considerably less important. Plenty of boiled water would also have to be stored unless a Berkefeld filter or other water-sterilisation apparatus were provided. With continuous drill and training, the fitting up of some space after an action as an improvised operating room should not be a lengthy evolution.

Operating Room and Sick Quarters.—In a space 400 feet by 75 by 30, crammed with engines and stores of all sorts, and inhabited by 800 men, a perfect operating theatre cannot be expected. The provision of portable fittings and the postponement of operative work till after the action considerably lessens the necessity for protection of the operating room, and the advantages of a position near the upper deck giving accessibility, natural ventilation and lighting, and greater prospect of cleanliness, would seem to outweigh the undoubted possibility of its being wrecked by shell explosion. This risk, however, might also be diminished by choosing before the action three or more alternative spaces. These, which should be large, well-ventilated, and lighted, and not much in use during an engagement, such, for instance, as captain's cabin, ward room, and sick bay, could be stripped of their fittings and thoroughly cleansed. One of them would probably be available, and into this the previously-prepared fittings, instruments, and dressings could be at once moved after the action, ready for immediate use. Such a plan would best meet existing conditions in small ships, while most of the larger, in which a protected operating room is a possibility, are precisely those to which hospital ships, if in existence, would be attached.

Temporary hospital accommodation can be improvised almost anywhere, if an adequate supply of cots and bedding is available.

Dressings.—By supplying already sterilised dressings in easily-opened air-tight tins, convenient quantities, reliable, capable of easy stowage, and uninjured by the heat below, would at once be ready to hand. The almost constant occurrence of suppuration in the shell wounds, which constituted by far the largest proportion of injuries among the Japanese, emphasises the necessity for early and efficient cleansing and dressing. They ascribe it chiefly to the local lowering of vitality, the dust disturbed by explosions, the irregularity of wounds, and the entrance of septic portions of clothing. A decided limitation of the latter, as in the old days of muzzle-loaders, might not only minimise this risk, but considerably lessen the severity of burns from powder or shell explosion, judging once more from the experience of the Japanese, who found that these were usually superficial except in the parts covered with clothing. There seems, too, no reason why men should not shift before action into sterilised, or, at all events, clean clothing.

An easily applied and satisfactory dressing for burns appears to be also very much a desideratum in naval warfare. The picric acid treatment suggests itself from its simplicity and the infrequency with which dressings have to be changed.

Transport of Wounded.—Until after the action, stretchers would be of little value except in the largest battleships and cruisers, on accounts of the obstructions in the shape of ammunition, hoists and carriers, fire mains, hoses, and so on, and from the scarcity of bearers, who might also be required as fire parties or for other duties at any time. The Japanese, in their small ships at Yalu, found stretchers cumbrous, troublesome, and of little value, and relied entirely upon hand transport. An ambulance lift, of a type determined by the size and shape of the hatchway available, would, however, be useful in many ships, and would add greatly to the comfort of the wounded. A very efficient pattern in most cases is the combination stretcher and lift (also available as a chair) which is cheap, light, and simple. With a number of these (and they can readily be made in the ship) the delay and discomfort of shifting from stretcher to lift and *vice versâ* is avoided. It is difficult to see how men wounded by a stray shot or shell fragment in the casements, which are necessarily closed in action, are to be got out, unless the plan is adopted of fitting, as in the *Magnificent*, a special whip and slings and lowering them down the ammunition hoists, whenever these are not required for ammunition. This is rapid and ensures protection, but the difficulties with a badly wounded man would be great. Were a shell to explode, however, in such a confined space, there would probably be no one to lower.

Hospital Ships.—The value of hospital ships to accompany fleets in times of war is so universally conceded that it seems unnecessary to do more than refer to it. It must, however, be remembered that on foreign stations most ships would even then have to rely upon their own resources.

Training.

Careful training in ambulance drill is as much a necessity as gunnery, in the opinion of the writer, for every officer and man in the navy. It is essential that they, who are liable to as great a degree as any section of the population to injury where no medical aid is near, should be able to afford temporary assistance to one another. Special attention should be paid to the application of first field dressings, the improvising of supports for fractured limbs out of materials likely to be at hand, and the methods of hand transport. In practising the latter the routes available in action should alone be used.

If this training were properly carried out, part of each gun's crew as their gun came out of action, provided they were not required elsewhere, could apply temporary dressings or splints and in other

previous page next page