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3,310,089

HAMPERS

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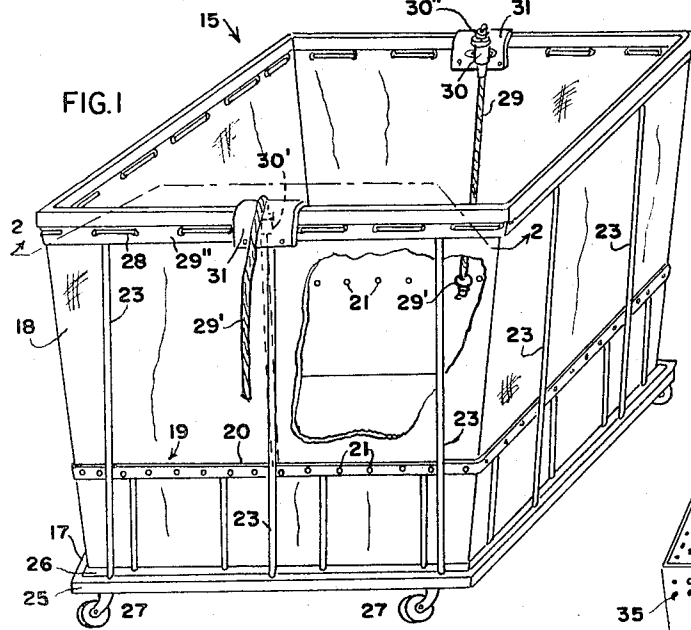


FIG. 1

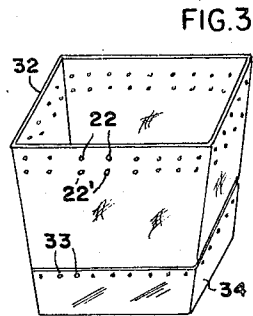


FIG. 3

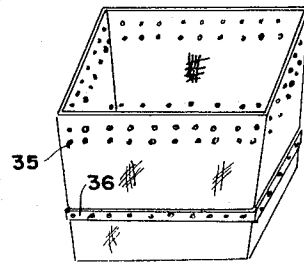


FIG. 4

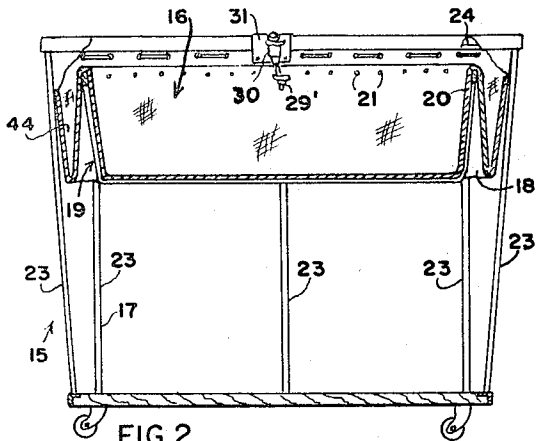


FIG. 2

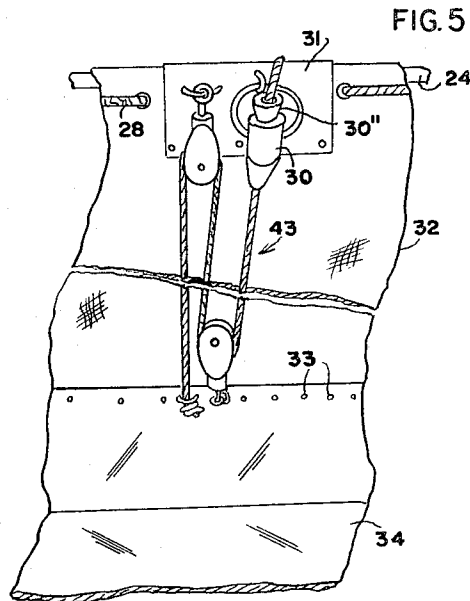


FIG. 5

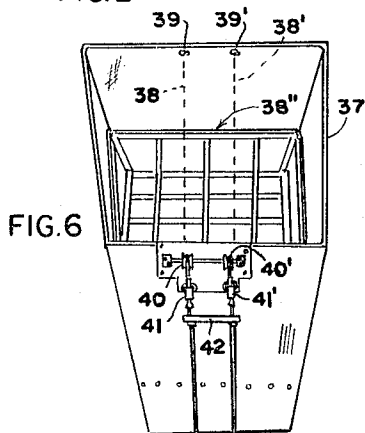


FIG. 6

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HAMPERS
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The present invention relates to hampers and more particularly to the type in which a raised horizontal ring member supported on a stand or other framework, holds the mouth rim of a distended upright sack.

These hampers are useful for example, in post office mail sorting operations, laundries and other places in industry where a supply of articles to be worked on, is near a standing operator to dig his hand into. It is evident that articles at the top region of the sack are readily accessible, but as the load is being depleted, inconvenience increases, the deeper it becomes necessary to reach down into the sack to get at its contents.

Various attempts have heretofore been made to bring the sack contents to mouth region by raising the sack bottom by various means, but folds and bulges occur in the collapsed upper portion of the sack body which too often fall over the remaining sack contents and cache and hide letters and small articles, only to be discovered after the sack is again distended, thus making it necessary to reach way down into the sack to get them.

It is therefore an object of this invention to provide a novel and improved hamper of the character mentioned, in which the lower portion of the sack is lifted when the load is depleted to an inconvenient level to get to; the sack construction being such that the collapsed upper portion of the sack body does not fall atop the remaining contents, but automatically forms a circumferential trough therearound, of a depth convenient to reach by the operator to retrieve any articles which may have fallen therein while the laden bottom portion of the sack was being raised.

A further object thereof is to provide a novel and improved hamper of the kind set forth, so constructed that during the lifting of the sack's laden bottom portion, its contents are not appreciably dispersed, but remain substantially intact in position therein.

Another object thereof is to provide the hamper with lifting means which brings the sack's bottom portion towards its mouth; such means being simple, relatively cheap and capable of dealing with heavy loads and yet is convenient for manual operation.

Still a further object of this invention is to provide a novel and improved hamper having the attributes set forth, which is simple in structure, easy to manipulate, positive in action and efficient in carrying out the purposes for which it is designed.

Other objects and advantages will become apparent as this disclosure proceeds.

For one practice of this invention, a distended downwardly tapering sack structure is suspended upright from a raised horizontally supported ring. This ring in the embodiment shown is rectangular and the general shape of the distended sack structure is that of the frustum of a rectangular pyramid. The lower third of said sack structure is or serves in the manner of non-deformable receptacle while being raised.

The sack structure may be completely of fabric with its lower third position in or about a rigid receptacle structure whose walls may be of sheeting material or have open work as a wire tray. Or else, said lower third may be a receptacle whose mouth rim is secured circumferentially to the lower end of a fabric tube. In still another embodiment shown herein, the sack structure may be completely of fabric having a rigid ring secured thereto, one-third up from the bottom of such sack. In con-

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structions where the bottom third is or involves a rigid receptacle, it is the receptacle that is raised when the sack contents are depleted two-thirds about. In the construction having only the horizontal rigid ring, it is this ring that is raised when needed. Of course, some kind of means is included to do the raising.

It is to be noted that while the lower third of the sack structure is being lifted, it does not collapse, but that the upper two-thirds folds and forms a trough around the lower third as the mouth of the lower third is raised towards the mouth of the sack structure.

In the accompanying drawing forming part of this specification, similar characters of reference indicate corresponding parts in all the views.

FIG. 1 is a perspective view of a hamper embodying teachings of this invention. Here, the sack is fully distended.

FIG. 2 is a section taken at line 2-2 in FIG. 1, showing the lower third of the sack structure in raised position, and the upper two-third formed as a trough around it.

FIGS. 3 and 4 are perspective views showing sack structures of modified form.

FIG. 5 is a perspective view of a distended sack with parts thereof broken away, showing another form of lifting means.

FIG. 6 is a perspective view showing a modified form of sack structure and another lifting means.

In the drawing, the numeral 15 designates generally a hamper in which a sack structure indicated generally by the numeral 16 is suspended in distended condition within an open framework denoted generally by the numeral 17. Said sack structure comprises a fabric sack 18, whose general shape is that of the frustum of a rectangular pyramid, the lower third portion of which is within and lines the wire-work tray 19, whose mouth rim ring 20 is secured around the fabric sack by the series of spaced fastenings, as for instance, the rivets 21. Said sack is provided along its mouth rim zone with spaced eyelets arranged in vertically spaced rows, so the eyelets 22 in one row, are in vertical alignment with the eyelets 22' of the other row. The frame 17 comprises a series of spaced upright bars 23, associating an upper rectangular ring 24 and a lower similar ring 25, which latter may be the edging for a platform 26, provided with the castors 27. The sack 18 is within this frame and is suspended from the upper frame ring 24 by a rope 28 laced through the mating eyelets 22, 22', which register when the mouth rim of the sack is bent outwardly downwardly to form a cuff 29'. Of course, the ends of the rope 28 are secured (not shown) to maintain the assembly. Inside the sack 18, the lower end of a rope 29 is secured at 29' to the horizontal ring 20, midway between one pair of opposite sack walls. Said rope 29 is releasably engaged in a cord lock 30 which is on a saddle 31 encompassing the frame ring 24 and its covering; said cord lock being also midway between said opposite pair of sack walls. The free end of the rope 29 hangs down outside the hamper 15. On the wall directly opposite the one the said rope 29 is associated with, there is a similar combination of a rope 29', a cord lock 30' and a saddle 31', similarly associated.

Another form of sack structure may be of the construction shown in FIG. 3, where the upper two-thirds portion thereof 32, is all fabric, whose lower rim is secured by rivets 33 to and around the mouth rim of a sheet metal receptacle 34, which may be downwardly tapered or of rectangular prismatic form. Another embodiment of sack construction is shown in FIG. 4, where the sack of fabric indicated as 35, has secured thereto at about one-third up from its bottom, a horizontal rigid band ring 36. In FIG. 6, the sack 37 is also entirely of

fabric and there is a wire-work basket 38'' therein and secured thereto; such basket being about one-third the height of said sack 37.

The lifting ropes for the sack structure of FIG. 3 would be attached at their respective ends to the mouth rim of the receptacle 34. The lifting ropes for the sack structure of FIG. 4 would be attached to the band ring 36. In each such instance, the arrangement would be as shown for the ropes 29, 29' in FIG. 1, in conjunction with saddles like 31, 31' and cord locks 30, 30'. In cases where the receptacle constituting the lower portion of the sack structure is rigid, as in FIGS. 3 and 6, it may be lifted as shown in FIG. 6, where two spaced ropes 38, 38' are underslung it; one set of corresponding ends of said ropes being secured to the upper main frame ring as shown at 39, 39', and their other ends being mounted over pulleys 40, 40', from which they hang through the cord locks 41, 41' respectively, and below said locks are joined to the ends of a horizontal bar 42 which can be pushed down by foot, as a stirrup. Where loads are heavy, a block and tackle arrangement 43 as shown in FIG. 5 may be employed in conjunction with each lifting rope, to gain mechanical advantage.

To use the hamper 15, start with it in its distended condition shown in FIG. 1, and fill it for instance with mail or other articles it is to carry. When the load is depleted two-thirds, at which time the inner parts of the rivets 21, 36, or the mouth of the receptacles 34 or 38'' will show, depending which of the sack structures is used, raise the receptacle which is the lower third of the sack structure, by releasing the rope 29 in its cord-lock 30, and then pulling the outer portion of said rope until the portion of the rim ring at the mouth of said defined lower receptacle, at the rope, comes up near to the mouth of the sack structure, whereupon the cord lock 30 is manipulated to again engage the rope 29. Do the same with the other rope 29', whereupon the raised receptacle aforesaid will be upright immediately below the sack's mouth, and its contents made easily accessible. It is to be especially noted that in raising said receptacle constituting the lower third of the sack structure, the upper two-thirds of the sack, which is entirely of fabric in all embodiments herein illustrated, will automatically fold into an open-top trough 44, around it, into which the operator can see and easily reach for any item which might be contained in such trough. When it is time to raise the lower third of the sack structure shown in the embodiment of FIG. 6, the ropes 38, 38' are loosened in their respective cord locks 41, 41', and the bar 42 is pulled down by hand or foot until the laden basket 38'' is in fully raised position. Then the cord locks are manipulated to reengage the ropes 38, 38'.

Each of the saddles 31, 31' made of heavy sheet metal, is riveted to the sack. The releasable cord locks 30, 30', 41, 41' may be of any suitable type, and being well known in commerce, need no further showing, though mention may be made that in particular ones shown, pulling the spring-biased tube 36'' a bit outwardly from the lock body, releases the rope, and upon letting said tube go to return to its normal rest position, the rope becomes engaged by steel balls in a chuck-like manner, illustration of which is believed unnecessary for those versed in the art. The fabric for the sacks is preferably a heavy-duty canvas.

The depth of the receptacle to be raised may be any part of the total depth of the sack structure, as may be proper in any particular hamper construction and suit-

able for its intended use. I have suggested that such depth of receptacle shall be a third, as being the most practical, and in such instance, the depth of the trough 44 will be about equal the depth of the raised receptacle.

Without further illustration, it is readily understood that the stirrup and cord locks may also be provided for the rope ends shown attached at 39, 39' in FIG. 6.

The hamper shape being shown generally square, may be round or other shape as may suit any particular condition for use. For the trough 44 to be open all around the mouth rim of the defined lower receptacle which is subsequently raised, should be inward of the confines of the mouth rim of the sack structure.

This invention is capable of numerous forms and various applications without departing from the essential features herein disclosed. It is therefore intended and desired that the embodiment herein shall be deemed merely illustrative and not restrictive and that the patent shall cover all patentable novelty herein set forth; reference being had to the following claims rather than to the specific showings and description herein to indicate the scope of this invention.

I claim:

1. In a hamper of the character described, a frame including a raised horizontally positioned first ring, a sack of pliable material; the mouth rim of said sack being mounted on said first ring whereby the sack depends therefrom in extended condition, a rigid second ring horizontally positioned on the sack a predetermined distance up from the bottom of the sack; said sack and second ring being secured to one another circumferentially; means connected to the second ring to raise it to the region of the mouth of the sack whereupon the sack portion depending from said second ring serves as a receptacle whose mouth is accessible at the mouth region of the sack, and means to releasably hold said second ring in a raised position.

2. A hamper as defined in claim 1, wherein the depth of the said receptacle is no more than half the depth of said sack.

3. A hamper as defined in claim 1, wherein the depth of said receptacle is approximately one-third the depth of the sack.

4. A hamper as defined in claim 1, wherein the bottom of the sack is flat and horizontal.

5. A hamper as defined in claim 1, wherein the sack slants downwardly inwardly at least downwardly from its entire mouth rim to the second ring whereupon raising the second ring to the mouth region of the sack, the material of the sack which is normally above said second ring when the sack is extended, will be automatically formed into an open-top trough surrounding the mentioned receptacle.

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