PROCEEDINGS OF THE ASSOCIATION OF INDUSTRIAL MEDICAL OFFICERS

FORTIETH MEETING

The annual general meeting was held on October 19, 1945, at the London School of Hygiene and Tropical Medicine, Dr. J. C. Bridge in the chair. Following the private business, Dr. Bridge delivered his valedictory address as retiring chairman (reported below), and Mr. H. E. Griffiths (London) showed a film describing the treatment and rehabilitation of workers in the Royal Ordnance Factories of the Ministry of Supply during the late war. In the evening a dinner of the Association at the Trocadero Restaurant was held at which the chief guest was the Rt. Hon. Aneurin Bevan, M.P., Minister of Health.

Office Bearers, 1945-46

Dr. W. Blood (London) was elected Chairman and remains in office until October 1947.

Dr. P. Pringle (London) was elected Honorary Secretary.

Dr. Patricia Shaw (London) was elected Honorary Treasurer.

Drs. A. J. Amor (London), J. G. Billington (Birmingham), J. C. Bridge (London), T. A. Lloyd Davies (Nottingham), C. L. Potts (Redditch), and R. S. F. Schilling (London), were elected as the Executive Committee, together with the officers of the Association. Messrs. Ogden, Hibberd, Bull and Langton, Chartered Accountants, were re-appointed as Auditors to the Association.

Standing Committees for 1945-46

Foreign Relations.—Drs. Elizabeth Bunbury (London), W. E. Chiesman (London), A. Forgie (Dagenham), R. E. Lane (Manchester), T. G. Mair (Liverpool), Dr. C. Norris (London), P. Pringle and R. S. F. Schilling.

Industrial Nursing.—Drs. J. G. Billington, P. Pringle, Patricia Shaw, and Catherine Swanston (London).

Representatives on Outside Bodies

Birmingham Accident Hospital and Rehabilitation Centre.—Dr. W. J. Lloyd (Birmingham) was appointed a member of the Board of Management for three years from February, 1945.

British Council for Rehabilitation.—Drs. N. T. Glynn (Birmingham) and C. L. Potts.

B.M.A. Industrial Medical Service Sub-committee.—Drs. W. Blood, J. C. Bridge, G. E. Graves-Peirce (London), and M. W. Goldblatt (Manchester).

British Standards Institute: Sub-committee on Welders' Goggles.—Dr. G. F. Keatinge (Derby).

Central Council for Health Education.—Dr. J. A. Mekelburg (London).

Central Council for Physical Education.—Dr. J. B. W. Rowe (London).

Empire Rheumatism Council.—Dr. T. A. Lloyd Davies.

Institute of Ophthalmology: Industrial Sub-committee.—Dr. H. E. Chard (Dagenham).

Minister of Labour's Industrial Health Advisory Committee.—Dr. M. W. Goldblatt.

National Advisory Committee for War-time Rest Breaks.—Dr. Patricia Shaw.

Research Board for Correlation of Medical Science and Physical Education.—Dr. W. E. Chiesman.

Education Committee's Report

The Chairman announced that the report of this Committee had now been published (see this JOURNAL, 1945, 2, 159). The Association owed a great debt to the members of the Committee and their task was now discharged. The Hon. Secretary reported that there had been an extensive demand for copies from all over the country. The chairman of the Committee, Dr. W. E. Chiesman, stated that the report had been favourably received by the medical press, and by The Times. One of the recommendations was that the Royal Colleges should consider the institution of a Diploma in Industrial Health. In this connexion Dr. Bridge mentioned the fact that the Society of Apothecaries of London had now decided to institute a Diploma in Industrial Health,* but this decision was independent of the Committee's recommendations. Dr. Donald Stewart (Birmingham) mentioned the importance of that recommendation which states that training of nurses for industry should become an important part of the work of University Departments of Industrial Health: it was necessary that co-ordination of this work should occur and he stressed the need for the institution of a new central body to lay down standards of training and arrange for examination for the Certificate in Industrial Nursing. On this body should be representatives of the Association.

Finance

The Honorary Treasurer presented the financial statement for 1944-45, which was unanimously approved and adopted. The Association was in a sound financial position; on the other hand, 17 Ordinary Members and 18 Associate Members had not yet paid their subscriptions for the current year. In addition, 7 Ordinary Members were more than 18 months in arrears. Since many of these might be in H.M. Forces it had been difficult for him to decide on taking more serious steps to collect arrears under Rule 7 of the Constitution, but under this Rule, and by the unanimous approval of the meeting, the name of one member was removed from the list. It was agreed that the sum of 10 guineas be voted to the Association's Prize Fund for Industrial Medicine held by the London School of Hygiene, and that 25 guineas be voted for clerical assistance rendered during the year. It was also decided that the annual subscriptions for 1945-46 should remain at one guinea for Ordinary Members and half a guinea for Associate Members.

Committees of the Association

It was agreed, on the proposal by Dr. Bridge, seconded by Dr. Donald Stewart, that, in future, committees of the Association should be of two types: (a) Standing Committees instructed to deal with long-term programmes, and elected by the Ordinary Members at a general meeting; (b) Sub-committees of the Executive Committee, instructed to deal with short-term or ad hoc programmes, and nominated by the Executive Committee. Both committees would report in the first instance to the Executive Committee, whose responsibility it would become to report thereafter, as it felt was necessary, to a general meeting of the Association. Discussion took place as to the correct placing of such committees as were already in being. The Committee on Industrial Nursing, and the Committee on Foreign Relations, were both approved as Standing Committees. The chairman reported that the Executive Committee had set up a sub-committee to study problems of industrial health as a whole and to advise on current trends—really a development sub-committee. Dr. W. A. Mailer (London) supported by Dr. J. Tarsh (Liverpool) felt that this should be a Standing Committee. Dr. M. W. Goldblatt, Prof. R. E. Lane and Dr. T. A. Lloyd Davies

* See Brit. med. J., 1945, 2, 480.
pointed out that this matter of development and the study of new trends was surely the responsibility of the Executive Committee itself and that the sub-committee would act only in an advisory capacity. It was finally decided that the committee in question should be a sub-committee of the Executive. As a corollary it was also agreed that it could not survive its parent body, the Executive Committee itself.

Royal Institute of British Architects

The Royal Institute of British Architects invited members to attend a meeting of the Institute to discuss 'The Construction of an Underground Factory.' Dr. W. E. Chiesman was nominated to attend on behalf of the Association and asked to report proceedings at a later date, in view of the importance of the subject in relation to the health of the worker.

Spens Committee

The Inter-departmental Committee on remuneration of medical practitioners, under the chairmanship of Sir Will Spens, had invited the Association, through the Ministry of Health, to give evidence on conditions of service and salaries of industrial medical officers. The general feeling of the meeting was that these matters were not within the true functions of the Association, although members were reluctant not to be of assistance. It was agreed that the Honorary Secretary be instructed to send the list of members of the Association to the Committee, explaining the position but at the same time inviting the Committee to approach individual firms and individual members should they desire to do so.

Dinner

In accordance with the Constitution of the Association, and with a post-war policy which will be adhered to whenever possible, a dinner was held at the Trocadero Restaurant, Piccadilly Circus, after the meeting. The Rt. Hon. Aneurin Bevan, Mr. H. E. Griffiths, Sir Wilson Jameson and Brig. G. S. Parkinson were the guests of the evening. The newly elected Chairman of the Association, Dr. W. Blood, presided. Dr. A. J. Amor proposed the toast of the guests. He made special reference to the need for medical supervision in the mines of South Wales, and referred to the first-hand experience the Minister himself had had there in his youth. Mr. Bevan replied on behalf of the guests. In his view industrial medicine and there was an urgent need to provide medical care at the place of work, not only for large firms but for the thousands of small units in industry. Industrial health must be integrated with national health and in this respect the general practitioner must play an increasingly important part in any scheme that might be developed.

SOME THOUGHTS AFTER THIRTY YEARS IN INDUSTRY

BY

J. C. BRIDGE

Having had something to do with industry during two great wars there is certainly one good thing that in my opinion has emerged from them, and that is the increasing regard which has been paid by the Government, employers and people in general, to the health of the workers. These men and women have done a task which has enabled us to look forward to the avoidance of another war which could well decimate our children and our children's children. We must not, however, forget that in the peaceful times even before the war of 1914-18 there were men practising industrial medicine not only in this country but abroad, for example Arlidge, Oliver, Rambousek and Gilbert. By the practice of their profession and their writings these men had undoubtedly shown the important part that medicine must play in the well-being of industry. But I venture to suggest that so far as this country is concerned, the appointment of Whitelegg as Chief Inspector of Factories and the subsequent appointment of Legge as Medical Inspector of Factories were landmarks in the history of British industrial medicine, and did much to emphasize the essential role that medicine must play in industrial affairs.

So much has changed in industry since I was first closely associated with it thirty and more years ago that it is difficult to know where to begin. All that it seems possible for me to do is to pick out some of the outstanding features that occur to a single individual like myself.

One of the most striking things that I find changed is what I may perhaps call the general environment of the worker to which so much attention is now given. My friend Dr. Merewether in his Annual Report for 1943 says—"One can hardly fail to have noted in factories this enhanced consciousness of the importance of healthy living and interest in the means by which it can be achieved." More and more have those concerned with industry appreciated the importance of environment, of matters such as tidiness in the shops, as adding to the comfort and well-being of the worker. Who, 30 years ago, would have thought of the safe passage marked by white lines in an engineering shop for example? In the environment of a worker I must include amenities such as washing accommodation, cloakrooms and the like. While the pail which could be filled with warm water in which the workman washed his hands is still extant, the more convenient form of washing accommodation with hot and cold water laid on, with towels, soap and nail brushes are indeed more the rule now than the exception.

However much I may dislike the term 'welfare,' I feel that we owe not a little to the impetus given to industrialists for the provision of amenities by the activities of the society instituted and continued by my old friend Mr. Robert Hyde. There were few canteens, if they could even be described as canteens, 30 years ago. In my submission there has been no greater contribution to the well-being of the industrial worker than the establishment of canteens at his place of employment. This has been one of the main factors that enabled him to carry on throughout the hard and strenuous years of the late war. I must pay my tribute to my colleagues at the Ministry of Labour who took part in their establishment and to the Minister himself who was so far-seeing as to make them a requirement in factories concerned with the production of materials for war. I personally express the hope and belief that in the peace which we expect will eventually follow, industry will continue this service which is so important.

Some Toxic Hazards

Turning to the definite industrial hazards, industrial poisonings and diseases, and looking back to the days when lead, arsenic, phosphorus, mercury and anthrax were those diseases to which our special attention was directed, so little progress has been made in the recognition of other poisons and diseases which are contracted in industry consequent upon employment. Recognition, however, must precede prevention and the channels of the attack of the noxious substance must be
established before we can approach prevention in an understanding manner. The outstanding example of the importance of recognition, both of the disease and of the channels of absorption of the causative agent, is the work of Legge. His careful observation he not only showed that inhaled dust of a lead compound was the prime factor in the causation of lead poisoning, but also estimated that 2 mg. of lead in 10 cubic feet of air if inhaled daily would produce poisoning. As a result of this observation he advised preventive measures which reduced the number of cases of lead poisoning from over 1000 in 1900 to 72 when I left the Factory Department in 1942. Others, following Legge's example, have enumerated various air concentrations of toxic substances which will cause poisoning.

I must refer also to Legge's work on anthrax. Those of you who are interested in the subject must, I feel sure, have read his Milroy Lectures on this disease. He introduced into this country the scavo serum, a romance of the prevention of the fatal consequences of an industrial disease; and indeed it was a true romance because he brought it back from Italy on his return from his honeymoon.

Thirty years ago there were those recognized poisoning problems which we still have, but others have since been recognized. To-day some 43 diseases are on the compensation list. It is interesting, looking back, to find how the nomenclature of one condition has been altered so often as to be unrecognizable by quite a different substance. For example, in 1915 toxic jaundice was made a notifiable disease on account of its occurrence among workers using tetrachlorethene. Shortly after-war we had lead poisoning and then tetrachlorethene poisoning, and still later on this description fully covered poisoning by chlorinated naphthalene, to say nothing of the jaundice produced by the inhalation of arsenic.

A grave hazard may be produced not only by the introduction of new chemicals into industry but also by the use of even well-known chemicals in a new process. In the rayon industry, for example, in which the cellulose is dissolved in carbon bisulphide, the use of carbon bisulphide gave rise to the possibility of serious illness and I have recollections, in the early days of this industry, of seeing several workmen suffering from chronic carbon bisulphide poisoning. More recent innovations into industry produced by research workers, for example, the numerous organic solvents, the organic chemicals used in the dyestuffs industry, lead tetra ethyl, chlorinated naphtalenes, and the extensive use of luminous paints containing mesothorium, have all raised important health problems. In connexion with this last substance, I introduced the term 'toxic anaemia.' For the purposes of this evening I shall permit for the condition which was produced not only by the ray of radium but also by other substances: the anaemia was found to be of a dysaerthropoietic character. One has been concerned for a long time to think of the potential hazards the workmen engaged in the preparation of the atomic bomb.

As to the mode of entry of toxic chemical substances we have some knowledge, but as to the reaction of these substances on the metabolism of the body once they get into the body we are in considerable ignorance, and it seems to me that until we can elucidate this problem we shall never really arrive at the true solution of the method of prevention. The recognition of carcinoma of the bladder arising in industry, following that of carcinoma of the lung, is historical, but with the introduction of new chemicals its significance has increased. I cannot leave the subject of industrial cancer without referring to the great work done on the subject by my colleague, Mr. Donald Hunter, who has always been interested in the subject. He has been the first to establish the fact that these diseases in the general population, but so far my vision has not been realized.

When I joined the Factory Department 30 odd years ago, Professor Collis was then engaged on the study of silicosis in this country. While I feel that every attention was given to his Milroy Lectures, it was unfortunate that they were delivered during the great war of 1914. But his interest was not confined to the study of this disease, but while Collis did point to the possibilities of silicates causing lung fibrosis little was known until our attention was drawn to cases of lung disease occurring in asbestos workers in Scotland. A very full and careful inquiry made by Dr. Merewether established without question a definite pulmonary disease caused by the inhalation of the dust of asbestos. One of the great problems that has always faced us is the connexion with silicosis has been the grinding of metals and the cleaning of casings and Dr. Middleton's work on this aspect of the problem is no doubt well known to you all. One of the most frequent causes of silicosis was the cleaning of casings by sandblasting, and I must confess that at first the alternative use of steel shot for sand appeared the solution. But it was not long before I realized I was mistaken, for reasons too detailed to consider now. I was more than glad to learn that the new code of regulations issued this year by the Ministry of Labour prohibits the use of sandblasting, but the problem of silicious dust is far from solved—not even by the hydroblast—and the hazard in the fettling of such casings has yet to be prevented. I trust the Committee of the Factory Department which is now sitting will give their fullest attention to this matter in the near future.

The production of highly lethal chemicals, particularly for example lead tetra ethyl, organic mercury compounds and war gases, has led to the development of crops as ready as they are useful, or as easy as they are efficacious, and yet to the producers of such chemicals the idea of what is right as to the proper method of dealing with hazards due to poisoning caused by fume and dust. My colleague in the Ministry of Labour, Mr. Wilkes, has recently addressed the Assay Office in London on the subject of plant when dealing with highly toxic substances such as these. This method of dealing with processes of a high hazard should be developed and I feel sure that chemists and engineers concerned with industry are having and, will in the future, have regard to the elimination of all risk by these means.

Research

It seems right that in briefly reviewing the work of the past few years in industry one should mention the study of an industrial disease, similar in character to that occurring in the general population, should lead to some better knowledge of the disease and its prevention in the population as a whole. Research in industry must not only be a study of the disease and the mode of attack of the causative agent, but also the measures necessary for its prevention. For this research the medical officer, the chemist, the physicist and the engineer must form a co-operative team to work out the solution. While fully appreciating the work that has been done by the Industrial Health Research Board, the scope of this body must necessarily be limited. It is true that the activities of the Board have recently been extended by the setting up of the Department for research in industrial medicine at the London Hospital under Dr. Donald Hunter. In 1935 the Home Office asked the Medical Research Council to set up a committee for the investigation of industrial pulmonary diseases, but just at that time there arose the problem of a disease amongst coal miners atypical of silicosis and the need for compensation overshadowed other inquiries into pulmonary diseases occurring in industry which might then have been made. The knowledge gained in research could have far-reaching application, and the work that has been done by McLaughlin, Dug and others.

In 1936 the problem of the numerous organic solvents coming into use in industry and their effect on health was one which called for further investigation, and the Medical Research Council, at the request of the Home...
Office, set up a committee known as the Committee on the Toxicity of Industrial Solvents under the chairmanship of Sir Joseph Barcroft. The committee's work was circumscribed and its progress was limited during the year or two that elapsed before the outbreak of this war. It was impressed upon me that no committee of this character could function effectively without a research department, so I had in mind the setting up by the Government of a research department which should be intimately associated with the Factory Department and to which industrialists and others concerned could bring their problems. There was, and there still is, a research department at Porton associated with chemical warfare which long before the war I visualized could be turned over to the solution of peaceful problems and the prevention of industrial ill-health. I still hold the opinion that the establishment of a central research department, controlled by the Government, is essential, but while saying this I do not for one minute suggest that industry itself should not continue to carry out research in its own spheres.

**Compensation**

While no doubt the new social insurance legislation dealing with industrial accidents will remove many of the disadvantages of the present system, I am not very happy about it all. It may be that I have a bee in my bonnet, but I am afraid that bee has been buzzing for a very long time. I say that, in my opinion, that payment of compensation for an injury is not really compensation but secures for the injured workman relief of anxiety as to the economic position of himself, his wife and his family. We are, as medical practitioners, fully appreciative of the necessity for relieving anxiety not only in cases of injury but also of illness. I am therefore equally concerned with the ill workman who is suffering from pneumonia or typhoid fever, and with his wife and family; he contracts these diseases, without any suggestion of contributory negligence at his place of work. Compare his case with a young adult who has a simple fracture arising out of his employment. I fail to see why the workman disabled by disease should not be relieved of his anxiety to the same extent as the workman disabled by accident. With the various Medical Boards and Tribunals that are to be set up there should, so it seems to me, be no difficulty in debiting any benefits paid to the man to the appropriate fund. I believe too that this would get rid of a large measure of mistrust towards our profession when we have to say to the workman, for example, that through no fault of his own he has a disabling skin disease not in our view due to occupation; in such a case we are obliged to tell him that he will get no relief from his anxiety. If the workman is to be insured let him be insured against sickness and accident at the same rate. Who of us can say that a bronchitis is in all cases definitely not due to a man's occupation? I am afraid I cannot.

**Medical Supervision**

I am going to be so presumptuous as to say that I regard myself as the father of medical supervision in industry in this country. True, for over 100 years the State has exercised some supervision of industry by the appointment of Certifying Surgeons—after the passing of the Factories Act of 1837 designated Examining Surgeons—but their functions are very limited and are mainly concerned with the examination of young persons. In my younger days, as a matter of interest, young persons included youngsters of 12 years who were employed as half-timers. Examining Surgeons were, and still are, employed to carry out periodic medical examination of workers engaged in processes covered by certain regulations dealing with occupations giving rise to a health risk, but I think most of the work of the Examining Surgeon should be performed by the medical officer who is responsible for the health of the factory. During the war of 1914-18, and also during this last war, an increasing impetus was given to medical supervision. The Ministry of Munitions in the 1914-18 war and the Ministry of Supply in this last war organized and established a pretty complete system of medical service. But we must not forget that during the intervening period industry had to carry on at an increasing scale, a medical service for their industries and I am going to be so bold as to say that these services in most instances cared for the health of the worker in a manner not inferior to that exercised by the Ministries. Not one of us can wish to see medical service in industry diminished, and this Association has on more than one occasion expressed the view that a medical service should be extended not only to cover places that make things but to all branches of industry and occupation. The Association too has placed itself at the disposal of any Department wishing advice on the formation of a plan for an organized industrial medical service, that is a service which would fit in with any jigsaw puzzle of a comprehensive national health scheme. Speaking for myself I trust that in the end whatever scheme is devised the individuality of the industrial service will not be lost, yet it is vitally important that it be linked with the wider health service which is now being planned. Those who would divorce the industrial service or attach it to local authority control ought to revise their views. I care not whether the control be lay or medical.

The Association has recently published a report on the education of the industrial medical officer. This, I suggest, indicates the minimum qualifications of a medical officer in industry should have. In this connexion you may have seen that a Diploma in Industrial Health has now been set up by the Society of Medical Practitioners, fully appreciative of the necessity for relieving anxiety not only in cases of injury but also of illness. I am therefore equally concerned with the ill workman who is suffering from pneumonia or typhoid fever, and with his wife and family; he contracts these diseases, without any suggestion of contributory negligence at his place of work. Compare his case with a young adult who has a simple fracture arising out of his employment. I fail to see why the workman disabled by disease should not be relieved of his anxiety to the same extent as the workman disabled by accident. With the various Medical Boards and Tribunals that are to be set up there should, so it seems to me, be no difficulty in debiting any benefits paid to the man to the appropriate fund. I believe too that this would get rid of a large measure of mistrust towards our profession when we have to say to the workman, for example, that through no fault of his own he has a disabling skin disease not in our view due to occupation; in such a case we are obliged to tell him that he will get no relief from his anxiety. If the workman is to be insured let him be insured against sickness and accident at the same rate. Who of us can say that a bronchitis is in all cases definitely not due to a man's occupation? I am afraid I cannot.

**Rehabilitation**

I cannot finish without a word or two on rehabilitation. During the war of 1914-18 efforts were made in this direction but they were limited and many faded out. It was a grief to me and although I made some attempts to keep them going for the workers I got little support. But to-day everybody is talking about rehabilitation. However, I warn you not to imagine that the ball is going to roll on without an occasional kick and sometimes it may have to be a very hard one.

**The Future of the Association**

In conclusion I come to a domestic matter—the future of the Association. It was undoubtedly necessary to widen admission to the Association by including those members of our profession who were only engaged for a part of their time in the practice of medicine in industry. This was achieved by the admission of Associate Members. I am doubtful, after very careful thought, whether it is wise to continue this differentiation and whether it is not now time to consolidate the Association. I doubt whether the primary object of the Association, namely the scientific study of our subject, is best met by full meetings of the Association with its increasing numbers. This view has already been partly accepted by the formation of local groups. The question is whether it should not be extended. So I suggest that the time has now come for the formation of a small elected Council to carry out the routine work of the Association, and that the full Association meetings should be limited to an annual or bi-annual gathering. It is a matter which I feel is of no little importance and with this thought I leave you.