partly of delinquent acts which are a consequence of new opportunities for crime, but which do not differ in their essential character from more traditional forms, and partly of offences which appear to reveal a fundamental change in behaviour, or the participation of sections of the community which have not previously been involved in crime.

It is with these newer forms that the author is primarily concerned in his review of social changes, changes in family life and in the individual delinquent, special property offences, sexual offences, wayward girls, violent offences, alcoholism and drug addiction, and hooliganism. He also discusses present trends in prevention, paying particular attention to the development of prediction studies designed to identify young children who are in danger of being seriously delinquent in the future, and to the tendency to design preventive programmes in such a way that their results can be scientifically evaluated. A chapter on treatment deals with diagnosis, treatment at liberty and institutional treatment.

\* World Health Organization Public Health Papers. No. 5: Trends in Juvenile Delinquency. By T. C. N. Gibbens. Pp. 56. 2 Swiss francs; 3s. 6d.; 0.60 dollar. (Geneva: World Health Organization; London: H.M.S.O., 1961).

## SIMIAN MALARIA

A RECENT issue of the *World Health Organization Chronicle* is concerned with the transmission of malaria parasites between monkey and man\*.

The knowledge that such a transmission can take place dates back to 1932, when, in India, Knowles and Das Gupta found that *Plasmodium knowlesi* could cause a febrile infection in man. Knowledge of simian malaria in relation to man was extended in 1948, when *P. rodheini* of African chimpanzees was found to be morphologically and immunologically identical with *P. malariae* of man. Subsequent work showed that human malaria parasites such as *P. vivax*, *P. falciparum* and *P. ovale* could be transmitted to chimpanzees through anopheline mosquitoes although

\* *World Health Organization Chronicle*, 15, No. 1, January 1961.

patent parasitaemia appeared only in splenectomized apes.

In certain parts of West Africa the chimpanzee is known to harbour *P. malariae*, and man has been shown to be readily susceptible to the strains harboured. The anopheline vector of the *P. malariae* of these chimpanzees has not been identified. In Sarawak certain strains of human parasites of quartan malaria have been observed to have a peculiar morphology which suggested that the parasite might be of simian origin. In the Amazon region of South America, some *P. vivax* infections in man have been held to be derived from simian malaria. *P. simium*, found in howler monkeys of the forests near Santos, has been suspected of being closely related to *P. ovale*.