with severe enteritis. His examination of the stools had progressed as far as demonstrating the presence of a non-lactose fermenting organism. This pointed to the possibility of infection with *B. typhosus* or other organisms of the Salmonella group which could account for the enteritis. Mr. Wilkie had been given a history of eels in his patient's diet. I decided to investigate this.

The situation at that time was as follows: We had no evidence of any cases being connected with the shop beyond our original four notifications. There were three distinct investigations proceeding in connexion with enteric fever—missed, suspected, and actual—in the borough. There was a small, well-confined outbreak of ten cases of food poisoning in an institution.

On investigation at Mr. Horsman's lodgings it was found that he had eaten ham from the shop on August 20 or August 21. He lived alone in a furnished room. He was ill on August 22, and his doctor sent him into St. Pancras Hospital late that day. We obtained the ham which remained and had it examined bacteriologically at University College Hospital. The final report on that was: no typhoid, paratyphoid, or dysentery bacilli; no organisms of the food-poisoning group were isolated, such as B. gaertner, B. aertrycke, or B. newport; no other abnormal coliform organisms isolated. On culture there was a very marked growth of staphylococci, 10 per cent. of which were S. aureus and 90 per cent. S. albus. A growth of non-haemolytic Streptococci mitis was also obtained. At the same time as this investigation led us so directly to the suspected ham and suspected shop, Mrs. S. admitted the connexion there and the other cases were brought to light.

The fact that a food poisoning outbreak had actually started was now evident. Doctors working in the affected area were immediately informed of this. Some doctors had already met the epidemic and were able to make a diagnosis of cases which had puzzled them. We followed up these cases at once from lists supplied by the doctors, and were able in that way to trace the food eaten, in all except one case, to some connecting link with the Finsbury shop. It will be seen that cases came under notice in various ways: statutory notification, notice by patients letters, and in the course of investigating other cases. The epidemic is not yet fully explained. There has been no time. These brief facts and questions may produce interest and may be answers to some of the problems which the outbreak has produced.

The Question of "Toxin"

Gaertner bacilli have been isolated in a number of the stools. One man was ill within five hours of eating the ham. Other patients were ill within eight and nine hours. Most of them took twelve hours and more. The question arises, Can a Gaertner infection be followed by enteritis in the short space of five hours? Was there a massive dose of preformed toxin in the meat? The following case is interesting. Mrs. C. bought some breakfast sausage from the shop and gave it to her two sons. She is quite certain she had none of the food herself from that place. The three were taken ill at the same time and she was removed to hospital. Her stools were very carefully examined, but no Gaertner organisms were found. Were these cases affected by toxin? If so, it must have been very potent to act in the way it did. In several cases where groups of people, say a family, were affected it has been interesting to relate the amount of the suspected food eaten with the severity of the illness. The rule seems to have been that the more eaten the greater the degree of attack. This was shown in two groups by the number of "poisoned' sandwiches eaten. These and the many other interesting points which have arisen in connexion with this epidemic will receive further consideration, and will no doubt form the subject of a complete report at a later date.

The Duke of Kent will open the new radiological department of the North Staffordshire Royal Infirmary, Stoke-on-Trent, on October 13. The department has cost £24,000, of which £11,000 was given by Mr. G. H. Downing, a former High Sheriff of Staffordshire.

POSTGRADUATE MEDICINE

THIRD INTERNATIONAL CONGRESS AT BERLIN

We are indebted for the following account to Colonel A. H. Proctor, D.S.O., M.D., Dean of the British Postgraduate Medical School, Hammersmith.

The Third International Congress on Postgraduate Medical Education began on August 21 in Berlin. There have been two previous congresses on postgraduate medical education, the first in 1909 in Budapest, and the second in London in 1913. Since the war no further congresses have been held. This year's congress was organized by Professor Adam, a member of the original committee, and Secretary General. The German Government gave generous help and assistance, and the meeting was presided over by Dr. Kurt Blome, the director of postgraduate medical study appointed by the Reich medical leader. The congress met in the large hall of the Langenbeck Virchow House, and the interest aroused is shown by the fact that although the hall will seat 700 people extra chairs had to be brought in. Forty countries were represented, France by no fewer than eleven delegates and Japan by nine.

Dr. Pfundtner, Secretary of State for the Interior, who formally opened the congress on behalf of the Reich Minister of the Interior, Dr. Frick, who was unable to be present, referred to the influence of such meetings in promoting international good will and friendship.

The Doctor in Modern Germany

The Reich medical leader, Dr. WAGNER, then read a paper on "The Position of the Doctor in the New Germany." He opened by stating that the doctor's chief duty was to combat those conditions "which history shows have caused nations to perish "-namely: (1) the decline of births; (2) the swamping of the best and most capable parts of a nation by those elements which had no right to existence; (3) the mingling with the blood of a different race. The chief task of the German doctor lay in promoting all measures which would strengthen the health and vigour of German individuals. He outlined the scheme by which a medical survey of the whole working population was to be carried out and early departures from normal health recognized and treated. In future each German was to get a medical certificate which would record all medical facts of importance from birth to death. (Free choice of doctor was insisted on.) The new "Reichsärzteordnung" of April 1, 1936, fixed the rights and duties of the German medical man. It was a legal duty for him to support the steps taken by the State and party in the sphere of population and health policy. The profession of a doctor was no longer a trade in Germany, but a public task settled by law. The "Chamber of Doctors" (Reichsärztekammer) controlled the medical profession. It could distribute doctors systematically over the country and prevent, if necessary, the setting up of practice in places whose requirements were already provided for. Postgraduate education was no longer left to his discretion. It was his duty, and only teachers were exempt from such courses. The Chamber also had full disciplinary powers. Permission to join the panel under the insurance scheme was given by committees consisting of doctors appointed by the K.V.D., a special corporation including all doctors on the panel. It was to this body the panel doctor was accountable for the fulfilment of his contract, and this corporate body was responsible to the insurance organization for the orderly and good medical treatment of the insured person.

Postgraduate Education in Germany

In a paper on research and postgraduate study Professor Borst of Munich put forward a strong plea for free and independent research—that is, research which had no particular aim other than to determine true relationships. Only in times of stress and in emergencies could the research worker be assigned special problems. He stressed the necessity of training the rising generation. Research, instruction, and medical postgraduate study were inseparably related. Postgraduate courses must include the progress made in the natural sciences and in biology. Research was essential for the good physician, and must find a place in all sound proposals for postgraduate education.

The organization of postgraduate study in Germany was described by Dr. BLOME. Intensive refresher courses for all doctors were now compulsory once in five years. In 1936 4,941 doctors attended such courses. The number of doctors attending each course was limited to twenty, and postgraduate centres had been established in sixtyeight centres. Country practitioners attended for three weeks, but medical men residing near centres could take evening courses over a longer period. These were not regarded as so satisfactory. At each centre a director had been appointed whose duty it was to organize courses in co-operation with the instructors and in accordance with the general principles laid down. Fees were charged for the courses and had to be paid by the doctors themselves; assistance was provided for those who needed it. Advanced study was basically international in character and was guided by the Academy for Medical Postgraduate Study. This was given in a university or an academy. For example, Munich academy was devoted more especially to the physiology of work, and in Dresden studies were conducted in nature courses, spa treatment, fasting, and other forms of treatment which had been largely in the hands of non-medical healers. These courses were now sponsored by the medical profession and not, as formerly, by the administrative authorities of bathing resorts and spas. Special courses were held at Alt-Rehse, where there was a school for leaders of the medical profession. (By "leaders" are meant leaders for the organization of health policy in accordance with present political ideals in Germany.)

Dr. Blome was followed by Professor OBERLING of the Medical Faculty, Paris, who gave a survey of medical postgraduate study in France, and a further paper on the importance of pathological anatomy for postgraduate instruction. Speakers from Austria, Japan, Italy, Switzerland, Greece, and Poland each in turn described postgraduate facilities available in their respective countries.

The "New" German Medicine

On Monday, August 23, the congress opened with a paper by Professor Grote, Superintending Physician of the Medical Clinic of the Rudolf Hess Hospital at Dresden, on the "New German Medicine in Postgraduate Study." Professor Grote's paper was a little difficult to follow. It indicated that the new German medicine had acquired a new outlook in two directions. First, it was concerned with the diseased conditions in racial and national life, and therefore devoted its attention to problems of heredity and the conclusions to be drawn from them. From this had arisen the new marriage laws and prevention of hereditary disease. Secondly, in the past German medicine had been mainly concerned with the cause and mode of origin of symptoms in an attempt to attain ideal

therapy by treating the cause. German medicine to-day was engaged in the interpretative analysis of symptoms and their significance, and in the region of therapy was investigating dietetic and physical procedures which had met with success in the treatment of disease.

Colonel A. H. Proctor, Dean of the British Post-graduate Medical School, London, read a paper on the British Postgraduate Medical School and the necessity for separating postgraduate from undergraduate teaching. He referred to the part played in postgraduate education by hospitals devoted to special diseases.

Postgraduate Training in Obstetrics

Professor Wagner of Berlin and Professor Van Rooy of Amsterdam read short papers on the particular difficulties of postgraduate study in obstetrics. Each reviewed briefly the conditions for the training of students, and suggested that this should extend over several years. Postgraduate training in obstetrics was even more difficult as it had to be crowded into a short space of time. Professor Wagner considered the problem hard to solve in countries where delivery in the home with the aid of a midwife and eventually a general practitioner or a specialist was advocated. He recommended the utilization of large public lying-in hospitals which did not serve any other educational purpose. All physicians engaged in the practice of obstetrics should be compelled to attend postgraduate courses periodically.

Surgery, Tropical Medicine, Radiology

Professor SAUERBRUCH, Director of the University Surgical Clinic, Berlin, in a paper on postgraduate study in surgery, stressed the difficulty of training in operative surgery and the necessity of illustrating the principles of surgery in simple cases.

Professor MÜHLENS, Director of the Tropical Institute, Hamburg, said that the courses held there included a special nine weeks' course, at the end of which an examination was held and a diploma granted. Other courses provided were: one in Spanish, a special course for ship surgeons, courses for candidates for the degree of doctor of medicine, and for assistantships in various laboratories and in the tropical hospital. As many as 300 or more students attended during the year from all parts of the world

Professor Holthusen of Hamburg, in a paper on diagnosis and therapy by radiation, drew attention to the fact that various specialists used x rays in their clinical work, and many general practitioners were also more or less active in this field. Efforts were now being made to induce more practitioners to take up radiology as a special subject. Measures for training the rising generation of doctors had not kept pace with requirements.

Postgraduate Study in Psychiatry

Professor Klaesi, Director of the University Psychiatric Clinic in Berne, in an interesting paper on postgraduate study in psychiatry, referred to the loss of the old family physician, who was helper and counsel not only in disease but also in the emotional and moral problems of his patients. One-sided thinking in the natural sciences had led to the functions of the old family physicians being taken over by "occupational" and "matrimonial" advisers, "psychotechnicians," and quacks. The student should be stimulated to take an interest in psychiatry and in the wider study of human conduct. He considered that facilities for postgraduate study in psychiatry could

be provided by properly edited periodicals, evening clinical demonstrations for general practitioners, and vacation courses.

Dr. ENGEL of Berlin, discussing the importance of post-graduate study for the State and those who administered insurance, pointed out that there were 20,000,000 insured persons in Germany, and their healthy working power was a most precious possession. The influence of medical progress affected not only the present but future generations. He stressed the great importance of postgraduate study in industrial organization in raising earning power, in providing occupational welfare work, and in the prevention of disease and the treatment of accidents.

The Cancer Campaign

The morning of Tuesday, August 24, was devoted to the campaign against cancer and its importance as a subject of international postgraduate study. The discussion was introduced by Dr. Schraenen, Secretary of the Belgian Society for the Combating of Cancer, and by Professor Auler, Secretary General of the German Commission. Other papers were contributed by Professor Fischer, Rostock; Professor König, Wurzburg; Professor Schröder, Leipzig; Professor Haubold, Berlin; and Professor Reding, Brussels.

Dr. Schraenen said that the object of the campaign against cancer was to give the best possible treatment to the greatest possible number of patients at the earliest possible stage of the disease. In order to achieve this ideal the following demands must be met. public should have a basic knowledge of the nature of cancer, know what methods existed for fighting it, and above all must be persuaded of the importance of their own co-operation in this struggle. The diagnosis of cancer must be so organized that the disease might be definitely recognized as early as possible. Opportunities for suitable early treatment should be assured. For subsequent treatment there must be a service of supervision, and also a "social cancer welfare" organization devoting itself to the economic and psychological consequences of cancer for the patient and for his family. The measures required for this were the special scientific training of medical students in relation to cancer; a constant reawakening of the interest of practising physicians (for example, by making available to them treatises on the progress of cancer research, by courses, by postgraduate lectures); close co-operation of physicians in dealing with individual cases through the welfare service of the cancer league; co-operation between the medical profession and the anti-cancer centres (institutions which unite all the measures for dealing with cancer-diagnosis, therapy, research, and instruction). The practical side of the question, which had been recognized by all as being of the utmost urgency, had not been tackled.

Professor Lambadaridis of Greece said that in Greece the mortality from cancer was probably higher than in any other civilized country. The total population was about 7,000,000. He estimated that about 350,000 were suffering from cancer. Statistics, however, were for various reasons lacking. This year an institute for cancer research had been established from public and private funds, but there was a serious lack of doctors with special training. Examination stations should be established which the entire population should be compelled by law to visit at regular intervals. The family doctor had an important part to play in the fight against cancer, especially in early diagnosis. Professor Lambadaridis's proposal that the family doctor should remove biopsy speci-

mens for diagnosis, although it may not be approved in this country, may, with the conditions of practice in Greece, be necessary there. In Greece it may be impossible to obtain the opinion of an expert in these cases or to send them to a hospital until their diagnosis is confirmed.

Professor Schröder of Leipzig described the part the general practitioner could play in the campaign against uterine cancer. He advocated written and pictorial propaganda, exhibitions, and instruction by social workers, community nurses, and midwives.

Films in Education

On Tuesday Dr. KITTLER read a paper on the use of films in postgraduate study. Some excellent films illustrated the indications for the administration of insulin in diabetes. So far as major surgery was concerned, it was thought that films could only serve to broaden the therapeutic range of vision of the general practitioner; they were not of much use in teaching operative surgery. Interesting films of the mechanism of labour, made up in the same way as the well-known Walt Disney films, were also shown.

An International Academy for Postgraduate Work

On Tuesday afternoon a special meeting of the International Congress of Postgraduate Medical Education Committee was held, and a proposal was brought forward to establish an international academy of postgraduate work and research. The draft constitution and statutes were submitted and a prolonged discussion took place on the various proposals contained therein. The object of the academy is to foster medical postgraduate work and research on an international basis; to make accessible to all the other members of the academy the achievements of the various countries and their investigators, both in general medicine and in its special branches. Its duty would be to organize postgraduate courses, study-meetings, and congresses; control the exchange of teachers and students of every affiliated country; to offer opportunities for advanced and postgraduate study in each country; to arrange study-tours in foreign countries; to improve methods of teaching, especially with regard to the use of films; to translate and distribute publications of special importance from distant places; to help to finance important research; to impart information about the particular problems of various countries and their branches of research; to distribute and advise doctors of affiliated countries, groups, and special groups.

It is proposed that a permanent bureau should be set up in Berlin, and the general organization was outlined. The approval to establish such an academy was carried by a large majority and the draft constitution and statutes were referred to a smaller committee. Such an academy would serve a very useful object not only in promoting medical progress but in furthering international fellowship and friendship.

Facilities for the Foreign Doctor in Germany

Wednesday, the concluding day of the congress, was opened by a paper by Professor Adam of Berlin, on the opportunities for advanced study for foreigners in Germany, such as: (1) posts as voluntary assistants in clinics and institutes, the smaller universities being best suited for this; (2) the international postgraduate courses in March and October for specialists in their given fields;

(3) courses in Spanish specially designed for Latin-American students. Professor Adam also described the various organizations which gave special aid to foreign physicians. These included: (a) the Information Office of the Kaiserin Friedrichhaus, Berlin; (b) the Foreign Section of the University of Berlin Staff Association; (c) the Institute for Foreigners in the University of Berlin, devoted chiefly to teaching the German language to foreigners; (d) the America Institute; (e) the Japan Institute; (f) the German Academic Exchange Service, an organization which arranges exchange positions for German and foreign physicians: with its Humboldt Foundation it is in a position to grant fellowships to foreign physicians during their stay in Germany.

Dr. Kennedy of Cornell University, New York, then began a general discussion on the international exchange of instructors and students, in which a number of delegates took part.

Industrial Medicine

A discussion on instruction and postgraduate study in industrial medicine was introduced by Dr. BAADER, Director of the University Institute for Industrial Medicine. Stressing the necessity for special study in this particular branch of medicine, he pointed out that in Germany this was a post-war development and that rapid mechanization and technical processes had resulted in the manual labourer being worn out at the age of 45 to 50. In Berlin there was a university institute for occupational diseases. At Munich there was an institute for the physiology of work and a pathological institute for industrial and accident hygiene. In the Ruhr district several hospital departments were engaged in the study of pneumonoconiosis, etc. Besides these, special clinical departments in industrial hygiene are provided at the Reichsgesundheitsamt, the Workers' Protection Museum in Berlin, the Museum of the German Society of Workers' Protection in Frankfort-on-Maine, and the Bochum Museum of

Dr. E. L. MIDDLETON, one of the English delegates, described the education in industrial diseases that is provided in England, and a number of other physicians from Paris, Italy, Brussels, and Buenos Aires took part in the discussion.

W. Haupt (Med. Klinik, July 16, 1937, p. 957) cites comparative statistics of mortality from cancer in different countries. For each 10,000 inhabitants 13.4 died of cancer in Germany and 15.3 in England. The general mortality for each 10,000 inhabitants was 107.8 for Germany and 124 for England. However, there is no connexion between general mortality and mortality from cancer. In Chile, for example, the general mortality is 267, while the mortality from cancer is only 7.2. The mortality from cancer in Germany is higher for women than for men, the proportion being 121 to 100. The proportion is much higher in the United States—namely, 220 to 100. Cancer of the genital organs accounts for one-fifth to one-quarter of all cases of cancer in women, and 60 per cent. of all cases occur in women under the age of 50. Unfortunately a large proportion, varying from 42 to 82 per cent., neglect to seek medical advice until it is too late. The author recommends a number of measures for the campaign against genital cancer, the most important preventive measures being voluntary regular yearly examination of all women over 35 years of age and supervision of all cases already treated. Finally, he cites statistics relating to the results of treatment of carcinoma of the uterus in its different stages.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE NOTTINGHAM MEETING

The British Association met at Nottingham this year from September 1 to 8, under the presidency of Sir EDWARD POULTON, F.R.S., and full accounts of its activities have appeared in the daily press. We give here a brief summary of one or two of the subjects discussed at the meeting.

The Presidential Address

The wide general interest in scientific progress to-day is in marked contrast to the antagonistic attitude displayed by other branches of learning as recently as a century ago. When, at the Oxford meeting of the British Association in 1832, honorary degrees were conferred on David Breuster, Robert Brown, John Dalton, and Michael Faraday, current opinion was reflected in a letter from John Keble to a friend: "The Oxford doctors have truckled sadly to the spirit of the times in receiving the hodge-podge of philosophers as they did." The doctrine of evolution probably stirred more widespread opposition than any other scientific advance. In surveying the history of evolutionary thought in the presidential address to the British Association at Nottingham, Sir EDWARD POULTON traced its progress as it may be followed in the series of meetings of the Association, dating as far back as 1881, with which he shimself been personally concerned.

At the Jubilee meeting of that year the outstanding event was Huxley's evening lecture on "The Rise and Progress of Palaeontology," the foundation upon which geographical, geological, and biological evolutionary history had been built. It was surprising to reflect that many of the older naturalists, even so late in the Victorian era, had found almost insuperable difficulty in believing that the land had been for the most part deposited under the sea, or in accounting for the presence of fossils, "formed stones" as they were called in those days. Huxley cited the work of Nicholas Steno of Florence, published in 1669, concerning certain fossils of the Tuscan rocks, known as glossopetrae, and commonly believed to be fossil fig leaves. By dissection of a shark's head Steno showed the complete correspondence between the "glossopetrae" and the shark's teeth—"that in fact they were shark's teeth." veying Steno's further studies of Tuscan fossils, proving their relationship to terrestrial, fresh water, and marine organisms, studies later extended over a wider area by Button, Huxley envisaged the framework of palaeontology as thereby completed save for one component. This was supplied towards the end of the eighteenth century by William Smith, who showed that rocks of the same age were identifiable in all parts of the world, while the biologist could follow the changes in living organisms, constituting a record of constant extinction and continual regeneration of new species.

Following the establishment of the conclusion that life has existed in this world over a vast period of millions of years, discussions regarding the actual age of the earth continued intermittently at British Association meetings from 1892 until 1921. It was a matter of difficulty to reconcile the conclusions reached by exponents of different sciences. Thus the physicist, Lord Kelvin, estimated a hundred million years as the period during which the earth had been sufficiently cool to support life, an estimate later reduced by Professor Tait to ten million. The geologists and biologists, however, maintained that an immensely longer period was required for the history of fossiliferous rocks and the evolution of animals and plants. In 1896 the