

MEDICINE

New Life Jacket

Canadian Navy has adopted new type that covers more of the body than does life belt and gives better protection against burns and concussion.

➤ SAILORS in Canada's new navy, which had only 16 ships before the war and now has more than 500, are given a better chance for their lives if things go wrong, by a newly adopted type of life jacket, stated Surgeon Comdr. C. H. Best, R. C. N., in a press conference in Washington, D. C. Comdr. Best, who first came to wide public notice 20 years ago as one of the discoverers of insulin, is in the United States with Surgeon Capt. A. McCallum, Medical Director General of the Royal Canadian Navy, exchanging information and arranging cooperation with U. S. Navy medical authorities and the National Research Council.

The new Canadian life jacket, Comdr. Best stated, covers much more of the body than the conventional life belt, and serves as protection against certain types of injury to the abdomen and lower part of the trunk, which have in the past been peculiarly liable to flash injury from exploding bombs and shells aboard ship and from concussion due to depth charges and torpedoes if the sailor is overboard in the water.

The jacket also has gadgets to make rescue quicker and easier. In a pocket there is a yellow cap which the sailor can take out and put on his head. It carries a small, automatically flashing electric lamp, which will guide rescue

boats in the dark. It also has a six-foot length of rope with a snap hook that can be fastened to a line running around the life-raft, permitting the sailor to float easily in the sea, instead of struggling aboard the tossing raft and perhaps immediately being dumped back into the water. Finally, it has a couple of stout fabric loops, which enable rescuers to grab hold and haul him aboard. The jacket is made of water-repellent fabric and filled with kapok, of which Canada still has an adequate supply.

Another aid to the shipwrecked that has been added to life-boat and life-raft equipment are heavy socks impregnated with vaseline. Wearing these, the sailor is much less likely to develop immersion foot, the terrible injury that is to this war what trench foot was to World War I, with frequent aftermath of death from gangrene or desperate amputations to prevent it.

Comdr. Best described the refrigeration treatment for this malady, which was first developed in Canada by Surgeon Comdr. Donald Webster, and has since been adopted both in this country and Britain. Beginning with merely packing the injured feet in ice bags, the treatment has now progressed to the point of using thermostatically controlled dry-ice refrigeration in a specially built cabinet.

Rationing life-boats and life-rafts has also received intensive attention in Canada. The standard package now is a sealed tin 11 inches square and 3½ inches deep, containing eight 16-ounce tins of water and eight 750-calorie ration packages of chocolate, biscuit, chocolate milk and malted milk.

Canning drinking water may seem a simple operation, Comdr. Best remarked; but it took months of careful research and hundreds of experiments before a can of water was achieved that would keep indefinitely and still taste fit to drink. This task was finally accomplished by Lt. Comdr. James Campbell, R.C.N.

Another solution for the acute problem of drinking water for life-boats is being sought in a hand-powered compressor refrigerator that gets the salt out of sea water by freezing it. This machine weighs about 30 pounds, so that it would be suitable for boats, but hardly for rafts. It is still in the experimental stage of development.

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FRESH WATER FROM SALT—A pharmacist's mate demonstrates the new method of making drinkable water from the sea developed at the Naval Medical Research Institute, Bethesda, Md. At the left he squeezes the upper portion of the bag to mix the chemical used with the sea water to remove the salt. The filtered water is then transferred (middle) to the second bag and another chemical inserted to remove the remaining sodium. The water, although tasting of sulfur, is now fit to drink and is taken right from the bag which is secured against loss by cords around the neck.

