THE HEBERDEN SOCIETY

A meeting of the Society was held on Dec. 13, 1946.

The Presidential Address

The President, Mr. S. L. Higgs, F.R.C.S., opened his term of office by a short address, in which he said:

"It is indeed an honour to be elected to the Presidential Chair of the Heberden Society. I confess that I felt some diffidence in accepting this office because as a surgeon—a joiner and carpenter of bones and joints—I wondered whether I was the most suitable person to preside over such a learned body. However, I knew very well that you wished to pay a tribute to orthopaedic surgery, and on behalf of my colleagues I thank you, and also for the compliment you pay me in making me your choice. I can assure you that I have the problem of the care of the sufferer from arthritis very much at heart.

"Our Secretary put it to me that I might say a few words on my aspirations in this branch of medicine. I can now look back critically on twenty-five years of work in a general hospital, in a special surgical hospital, in a rheumatism clinic, and in country orthopaedic hospitals and clinics, and hardly a day has gone by without my being confronted with the question of what best to do for some sufferer from arthritis. Did these cases get the best that medical science could provide? I should say not. After consultation, it had to be decided whether the case was primarily "medical" or "surgical"; and, according to which feature dominated the picture, the patient was transferred to the care of a physician or surgeon and to the appropriate ward or hospital. If I were to generalize, I should say that the services of the orthopaedic surgeon were sought too late and often not until deformities had become established; on the other side, I have felt that patients under my care lacked the continuous supervision of a physician. I must also plead guilty to taking over many cases, operating on them and directing their after-care, and then omitting to refer them back to the physician in order that he might assess the value of the surgical treatment and judge for himself to what extent the corrective or reconstructive procedure had benefited the patient.

"Co-operation between physician and surgeon there has been, but team work, no. We must put this right. All those like ourselves who are engaged in the study of the rheumatic diseases are agreed that well balanced team work is essential, and that we must be provided with ample in-patient accommodation, research, after-care, and follow-up facilities. Already a good deal of spade work has been done, even during the war. Meetings of a Joint Advisory Committee of the Empire Rheumatism Council and the British Orthopaedic Association have been held, and much time and thought devoted to drawing up memoranda, one of which, at any rate, has been sent to the Minister of Health. The period of propaganda is nearly over and the time has arrived to apply pressure. We can expect a good deal of backing, both medical and political, but we must be in a position to present clear-cut plans and we must not rest until we get what we want and what we know to be necessary for the welfare of our patients."

Somatic Pain

Mr. J. H. Kellgren then opened a discussion on somatic pain. He described some of his experimental work on referred somatic pain, which began some years ago in co-operation with the late Sir Thomas Lewis, and which is still in progress. The basic discovery of referred deep somatic pain, from which all other work derives, was described: its segmental distribution had been determined, and the segmental areas on trunk and limbs mapped out by the use of an experimental pain stimulus applied to ligaments and muscles in human subjects. These areas were quite distinct from the dermatomes. Examples were given of the bearing of these fundamental observations on the understanding of some common zones of tenderness in clinical fibrositis, and on their treatment.

Our views on the nature of "fibrositis" are likely to be affected by subsequent discoveries, which Mr. Kellgren next described, of the appearance in these areas of referred pain of deep tenderness and of localized muscular rigidity. It is hoped to publish Mr. Kellgren's opening paper in a future issue of the Annals.

Prof. G. W. Pickering developed some of the points raised by Mr. Kellgren, and discussed the nature of the difference in accuracy of localization in the deep and superficial pain systems.

Definition of Pain

Dr. W. S. C. Copeman pointed out that pain had not been defined by the preceding speakers and it would seem desirable to try to do so. It had, for instance, always been doubtful whether pain could be considered as the intensification of any stimulus, which in its slighter form need not be unpleasant, e.g. warmth and pressure. Other observers were, however, quite certain that pain was a sensation sui generis. The Oxford dictionary defined it firstly as "a punishment or penalty"—which was archaic; and secondly, and fairly safely, as the
sensation one feels when hurt in body or mind. Dr. Copeman said that, as this latter definition suggested, in every pain sensation we could distinguish three separate elements, the hurt, the appreciation of site, and a varied emotional disturbance which resulted from the first two. The proportion in which these elements were combined in any particular case were, however, infinitely variable. This conception of pain as a combination of both physiological and psychological processes was described by Sherington as "a physical adjunct to a protective reflex" and was now generally accepted in this country. Dr. Copeman recalled the slogan devised by an enterprising vendor of analgesics before the war, describing pain simply as "the physiological cry of a nerve for relief". Needless to say, the vendor in question could provide such relief!

**THE PURPOSES OF PAIN**

Next Dr. Copeman briefly considered the purpose of pain, not referring to its supposed spiritual value, but to its physiological aspects. Hilton in his great book on "Rest and Pain", published in 1863, had no doubt but that the primary reason for pain was to secure rest for an injured part: "Under disease or injury pain suggested the necessity of, and indeed compelled man to seek for, rest. Every deviation from this necessary state of rest brought with it through pain the additional fact that he was straying from the condition essential to his restoration". It seemed obvious that a further important function of pain was to draw attention to injury or disease of which we might not otherwise be conscious.

* In an acute process the pain tended to be acute and to demand the urgent attention which at that stage was likely to be effective. Rheumatologists were aware that often little could be done for chronic processes associated with less acute pain, although it was essential that they use every effort to relieve it. The doctor-patient relationship was, incidentally, not infrequently upset merely by failure to relieve pain, which when not acute, might to the doctor seem unimportant. To quote a recent annotation in the *Lancet*, however, "If the doctor really had the patient's point of view, would he not be a little less light and airy with regard to pain? The patient knows he can 'grin and bear it' if necessary, but he asks that this sacrifice of his comfort shall be justified". It has been said that pain anchors the patient's thoughts to his disease, but it is really the thoughts of the doctor who is treating the disease which should be so anchored!

**THE INTERPRETATION OF PAIN**

In most cases of rheumatic disease pain was the presenting and often the only symptom. It was, said Dr. Copeman, the rheumatologist's function accurately to analyse its nature and cause, and so proceed to a diagnosis of the type of physical derangement present. It was, therefore, essential to be aware of modern conceptions of the origin, nature, causes, and effects of pain both in theory and in practice. Practice has been much helped by theory in this matter, as Dr. Kellgren and Prof. Pickering had shown, and their description of the "trigger points" in fibrositis, from which pain might be referred extensively to a distance, was the first scientific landmark in that branch of rheumatology. The next step, in which we were at present engaged, was to ascertain the morbid anatomy and nature of these "trigger points". Such a pathological process behind much pain of the non-articular variety was a local increase in cell tension which occurred for some reason in the soft tissues and which reached its extreme form in those cases (which he had previously described) of actual herniation of the swollen fatty tissue through its fibrous covering in certain cases of lumbago and backache. Pain from this cause was indistinguishable from deep pain of other types.

**PSYCHOGENIC PAIN**

A question which was occupying much thought at present was the rôle of "psychogenic" pain in rheumatism. By this was meant pain for which no organic basis could be found. It was Dr. Copeman's belief that if the search were thorough an organic cause could in fact generally be found, and that psychic pains of a purely functional nature were the exception. This was not to deny, however, that the temperament of the patient was a modifying factor and would affect the distribution and nature of organic pain. It was generally agreed that the interpretation and evaluation of painful sensations was the function of the higher centres, and it might, therefore, be appreciably affected by psychical or emotional forces. Halliday went further and regarded the pains in non-articular rheumatism as being external somatic manifestations of mental tension or frustration. He thus postulated a direct personality-type association with this form of disease, and this view had proved attractive to many physicians in view of the paucity of objective physical signs. To test this hypothesis Copeman and Pugh had carried out a personality assessment on a series of 100 service patients suffering with severe fibrositis, and their finding was summarized as follows: "We are unable to assign a causative rôle to any mental factor in these cases, although fatigue and anxiety connected with battle were frequently met with and seemed to be connected with the progress of the disease. . . . No one personality type was predominant amongst them, but elaboration and prolongation of symptoms was generally seen as an escape mechanism in patients in whom evidence of an hysterical overlay was found . . . and the treatment in these cases was correspondingly less favourable than in more stable personalities."

**PAIN AS A GUIDE TO DIAGNOSIS**

Dr. Copeman reaffirmed his view that pain properly assessed stood pre-eminent amongst the sensory phenomena of disease as a guide to diagnosis, although, as Ryle had pointed out, our understanding of its nature and mechanism remained still peculiarly limited. Further advances in the study of rheumatism were likely to be won by accurate clinical observations on this symptom. The study of pain in the experimental animal was difficult, and so did not commend itself to the laboratory worker. This further study must, therefore, devolve largely upon those observers who were keenly interested in the subject—a subject which, Dr. Copeman suggested, pre-eminently concerned members of the Heberden Society, who might themselves advance knowledge in this field.

**FATTY HERNIAE AND TRIGGER POINTS**

Dr. Kersley followed up Dr. Copeman's remarks on the possible significance of the fatty herniae first described by him in producing trigger points for the production of pain. He stated that, in approximately half the biopsies performed at the Royal National Hospital at Bath on cases where tender nodules were palpated in fibrositis, much pathological fat had been found. In the remaining cases, although an attempt was made to transfuse the nodule before the skin was incised, the
international society of medical hydrology

A number of distinguished foreign visitors to this country attended the first annual meeting since the war of the International Society of Medical Hydrology, which was held at Buxton from October 4 to 6 last. Among those present were Dr. Loring Swaim and Dr. Abraham Cohen from the U.S.A., Dr. V. Ott of Zurich, Dr. P. Petit from France, Dr. J. Michez of Brussels, Prof. F. Lenoch of Prague, and Dr. J. van Breemen from Holland.

The following officers were elected for 1946-47: president, Lord Horder; chairman of council, Dr. J. B. Burt; vice-chairman, Dr. G. D. Kersley; hon. treasurer, Dr. Frank Clayton; hon. secretaries, Prof. Frantisek Lenoch and Dr. Donald Wilson; thirty-nine new members and five associates were elected. Arrangements for renewing the publication of the society's journal were discussed.

Lord Horder, in his presidential address, said that interchange of friendship and ideas amongst medical men of all countries would be a most important factor in restoring international relations.

Dr. van Breemen discussed infection, constitutional anomalies, abnormalities of peripheral circulation and of the skin, and social and environmental influences, in relation to medical hydrology. Dr. Ott gave an interesting description, published at p. 286 of this issue, of Swiss research work on the effects of thermal treatment on the autonomic nervous system.

Dr. Abraham Cohen described the use made, at the Philadelphia General Hospital, of physostigmin in the relaxation of muscle spasm. He said that physostigmin salicylate was as efficacious as prostigmin, and was less expensive and less toxic. At the Philadelphia General Hospital, in-patients with arthritis were given injections of isotonic saline daily for a week. If these, together with complete rest, produced no improvement, hypodermic injections of atropine (0.06 mg.) were given daily, also for a week. If there was still no improvement, physostigmin was given with atropine mixed in the same syringe, beginning with 0.06 mg. of each. The dosage was adjusted according to the side-effects produced on the autonomic nervous system of individual patients, and the two drugs were given for about six weeks. The best results were obtained in rheumatoid arthritis with severe spasm. Dr. Cohen said that the treatment was not a cure but it might produce considerably amelioration of symptoms, particularly relief from pain. Among other conditions in which good results had been obtained were spasm due to war wounds and other traumata, Felty's syndrome, and paralysis from nerve injuries.

Dr. Loring Swaim discussed American ideas on the treatment of chronic rheumatism, and particularly emphasized the physician's responsibility in reorientating the patient. Dr. R. B. Whittington of Manchester discussed the correlation between the plasma viscosity of the blood and the erythrocyte-sedimentation rate, and gave evidence to show that the former was the better guide to the progress of various diseases.