side of the femoral condyle, where the patella had articulated, a rough muscular surface had developed consisting of smooth connective tissue underlying, in places, cartilaginous transformation.

These experiments were performed more than 20 years ago and duly published. They have evidently escaped Mr. Fairbank's notice, although he mentions recent experimental work on somewhat similar lines by Bruce and Walmsley (1942) and Colin (1944) and published in America. There is an obvious fallacy in applying experiments on animals to human beings, but the findings are certainly suggestive.

Redfern, many years ago, found also that the articular cartilage underwent degenerative changes after experimental amputations through joints. Specimens formerly in the R.C.S. Museum ((pre-war Nos. 440.1 and 442.2: I have been unable to check if these survived the holocaust due to enemy action) show the lower ends of the femora from cases of amputation through the knee, while the findings are certainly suggestive. The cartilaginous area is concentrated in the femoral condyle, where the articular cartilage is very thin and has in places degenerated. One sees examples of the same kind in old unreduced dislocations, both congenital and acquired, and in various deformities. All these facts show that normal cartilaginous apposition ceases, degeneration of the articular cartilage occurs which is indistinguishable from that seen in the early stages of osteo-arthritis, and may be followed by a typical picture of degenerative arthritis.

After these animadversions concerning removal of the patella, I hasten to observe that the operation is, in my experience, occasionally of value. In addition to the badly comminuted fracture of the patella, where the normal smooth articular surface cannot be reconstituted, it is occasionally of value in cases of osteo-arthritis of the knee, where the disease is concentrated in the patello-trochlear area, and where pain due to friction is intolerable. It is an alternative to arthrodysis or excision which may preserve a useful range of movement. I have been pleased also with the results of excision of the patella in long-standing cases of recurrent dislocation, where painful and frequent attacks of dislocation occur in spite of previous plastic operations, and which are uncontrolable by an instrument.

It is worthy of observation that the aesthetic effect of excision of the patella is far from satisfactory: in fact, the knee looks like "nothing on earth," particularly on flexion. This is a point of no small importance to the young of both sexes and even to the not so young,—I am, etc.,

London, W. I.

A. G. TIMBERLL FISHER.

March Fracture

Sir,—Stamping is still going on in the Army in spite of any order in the Drill Book. Drill sergeants are teaching recruits to stamp at their "turns," and men are being invalidated in consequence of the injury it causes to their feet. I wonder whether Dr. Ian D. Kitchin's patients (July 14, p. 64) have been subjected to this ugly, ridiculous ritual. What are the medical officers going about it?—I am, etc.,

Stanmore.

G. LENTHAL CHEATLE.

Effort Syndrome in West African Soldiers

Sir,—I was interested in Major Goddard's article on effort syndrome in the West African soldier (June 30, p. 908), and without disputing his conclusion that " the influence of European civilization and hygiene on the non-Christians of the West African," I do not agree that the facts recorded in his article lend any colour to this belief. It is clear from the article that the hospital where the cases were recorded did not serve even approximately a representative sample of Gold Coast soldiers of the R.W.A.F.F. The proportions of Christians in his 12 cases and in the 40 cases in the succeeding paragraphs were 100% and 50% respectively. These proportions would be strong evidence that effort syndrome occurs among Christians relatively more frequently than diseases requiring surgical treatment, if there were not reason to believe that the two groups are differently selected.

I have no figures readily available, but it may be taken that Northern Territory, Ashanti, and Cameroons soldiers will, relatively to each other, consist prevalently of Mohammedans, pagans, and Christians. Without knowing the actual proportions of Christians and non-Christians, it is possible also to conclude by similar arguments from the figures quoted of the relative numbers enlisted in the three parts that Christians are more liable to disease requiring surgical treatment. The true answer is, of course, that Major Goddard's cases were taken from what is anything but a random sample, and conclusions drawn from study of the relative frequencies are useless.

I suggest that what has happened is this. The hospital in question was probably at Accra, Kumasi, or perhaps Takoradi (Accra and Kumasi are marked on his map; Takoradi is on the east coast). He may have had cases of meningitis, as 53% of the patients came from the surgical ward. There is an indication that he was interested in the R.O.M., and I have no doubt that such cases would not be recorded as "effort syndrome" in the West African stations.

It is not likely that the syndrome is a symptom of primary disease, any more than is the extrasystole. It is likely that it is the result of certain "atmospheric" influences, such as certain rainy seasons, the influence of insects, or even the psychological effect. The conditions are, however, insufficiently studied.

M. D. W. ELPHINSTONE, Major, late R.W.A.F.F.

(1945) and published in America. There is an

Re-employment of the Consumptive

Sir,—Those of us who, as tuberculosis officers, have to advise the consumptive about his employment, and who frequently have to issue certificates to help the patient to obtain work, are well aware of the difficulties with which he is faced and the anxiety that these difficulties cause. It is therefore most gratifying that the patient disabled by tuberculosis comes within the scope of the new Disablement and Rehabilitation Act.

There are, however, certain aspects of tuberculosis in regard to employment which are not widely enough recognized. First, the fresh-air fallacy should be exposed. It is extraordinary how widespread is the belief that fresh air is essential to the consumptive. No doubt this misconception is fostered by the simple observation that in sanatoria the gospel of fresh air is correctly and extensively both preached and practised. But in many cases both patient and public mistake this hygienic measure for a valuable therapeutic device, and so it is uncommon to find that a patient seeks outdoor work, and perhaps thinks of throwing up a useful sedentary occupation, not realizing that it is the rather than the former which offers him the better opportunity to keep up that all-important measure,—the regular rest-hour. Furthermore, the exposure to inclement weather and getting wet through may have unpleasant consequences if his home is not so well equipped for drying clothes as was his sanatorium.

I would suggest that a second fallacy is the dread of infection. At first sight it may seem that the aetiology of consumption is not properly understood. Why is it that some persons become consumptives while others overcome a primary infection and thereafter experience no further trouble? There are advocates of the theory of "endogenous exacerbation" and there are advocates of the theory of "exogenous reinfection." but there is no agreement among the experts that the consumptive with sputum can transmit the disease of consumption as distinct from transmitting tuberculosis. Surely, then, if there is no proof of this fact, but rather considerable debate about