June 14, 1927. 1,632,270

H. T. BRADLEY ET AL

ADJUSTABLE BOTTOM FOR HAMPERS

Filed Sept. 22, 1925 2 Sheets-Sheet 1

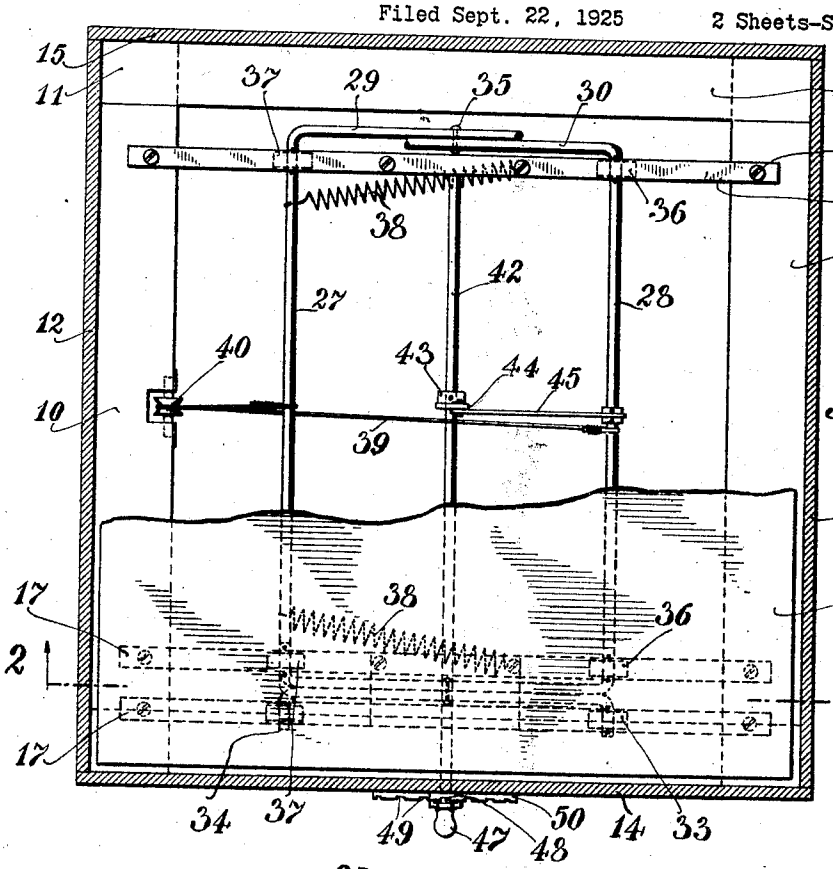


Fig. 1.

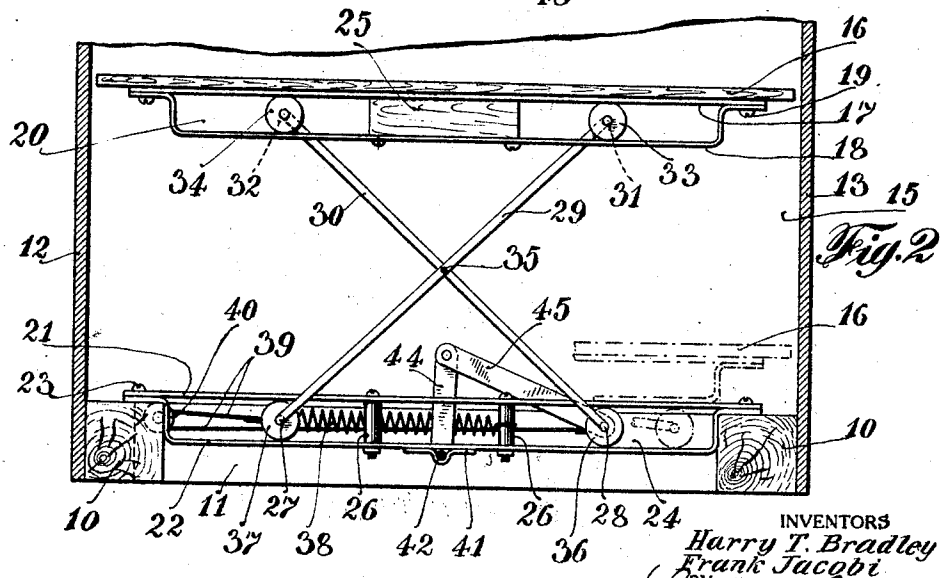


Fig. 2.

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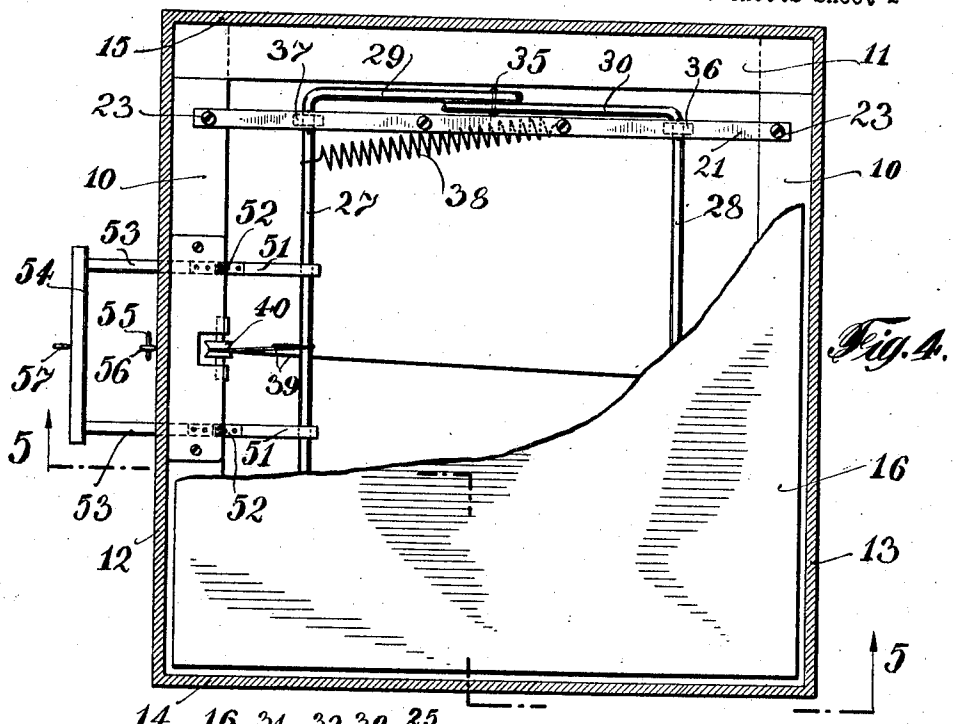


Fig. 4.

Fig. 5.

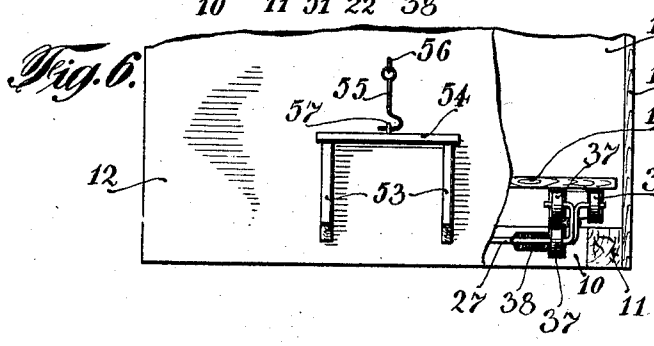


Fig. 6.

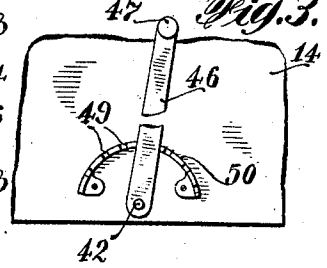


Fig. 3.

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UNITED STATES PATENT OFFICE.

HARRY T. BRADLEY AND FRANK JACOBI, OF NEWARK, NEW JERSEY.

ADJUSTABLE BOTTOM FOR HAMPERS.

Application filed September 22, 1925. Serial No. 57,804.

This invention relates to novel improvements in portable containers, of the type known as hampers adapted to hold miscellaneous articles, as clothing, fabricated parts, bottles, fruits and like similar solid bodies during temporary storage or transportation.

Such hampers are usually of large capacity and of such considerable depth that it is inconvenient and even difficult to reach articles in the lower portion of the hamper.

It is therefore the principal object of the invention to provide a hamper having a movable bottom capable of raising within the space bounded by the side walls to such height as to be readily accessible.

A further feature is in the provision of means which, upon being released, will automatically elevate the bottom and maintain the same in a level plane.

Another aim is to produce means, accessible from the exterior of the hamper, whereby the elevation or depression of its bottom is controlled and held at any point within its range of action at the option of the operator.

These and other objects, which will become apparent as the description proceeds, are attained by the novel construction, combination and arrangement of parts hereinafter set forth in detail and shown in the accompanying drawings, constituting an essential portion of this disclosure, and in which:—

Figure 1 is a horizontal sectional view of a conventional type of hamper, showing a floor made in accordance with the invention, the floor being partially broken away to show the construction.

Figure 2 is a transverse sectional view taken on line 2—2 of Figure 1, showing the floor or bottom in a partially raised position.

Figure 3 is a fragmentary front elevational view of one form of the elevator control device.

Figure 4 is a partial sectional, partial top plan view, similar to Figure 1, but showing a modified form of control device.

Figure 5 is a partial side elevational and sectional view of the same, the section being taken on line 5—5 of Figure 4, the floor being partially raised.

Figure 6 is a fragmentary front view, broken away to disclose the construction and showing the floor in its lowermost position.

Structures of this character are usually oblong rectangles in plan and consist of a pair of longitudinally disposed skids 10 at the sides, which may be connected at their ends by cross pieces 11 forming a frame to which the side walls 12 and 13, and end walls 14 and 15 are attached, these walls extending upward a considerable distance, and may be made of fiber, rawhide, wood or a dense woven textile fabric.

A platform 16, loosely fitting within the four walls, acts as a flooring or bottom and may be raised, together with the articles contained in the hamper, for convenience of access, or lowered to increase the capacity thereof.

The preferred elevating means is illustrated in Figures 1 to 3 inclusive and consist of two pairs of flat bars 17 or metal strips secured in spaced parallel relation to the underside of the platform 16, near its ends to extend transversely across.

A second pair of bars 18 are provided with offset feet to rest upon the bars 17, both being held by securing means 19 passed through their ends into the platform 16 and having between them uniform parallel spaces 20.

Fixed on the skids 10 to extend between them are other bars 21 and 22, held by screws 23 and having between them spaces 24.

Between the bars 17 and 18 are blocks 25, connecting the pairs at each end, and between the bars 21 and 22 are spacers 26 as best seen in Figure 2.

A pair of longitudinal rods 27 and 28 are bent to present right angled arms 29 and 30 at each end, these arms being again bent at their extremities to provide pintles 31 and 32 on which are mounted rollers 33 and 34 operative in the spaces 20, the arms being pivoted at their points of intersection by pins 35, forming in effect a pair of lazy tong elements.

Rotatably mounted on the ends of the main portion of the rods 27 and 28 are other rollers 36 and 37 operative respectively in the spaces 24 at the bottom of the structure.

A pair of tension springs 38 connect between one of the rods, as 27 and the bars 21, tending to draw the rods inward to-

wards the center of the hamper, this movement obviously causing the arms 29 and 30 to pivot at 35, changing the angle at which they are inclined to one more nearly erect, thus elevating the platform 16.

Fixed to one of the rods, as 27, is a flexible cord 39, running over a sheave pulley 40 mounted to rotate in a recess formed in one of the skids 10 and thence continued to a point of attachment to the other rod 28, acting to equalize the movement of the rods.

Attached below each of the bars 22 are brackets 41 having loops in which is rotatably mounted a shaft 42 extending lengthwise of the structure at about its center, and fixed on the shaft is a collar 43 formed on a lever 44.

Pivotally engaging the free end of the lever 44 is a link 45 connected with one of the rods, as 28, see Figures 1 and 2.

One end of the shaft 42 extends out through the end wall 14 of the structure and has rigidly secured to it a hand lever 46 provided with a knob 47 at its outer end and a detent 48 on its inner side to engage in any of the notches 49 in a sector 50 fixed on the wall 14.

From the foregoing it will be seen that by actuating the hand lever 46, the platform 16 may be elevated or depressed, raising being assisted by the springs 38, and, due to the notched segment, the platform may be retained in either its lowest or highest position, or at any point therebetween, at the will of the operator and without much physical effort.

In the modified means shown in Figures 4 to 6 inclusive, the same general construction is maintained except the shaft and the lever device is omitted and other means substituted.

These means comprise a pair of arms 51 fixed to the rod 27 to extend into a recess in the adjacent skid 10, the other ends of the arms being connected by hinges 52 to bars 53 extending through the front wall 12 of the hamper to a rigid cross bar 54.

When the platform is in its lowermost position, the arms 51 and bars 53 are in the same level plane and the bars may be folded on their hinges 52 upward alongside the wall 12 and held by means of a hook 55 engaged in an eye 56 set in the wall, the hook being engageable in an eye 57 fixed in the cross bar 54.

From the foregoing it will be seen that means have been provided which render the manipulation of a hamper unusually convenient.

Although we have described our improvements with considerable detail and with respect to certain particular forms of our invention, we do not desire to be limited to such details since many changes and modifications may well be made without departing from the spirit and scope of our invention in its broadest aspect.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent, is—

1. A hamper comprising four walls, a bottom adjustable up and down therebetween, spaced bars attached to the under surface of said bottom, other spaced bars fixed on the hamper frame, rods disposed longitudinally below said bottom having their ends bent to form angular arms, said rods being pivoted at their points of intersection near the ends of said bottom, rollers carried by said rods operative respectively in the spaces between the bars on said bottom and the spaces between the frame carried bars, tension means tending to draw said rods towards each other whereby the bottom is caused to rise, and means for limiting the movement that can be imparted to said bottom.

2. A hamper comprising four walls, a bottom adjustable up and down therebetween, spaced bars attached to the under surface of said bottom, other spaced bars fixed on the hamper frame, rods disposed longitudinally below said bottom having their ends bent to form angular arms pivoted midway their length one to the other near their ends of the hamper, rollers on said rods operable in the spaces of the frame carried bars, other rollers carried at the ends of the arms operable in the spaces of the bars on said bottom, spring constraining means for said rods, means for equalizing the movement of said rods, and means for limiting the motion that can be imparted to said rods.

3. A hamper comprising four walls, a bottom adjustable up and down therebetween, spaced bars attached to the under surface of said bottom, other spaced bars fixed on the hamper frame, rods having angularly bent arms pivoted midway their length one to the other near the ends of the hamper, rollers on said rods operable in the spaces of the frame carried bars, other rollers carried at the ends of the arms operable in the spaces of the bars on said bottom, spring constraining means for said rods, means for equalizing the movement of said rods, a shaft journalled lengthwise below the frame carried bars, a lever fixed on said shaft, a link engaging between said lever and one of said rods, and a hand lever to oscillate said shaft whereby said bottom may be elevated or depressed.

4. The combination with a platform and a pair of skids, of a pair of bars secured transversely to the bottom of said platform near each end thereof, said bars consisting of upper and lower members having parallel spaces therebetween, a second pair of similar

bars secured at their ends to said skids and also having parallel spaces, a pair of rods disposed longitudinally below said platform, arms formed at right angles at each end of said rods, said arms crossing each other and being pivoted at their points of intersection, rollers at the ends of said arms engaging in the spaces of the first named bars, other rollers on said rods engaging in the spaces of the second named bars, tension springs arranged to draw said rods towards each other, a pulley mounted on one of said skids, a flexible connection between said rods, said connection passing over said pulley, and means engaging one of said rods whereby it may be moved laterally with reference to the other rod.

This specification signed and witnessed this 13th day of July, 1925.

HARRY T. BRADLEY.
FRANK JACOBI.