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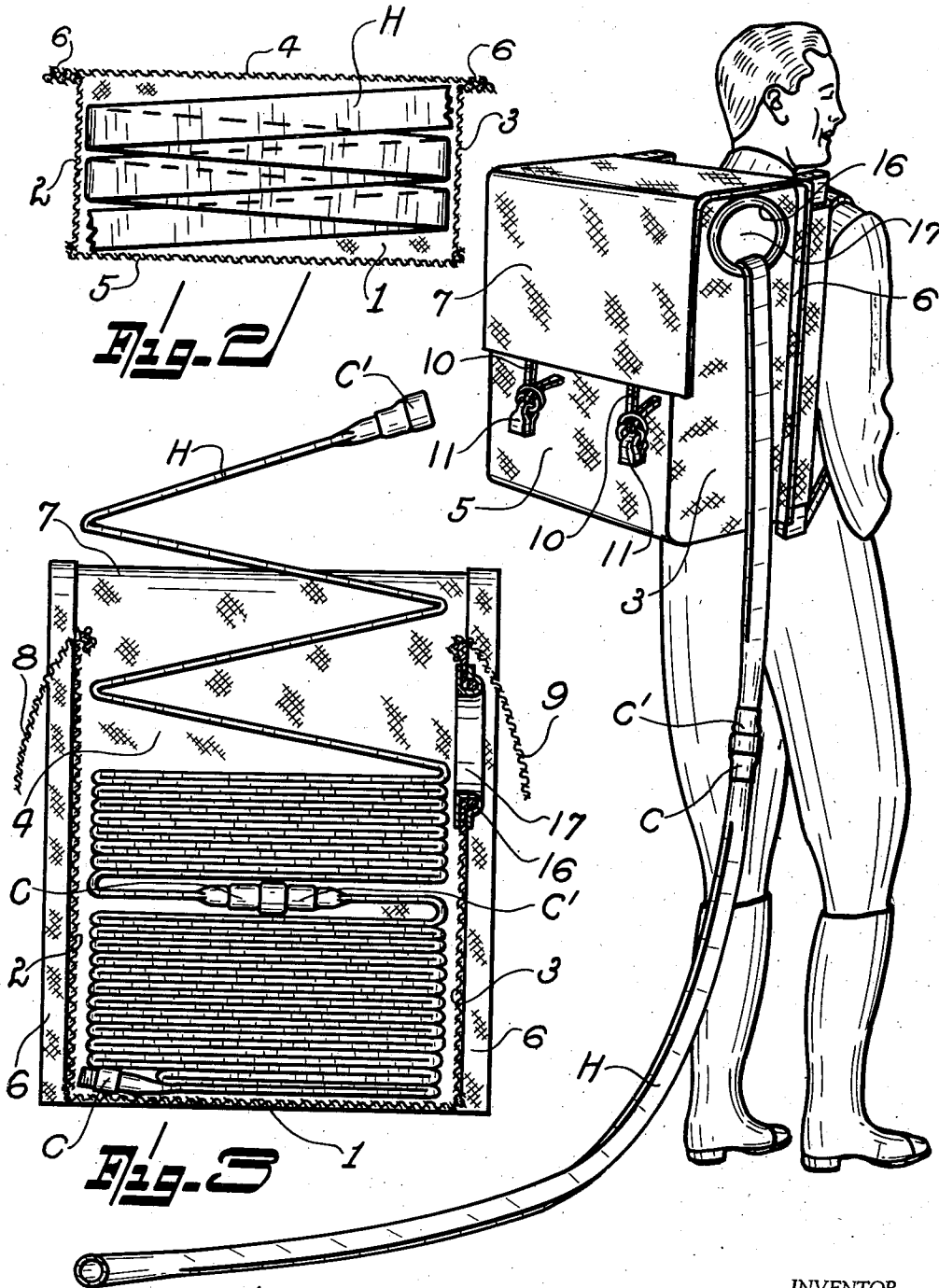
G. A. RICE

2,266,334

HOSE CARRIER AND LAYER

Filed June 28, 1938

2 Sheets-Sheet 1



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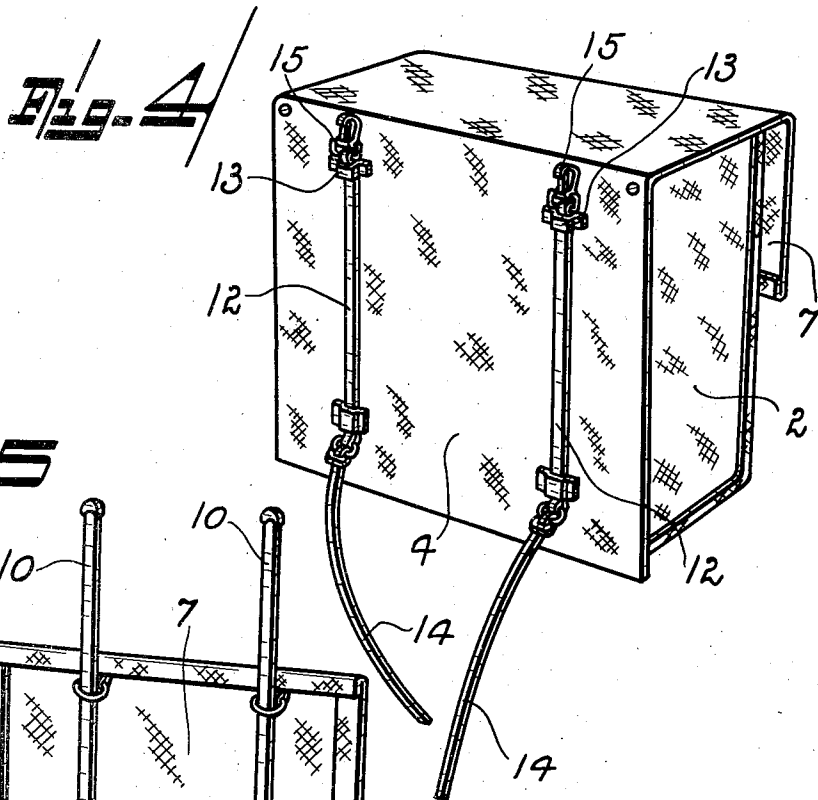
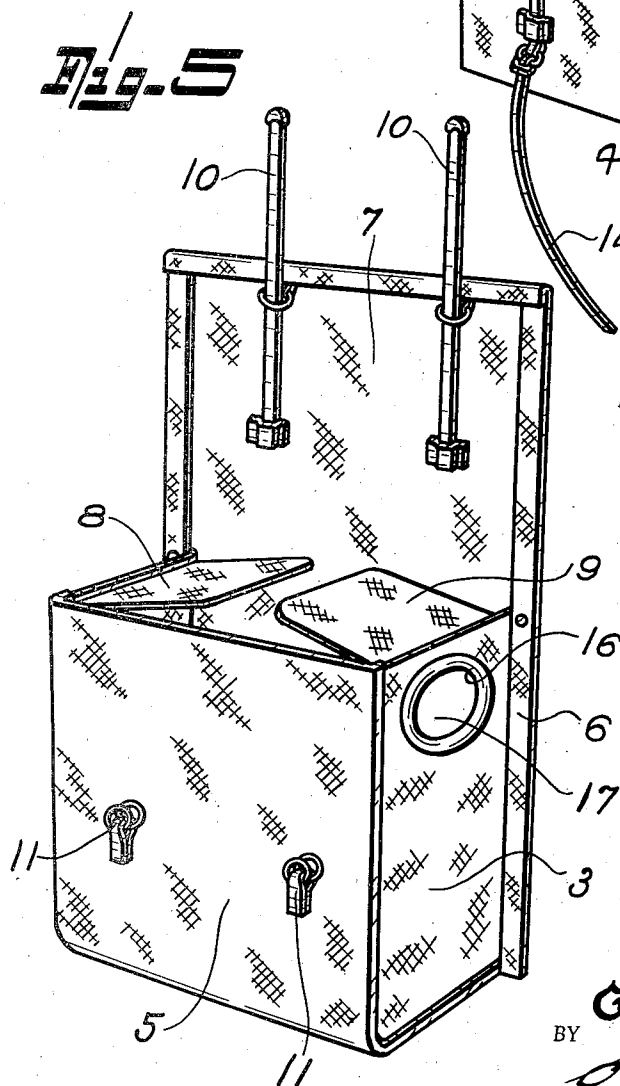
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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HOSE CARRIER AND LAYER

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2 Claims. (Cl. 224—8)

The present invention relates to an improved hose carrier and layer of the knapsack or body-supported type that is especially designed as equipment and use of forest fire-fighters. In carrying out my invention I provide for the transportation of hose by manpower in such manner that the hose may be packed with facility, carried with convenience, and laid or handled in preparation for fighting a fire with rapidity or as fast as the fire-fighter can travel the distance between the pumper and the location of the fire.

The primary object of the invention is, of course, to provide means whereby only a minimum of time is required in laying the hose, starting the water-pump, and playing the water on the forest fire or similar outdoor fire, and for this time-saving service a novel method and means are provided for compactly arranging or packing the hose in the knapsack; and means are provided whereby the hose may quickly and automatically be withdrawn from the knapsack and laid on the ground for use as the fire-fighter advances toward the fire location.

The invention consists essentially in the novel method of packing or storing the hose in the knapsack; and in certain novel features of construction in the knapsack whereby the stored or packed hose is fed from the knapsack and laid on the ground as the fire-fighter advances toward the location of the fire.

In the accompanying drawings I have illustrated one complete example of the physical embodiment of my invention wherein the parts are combined and arranged in accordance with the best mode I have thus far devised for the practical application of the principles of my invention.

Figure 1 is a view of the equipment of my invention in the form of a knapsack mounted upon the shoulders of a fire-fighter and illustrating the operation of laying the hose as rapidly as the man can travel.

Figure 2 is a horizontal sectional view of the sack illustrating the method of folding, packing, or storing the hose in the pack or sack, in obliquely opposed, lapped, or folded, upright courses or tiers, which permit the facile withdrawal of the hose from the sack and laying of the hose on the ground.

Figure 3 is a vertical sectional view of the sack, showing the method of packing or storing the hose in the sack.

Figure 4 is an exterior perspective view of the

closed knapsack with the unfastened shoulder straps dangling therefrom.

Figure 5 is another perspective view of the sack with its main flap or closure in open position, with the end flaps in place, and showing also the fastening means for the main flap.

In the preferred form of the invention the knapsack is preferably of rectangular shape, and fashioned of suitable material that may be flexible, and which is strong and durable, but light in weight. The sack as herein illustrated includes a bottom wall 1, the two upright end walls or lateral walls 2 and 3, the back wall 4, and the front wall 5. The pieces of material making up the walls may be fastened together at their edges by hemmed seams as 6, as well as by rivets or other suitable fastening means to provide a pack appropriate for the purpose of containing the hose indicated by the letter H.

The sack is closed by means of a main closure or top-flap 7 of sufficient length to cover the top of the sack and also hang down over the back wall, and two smaller, opposed end flaps 8 and 9 are folded in over the packed hose before the main flap is closed.

As seen in Figure 5 two closure straps 10, 10, are mounted on the inner side of the main flap, and when the main flap is closed the free ends of these closure straps are in position to engage the buckles or other fastening means as 11, 11, mounted on the exterior of the front wall 5.

The knapsack is mounted in usual manner on the shoulders of the fire-fighter, and attached to his back by means of a pair of upright shoulder straps 12, 12, fitted in pairs of loops 13 on the back wall of the sack, and the free ends 14 of these shoulder straps are designed to fit under the arm-pits or shoulders of the wearer and be fastened at buckles 15, 15, located at the upper ends of the upright straps 12 and above the upper loops 13.

In one of the lateral walls of the sack, as the end wall 3, and located near the top of the sack, I mount a grommet or metallic eyelet 16, which forms an aperture 17, here shown preferably as circular in shape, and of a size as to permit the hose H and its connections C and C' to pass therethrough, freely, and without substantial resistance, in order that the hose may be paid out and laid on the ground as the fire-fighter travels toward the location of the fire.

The hose H, with its connections as C and C', is packed or stored in the sack in a precise and accurate manner, in a plurality of upright, obliquely arranged, alternately disposed, courses or

tiers, as indicated in Figures 2 and 3. As best seen in Figure 2, the method of packing the hose in the sack consists in folding the hose in zig-zag folds that form two sets of obliquely opposed, lapped folds of the hose, and each of these sets is formed in three upright tiers or courses, so that the hose when packed occupies the entire interior space of the sack, thereby filling the sack to capacity.

The capacity of the sack, as indicated in Figure 3 is designed to accommodate a specific length of hose, and it will be seen that two sections of the hose are packed or stored in the sack with a connection C at the bottom of the sack, and another connection, as C' to be located at the top of the pack in the sack, adjacent the aperture 17.

In use the packed sack or knapsack, if mounted on the back of the fire-fighter, as in Figure 1, and it will be seen that the connection C' within the pack or knapsack is in position for ready access through the aperture 17 for the right hand of the fire-fighter, who reaches through the aperture, pulls out the connection, and several of the upper layers of the packed hose. The connection C' is quickly attached to the pumper, or water pump, in usual manner, and then the fire-fighter advances toward the location of the fire. The pumper, to which connection C' is attached, provides an anchor to the hose, and as the fire-fighter advances, the remaining lengths of hose in the sack are paid out and dropped to the ground as indicated in Figure 1. If more hose is

required, another fire-fighter with a similar equipment, first attaches his hose to the connection on the free end of the first laid hose, and then as he advanced toward the fire the hose from his knapsack is laid on the ground, and this proceeding is repeated until the required length of hose is laid, after which of course the nozzle is applied to the free end of the laid hose and the equipment is ready for use.

After use, the hose sections are carefully and accurately restored to their knapsacks, ready for future use as hereinbefore described.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. A hose carrier of rectangular shape adapted to support therein zig-zag hose folds obliquely disposed with relation to each other to form tiers of hose layers, and one end wall of said carrier having an upper aperture therethrough of slightly less diameter than the width of the wall whereby hose folds from any of said tiers may pass directly through said aperture.

2. A rectangular hose carrier and layer of rectangular shape and flexible material forming a knapsack, said knapsack having a top-flap closure and adapted to receive zig-zag folds of a hose laid longitudinally of the knapsack, and said knapsack also having a grommet in one of its lateral end walls near the top thereof forming an aperture through which the folds of the hose may be paid out.

GORDON A. RICE.