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NEW LIFE-SAVING INVENTIONS.

In the accompanying engravings are represented a series of devices, including means of escape from a building in case of fire, and also a life preserver for shipwrecked persons. The first mentioned invention is illustrated in Figs. 1, 2, 5, 6 and 7. It consists of a stout rope, soaked in a chemical solution which renders it fireproof, and having a strong hook at one end. On this rope slides the lowering device, which is shown in Fig. 1. This consists of a box of metal, in which is a stationary disk, A, around which the rope is carried. The two parts of the box are hinged together at B, and, when closed, compress the rope in the grooves through which it passes downward. The degree of compression is regulated by the thumbscrew, C, which brings the parts of the box more or less tightly together. Also attached to the box is a double rope, to the end of which is secured a small hook, D, for the purpose of fastening it into the belt.

In using the device, the bed clothes are placed on the window sill to prevent chafing of the rope; the large hook on the main rope is then placed over the top crossbar of the window sash. The operator then secures around his waist a strong belt, made as shown in Fig. 7; and with the staple thereon he engages the hook, D. The screw, C, having been previously adjusted to the desired rate of speed of descent, he then launches himself off. He is sustained by the belt, so that his hands are free to govern the lowering device. In this manner as rapid a descent as is desired can be made, or the motion can be checked at any instant by tightening the screw, C. The apparatus can be used for lowering women, children, invalids, or trunks, as one cool-headed person may quickly adjust the screw for each individual to be lowered, and the latter has nothing to do but allow himself to slide quietly down. On reaching the ground, he removes the hook, the rope is hauled up, the box readjusted, and the device is then ready to be used again. Or by simply attaching the rope to the safety belt, the person to be lowered can be let down by another paying out the rope hand over hand.

Fig. 6 represents a compact arrangement of water bucket and fire escape, such as might be placed in every room in a hotel. The upper portion of the vessel shown serves as a water pail, and is kept filled. The lower part serves as a receptacle for the fire escape above mentioned. Fig. 5 is a blanket with two slits for the arms and one for the face. In this, after thoroughly wetting it, a person attempting to escape through the halls of a burning building envelops himself.

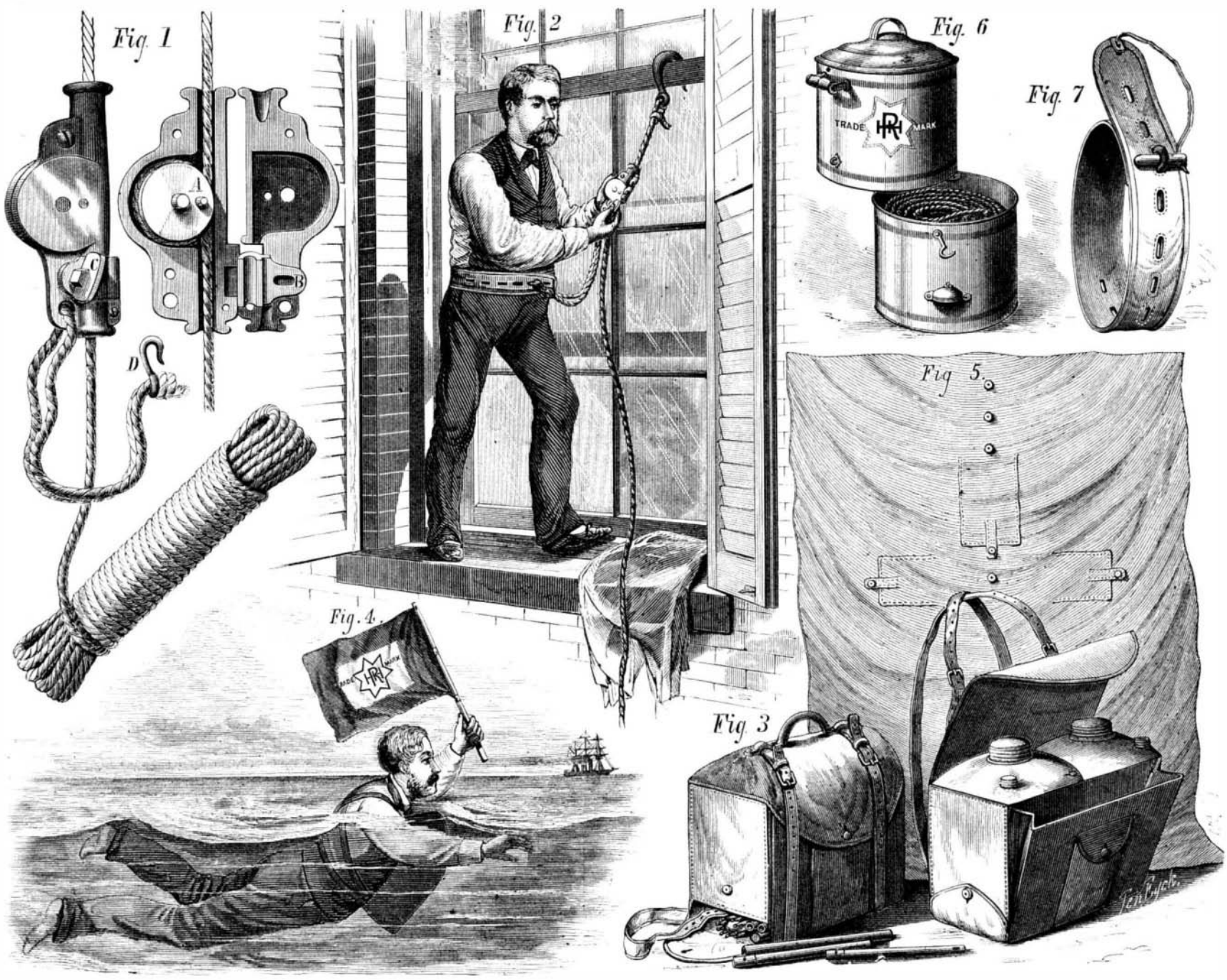
Figs. 3 and 4 exhibit a device which the inventor calls a traveler's safety kit. It is a handbag, shaped like a knapsack, of fire or waterproof material, containing bottles or jars which hold a supply of wine or other stimulants, and also meat in condensed form. These are protected from breakage by a packing of best phial corks, with outer walls of cork wood. Suitable receptacles are provided for valuables; and a sectional flagstaff is added, which may be quickly put together, and to which a signal flag is attached. This staff also may be used in connection with a portable umbrella and also as a walking stick. The kit may be constructed in two portions, with bottles, etc., in each, the division being made vertically through the center. Suitable straps connect the two portions, so that, when adjusted to the person, one portion is applied to the back and the other to the breast. The apparatus is sufficiently buoyant to sustain a heavy person in the water, as shown in Fig. 4. In case of accident to a vessel at sea, the inventor states that the person provided with this kit has not only a life preserver which will keep him afloat indefinitely, but also a supply of food which will last for several days.

For further information, address the inventor, Mr. H. R. Houghton, 59 West 42d street, New York city.

German vs. Sheffield Scissors.

"At the annual meeting of the Sheffield Scissors Manufacturers' Association, held during the past month, an animated discussion took place on the remarkable success with which the German scissors makers are competing with those of Sheffield. Mr. Hobson, the chairman, said that a warehouse had been opened in Sheffield for the express purpose of stocking and selling German scissors, and various other speakers were constrained to admit that the foreign articles were by no means badly made. As a matter of strict and most surprising fact, these German scissors are made at Solingen from Sheffield steel, and, after bearing freights in both directions, thus oust us at home. When the German scissors come here they are offered at prices 30 to 40 per cent. below the home-made goods—weavers' scissors sold by the Sheffield manufacturers at 72 cents, gold, being quoted by the importers at 54 cents free in London, or 72 cents in Sheffield. The consequence is that the Germans are doing a very large business in the steel metropolis, because almost all the manufacturers find it necessary to keep the foreign goods in stock."—*British Trade Journal.*

THE most northerly telegraph station in the world is established at Gjesvar, a Norwegian fishing station, near the North Cape, in latitude 71° 12′, north.



HOUGHTON'S LIFE-SAVING DEVICES.