practitioner, who had the opportunity of seeing the first signs of temperamental change in a young patient whom perhaps he had helped to bring into the world.

As for radiation, the epithelium of toxic goitre was radio-sensitive, and he had seen good results maintained for some years in young patients and patients in the early stage of the disease. On the other hand, he had had 166 patients sent for operation after they had been given a full course or courses of x-ray treatment early in their lives, and of this number twenty-six had established fibrillation at the time they came for operation.

Lecture II ended with a few words on anaesthesia. Sir Thomas Dunhill's practice was to have a little premedication, with avertin following that, and under avertin the patient never knew she had left her bed. The neck could be injected early with local anaesthetic solution, and afterwards a little nitrous oxide and oxygen was grateful and comforting for operator and patient.

(To be concluded)

# COMBINED ENGLISH UNIVERSITIES SEAT SIR HENRY BRACKENBURY'S ELECTORAL ADDRESS

The following is the text of the address to the electors of the Universities of Durham, Manchester, Liverpool, Leeds, Sheffield, Birmingham, Bristol, and Reading by Sir Henry Brackenbury, M.D., LL.D., vice-president of the Association of Education Committees and Vice-President of the British Medical Association.

I have been invited to become a candidate for the representation of the Combined English Universities in the House of Commons, as one who is completely independent of all organized political parties. I believe that such a position is the most suitable one for a university representative, and I have for some years past not been a member of any such party. I am a firm believer in the national usefulness of university representation, but this cannot be justified or long continued if it is regarded as a refuge for parliamentarians without a seat or as a mere recruiting ground for those who are chosen by, and owe their main allegiance to, purely party political organizations. It must be remembered that the vote of a graduate, as such, is a second vote, and that he has an opportunity of giving his first vote on party grounds if he wishes to do so.

As a citizen I am not without views as to a number of political questions, but I have accepted candidature at this election because I believe that I could contribute something useful to the consideration of progress and reform in the fields of education, health, and what is called broadly social welfare. I am fully aware of the main problems which these fields present, and have had a somewhat wide experience of the organization and administration necessary for their effective solution.

#### Motherhood and Childhood

The main hope for the future of this country is the cultivation of childhood and the full development of all its immense potentialities. The chief care of the nation should be to help and encourage motherhood and to make it as safe as possible; and to secure for children, even from the pre-natal stage up to full adolescence, such a physical and mental environment as will permit of the development of a complete and many-sided personality. I appreciate the efforts which the present Government have made and are still making to these ends; but bolder, more continuous, and more co-ordinated efforts are required. A fuller and integrated scheme for a national maternity service is immediately necessary.

#### Education and the Teacher

Nursery and open-air schools should be further encouraged, and many of the older school buildings should be radically

altered or replaced. The provision of playing fields, gymnasia, and swimming baths should be facilitated. Restrictive regulations on secondary school buildings, made when economy was urgently required, should be rescinded; in the planning of new schools, both elementary and secondary, due regard should be paid to the provision of suitable and sufficient dining-hall and kitchen accommodation. A larger proportion of specially qualified, trained, skilled teachers is required in most schools, not least in those for infants and junior scholars and for retarded children. The coming considerable fall in the number of children of school age should not be used for an immediate reduction in teaching staff, but rather as an opportunity for securing smaller classes and a higher proportion of teachers to children. It should be made possible for teachers to take their due share in public life. Some of these things cannot be effected at once or very quickly, but they should be the subject of definite plans to be accomplished within a relatively brief period.

#### Nutrition

The question of nutrition is even more urgent, and can, if there is the will, be more easily and rapidly dealt with. Considered broadly there is room for anxiety but not for alarm. There are no exact criteria by which degrees of nutrition can be measured, and therefore individual assessments may vary; but according to recent statistics the percentages of the elementary school population placed in each of the four categories officially recognized are: excellent 14.6, normal 74.1, slightly subnormal 10.6, bad 0.7. It should be remembered, however, that such arithmetical statements may be a veil which covers diversities of great importance, and the community ought not to rest satisfied so long as there are any under-nourished children in the country. Factors concerned with nutrition are many. Food is doubtless the most important, but sleep, atmosphere, sun, exercise, and psychological conditions of fear, distress, and unhappiness are others. All these require attention, but much could, and should, be at once accomplished by a wide and wise extension of the scheme for milk in schools, by a better method of providing and serving for midday meals in many schools, and by the continuation, where necessary, of these provisions over holiday periods.

## Physical Training

The interrelationship between physical training and both nutrition and mental training is so close that they cannot properly be separated. I am in full sympathy with the proposals of the present Government in this regard. I was a member of the Executive Committee of the Central Council of Recreative Physical Training and of the Special Committees of the British Medical Association on Nutrition and on Physical Education, which have had so profound an effect in guiding public opinion and formulating policy on these questions. I hope that experience gained in these investigations and surveys might prove useful in the designing of practical measures for development.

## Care of Health, Mental and Physical

The gaps still remaining in the continuity of care for children and young persons should be filled; and the permitted hours of labour of those who have entered industry shortened. The dependants of persons insured under the National Health Insurance Acts should be included in that health system, and some needed extensions and improvements of that service should be effected. Indeed, the time is ripe for the initiation of a comprehensive general medical service for the nation based upon the prevention of disease, the promotion of positive health, and the provision of skilled medical care and attention, both general and specialist, for those who are ill. Such a scheme should be established after full consultation with the medical profession. The need for the care of mental health, especially for those distressing conditions of fear, anxiety, obsession, and the like, both in children and in adults, which cause about one-third of the incapacitating illness of the country, is quite as great as that for attention to physique and to bodily ills. This has not received a sufficient degree of national attention.

#### Research

Biological, psychological, and medical research into many aspects of maternity, mentality, and educational methods, as well as research into various branches of technology and agriculture, should be more fully aided by the State, preferably under the auspices of the universities of the country.

#### **Medical Education**

If it be true that a well-educated and properly used medical profession is probably the best safeguard of the public health, the subject of medical education is of great importance both to that profession and to the public. I have been prominently concerned with more than one of the recent inquiries which have been made into this matter, and while I am convinced that most of the changes in the newly prescribed curriculum will tend to the improvement of what was already good. changes in medical science, social needs, and pedagogic methods are so rapid and significant that continued efforts are required to keep medical education fully adapted to the needs of the community. The interrelationship between the study of the preliminary sciences and general subjects leading up to the medical course and the work of the secondary and public schools is so intimate that there ought to be far closer consultation and co-operation between those responsible for these respective fields of study. This is true also in some degree in reference to engineering and to the application of science to industry.

#### Special Areas

All these things are matters of nation-wide interest; some of them are aggravated in the special or necessitous areas. More prompt and vigorous methods than have yet been used are required to meet the adverse conditions of these areas; and these should be mainly in the direction of industrial revival and establishment in their neighbourhood rather than of dispersal of their population.

# Peace and the League of Nations

Peace and good neighbourliness among nations are essential if world disaster is to be avoided, and I hold that they can be successfully pursued not only through diplomatic channels and by the lowering of economic and trade barriers but by firm reliance on the League of Nations. The successes of the League in many spheres, even the political, have been far greater than is commonly supposed. Its major failures, as in the cases of Japan and Italy, have not demonstrated its futility, but have rather shown the way to greater effectiveness by some modification of methods.

#### **Defence of Democracy**

The defence, both material and cultural, of democracy has once more to be undertaken. I am prepared to support all such measures as are shown to be essential for such defence and for the safety of this country and of the British Commonwealth of Nations which are its chief exemplars, but the best justification and most abiding support for democracy will be found in assiduous attention to the health, education, and material and spiritual well-being and freedom of the people.

The second Conference on Industrial Physics will be held under the auspices of the Institute of Physics in Birmingham from March 18 to 20. The subject of the conference is "Optical Devices in Research and Industry." An exhibition of instruments, apparatus, and books cognate to this subject is being arranged, and will be held in the physics laboratories of the University of Birmingham. A section will be devoted to popular applications of optical devices, including photocells. The presidential address on "Spectroscopy in Industry" will be delivered by Professor A. Fowler, D.Sc., F.R.S. Visits to local works and research laboratories will be included in the programme. There is no conference fee and membership is open to all interested. Particulars may be obtained from the secretary, Institute of Physics, 1, Lowther Gardens, Exhibition Road, S.W.7.

# Reports of Societies

#### AETIOLOGY AND DIAGNOSIS OF JAUNDICE

At a meeting of the Medical Society of London on February 22, Sir WILLIAM WILLCOX occupying the chair, a discussion took place on the aetiology and diagnosis of jaundice.

Dr. C. E. LAKIN, in opening, first made a reference to blackwater fever. This disease might occur in those who had suffered from subtertian malignant malaria and from whom the infection had not been completely eradicated. The actual attack might be precipitated by cold, overexertion, or quinine. Haemoglobin was liberated from the corpuscles so rapidly and in such large quantity that the cells of the reticulo-endothelial system were overwhelmed, and the urine was found to contain haemoglobin and the skin was deeply pigmented. Haemolytic pigmentation of the skin was also seen sometimes in cases in which transfusion had been carried out with incompatible blood. There did not exist any sharp line of demarcation between the haemolytic pigmentation of blackwater fever and incompatible blood transfusion on one hand, and on the other so-called haemolytic jaundice. Examples of haemolytic jaundice were those of pernicious anaemia, acholuric jaundice, malaria, Oroya fever, poisoning by potassium chlorate, sulphonal, or some snake poisons, and some cases of septicaemia. When haemoglobinuria occurred in the course of septicaemia the prognosis was thereby rendered

Toxic or hepatogenous jaundice included many conditions of diverse actiology, a main feature being a retrograde change affecting the parenchymatous cells of the liver, so that they could no longer transmit the haemolytic products to the bile capillaries. In cases of toxic jaundice there was usually some splenic enlargement too. When widespread destruction existed the whole liver function was seriously impaired, and the fatal issue was preceded by pyrexia, persistent vomiting, haemorrhages, delirium, and coma. In obstructive jaundice there was a mechanical interference with the passage of bile from liver to intestine, and the digestion and absorption of fat was so defective that the total fat might form 50 per cent. of the stools. Constinution was the rule in this type, but occasionally diarrhoea occurred, ascribable to fermentative changes in the intestinal contents. For determining whether a patient was truly jaundiced only bright daylight should be used for the examination. In the obstructive form the conjunctiva was yellow, but not in haemolytic jaundice.

#### Differentiation of Type of Jaundice

Having decided that a case was one of jaundice the differentiation as to type was based on information yielded by the following: (a) a careful history, including details of family illnesses; (b) clinical examination of the patient; (c) x-ray and perhaps a cholecystographic examination; (d) a laboratory examination of blood, urine, and stools, including in this examination, perhaps, material obtained by duodenal intubation. Sudden jaundice in a healthy patient suggested obstruction of the common bile duct by gall-stone; a slow onset of jaundice, gradually becoming more intense, probably pointed to a new growth in the duct or pressure upon it from without. In a young adult painless commencement of jaundice preceded by evidence of gastro-duodenal catarrh suggested catarrhal jaundice; the indication was not so clear in those of maturer age. When the jaundice was preceded by loss of weight there might be present pancreatic disease, or malignant disease of the alimentary tract. A clue might be gained by inquiring into the kind of occupation followed by the patient. If the liver was palpable it should be determined, if possible, whether its surface was smooth or "hob-