NEW APPLIANCES

Beach Rescue Trolley

Dr. G. W. MIDDLETON, St. Davids, Pembrokeshire, writes: The beach rescue trolley has been designed to provide several functions from one unit. This is attempted by an adaptation of (1) a standard surf life-saving reel, (2) a standard steel stretcher, and (3) a welded steel trolley with pneumatic tyres. The trolley has been designed primarily for use on beaches where life-guards are available.

The life-saving reel is the standard type used by the surf life-saving clubs in Britain and Australia. No modification was necessary to the reel used. It may be necessary to adjust its legs so as to lock on the stretcher if sizes vary in manufacture. The standard steel stretcher was adapted by welding small metal plates on to the side-rods of the stretcher. Locking wing nuts through these plates fix the stretcher to the trolley. The trolley is of simple welded tubular steel construction, providing a support for the stretcher 28 in. (71 cm.) above ground level. Two pneumatic tyres 16 in. (40 cm.) in diameter prevent sinking in sand and provide a comfortable ride over pebbles. Two drop-down legs hold the whole trolley level when not in use.

METHOD OF USE

The complete unit of trolley, stretcher, and reel (see Fig.) will normally be kept on the beach near the bathing area supervised by life-guards. The shelf can carry blankets, exposure bag, airways, first-aid equipment, oxygen, etc., secured by straps or a roof rack "octopus." The harness of the rescue reel is draped over the stretcher handles.

On call to a rescue the whole trolley is rushed to the scene, the reel is dismounted by a straight lift-off, with the trolley tipped forward on its front (retracted) leg, and the beltman (rescuer) swims out to sea in the harness, carrying out the normal surf life-saving drill. Meantime, a spare man unloads the equipment and pushes the trolley out to sea until the water level reaches the stretcher. When the beltman and "drowned" person reach this depth of water, the person is either floated on to the stretcher or lifted on by the team members on the rescue line, all lifting from one side.

The airway is now checked, the head extended (if desired, over the end of the trolley), and mouth-to-mouth respiration is begun. This can be continued as the trolley is wheeled from the sea. As soon as dry land is reached the trolley is fixed in a head-down position (of about 10°) and resuscitation continues. Other members of the team can now attend to further matters, such as blanketing the patient and wrapping him in an exposure bag.

Resuscitation can be continued as the

beach casualty—for example, fractures, etc.—and in illness.

The advantages claimed for the trolley are: (1) it speeds and eases transport of the reel and equipment; (2) it is possible to give mouth-to-mouth breathing more efficiently, more quickly, and more continuously; (3) it avoids unnecessary manhandling of the patient, which may lead to inhaled vomit; (4) it enables the casualty to be kept in a head-down position and facilitates other measures to maintain body temperature;

patient is being removed to the rescue hut, ambulance, etc. When respiration has been restored the patient is turned on his side and can be given oxygen if desired. The cylinder is placed on the shelf or on the stretcher behind the casualty. The stretcher gives firm enough support for cardiac resuscitation. Eve's rocking method of resuscitation is rarely used now, but in the event of its being needed—for example, in facial injury—the trolley can be used as a rocking stretcher.

The trolley and stretcher can, of course, be used for the transport of other types of

(5) it allows continuous resuscitation as the casualty is moved elsewhere; and (6) all equipment required for successful rescue and resuscitation is contained in one unit.

I would like to thank the members of the Porth-Mawr Surf Life-saving Club (St. Davids and Solva) for their assistance, Mr. R. Jones, of the Forge, Croesgoch, for his excellent construction of the trolley, and the Sherman Foundation Funds of the Welsh Council of the British Medical Association for financial assistance in developing the prototype.