It would probably have happened anyhow. The likelihood of shock supervening rapidly may be judged from the extent and situation of the burns, but as it is dangerous to undress a burned patient, only a very rough estimate of this can be made. In general, shock is likely if more than 25 per cent of the body surface is involved. In estimating this percentage the following table may be useful:

| Per cent of Body Surface | Per cent of Body Surface |
|--------------------------|--------------------------|
| Head                     | 6                        |
| Both hands               | 6                        |
| Both arms                | 18                       |
| Lower legs               | 18                       |

Burns of the face, precordial area and abdomen are more dangerous than those of the arms, legs or back. The depth of the burn is not so important as its extent.

If for any reason there is delay at the first-aid post and shock is feared, the pulse and respiration should be counted every half hour, and the B.P. taken as possible. With burns of the hands and arms this may be impossible.

**General Treatment of Major Burns**

**Pain**—All patients with major burns should receive a full dose of morfine immediately (1 to 2 gr. for an adult). Anything less is futile and the dose can be repeated. Many patients with severe burns are not conscious of pain until the shock phase is over but moderate burns without shock are usually extremely painful.

**Shock**—If this is likely to occur while waiting for transport to arrive the patient should lie down on a stretcher or cot and be covered with blankets which have been heated. If the clothing is soaked in water or other fluids it should not be removed, and then only if something warmer can be substituted. Hot sweetened drinks such as tea or coffee should be given freely. Plasma or serum in this case is rarely possible or advisable in first-aid posts, and if required should be obtained by means of a mobile unit from the nearest hospital. Rapid transfer of the patient to the hospital is certainly the better plan. In the absence of all station sick quarters, many advanced dressing stations and some ships are suitably equipped for intravenous therapy in the places where delay in transport is likely. Plasma should be used wherever it is available. A usual preliminary dose is two bottles of dried plasma or liquid human serum given according to M.R.C. Memorandum No. 1. This may in serious cases be increased to ten or twelve bottles.

**Local Treatment of Major Burns**

Major burns should not be coagulated as a first-aid measure. The local conditions are almost always totally unsuitable for this procedure and in the majority of cases more harm than good will be done. Burns on exposed parts dispatched forthwith to hospital should be powdered with sulphuramide and covered with a sterile towel or wet compress of sodium bicarbonate or saline. Contact with air is painful the burn surface may be most effectively protected with simple vaseline gauze strips or tulle gauze over the layer of powder. The Buynan-Stannard oilskin envelope is a useful added protection during transport, and indeed may be used alone for this purpose.

The problem of the burned patient when transferred to hospital will be delayed for days — e.g., at sea, in the desert or in isolated spots — is difficult, and will depend on the facilities at hand and the severity of the burn. For the patient's comfort it may be necessary to coagulate the whole area, in which case the vital dyes or silver nitrate 10 per cent, which are themselves antiseptic, are most suitable. It will be best to avoid an anesthetic if possible, for this will undoubtedly increase the risk of shock. Plasma will usually constitute a major danger, hence the oilskin envelope will have considerable value. First-aid treatment in these circumstances will constitute an unhappy compromise between what is possible and what should be done.

**Reviews**

**MEDICAL DISEASES OF WAR.**—By Sir Arthur Hurst, M.A., D.M., F.R.C.S. Ninth edition. 1941. Edward Arnold and Company, London. Pp. viii plus 427. Illustrated. Price, 18s.

The second edition of this excellent book is very welcome, especially when the major portions of the British and Allied Nations' armies are in training, and are waiting, rather than in action, and are therefore far more likely to need the attention of the physician than the surgeon.

The title has been liberally interpreted, and the book includes a wide range of subjects. Medicine and surgery naturally find no place in this book, but in view of the number of women now in the active services, one wonders whether a chapter on the latter subject will not find a place in some subsequent edition.

Trench fever is given disproportionate attention. We have not heard that it has appeared again in this war, but one presumes that the material on which the account is based was handy — and it is certainly a very good account of the disease so it was presented. One would have appreciated some data on heat stroke which, one feels, the campaign in Libya must have provided.

The accounts given of tropical diseases, such as malaria and the dysenteries, and their treatment, are thoroughly sound and remarkably comprehensive for the space in which each is contained.

There is a good chapter on epidemiological jaundice, in which leptocephalus is given pride of place, but other epidemics which are sometimes forgotten are given suitable prominence. One wonders why the author adores the obsolete Leptospira icterohaemorrhagica.

It is a book that we can very strongly recommend to the new, or to the experienced, service doctor. We must also comment on the very high standard of book production that is still being maintained in England in the face of great difficulties.

**AIDS TO PATHOLOGY.**—By Kenneth Campbell, O.B.E., M.S., F.R.O.S. Eighth edition. 1941. Bailliére, Tindall and Cox, London. Pp. viii plus 261, with 12 Illustrations. Price, 6s.

This is the eighth edition of the book since its first appearance in 1907. The author should be congratulated in his attempt to incorporate most of the subject in a small volume of two hundred and sixty-one pages. There are of course limitations in a publication like this which aims at presenting the subject in a short and concise form. The author has very wisely drawn attention to this fact in the preface.

In the chapter on 'Nature's defences' the author has dealt with agglutinins and precipitins, etc., in a few lines. It is worth considering whether this sort of inadequate discussion on immunological reactions will not create confusion in the minds of students and would not be better left out altogether. In discussing the mechanism of infarction the writer says 'much controversy has taken place on this still debatable question, which after all is of trifling importance except to pedants'. The author will find support from many pathologists to his contention.

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This is the third edition of this book and it has been brought up to date by the introduction of sulphanamide.

**OPHTHALMIC NURSING.**—By Maurice H. Waddington, O.B.E., M.A., M.B., B.Ch., Cantab, F.R.C.S. Third edition. 1941. J. and A. Churchill Limited, London. Pp. xiv plus 157, with 54 Illustrations. Price, 6s.

This is the third edition of this book and it has been brought up to date by the introduction of sulphanamide.