Feb. 25, 1947. H. WILSON ET AL 2,416,603

QUICK OPENING AERIAL DELIVERY CONTAINER

Filed Nov. 27, 1942

Fig. 1

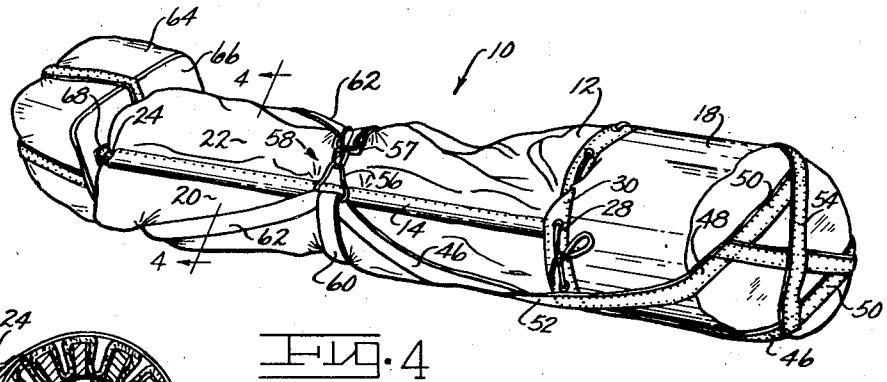


Fig. 4

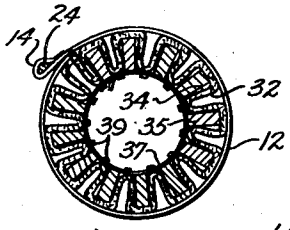


Fig. 2

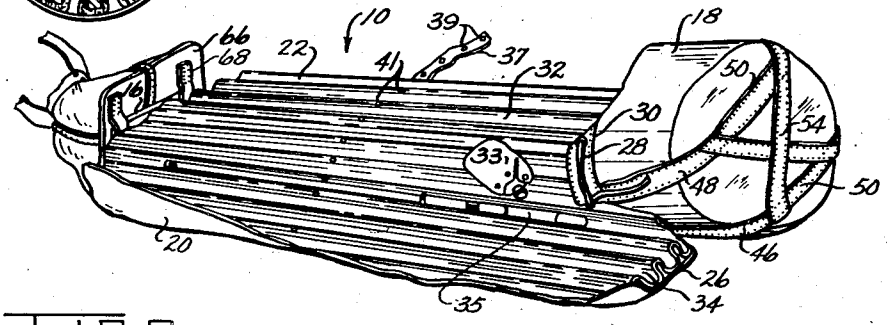


Fig. 3

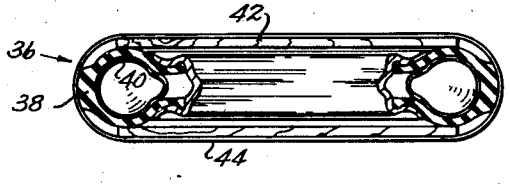
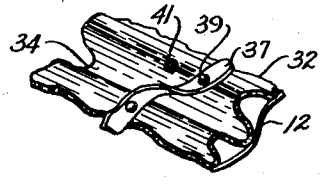


Fig. 5



INVENTORS
HARRY WILSON
WILLIAM P. YARBOROUGH
BY Edgar H. Snodgrass
Wade Koontz
ATTORNEYS

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QUICK OPENING AERIAL DELIVERY CONTAINER

Harry Wilson, Dayton, Ohio, and William P. Yarborough, Staunton, Va.

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3 Claims. (Cl. 150—52)

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The invention described herein may be manufactured and used by or for the Government for governmental purposes, without payment to us of any royalty thereon.

This invention relates to a quick-opening container and is particularly applicable for aerial delivery by parachute of the weapons and personal equipment of paratroops.

Most of the weapons and other items of equipment used by paratroops are landed by separate parachute along with and among the landing troops, since they may require them upon landing for immediate use, and it is therefore an object of this invention to provide a container of this kind which is held closed by a single quick-opening fastener to the end that a minimum of time is consumed in removing the contents.

Another object is to construct the container of flexible fabric and reinforce it with a harness which is of a novel diamond shape so arranged that the tendency of the harness when the container is suspended is to grip the contents rather than depend upon the tensile strength of the webbing alone to support the load.

Another object is to arrange the rifles and machine guns in cylindrical formation in padded forms around the inner surface of the container wall, whereby they may encircle the more fragile parts of the equipment.

Another object is to incorporate a shock absorber of simple design in the device whereby it may land endwise without injury to the contents.

Other objects and advantages will appear as the invention is further described and reference is made to the drawing, wherein:

Fig. 1 shows the container when packed and closed

Fig. 2 shows the container with the single fastener undone and the flaps laid back exposing the contents to view.

Fig. 3 shows the construction of the shock absorber, the view being an axial section therethrough.

Fig. 4 is a transverse section taken at 4—4 of Fig. 1, showing a number of rifles in their padded forms.

Fig. 5 is a fragmentary view showing a means for holding the rifles in place in the forms.

Like reference characters refer to like parts throughout the drawing.

The container 10, as packed and closed for aerial delivery, is shown in Fig. 1, the body portion consisting of a rectangular piece of flexible fabric, preferably a heavy cotton duck, brought around to a more or less cylindrical form as at 12, with the edges overlapping considerably at 14, the upper end of the cylinder being closed by an end member 16 and the lower end by a cup shaped cap 18.

The cylinder 12 is stitched, both to the upper

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member 16 and the lower cap 18, but the stitching does not extend all the way around the cylinder, the stitching being omitted for about ninety degrees, circumferentially, in both directions from the overlapping edges 14, whereby a front flap 20 and a rear flap 22 are provided, which may be laid back as shown in Fig. 2 for removing the contents. The rear flap 22 is provided with a stiffening rod 24 which is sewn into its edge. Both flaps are extended as at 26 so that they may be tucked into the upper edge of the cap 18 when the container is being closed. A lacing 28 is provided, whereby the cap may be snugged up to the cylinder when the contents do not quite round out the cylinder. The top edge of the cap 18 is reinforced by a band 30 of webbing which carries the eyelets for the lacing. The end of the rod 24 is tucked into the cap 18 at the lacing. It may however be pulled out without untying the lacing when the container is being opened.

Carried on the inner wall of the cylinder 12 is a layer of felt 32 which is stitched to the cylinder in a manner to form pockets 34, for rifles 35 or similar equipment. The pockets extend all the way around the inside of the cylinder where the cylinder is closed, thereby forming a protected chamber when the container is closed, within which the more fragile pieces of equipment as 33, may be packed. Prior to closing the cylinder 12, the rifles are held in place in the pockets by an elastic strap 37 which carries spaced-apart members 39 of a series of glove fasteners, the mating members 41 being secured to the felt 32 intermediate the gun pockets 34.

A part of the space in the bottom of the cap 18 is taken by a shock absorber 36 which comprises a pneumatic tire casing 38 and inflated tube 40 held between two discs of plywood 42, all enclosed in a canvas cover 44 (see Fig. 3). The cover 44 may preferably be secured in any convenient manner to the inside bottom of the cap.

The harness comprises two main strips 46 and 48 of heavy cotton webbing both of which pass around the bottom as at 50, then upwardly, converging to the point 52 where they cross and are preferably stitched together. Only one crossing point 52 is visible in the drawing, but it will be understood that the same strips cross at a diametrically opposite point on the cylinder. Cross webbing 54 is stitched to the main strips and to the outside bottom of the cap 18.

After the main strips 46 and 48 cross at 52 they diverge until the two ends of 46 reach the parts 56 and 57 of the quick-action snap fastener 58. A band 60 encircles the container 10 at this point, extending around the pack from the part 56 to the part 57. The band 60 may be formed by prolonging the ends of the strips 46 after they pass through the parts 56 and 57, or it may be made from a separate piece of webbing. In either

event the ends of the strips 48 when they reach the band 60 are stitched thereto at points spaced about as far apart on the back as the parts 56 and 57 are spaced on the front.

From the two parts 56 and 57, and from the two points on the band 60 where the ends of the strips 48 join the band, four strips 62 extend upwardly in pairs which converge at diametrically opposite sides, a ring (not shown) for connection to parachute risers being attached at each point of convergence. A parachute pack 64, having the usual stiffening board 66, is attached to the top member 16 by straps 68, the risers being connected to the harness as in common practice.

In practice, the container is packed as in Fig. 1 with the fragile articles such as canteens and similar equipment in the center and the heavier articles such as rifles, machine guns etc., around the outside. The static line from the parachute canopy is fastened to the plane in the usual manner and the container is thrown overboard.

When the weight of the contents is taken by the harness, the tendency, due to the diamond shape of the harness, is for the strips 46, 48, to be drawn tightly around the container, imbedding themselves somewhat in the flexible material, so that the portions 50 of the strips which cross the bottom of the container are relieved of part of the load. When the container alights it necessarily strikes first on the lower end which contains the shock absorber which greatly lessens the impact of the cargo.

When the snap fastener 58 is opened, the strips 46, 60 and 62 on both sides may be laid back so that the flaps 20 and 22 may be laid back also, giving almost instantaneous access to the weapons and equipment.. A single pull on the elastic strap 37 will undo all of the glove fasteners 39 and permit the rifles 35 to be withdrawn from their pockets 34.

Having described an embodiment of our invention, we claim:

1. An aerial delivery container of the character described, which comprises a bottom cap in the form of a drum with the upper end open, a top closing member, a side member comprising a rectangular piece of flexible fabric brought around in the form of a cylinder with the edges overlapping, the top end of said piece joining the top closing member and the bottom end extending into the bottom cap, the top and bottom ends of the piece being stitched to the top closing member and the bottom cap respectively, the stitching extending part way only around the circumference, leaving an unstitched portion adjacent each of the overlapping edges whereby openable flaps are provided, and a harness consisting of a belt surrounding the cylinder intermediate its ends and provided with a quick-acting fastener at the overlapping edges of the flaps and two straps extending in spaced-apart parallel paths across the bottom of the cap, upwardly over the sides, converging and crossing then diverging until opposite legs of one strap reach and are secured to the parts of the quick-acting fastener and opposite legs of the other strap are secured in equally spaced-apart positions on the opposite side of the belt, the two straps then converging to opposite points at the top of the container for connection to a parachute.

2. An aerial delivery container of the character described, which comprises a bottom cap in the form of a drum with the upper end open, a top closing member, a side member comprising a rectangular piece of flexible fabric brought around in the form of a cylinder with the edges overlapping, the top end of the piece joining the top closing member and the bottom end extending into the bottom cap, the top and bottom ends of the piece being stitched to the top closing member and the bottom cap respectively, the stitching extending part way only around the circumference, leaving an unstitched portion adjacent each of the overlapping edges whereby openable flaps are provided, and a harness for supporting the container on a parachute, said harness having a belt surrounding the cylinder intermediate its ends, the ends of the belt being joined by a quick-acting fastener whereby said openable flaps are held closed, vertical straps which extend across the bottom and up the sides to the top of the container for connection to a parachute, and a series of longitudinal padded pockets circumferentially spaced around the inner wall of the cylinder for carrying rifles and similar equipment.

3. An aerial delivery container of the character described, which comprises a bottom cap in the form of a drum with the upper end open, a top closing member, a side member comprising a rectangular piece of flexible fabric brought around in the form of a cylinder with the edges overlapping, the top end of the piece joining the top closing member and the bottom end extending into the bottom cap, the top and bottom ends of the piece being stitched to the top closing member and the bottom cap respectively, the stitching extending part way only around the circumference, leaving an unstitched portion adjacent each of the overlapping edges whereby openable flaps are provided, and a harness for supporting the container on a parachute, said harness having a belt surrounding the cylinder intermediate its ends, the ends of the belt being joined by a quick-acting fastener whereby said openable flaps are held closed, vertical straps which extend across the bottom and up the sides to the top of the container for connection to a parachute, a series of longitudinal padded pockets circumferentially spaced around the inner wall of the cylinder for carrying rifles and similar equipment, and a quick opening means for holding the rifles in the pockets when the flaps are open.

WILLIAM P. YARBOROUGH.
HARRY WILSON.

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