

Dec. 11, 1945.

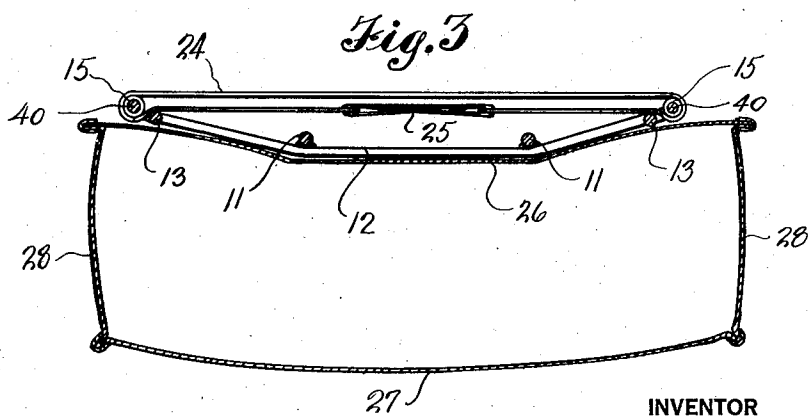
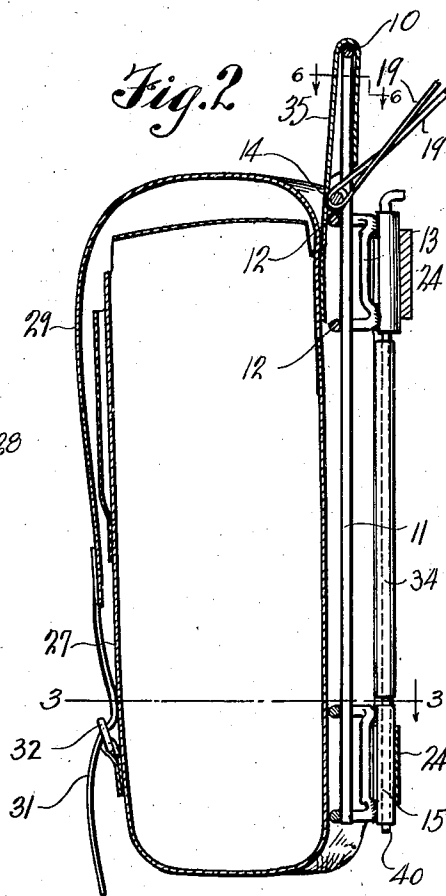
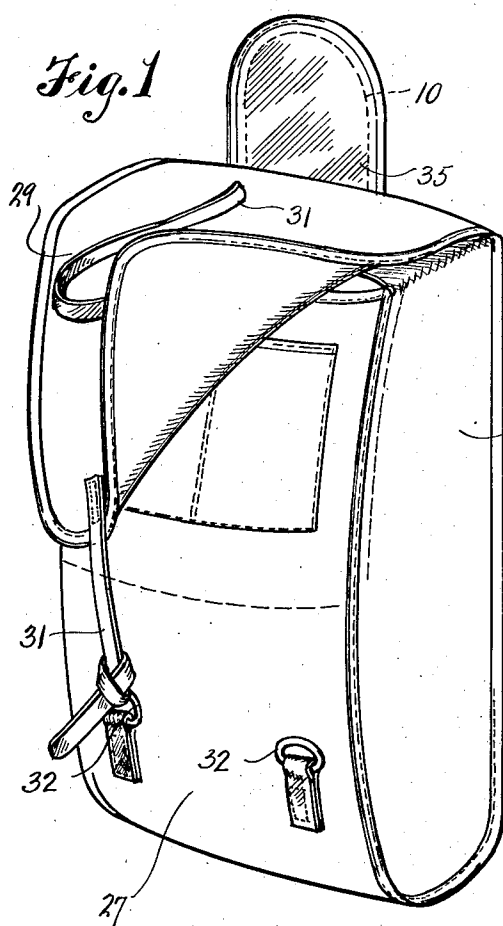
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2,390,673

PACK FRAME AND BAG

Filed Jan. 11, 1944

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

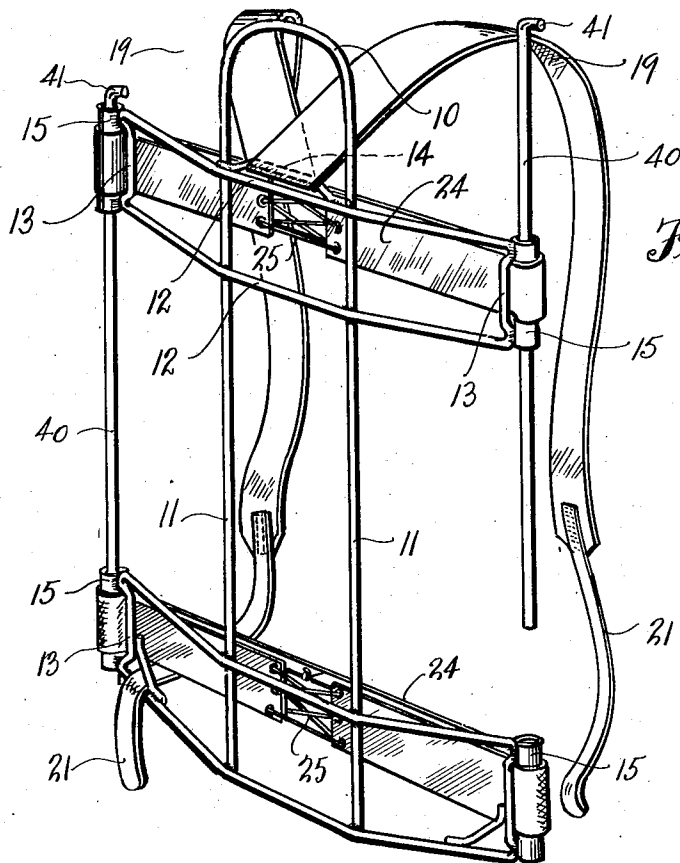


Fig. 4

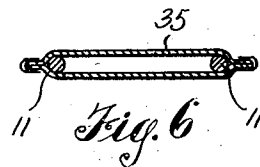


Fig. 6

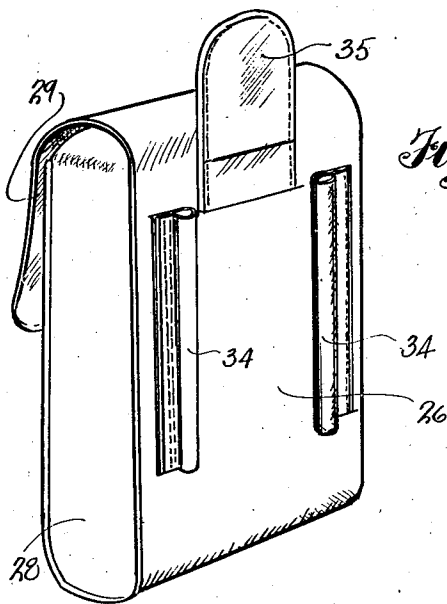


Fig. 5

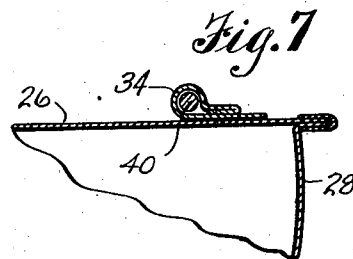


Fig. 7

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UNITED STATES PATENT OFFICE

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PACK FRAME AND BAG

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2 Claims. (Cl. 224—8)

This invention relates to improvements in packs and pack carrying frames, and has reference more particularly to such packs as those carried by hunters, sportsmen, soldiers, prospectors, etc., for transporting duffel, or supplies, and which comprises a frame structure equipped with a harness whereby it may be strapped to the wearer's back, and a duffel bag, or sack, that is adapted to be attached to the frame and in which such things as supplies, bedding and camp equipment, referred to as duffel, may be carried.

It is the principal object of this invention to provide an improved type of frame structure; one that is exceptionally light in weight, strong and durable in construction and which will spring or yield in conformity with movements of the body. Also, a frame to which the duffel bag may be easily affixed and from which it may be readily removed without requiring its being unpacked.

Still further objects of the invention reside in certain details of construction of the duffel bag; the details of construction of the frame structure; the means for attaching the bag to the frame, and the combination of the various parts in their functional use.

In accomplishing these and other objects of the invention, I have provided the improved details of construction, the preferred forms of which are illustrated in the accompanying drawings, wherein

Fig. 1 is a perspective view of the pack embodied by the present invention.

Fig. 2 is a central, vertical section of the pack, showing the frame and duffel bag as applied thereto.

Fig. 3 is a cross sectional view on line 3—3 in Fig. 2.

Fig. 4 is a perspective view of the frame structure with the duffel bag removed therefrom.

Fig. 5 is a perspective view of the duffel bag removed from the frame and showing the back side thereof and the attaching tunnels.

Fig. 6 is a cross sectional view taken on line 6—6 in Fig. 2.

Fig. 7 is an enlarged detail of a portion of the bag showing its means for attachment to the frame.

Referring more in detail to the drawings—

First, it will be explained that this particular type of pack is designed to be carried on a person's back and to be affixed in place by means of a harness comprising a pair of straps that have ends fixed to the upper part of the pack frame, with ends thereof arranged to be passed over the

wearer's shoulders, then under the arms and again fixed to the frame.

The duffel bag is in the nature of a sack, and of a size to permit it to carry a substantial amount of supplies or duffel, and which is removably applicable to the frame without requiring that it be unpacked.

The present invention deals with the novel details of construction of the frame; the details of construction of the bag; the means for attaching the bag to the frame and the combination and relationship of the parts in use.

Referring more particularly to Fig. 4 of the drawings, which illustrates, in perspective, the frame structure of the pack, this is constructed of heavy spring steel wire, and it comprises a central, vertical frame portion which is formed from a continuous piece of wire bent back upon itself to form a rounded upper end loop designated at 10 in Fig. 6, with the opposite side legs 11 and 11 extending downwardly from the end loop, in spaced relationship to the full length of the frame. In a frame of normal size, the spacing of the legs 11—11 is approximately six inches apart and the length from the loop end to the lower ends of the legs is approximately two feet.

Attached to the central frame portion, comprised by the loop 10 and legs 11—11, across the upper and lower end portions thereof, are two transverse frames, each of these comprising two horizontal coextensive wires 12 and 12, spaced approximately four inches apart, and joined at their ends by vertical members 13. These frames are located symmetrically with respect to the central frame, and the opposite ends of each extend about five inches beyond each side of the central frame portion.

Welded to the outer ends of the cross frames, parallel with the connecting wires 13, are vertical tubular sleeves 15. Also, as will be observed best by reference to Fig. 6, a cross wire 14 is fixed between the frame legs 11—11 and to the upper cross wire 12 of the upper transverse frame, with its central portion offset upwardly from wire 12, and extended about this wire is an elongated strip of canvas or the like, forming shoulder straps 19 and 19, adapted to be passed over the shoulders of the wearer, then downwardly in front of the shoulders and beneath the arms. Attached to the lower ends of these straps 19—19 are extensions 21 of reduced width adapted to be tied at their lower ends about the bottom cross wire of the lower transverse frame as will be understood by reference to Fig. 6.

With the frame so equipped with this harness,

it may be suspended from the wearer's shoulders. The frame is of such construction that its weight, and that of the pack is carried by the shoulders and not on the hips.

By reference to Fig. 3, it will be understood that the upper and lower transverse frames have their opposite end portions which extend beyond the vertical wires 11—11, inwardly directed with reference to the center frame. In order that the frame and pack may be carried without resting directly against the wearer's back, I have extended opposite end portions of cross straps 24 about the sleeves 15. Preferably, there are strips of canvas or the like with their ends joined by lacings as at 25 whereby the straps are drawn taut. Thus, when the straps are taut, they will rest against the wearer's back and the wire frame and the pack suspended therefrom will be held out from the wearer's back.

The duffel container or bag, which, in its preferred form, is as shown in perspective view in Figs. 1 and 5, may be in the nature of a sack or bag, of any suitable material. Preferably this bag would be formed with a back wall 26, front wall 27, opposite side walls 28—28 and open at its upper end. The back member of the bag is extended to form a cover flap 29 which may be drawn over the open end of the bag and downwardly of the front wall, and it is equipped with attaching straps 31—31 applicable to buckles or loops 32 that are fixed to the front wall of the bag.

By reference to Fig. 5, it will be observed that on the back wall of the bag along or near its opposite side edges, are tunnels or hems 34, stitched thereto. These extend vertically and are in the nature of open ended tubes.

The length of the tunnels 34 or hems that are sewed to the back of the bag, is equal to the vertical spacing of the cross frames and sleeves 15 that are fixed thereto. Also, in their horizontal spacing, these tunnels correspond to the length of the cross frames, or distance between the sleeves at their opposite ends.

Also, it will be seen that sewed to the upper end of the back wall at the center thereof, is a downwardly opening pocket 35 which extends up above the top end of the bag and is adapted to receive the looped upper end portion 10 of the center frame therein as a means of attaching and suspending the bag from the frame.

In applying the duffel bag to the frame, the pocket 35 is first applied over the upper looped end portion 10 of the center frame, then the tunnels are registered between the tubular sleeves 15 that are fixed to the opposite ends of the cross frames and rods 40, as shown in Fig. 6, are passed down through the sleeves and through the alined tubes at the ends of the cross frames so as to attach the bag to the frame. The rods 40 have their upper end portions turned laterally

as at 41 to keep them from working down and from the sleeves.

Packs and pack forms of this kind may be made in various sizes and the proportions might be varied somewhat as desired.

Such packs are exceedingly light, easy to carry, strong and lasting. The pack may be easily and readily removed from the frame merely by pulling the rods or pins 40 up from the tunnels, and then lifting the bag off the loop 10.

Having thus described my invention, what I claim as new therein and desire to secure by Letters Patent is—

1. A pack of the character described comprising a frame structure with means for securing it upon the back of a wearer, and a pack sack; said frame structure comprising a central vertical frame member made from a single piece of spring wire bent to form a rounded upper end loop and two spaced vertical legs; cross frames fixed to the legs of the central frame member with opposite end portions extended equally to opposite sides thereof; tubular guide members fixed to the ends of the cross members; said tubular guides at corresponding ends of upper and lower cross members being in axial alinement; said pack sack having a back wall with tunnel strips fastened thereto for registering between alined guide tubes, a downwardly opening pocket fixed to the back wall and containing said upper end loop of the central frame therein, and pins extended through alined guides and tunnels to attach the sack to the frame; said pins being removable to release the sack and said sack being adapted to be lifted to release said pocket from the upper end loop of the central frame member.

2. In a pack of the character described, a back frame having a body harness attached thereto, said frame comprising a central vertical portion formed from a single length of spring wire bent to form a rounded upper end loop and two spaced legs, upper and lower cross frame portions welded to the central frame member at vertically spaced relationship and extended equally to opposite sides thereof; each cross frame portion being made from a single length of spring steel wire bent to form upper and lower cross members and opposite end members, tubular guides fixed to the end members of both cross frames, and cushion strips extended about and drawn taut between the tubular members of each cross frame, and a pack sack formed at its upper end with a downwardly opening pocket adapted to receive the rounded upper end of the central frame therein and having tunnel strips fixed thereto for registering between the alined tubular guides of the cross frame members, and attaching pins removably applied through alined guide tubes and tunnel strips.

MILTON S. WALLACE.