June 3, 1930. H. G. CHUTE 1,761,426

PACK CARRIER

Filed April 25, 1928

Fig. 1

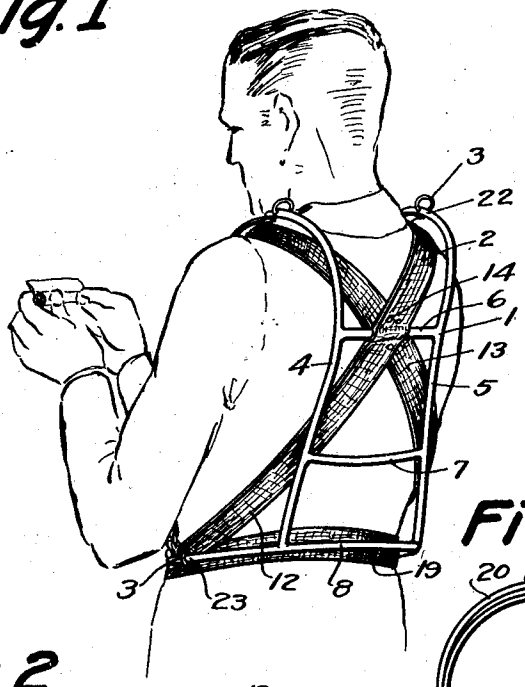


Fig. 2

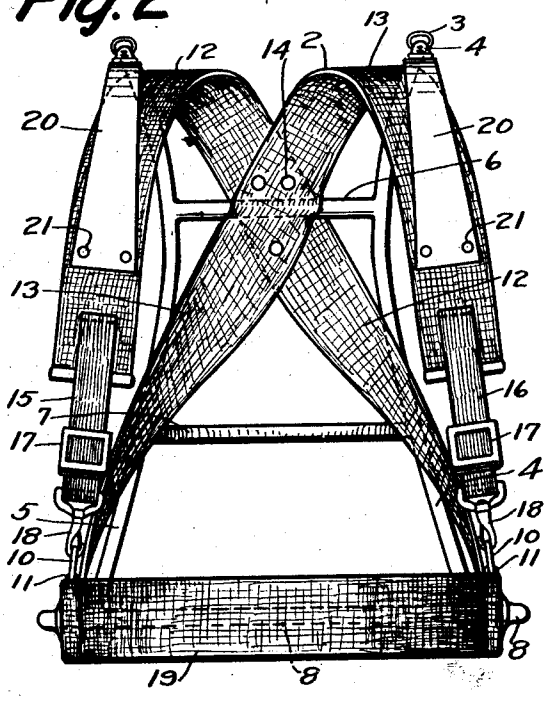
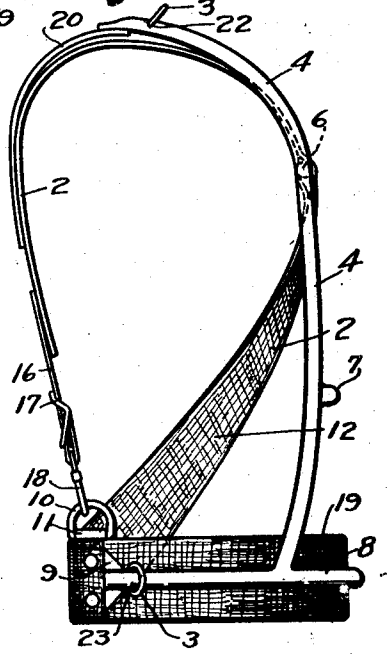


Fig. 3



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PACK CARRIER

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The invention is a frame with straps for attaching and holding it to a person's back to which a pack may be attached so that it will be held rigid, positioned high upon the back, and the load transmitted to the lower part of the back, or around the waist.

The object of the invention is to provide comfortable means for carrying a pack upon the back.

Another object of the invention is to provide means for carrying a pack high upon the back.

Another object of the invention is to provide means for carrying a pack upon the back which will transmit the load to the lower part of the back, or around the waist line.

Another object of the invention is to provide a means for carrying a pack which is so constructed that shoulder straps will not slide as the body is bent forward.

Another object of the invention is to provide a means of carrying a pack in which the connections are provided with swivel joints so that the shoulder straps may conform to the contour of the shoulders and chest of the user and providing a means for adjusting the length thereof.

A further object of the invention is to provide means for carrying a pack upon the back so that it will be held rigid and not swing from side to side.

A still further object of the invention is to provide a pack carrier in which the shoulder straps are held so that they will be midway between the shoulder and collar bone which will place the load on the chest.

And a still further object of the invention is to provide a pack carrier which is of a simple and economical construction.

With these ends in view the invention embodies a tubular frame and suitable straps and snaps for attaching the frame to the back.

Other features and advantages of the invention will appear from the following description, taken in connection with the drawings, wherein:—

Figure 1 is a view showing the device in position upon a man's back.

Figure 2 is a front view of the device.

Figure 3 is a side elevation of the device.

In the drawings the device is shown as it would be made wherein numeral 1 indicates a tubular frame, numeral 2 the straps, and numeral 3 rings by which a pack may be attached to the frame.

The tubular frame 1 is made as shown with two curved upright members as indicated by the numerals 4 and 5, and these members are connected across the back by tubular bars 6 and 7 and the lower ends are connected to a substantially semi-circular tubular bar 8. All of the tubular members are formed to the curvature of the back as shown in Figure 1 and these are attached to the straps 2 in such a manner that they will be held away from the back at all points.

The ends of the tubular member 8 are provided with plates 9 to which the ends of the straps are connected by rivets as shown in Figures 2 and 3. Rings 10 are connected to the plates 9 by short straps 11 which are bent around midway of their length to form eyes in which the rings are placed. Diagonal straps 12 and 13 are also attached at their lower ends to the plates 8 and are attached to the cross bar 6 where they cross by rivets 14 as shown in Figure 2. These straps then extend upward over the shoulders and downward at the front and the ends at the front are connected to smaller straps 15 and 16 which are provided with take up buckles 17 and snaps 18, which are connected to the straps 15 and 16 through swivel joints as shown, so that the straps will lie flat against the body and provide an equal distribution of the load across the width of the strap as shown. The snaps 18 snap into the rings 10 and it will be observed that the buckles 17 make it possible to adjust the straps so that as they are snapped into the rings the device may be rigidly held in place.

A waist band 19 is also attached to the plates 9 and this will fit snugly around the waist and transmit the load to the back at the waist line. The upper ends of the bars 4 and 5 are attached to heavy straps 20 which may be made of leather or other suitable material and the lower ends of the straps 20 are at-

tached to the diagonal straps 12 and 13 by rivets 21 as shown in Figure 2.

The lower bar 7 is slightly curved to the contour of the back to hold the pack or sack away from the back. It will be understood that this bar may be omitted if desired.

The rings 3 are shown attached to the members 4 and 5 at the points 22 and 23, however it is understood that they may be attached at any other suitable point or arranged in any other suitable manner.

The tubular members are preferably made of metal, however it will be understood that any suitable material may be used, and although the straps are indicated as being of a fibrous material it is understood that any suitable material may be used.

It is understood that other changes may be made in the construction without departing from the spirit of the invention. One of which changes may be in the design of the tubular frame, another may be in the arrangement of the straps, and still another may be in the use of other means for attaching the straps to the frame.

The construction will be readily understood from the foregoing description. To use the device one of the snaps 18 may be unfastened and a pack or any type of pack sack may be attached to the frame and the frame then placed over the back as shown in Figure 1. The snaps may then be snapped into the ring 10 as hereinbefore described to hold it rigid.

As the diagonal straps are attached to the cross member 6 and the lower part of the frame is held at the waistline, the straps will not slide back and forth upon the shoulders when the body or back is bent. It will also be observed that as the diagonal straps follow the body they will prevent the load being transmitted to the body in a horizontal or oblique direction and cause it to be transmitted in a perpendicular direction thereby eliminating the backward strain on the back and shoulders which causes fatigue.

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

1. In a device of the class described, a tubular frame comprising curved vertical members connected adjacent their upper ends with cross members and connected at their lower ends to a substantially semi-circular member, all of the said members being curved to conform to the curvature of a person's back, and their upper ends extending slightly over the shoulders, a continuous belt at the waist inside of the said semi-circular member, diagonal straps extending across the back, attached to a cross member of the frame at the point of intersection, the lower ends attached to the belt at points slightly beyond the center of the sides of the person, and the upper ends extending over the opposite shoulder down the front and provided with connections to the belt at the same points where the lower ends of the opposite members are connected, and straps connecting the upper ends of the frame members to the first-mentioned straps at the front.

2. In a pack support of the class described, a substantially semi-circular member adaptable to extend around the waist of a man at the back with the ends extending slightly beyond the center of the sides toward the front of the man, vertical members extending upward from the waist member curving in toward the center about midway of the back and then outward toward the shoulders and over the shoulders to points slightly beyond the center of the sides of the man, cross members connecting the vertical members about midway of the back, a waist band connected to the ends of the semi-circular member and extending around the back, diagonal members also connected to the ends of the semi-circular member, extending upward and crossing and connected to one of the cross members and then extending over the shoulders and down about midway at the front, members connecting the upper ends of the vertical members to the diagonal members at the front, means for adjusting the length of the said diagonal members, means for removably attaching the ends of the diagonal members to the ends of the said semi-circular member, and means for attaching a pack to the said device.

HAROLD GORDON CHUTE.