Nov. 16, 1943. H. W. ST. JOHN 2,334,360

CONDITIONING BAG

Filed Nov. 23, 1942

Fig. 1.

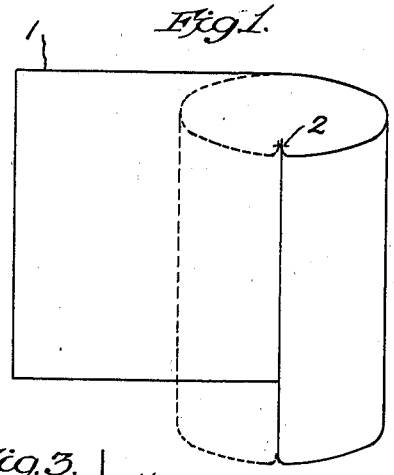


Fig. 2.

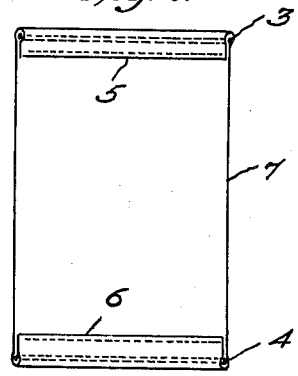


Fig. 3.

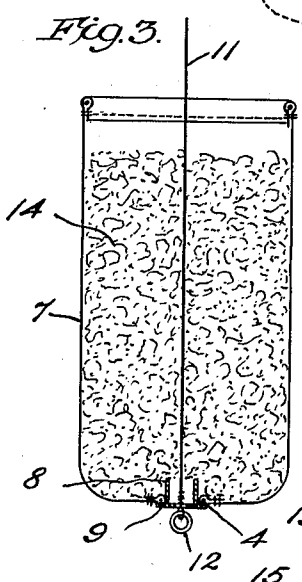


Fig. 4.

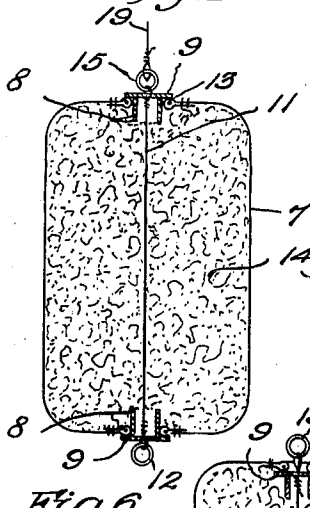


Fig. 5.

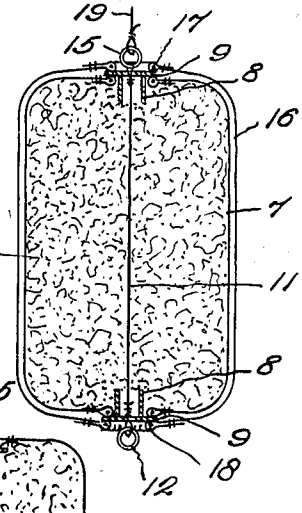


Fig. 7.

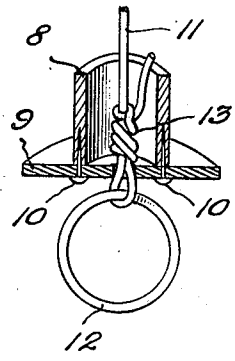


Fig. 6.

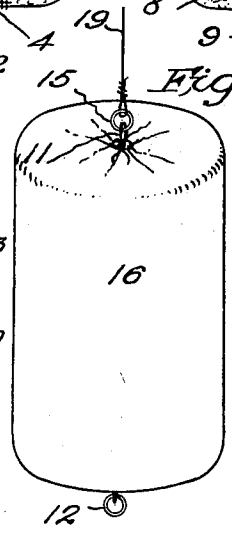
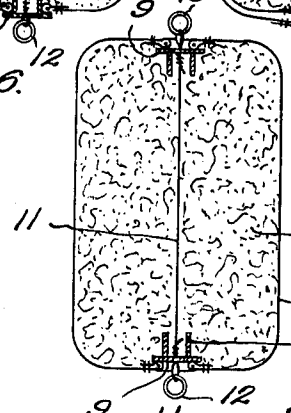


Fig. 8.



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CONDITIONING BAG

Henry W. St. John, Greenville, S. C.

Application November 23, 1942, Serial No. 466,596

1 Claim. (Cl. 272—77)

This invention is a conditioning bag for use primarily by the Army and Navy in hardening up and conditioning troops and in keeping them in condition, although the invention is adapted also for use in gymnasiums and in other places where punching bags are ordinarily employed.

Heretofore punching bags have been most commonly made with a pneumatic rubber bladder enclosed within a leather cover. Under the present war conditions it is practically impossible to obtain materials for the manufacture of these punching bags and consequently some satisfactory substitute is essential. It has heretofore been proposed to use large and relatively heavy bags, particularly in training prize fighters, but these bags are so hard and so constructed that they cannot be safely punched without the use of boxing gloves. Such a requirement would render a bag unsuitable for use in the armed forces, as boxing gloves in large quantities are not available at this time.

The object of the invention therefore is to provide a conditioning bag which may be made from materials which are non-critical to the war effort and which may be manufactured economically and expeditiously and sold for a relatively low price, thus making them quickly available in very large quantities for use in training camps and the like. An important feature of the invention consists in so constructing the bag that it may be satisfactorily employed without the use of boxing gloves. The present invention fulfills all of the foregoing requirements and others and has been found to be thoroughly satisfactory for the purposes stated.

The conditioning bag of this invention has been manufactured in two forms. In the preferred form, which will stand up best under the longest and roughest use, the bag is formed with a cheap fabric inner liner and a more rugged fabric outer casing, whereas a more economical bag is made according to this invention by eliminating the inner liner and using simply the outer casing to contain the contents of the bag.

The bag, either with or without the inner liner, is packed with relatively soft, economical stuffing material, such as napper cotton which is a cheap by-product from cotton flannelette mills. It has no staple and is therefore non-spinnable. The opposite ends of the inner liner and outer casing are closed by drawstrings and a rope is passed axially through the bag and is provided at the opposite ends thereof with rings, loops, or the like, whereby the bag may be hung solely from above or may be both hung from above and tied from below.

Features of the invention, other than those adverted to, will be apparent from the hereinafter detailed description and claim, when read in conjunction with the accompanying drawing.

The accompanying drawing illustrates different practical embodiments of the invention, but the constructions therein shown are to be understood as illustrative, only, and not as defining the limits of the invention.

Figure 1 is a perspective view showing the first step in forming both the inner liner and the outer casing.

Figures 2–5 are central vertical sectional views showing consecutive steps in the fabrication of the bag, Figure 5 showing the outer casing in place.

Figure 6 is a perspective view of the finished bag.

Figure 7 shows the preferred manner of anchoring both ends of the rope which passes through the axis of the bag, the washer illustrated in this figure being shown in central section.

Figure 8 shows a modified form of construction wherein the bag has a single outer casing with no inner liner.

In fabricating the bag of the invention, I start with a strip of relatively cheap fabric 1, indicated in full lines in Figure 1 and I fold this fabric so that its opposite upright edges overlap one another and I unite these edges in a flat seam by a line of stitching 2 to form a fabric tube. This is the first step in making the inner liner of the bag illustrated in Figures 1–6.

After the fabric tube has been formed, as indicated in Figure 1, the opposite ends of the tube are turned in over drawstrings 3 and 4 and sewed down to form hems 5 and 6, as shown in Figure 2, where the tubular body of the inner liner bears the reference character 7.

The next step consists in drawing the lower drawstring 4 tight about the flange 8 of a washer 9, as shown in Figure 3. This washer is illustrated in detail in Figure 7. It comprises a flat washer disk 9 perforated at its center and this disk is secured to the tubular flange 8 by nails 10, as shown.

After the drawstring 4 has been pulled tight and tied, a rope 11 is passed axially through the body 7. The lower end of this rope is passed through the center perforation of the washer 9, looped about a ring 12 and then passed back through the perforation and tied into a knot 13,

as illustrated in detail in Figure 7. This secures a lower attaching ring 12 to the washer and at the same time precludes the ring from pulling away from the washer because the knot 13 is on the upper side of the washer disk 9.

With the rope in place as shown in Figure 3, the fabric body 7 is filled with loose napper cotton 14 which is pressed down tightly to about the level shown in Figure 3. Thereupon the upper portion of the rope is passed through the same kind of a flanged washer as shown in Figure 7 and the washer is secured to the rope 11 in the same manner, but with the washer inverted, as shown in Figure 4. Thereupon the upper drawstring 3 is pulled tight around the flange 8 of the upper washer and in this way the bag is closed with the rope passing axially through the stuffed shirred tube and secured at the bottom thereof to the bottom attaching ring 12 and at the top to an upper attaching ring 15. The washer disks 9 are exteriorly of the bag. This completes the assembly of the inner liner and its attaching means.

In the form of the invention shown in Figures 1–6, the inner liner of the bag is covered with an outer casing of a better and more rugged material, such, for example, as canvas, drill or duck. The outer casing is designated in Figure 5 by the reference character 16. It is formed in the same manner as indicated in Figures 1 and 2 and is provided with an upper drawstring 17 and a lower drawstring 18 in its upper and lower hems, respectively. The outer casing is drawn, while in tubular condition, over the finished inner liner assembly and the drawstrings 17 and 18 are then pulled tight over the outer peripheries of the upper and lower washer disks 9 into close proximity to the upper and lower rings 15 and 12, respectively. This completes the bag and it is ready for shipment.

In use it may be suspended from any suitable superimposed support by a rope 19, such as a piece of clothesline tied to the upper attaching ring 15, as shown in Figures 4–6, inclusive, and, if desired, the lower end of the bag may be anchored by another rope, attached to the lower attaching ring 12 and fastened to a ring in the floor or to a stake driven in the ground.

When the bag is supported from either attachment ring, the washer disks bear against the shirred end hems of the inner liner and thus effectually keep the rope from withdrawing either upwardly or downwardly through the stuffed shirred tube. This is particularly important when the bag is suspended for the weight of the bag would tend to cause it to sag so that the lower washer would be drawn upwardly through the stuffing and the bag effectually released. With the arrangement shown, however, this is precluded.

The structure shown in Figure 8 is one wherein the inner liner is omitted and an outer casing 16 is packed directly with the fibre stuffing 14, the structure being fabricated exactly the same as the inner liner of the construction previously described, but with one difference, namely, the washer disks 9 are placed inside of the bag, the same as they are placed within the casing 16 of Figure 5. In Figure 8, the washer disks are shown interiorly of the casing 16. These disks bear firmly against the stuffing and materially assist in securing the rope against movement in an axial direction with consequent sagging of the bag. Moreover, the drawstrings at both ends of the bag are drawn so as to practically close the ends of the bag about the rope, so that the rings 12 or 15 cannot pull through and this further assists in locking the rope against longitudinal shifting.

The bags are made of various weights. The large bag is generally made to weight between 15 and 25 pounds, while the smaller bags are made to weight between 5 and 10 pounds. The structure of Figures 1–6 is preferred for the large bag, while the structure of Figure 8 is preferred for the small bag, but this is optional and the weights may vary without departing from this invention.

The bags of the present invention may be manufactured at very little cost. They do not employ critical materials and they are soft enough to use without boxing gloves and yet hard and heavy enough to give the necessary exercise and to maintain their form and shape.

I have shown the bags in the accompanying drawing as provided at both their tops and bottoms with rings 15 and 12 respectively. This construction permits both ends of the bags to be anchored or either end of the bag to be hung with that end up. The washers are entirely enclosed and cannot damage the hands of the user even though the bag is struck near the ends. I have illustrated iron rings as attaching rings at the two ends of the bags. Instead of employing metal rings, I may, however, tie the rope in a loop at the bottom of the bag with a knot inside and outside of the washer and the same construction may be utilized at the top of the bag.

If the bag is to be used always with one predetermined end up, it is not necessary to employ a ring or loop in the rope at the top of the bag as the rope may be continued upwardly through the upper washer for a sufficient length to permit the external portion of the rope to also serve as a means for suspending the bag, so that it will serve the function of the rope 19.

In any event there must be an enlargement at the lower end of the rope to keep it from withdrawing upwardly through the stuffed shirred inner or outer tube as the case may be when the bag is hung up by the rope. Either or both the lower washer and ring or a loop at the lower end of the rope serve this purpose and form the enlargement necessary to accomplish this result. The washers are preferably made sufficiently large so that when the drawstrings are pulled closed, the bag will be effectually sealed against the escape of any of the cotton fiber and inasmuch as they are enclosed, they can be made large without fear of damage to the user's hands. These washers may be made from metal, but I have found wood or heavy cardboard thoroughly satisfactory in their construction.

The bag of the present invention fulfills a long felt demand for a cheap and efficient conditioning bag. It is the first bag for this purpose that can be sold at anywhere near the price at which it is possible to manufacture and market this construction. I have referred to specific weights in connection with the bags, but I wish it understood that this may be varied according to service requirements. The conditioning bag of this invention is made in junior and senior sizes to be used by adults and children as the case may be.

The accompanying drawing illustrates the present invention in its preferred practical forms, but the invention is to be understood as commensurate with the appended claim.

Having thus fully described the invention,

what I claim as new and desire to secure by Letters Patent is:

A conditioning bag comprising an upright substantially tubular fabric inner liner, a supporting member extending axially through said liner, hems at the top and bottom edges of said liner, drawstrings in said hems drawn tightly around the supporting member to shirr in the top and bottom portions of the liner, soft fibrous stuffing completely filling the liner with said supporting member embedded within and in contact with said stuffing, washers secured to the supporting member at the top and bottom of the liner so that the stuffing cannot work out of the liner around the supporting member and for securing the supporting member to both ends of the liner against movement axially of the liner, a tubular fabric cover embracing the thus stuffed liner, hems at the top and bottom edges of said cover, and drawstrings through said hems drawn tightly to shirr in the top and bottom portions of the cover into close conformity with the stuffed liner.

HENRY W. ST. JOHN.