

however, to say that Bethlem Hospital was "the pioneer of teaching in the subject."

Dr. Battie of St. Luke's Hospital gave some lectures in 1753 to pupils who attended the hospital. This can only be regarded as a sporadic outbreak. It was Esquirol of Paris who first taught the subject successfully at the Salpêtrière in 1817, and attracted medical men from all over Europe. He ceased to lecture when he went to Charenton in 1825. Among his first pupils was Sir Alexander Morison, who became visiting physician to Bethlem Hospital in 1835. Sir Alexander started to lecture in London on February 9th, 1826. He, however, gave practical instruction only for the first time in London to two or three pupils at the Middlesex Asylum at Hanwell in 1840, and two years afterwards he lectured at Bethlem Hospital from 1842 till 1852. Dr. Conolly gave an excellent and complete course of lectures at Hanwell from 1842 till 1847. Dr. Sutherland about this time also gave practical lectures at St. Luke's Hospital. By 1870, however, only Dr. Sankey of University College and Dr. Blandford of St. George's gave lectures in London—the former at Camberwell House. The position in Paris, which had started so well, was even less satisfactory. Laségue lectured successfully from 1862 till 1866, after which official instruction ceased to be given. Sir George Savage was appointed physician to Bethlem Hospital in 1878, after Dr. W. Rhys Williams, who had delivered some lectures at St. Thomas's Hospital, and since then lectures have been continuously given by a series of distinguished teachers till the present time, when a complete course of instruction for the Diploma in Psychological Medicine is given.

Edinburgh has the longest continuous record of tuition in this subject of any medical school. Sir Alexander Morison started to lecture on mental diseases in Edinburgh on November 9th, 1823, over two years before doing so in London. He had at first an audience of only six persons, and his course consisted of nine lectures. He, with the help of his son, lectured continuously till 1852. Dr. Skae of the Royal Hospital at Morningside took over the lectureship in the following year, and lectured for twenty years. At Skae's death in 1873, Professor Laycock, who had also been lecturing on the subject for fourteen years in the University, began to lecture at Morningside. He died after three years, and was succeeded by Professor Grainger Stewart. In 1879, however, that great clinician Sir Thomas Clouston was appointed lecturer on mental diseases to the University of Edinburgh, and he continued to lecture for about thirty years.

It would thus seem that Sir Alexander Morison, imitating Esquirol, was the first to lecture specially on mental diseases in Great Britain. In Edinburgh, where he first lectured, there has not been a hiatus in the teaching of this subject for 107 years.—I am, etc.,

GEORGE M. ROBERTSON.

University of Edinburgh, Nov. 2nd.

THE PITUITARY IN THE ETIOLOGY OF CANCER

SIR,—I have read with the greatest interest Dr. Susman's article on "The role of the pituitary in the etiology of cancer" (October 31st, p. 794), and the criticism which I venture to offer is by no means destructive in nature and does not affect his main conclusions, but is made with the object of pointing out what seems to me to be a possible fallacy in the interpretation of observed facts. It applies equally to the explanation of certain aspects of the Zondek-Aschheim reaction in pregnancy.

In commenting on the fact that Zondek has shown that in 15 per cent. of 118 cases of malignant disease the anterior pituitary hormone could be detected in the urine, he says: "In other words, in neoplastic disease anterior pituitary activity is increased to an appreciable degree in a significant proportion of cases." This is certainly a legitimate deduction, but it is not the only, nor, it seems to me, the most logical deduction. I suggest that it is reasonable to regard the hormone found in the urine as evidence that a certain proportion of the hormone, produced in amount adequate for the normal requirements of the tissues, is actually excreted unused because certain cells are incapable of utilizing or absorbing it. The effective action of a hormone does not depend only on the normal functioning of the gland producing it; the factor of the sensitiveness of the cell on which the hormone is intended to act, its ability to absorb the hormone, and, so to speak, interpret its message, must also be considered.

Sensitiveness to hormonal influence must, I think, be regarded as an essential function of any normal cell, comparable to its secretory, metabolic, or any other function. In malignant disease there is a failure of physiological function to a degree proportional to the degeneracy of the cell. If there is any considerable mass of cells so degenerate as to be partly or entirely incapable of absorbing the hormone it would be likely that the unused part of the hormone would be excreted unchanged. In a paper entitled "A theory of cancer"¹ I discussed the sensitiveness of the cell to what I called "the co-ordinating hormone," and, in the original draft of the paper ventured to prophesy that the unused part of the hormone might some day be detected in the urine.

The presence of anterior pituitary hormone in the urine in malignant disease and in pregnancy is not necessarily evidence that the hormone is being produced in excessive amounts; it is only evidence that more is being produced than is being absorbed.—I am, etc.,

Leicester, Nov. 1st.

T. C. CLARE.

RHEUMATOID ARTHRITIS

SIR,—The correspondence evoked by the letter of "Crippled" in your issue of October 3rd tempts me to commit the statement that only by adopting some constructive hypothesis can we hopefully essay the task of solving the riddle of the etiology of rheumatoid arthritis. The late Dr. Strangeways once said to me, "Neither in my lifetime nor yet in yours will the cause of rheumatoid arthritis be discovered." This attitude of mind, however, is altogether too pessimistic.

Theoretically, the logical method of attacking a scientific problem is to conceive an hypothesis, to disprove it if need be, and begin afresh with both negative and positive data on which to work. The hypothesis which I venture to submit has *treatment* as its essential objective, and briefly amounts to this: the rheumatoid state is conceived to be comparable to that of a nation engaged in war, whose political and internal economy is dislocated by the prodigal and unrestrained activities of profiteers.

If this simile is allowed, the two problems which emerge are these: What are the influences which tend towards a state of war, and what is the nature of the profiteering? In regard to the former, it must be understood that just as there are nations to-day so placed that, given the necessary stimulus, the unhappy state of war may obtain at any moment, while there are others so situated either territorially or stabilized as the result of past and present policy, temperament, etc., that they are unlikely to be entangled in warfare, so there are individuals who will never be affected by rheumatoid arthritis, and others who, alas! will. The reasons given by Dr. Neligan (in his

¹ *Lancet*, 1920, ii, 1298.

letter published on October 17th) why women are more prone than men to be beset by a combination of physical and mental stress are in themselves quite sufficient to account for their greater predisposition to rheumatoid arthritis; but it is unlikely, as in international affairs, that the combination of factors which predispose to a state of war is a standard one. Turning to the question of profiteers, potential profiteers in the nature of streptococci are always with us; but, even given a state of war, the problem as to the evolution of potential profiteers to the condition of active profiteering has still to be established.

According to this hypothesis, a combination of factors as yet improperly understood conspire in a predisposed individual to lower his immunity and permit organisms of a low-grade pathogenicity to gain access to the blood stream; and that these not only further disorganize an already stressed metabolism and give rise to further constitutional disturbance, but, possibly activated by some sensitizing agent, make, as it were, a corner in joints. That systemic disturbance is not mere fantasy is proved by the occurrence of pyrexia, tachycardia, thyroid enlargement, enlargement of the spleen, and even carditis and subcutaneous nodules, in differing percentages.

This hypothesis is useful (to me, at all events) in that its conception presents problems for research which are likely to be of utility in treatment—for example, in the adjustment of such biochemical obliquities as a deranged blood count, achlorhydria, etc., as well as the more fascinating, though up to the present less profitable, explorations into the territories of diathesis and tissue affinity. It also explains in some degree the relative importance of focal sepsis; for if we assume, for instance, that streptococci play an important part in the production of rheumatoid arthritis, then how can we hope to eliminate these by merely removing a tooth or two when a corresponding number of feet of intestine may harbour proportionately greater numbers? Even were it allowed that our knowledge of the etiology of rheumatoid arthritis has not increased since Spender's time, yet the same cannot be said in respect of treatment as Dr. Douthwaite's able writings, for example, testify.—I am, etc.,

Bath, Oct. 25th.

VINCENT COATES.

SIR,—With reference to Dr. Douthwaite's letter in your issue of October 24th, I should like to join issue with him when by his words, "Careful desensitization with any form of protein will, in the early stages of an allergic disease, tend to produce benefit, or even cure: probably this accounts for Dr. Warren Crowe's happy experiences," he gives the impression that it is only in the early stages that the Warren Crowe treatment is efficacious. That his experiences are happy in the early stages I can vouch for, but it is not only in the early stages. Happy results are obtained in patients who have been crippled for years. But in these long-standing cases great patience is required, by both the patient and the doctor. One of the greatest difficulties encountered is that the patient has already been hypersensitized—either by her own toxins or by some other form of treatment.

If cases of rheumatoid arthritis could be treated by the Warren Crowe method before they had been hypersensitized by other forms of intervention there is little doubt in my mind that in the great majority of cases a cure could be effected. I, too, have yet to see the Warren Crowe treatment fail in an early case. I recognize that "early" is difficult to assess.

At the same time I am not suggesting that vaccine therapy is the only effective form of treatment. Any form of treatment which would raise the patient's state

of health to a higher level might enable her to overcome the rheumatoid arthritis. The fault with most forms of treatment, in the active stages of the disease, is that they are too drastic, and so defeat their own ends by producing a further auto-intoxication and a greater state of sensitiveness. If the day comes when any other form of treatment can claim 100 per cent. successes (in the early stages) so much the better, but until then the clinics run on the Warren Crowe lines will probably continue to flourish.

It seems highly probable that "Crippled" is right when she suggests that rheumatoid arthritis may be cured by "mental healing." If "mental healing" will raise the patient's resistance sufficiently, why should it not succeed? I cannot, however, agree with her argument that, because it succeeds, therefore the rheumatoid arthritis is possibly functional.—I am, etc.,

Hove, Oct. 26th.

F. E. GRAHAM-BONNALIE.

SIR,—Dr. K. E. Ferrie's letter in to-day's *Journal* gave me great pleasure, for I can endorse to the full his x -ray observation that a barium enema shows a greatly dilated caecum and ascending colon in nearly every case of rheumatoid arthritis. A bismuth meal shows the reason for this habitual overdistension to be persistent spasmodic constriction of the distal colon due to chronic catarrh (colitis). This catarrh is caused by putrefaction of the faeces, and it has been shown by McCarrison, and more recently by others, that deficiency of vitamin B is an important factor in permitting putrefaction in the big bowel.

The intestinal tube is the great focus of infection in all toxæmic disorders; it is far more extensive, and therefore far more important than teeth, tonsils, sinuses, etc. In fact, these latter infections are almost always secondary to intestinal toxæmia, which impairs all tissues and renders them liable to attack by microbes. Failures to improve rheumatoid arthritis by the mere removal of septic teeth, tonsils, etc., will continue until such time as the intestinal tube is universally recognized to be the main seat of toxic absorption, is investigated by x rays (bismuth meal and barium enema), and is made the basis of efficient treatment.

The greater susceptibility of females to rheumatoid arthritis fits in with their greater liability to severe forms of chronic intestinal stasis.—I am, etc.,

London, W.1, Oct. 31st.

ALRED C. JORDAN.

DENTAL SEPSIS AND CHRONIC ARTHRITIS

SIR,—Chronic sepsis, particularly dental sepsis, as a causative factor in chronic arthritis has been so stressed during these post-war years that it is a relief to find in the *British Medical Journal* three consecutive letters from doctors who do not believe it. Nevertheless it cannot be doubted that there does exist a relationship between the two, although this be other than one of cause and effect.

If a differentiation is made between rheumatoid and osteo-arthritis one will find that each has its special dental lesion associated with it: in the former case this will be dental caries, and in the latter pyorrhoea. If this association be analysed it will be seen that there exists a definite relation between the joint and the dental lesion in each case. The age incidence is similar, both caries and rheumatoid arthritis being essentially diseases of youth and early middle life, increasing in incidence at puberty, while pyorrhoea and osteo-arthritis are more usual in the later middle years. The general build and