

unsatisfactory resolution of the conflict between personal desires and social standards, and maintained the view that the psychologist must not be neutral in this conflict, but must support the ethical conventions of the society which employs him. She condemned the tendency to consider all forms of anti-social behaviour as symptoms of mental illness or imbalance. This would hinder both prevention and cure, which consist in assisting both parents and teachers to train children better so that they have the security of both affection and discipline to enable them to face the vicissitudes of life and enjoy the struggle.

Failure can be understood if the answers to the following three questions can be found: "What challenge in his own life has the child failed to meet?" "Why has he failed?" "Why has his failure resulted in this particular symptom?" Failures referred to the service are usually failures in learning, failures in behaviour, or failures to be happy—the backward, the delinquent and the neurotic.

Even those backward by low intelligence can be trained to make the best rather than the worst of their poor endowment. Assiduous work and good habits can overcome much of that handicap. Intelligent children who are backward have usually never learned to expend effort on jobs they dislike. The reason may be found in faulty home-training; but severe mental conflict may have the same apparent result, and cases must be carefully distinguished.

With the delinquent, Miss McCallum deprecated the popular view that psychological treatment can be a substitute for basic character training. The ordinary parent and teacher are more aware of possible dangers to child development from excessive discipline than of the need for it, and as a result many children hold all authority in contempt. Some delinquency is, however, the result of emotional breakdown and requires skilled investigation and treatment, and must not be confused with that due to lack of control.

Many of the neurotic children are best treated at the residential clinic and school, where individual lines of treatment can be carried out through the whole twenty-four hours, while the children are following all the activities of a good boarding-school and some of those of the home. On following up the after-histories of children who have spent three to twelve months in residence, 80 per cent of successes are claimed.

Over the whole service the greatest stress is laid on co-operation with teachers, who receive reports on their children in non-technical language, and visits to advise them on the important part they can play in treatment. Influencing the child through parent and teacher is more effective than the direct intervention of the psychologist.

The third paper at this session was by Prof. E. A. Peel, who gave examples of objective investigations which have cast light on practical educational problems. One of the fundamental difficulties of research is to decide upon a sound and acceptable educational criterion. This is rather less difficult in experiments on classifying pupils than in those dealing with the efficacy of teaching methods, and possibly for this reason more work has been done in this field. The work of Burt and Thomson has given us a picture of the field of special abilities significant for education. To educational, practical or mechanical and aesthetic factors, and a factor dealing with the use of words and ideas, Prof. Peel would add one of interest, though the last is difficult to test in the absence of a suitable

criterion. A projection test of some kind might serve. The rather negative results of experiments designed to show whether the structure of abilities becomes more differentiated with increase in age might be due to the narrow range of ages experimented upon, mainly eleven to fourteen.

The only moderately high predictive value of tests of success in grammar schools is, as a result of experiment, being raised. Investigations on the practice effect of re-tests suggest that the effect varies with intelligence. Analysis of the different ways in which different teachers assess personality might improve the possibility of obtaining reliable forecasts from teachers.

As examples of research on teaching methods, the work of Burt and Lewis on methods of teaching reading to the backward was mentioned. The dull require different methods from the bright. It is noteworthy that while a change of method might be an advantage with reading, it is a disadvantage with arithmetic. The present position of formal training is that practically all learning is specific except for identical elements, the most important of which are consciously apprehended techniques and ideals. How the results of such experimental work could best be brought to the attention of teachers he left to others.

## INSTITUT PASTEUR DE KINDIA, FRENCH GUINEA

THE Institut Pasteur de Kindia lies in the bush, 7 kilometres from the town of Kindia and 150 kilometres from the port of Conakry, French Guinea. It was founded in 1925 by Dr. Calmette, formerly director of the Institut Pasteur of Paris, as a centre for research on the anthropoid apes, since it was felt that these animals would provide better experimental material in their natural surroundings and climate. Its first director was Commandant Wilbert, who was assisted by Capitaine Delorme. The actual Institute consists of three houses to accommodate the staff and two laboratory buildings. There is also a small hostel for visiting workers. Water is obtained by draining the plateau above the Institute, and the Institute generates its own electricity. It owns land covering some hundred acres and used partly to grow food for the monkeys and partly to accommodate the menagerie, the monkey house and the chimpanzee enclosure.

One of the main studies made with the chimpanzees has been tests of the anti-tuberculosis vaccine B.C.G. (bacille Calmette Guérin). Experiments have also been carried out on the transmission of leprosy, but with negative results. As part of its routine work the Institute carries out microbiological analyses, and is frequently called upon to make diagnoses of rabies, which is very common in French Guinea. During the War the Institute had to restrict its activities and to specialize in the preparation of smallpox vaccines and in obtaining snake venoms for anti-venom sera. Since the War the preparation of dry vaccine has been abandoned because the institutes in France have better facilities for producing vaccines of high virulence at a low cost. On the other hand, owing to the difficulties which the Institut Pasteur of Paris has encountered in obtaining snake venom from tropical regions, the Institut Pasteur of Kindia has had to develop this side of its activities. It has

therefore added a snake-house so that it can send regular supplies of venom to Paris; and it has, in fact, become the French African centre for research on snakes. The Institute also acts as a depot for the supply of anthropoid apes to France and sends to the Institut Pasteur of Paris some two hundred a year.

The Council of Administration of the Institut Pasteur of Paris has recently decided to strengthen the Kindia Institute, to enable it to resume its pre-war activities. The staff now consists of a medical director, assisted by a veterinary surgeon and a team of technical assistants. The director, Colonel Lefrou, is very anxious to be kept informed of research in Great Britain in the fields in which he is particularly interested—anthropology, biology and zoology—and would be glad to receive scientific literature. He would send in return reprints of the Institute's reports, which will appear, as in the past, in the *Bulletin de la Société de Pathologie Exotique* or in the *Annales de l'Institut Pasteur*. He would also welcome any inquiries from British research workers who are interested in the Institute's activities, to be addressed to: Le Médecin Colonel Lefrou, Directeur de l'Institut Pasteur, Kindia, Guinée Française.

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## MARINE BIOLOGY IN BRITAIN

THE annual reports\* of three British marine biological laboratories have recently been published. In each case the period under review has been one of post-war re-organisation and expanding activity.

The report of the Millport Laboratory of the Scottish Marine Biological Association appears in a larger format than formerly, and is bound inside a common cover, with copies of all scientific papers published from the Laboratory in the course of the year. These 'collected reprints' will not only form a useful exchange for the publications of other laboratories, but will also, for the first time, provide an adequate indication of the scope of the work carried out at Millport.

The Laboratory's 40-ft. vessel *Nautilus*, which has given such good service since 1923 and is well known to many biologists, has now been replaced by a new and larger ship—a 75-ft. Admiralty-built motor fishing vessel which has been extensively altered and refitted to adapt her for scientific research work. Her name, fittingly enough, is *Calanus*, after a small planktonic crustacean, important as fish food, on which much productive research has been done at Millport. A photograph of the *Calanus* and her predecessor, the *Nautilus*, forms a frontispiece to the report.

During the year covered by the report, the staff was enlarged by the appointment of an algologist and an additional zoologist, and Dr. A. P. Orr, a senior member, was made deputy director on assuming special responsibilities in respect of the new and larger ship. The scientific work of the station, in full swing on an increased scale, covered plankton investigations, oyster culture, life-histories and growth-rates

\* The Scottish Marine Biological Association: Report of the Executive to the Council for the year to March 31, 1948. Pp. 36. (Marine Station, Keppel Pier, Millport, Isle of Cumbrae.) n.p.  
The Marine Biological Station, Port Erin, Isle of Man: Annual Report (No. 61) for 1948. (University Press of Liverpool, June 1949.) 3s.  
The Dove Marine Laboratory, Cullercoats, Northumberland: Report for the Year ending July 31, 1947. (Newcastle upon Tyne: Marine Laboratory Committee of King's College, 1949.) 5s.

of marine algae, anti-fouling researches, structure and habits of molluscs, and general faunistic observations.

The Port Erin Laboratory, Isle of Man, likewise reports additions to its staff and increasing activity on a wider scientific front made possible by the acquisition of a motor research vessel, a 61½-ft. Admiralty motor fishing vessel suitably converted, and christened the *William Herdman*. She is equipped for seine-netting in addition to trawling and is fitted with an outboard type of echo-sounder. Immediately the ship became available, in September 1948, biological investigations at sea were put in hand, particular efforts being made to discover and survey herring spawning grounds. Plankton studies and researches into the life-histories of marine animals and plants are also being carried out.

At the Dove Marine Laboratory, Cullercoats, research is also proceeding actively. All members of the staff have taken part in an important survey of the marine fauna of the district, an ambitious programme of which much yet remains to be done, especially below low-water mark. In addition, an intensive study of salmon in the fishery district of the River Tyne has been completed, and an investigation into the physico-chemical conditions in estuarine muds, with special reference to the evolution and absorption of phosphates, has been begun.

After reading these reports, one is left in no doubt that marine biological research in Great Britain, after the relative stagnation of war-time, is now restored to full and vigorously growing activity. This is most welcome news, for there is, indeed, much to do in every branch of the subject.

G. A. STEVEN

## FOURTEENTH INTERNATIONAL VETERINARY CONGRESS

MORE than a thousand delegates and members from fifty-three countries attended the recent International Veterinary Congress held in London. The theme of the Congress was the contribution of the veterinary profession to world food supplies, and Lord Boyd Orr expressed the view that "if the control of animal diseases could be organised on a world-wide basis, there is no doubt that with our present knowledge we could enormously increase the amount of dairy and meat products available for human consumption". He went on to say: "Here then is a great field for veterinary science. Unfortunately, like all other branches of biological science which seek to enrich the world in the equal interest of the people of all countries, it is starved of funds. The veterinary profession needs a strong international organisation on the lines of the World Health Organisation, through which Governments could co-operate more actively in the elimination of preventable diseases on a world scale."

Both the lectures delivered in plenary session and the papers presented at the thirty-one sectional meetings were largely concerned with veterinary preventive medicine. There was considerable emphasis upon measures for improving the health of whole herds and for controlling disease upon the widest scale, national and international—a fact which must have impressed any layman who still thought of the veterinary surgeon as someone who merely treats the individual animal after it has become ill or injured.