Clinical and other Notes.

IMPROVISED AMBULANCE TRAINS.

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At a time of pressure, when the fully equipped ambulance trains at an English port were unable to cope with the large numbers of sick and wounded arriving in the United Kingdom from overseas, and even ordinary stock was none too plentiful, some extemporized means of converting luggage vans or milk vans into vehicles for carrying stretcher cases had to be considered.

An ingenious arrangement of iron stanchions, with bars to support stretchers in three tiers, which could be erected comparatively easily and quickly, was acquired from mobilization stores. In practice, however, this device was found to possess many disadvantages, as it was exceedingly difficult to load the cases; actually fewer patients could be accommodated by this method than by simply placing them on the floor: and further, owing to the formation of the stanchions and bars, the movements of the coach were amplified to such an extent that the patients suffered very much from the resulting oscillation.

Fig. 1.—Diagram of van, equipped with trestles to carry twenty cases. A, Plan, with top stretchers removed, showing bottom stretchers in position, also position of the feet of the trestles, and dovetailing of the stretcher poles. B, Elevation, showing arrangements of trestles and stretchers at one side.

Of the various improvisations laid down in manuals, including the classic "Zavodovski's method," all were found to possess drawbacks, chiefly in connexion with loading, which precluded their adoption. Very few of the
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Fig. 2.—Plan of trestle.

Fig. 3.—Plan of folding trestle.
methods made full use of available space, and many required structural alterations or metal fittings which were not procurable.

After some experiments, carried out in conjunction with the railway company, the trestles described in this article were evolved, and a thorough test extending over a period of nearly two years has fully established their practical value. From an economical point of view, it is difficult to conceive anything better. Their chief advantages are that they enable loading to be done with almost the same speed and ease as in ordinary ambulance trains; full use is made of available space, and apart from the trestles themselves, no metal fittings or structural alterations are required. They remain perfectly steady at all speeds, without any fixture beyond the lower stretcher, which, as may be seen in fig. 1, lies between the feet of each pair of trestles and acts as a "stop."

**Fig. 4.**—Part of the interior of a milk van, fitted with trestles and stretchers provided with blankets. Arrangements for heating and lighting may be noted overhead.

The structure of the trestles is comparatively simple (see fig. 2). They are built entirely of wood, and are light enough to enable a bearer to carry a pair easily. To facilitate packing for transport, the trestles can be made to fold as in fig. 3.

Loading by means of these trestles is comparatively simple. As many patients on stretchers as can be accommodated are placed end to end along the floor of a van, leaving a gangway in the centre and a space for entrance and exit: by dovetailing the handles of the stretchers no room is lost (see fig. 1 a). Trestles are now carried into the van, and a pair placed over each of the patients on the floor. The upper patients are then brought in and placed on the trestles. The upper stretcher should be arranged so that the cross bars of the trestles support it just
outside the feet (see fig. 1 n). The loading of the last two cases is done by bringing the upper in first and placing it in the gangway; the lower case is then put in the space left for entrance, a pair of trestles arranged over it, and the upper case lifted from the gangway into position on them.

When unloading, the two patients opposite the door are removed first, by placing the upper case in the gangway. The lower case is then removed with its trestles, followed by the upper case; after which unloading is completed by clearing the remaining upper patients and finally the lower.

If spare stretchers and mattresses are available they can be arranged beforehand, and patients may then be carried in and transferred from their stretchers into those in the van, as though into the berth of an ordinary ambulance train; the last two cases being loaded outside and finally arranged as explained above.

Fig. 5.—Exterior of a van train. The last two stretchers with their pair of trestles are shown, prior to being loaded.

Vestibuled vans, fitted with trestles to carry twenty cases, have transported thousands of sick and wounded, and are employed daily, either attached, singly, to equipped ambulance trains, or made up into complete emergency trains. When mattresses are used with the stretchers there is little to choose in smooth travelling between these so-called "van trains" and the fully equipped ones.

The use of these trestles might be extended to temporary hospitals when floor space is limited, as it is possible by their employment to accommodate two patients in the space usually occupied by one.

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