

given hourly exercises to tone up not only the muscles of the injured limb in plaster or splints, but also those of the trunk and other free limbs. Thus once the period of recumbency is over the patient is able to take part in active rehabilitation team-work or games. A film was shown in which men with legs in plaster took part in cycle team-work and played games such as football, etc. All were under the supervision of a massage orderly or medical officer.

How different from our feeble efforts still in most civilian hospitals, where a patient in plaster lies and physically rots in bed, or loafs about on a stick in ward or corridor, were the best effort a masseuse of the C.S.M.M.G. can do is her routine stock-in-trade of massage or faradism to the injured limb. Surely the wonderful effort made in the R.A.F. medical team must produce magnificent results—a man going back to his job with zest, rather than the half-hearted way the workman who has had a fractured limb, labouring under the worry of litigation under the Workmen's Compensation Act, is cajoled back to his normal self.

Surely the time has come for the Chartered Society to take up the new spirit in training its members, and to run a refresher course in modern rehabilitation methods at which some of these R.A.F. methods and results could be preached by Mr. Watson-Jones. Nor did I fail to note that the medical officer himself, putting dignity to the wind, showed his patient how co-ordination and normal gait should be attained in walking or skipping: rather different from just going round a ward in a white coat giving instructions to a masseuse or sister. I am aware that these are not new methods to such pioneers as Mr. H. E. Griffiths at the Albert Dock Hospital or Mr. E. A. Nicoll at Mansfield, but in the words of the final caption on the R.A.F. rehabilitation film, some of us surgeons dealing with fractures with our masseuses must 'Go to it.'—I am, etc.,

London, N.W.1.

G. O. TIPPETT, F.R.C.S.

Mental Symptoms in Bromide Intoxication

SIR,—Dr. Howard Kitching's interesting article (June 20, p. 754) prompts me to describe briefly 2 cases which occurred in my practice some years ago.

1. Man aged about 50. Symptoms of effort angina. Small doses of sodium bromide were administered over a period of 2 or 3 months. A consultant considerably increased the dosage. Three days later a policeman rang my night bell and informed me that he had found one of my patients wandering in the road in an almost nude condition. I hastened to the patient's flat and found him restless, agitated, and tremulous. He appeared hallucinated and did not recognize me. The question of certification arose and the climax came with refusal to take medicine. I was surprised to note the gradual disappearance of mental symptoms.

2. Lady aged over 70, suffered from arteriosclerosis and hyperpiesis. Bromide had been given for some weeks. On one of my periodical visits I found her incoherent, confused, and depressed. Her speech was slurred. Slight cerebral haemorrhage appeared to have supervened. Medicine was discontinued. At the end of a week the patient was bright, cheerful, and speech was normal.

Dr. Howard Kitching's reference to the number of N.H.I. prescriptions containing bromide (Barbour, Pilkington, and Sargent, 1936) is of special interest. It seems possible that many cases of mild intoxication are overlooked. My experience of skin lesions is that they are more likely to occur when initial dosage is comparatively large.—I am, etc.,

Nottingham.

J. J. GIBB.

Operations and Workmen's Compensation

SIR,—Your article on the legal aspect of operations as they relate to injured workers and workmen's compensation (June 20, p. 776) is most instructive; moreover, it is gratifying to see that you recommend a broader vision in this matter taking into account the psychological and sociological attitude of the worker. There can be no doubt that the worker's mental attitude towards the workmen's compensation law as it now stands is a very unfavourable one. So long as he remains under the impression that doctors employed by insurance offices are biased in favour of getting him back at any

price to some sort of light work, and to achieve thereby payment of compensation for partial incapacity, his reluctance to undergo operations, for good or evil, will remain.

It is deplorable that the matter leads to dispute between the doctor of the insurer and the worker's doctor. There are reasons enough to make the latter reluctant to accept the opinion of his opponent. Will the effect of the operation be of lasting value? Will the worker after operation really find the desirable "light work"? What will be his position if, after being put on light work with compensation for partial incapacity, a second accident occurs, perhaps resulting from his disability, and the process of litigation begins all over again? What will be the worker's position if, after the operation, he needs appliances, costly to procure and costly to repair and maintain, while there is no statutory provision under either the National Health Insurance or Workmen's Compensation Acts for their supply?

The danger that "professional medical witnesses," highly skilled in presenting a particular aspect of the case, may exercise much influence on a lay court, to use Dr. W. A. Brend's apt observation (*Traumatic Mental Disorders in Courts of Law*, 1938, p. 93), cannot be denied, and the demand for medical boards which, as Dr. Brend puts it, "would tend to select their expert witnesses and advisers more for professional status and integrity than for their skill in masked advocacy" appears to be fully justified. The whole problem is another proof of the need for redrafting as soon as possible industrial accident insurance in this country. Indeed the unsatisfactory conditions relating to operations under the present workmen's compensation law illustrate once more that the latter tends to prolong invalidism, a matter which has been recently discussed on a broad background and with much vigour before the Royal Society of Medicine by such authorities as Dr. Bernard Hart and Mr. H. E. Griffiths, from the medical point of view, and by His Honour Tom Eastham, K.C., from the legal.—I am, etc.,

HERMANN LEVY.

Adrenaline Bronchoconstriction

SIR,—The chief action of adrenaline is to produce vasoconstriction, and those who maintain that asthma is the result of muscular bronchospasm find difficulty in explaining how an injection of adrenaline stops an asthmatic attack, because its action on muscular fibre is very slight, beyond reducing blood supply. When an injection of adrenaline is given it produces a systemic vasoconstriction and the blood pressure rises, but this is quickly followed by a reactionary vasodilatation, when it will be found that the blood pressure falls below its original level, and it is then that the relief of dyspnoea is experienced. This systemic vasodilatation relieves the local vasodilatation of the bronchial mucosa, which had previously been maintained as compensatory to the systemic vasoconstriction and was the cause of the dyspnoea. Repeated large doses of adrenaline are apt to interfere with, or prevent altogether, the subsequent vasodilatation reaction, and so relief of the dyspnoea is not obtained; in fact the condition may be made worse by continuing the adrenaline injections. When this state has been reached it will be found that a single injection of morphine will usually give immediate relief, after which, not infrequently, no further adrenaline is needed, and in any case a smaller dose will then be found effective.

All this difficulty arises from the inherited traditional belief—one of the hardest things in medicine to overcome—that asthma is the result of muscular bronchospasm, and this makes it necessary, in order to explain how adrenaline relieves an asthmatic attack, to pervert its natural action on the vasomotor system, and make it act, for this occasion only, as a muscular dilator.—I am, etc.,

London, W.1.

ALEXANDER FRANCIS.

Respirator Dermatitis

SIR,—J. Petro (May 23, p. 631) has well described and illustrated his careful investigation of contact dermatitis caused by rubber respirators. In therapy his mainstay was calamine lotion. Because the irritant is usually a reducing agent, I believe he would get better results from the use of an oxidizing medicament, such as 1 in 3,000 potassium permanganate solution