

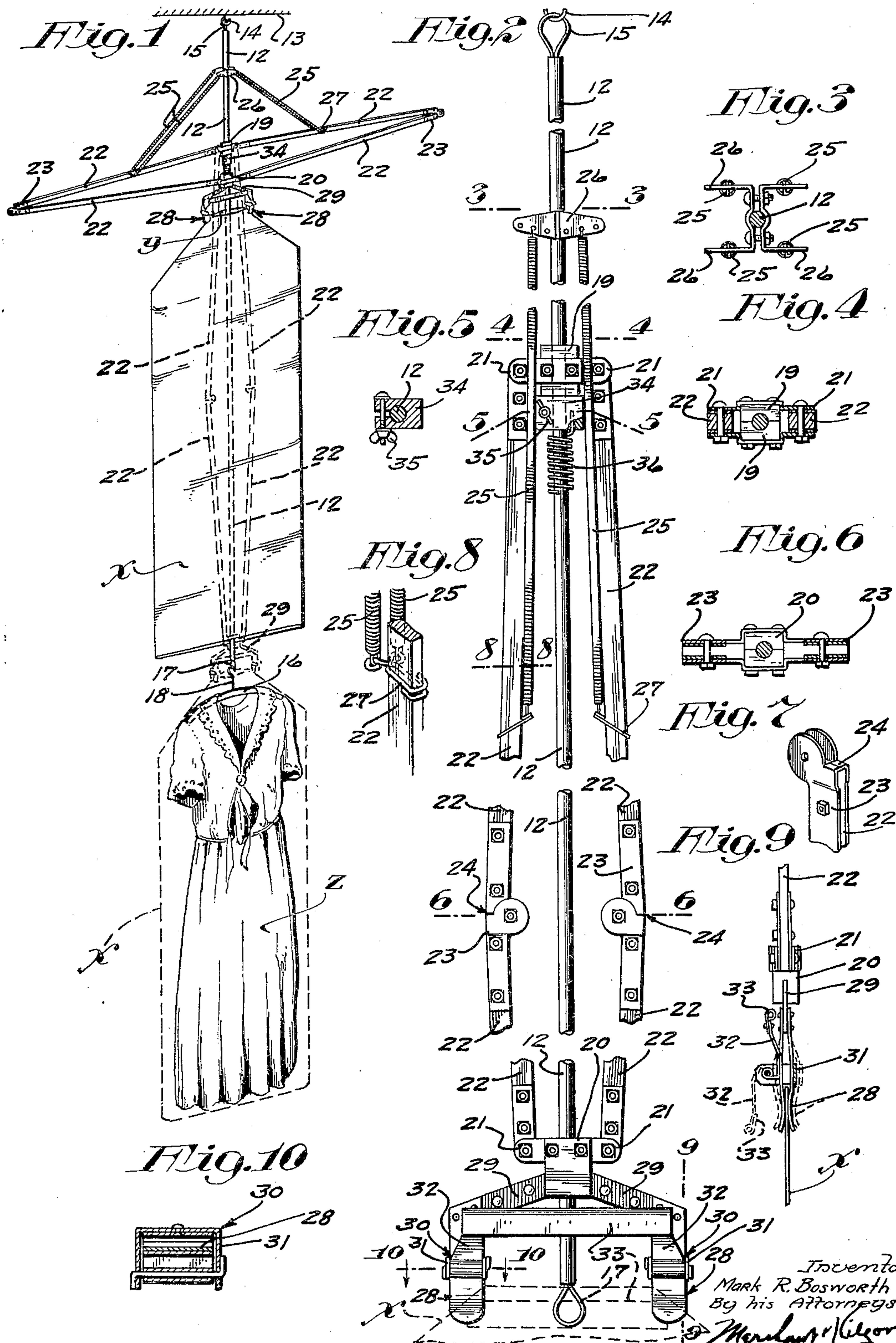
May 9, 1933.

M. R. BOSWORTH

1,907,488

MEANS FOR APPLYING BAGS OVER GARMENTS

Filed May 19, 1932



UNITED STATES PATENT OFFICE

MARK R. BOSWORTH, OF MINNEAPOLIS, MINNESOTA

MEANS FOR APPLYING BAGS OVER GARMENTS

Application filed May 19, 1932. Serial No. 612,220.

My invention relates to means for applying bags over garments and has for its object to provide a device that is simple in construction, highly efficient in its action and easy to operate. While the invention is intended for general use in placing bags over garments, it is especially well adapted for use in a cleaning and pressing establishment.

To the above end, generally stated, the invention consists of the novel devices, combinations of devices and arrangement of parts, hereinafter described and defined in the claims.

In the accompanying drawing, which illustrates the invention, like characters indicate like parts throughout the several views.

Referring to the drawing:

Fig. 1 is a perspective view of the device holding a bag in position to be placed over a garment, some parts being shown in different positions by means of broken lines;

Fig. 2 is a fragmentary perspective view of the device, as shown by broken lines in Fig. 1, but on an enlarged scale and with a fragment of the bag indicated by means of broken lines;

Figs. 3, 4, 5 and 6 are detail views, with some parts sectioned on the lines 3—3, 4—4, 5—5, and 6—6 of Fig. 2;

Fig. 7 is a perspective view of one of the hinged members at the knee of one of the toggle levers;

Fig. 8 is a fragmentary perspective view with the toggle levers sectioned on the line 8—8 of Fig. 2, on an enlarged scale;

Fig. 9 is a fragmentary edge elevation of the device, with some parts sectioned on the line 9—9 of Fig. 2; and

Fig. 10 is a detail view, with some parts sectioned on the line 10—10 of Fig. 2, on an enlarged scale.

The numeral 12 indicates a round rod detachably held suspended from a ceiling or other overhead support 13 by a hook 14 and an eye 15, the former of which is secured to the ceiling 13 and the latter of which is secured to the rod 12 at its upper end. A garment hanger 16 is detachably secured to the rod 12, at its lower end, by a hook 17 and an eye 18, the former of which is secured to

the coat hanger 16 and the latter of which is swiveled to the rod 12.

Mounted on the rod 12 is an upper or relatively fixed head 19 and a lower or relatively movable head 20. Each head 19—20, as shown, includes a pair of wooden blocks having in their opposing faces half seats, through which the rod 12 extends. The blocks of each head 19—20 are connected by a pair of nut-equipped bolts, certain of which frictionally clamp the blocks of the head 19 onto the rod 12 and rigidly hold the same where set. The blocks of the head 20 are frictionally clamped together by the respective bolts, and the half seats therein are of such size as to permit the head 20 to freely slide on the rod 12. Preferably the blocks of the head 20 are saturated with oil for the purpose of lubricating said blocks and the rod 12. A pair of hinge straps 21 are rigidly secured to each head 19—20, by the respective bolts, with their ends projecting outward of the ends thereof.

The sliding head 20 is connected to the relatively fixed head 19 by a pair of toggle levers 22. These toggle levers 22 have one of their arms pivoted at their outer ends to the upper pair of hinged straps 21 and their other arms pivoted at their outer ends to the lower pair of hinge straps 21. These two toggle levers 22 are arranged to move in the same plane and buckle in opposite directions away from the rod 12. The hinges 23 forming the knees of the toggle levers 22 have cooperating stop surfaces 24 arranged to limit the straightening movements of said levers and prevent the pivots of said hinges from moving beyond dead centers and thus interfere with the buckling of the toggle levers 22 to move the head 20 toward the head 19.

A pair of coiled springs 25 is provided for buckling each toggle lever 22 and for yieldingly holding the same buckled. The springs 25 of each pair are anchored at one of their ends to a two-part bracket 26, frictionally clamped onto the rod 12 above the upper head 19, and their other ends are attached by clips 27 to the upper arm of the respective toggle lever 22. These clips 27

extend transversely of the toggle levers 22 and are held in oblique biting engagement with the longitudinal edges thereof by the springs 25. By turning the clips 27 substantially straight across the toggle levers 22, they may be adjusted longitudinally thereon to vary the tension of said springs. When the toggle levers 22 are straight, as shown in Fig. 2, the springs 25 are beyond dead center with respect to the pivot bolts, which connect the toggle levers 22 to the upper hinge straps 21 and thereby yieldingly hold the toggle levers 22 from buckling.

A pair of bag holding clips 28 is provided for attaching a bag to the head 20 and hold the same suspended therefrom. Each clip 28 includes a pair of depending spring fingers rigidly secured to a pair of downwardly and outwardly diverging fixed arms 29 on the head 20. These clips 28 are spaced equidistant from the rod 12 and are in the same vertical plane in which the toggle levers 22 work. These fingers of each clip 28 are under strain to open and their free end portions are in outwardly diverging relation to receive the top portion of the bag X therebetween, when said clips are open.

Each clip 28 further includes a clamp 30 and each clamp 30 includes a yoke 31 and a cooperating cam-acting lever 32. The yokes 31 extend transversely of the rear fingers of the clip 28 and are secured thereto by rivets, see Fig. 10, and the levers 22 are pivoted to the prongs of said yokes and arranged to engage the front fingers of said clips. When the levers 32 are raised, the clamps 30 hold the fingers of the clips 28 closed and when said levers are lowered, the clamps 30 are released so that the fingers of said clips may open. The two levers 32 are connected by a hand bar 33, by which they may be simultaneously operated.

A stop block 34 for the movable head is adjustably mounted on the rod 12 for limiting the upward movement of said head. This stop block 34 is split from one end to the seat therein for the rod 12 and frictionally clamped onto said rod by a nut-equipped bolt 35, which extends through a hole in the split end of said block.

A buffer 36 for the head 20 which, as shown, is a coiled spring encircling the rod 12 is carried by the stop block 34 for cushioning the stopping of the head 20 by said stop block during the lifting movement of said head by the springs 25. The purpose of the stop block 34 is to stop the lifting movement of the head 20 and position a bag carried thereby with its lower edge a predetermined distance above the lower end of the rod 12 irrespective of the length of the bag.

The bag X is of the usual type for covering garments and has an open bottom and a closed top except for a small central opening Y. Normally, the device is adjusted, as

shown by full lines in Fig. 2, and in this adjustment the toggle levers 22 are straight and the clips 28 open. To place the bag X over the dress Z on the coat hanger 16, said bag is first held in an upright position and its upper edge portion inserted between the fingers of the clips 28, with the hole Y aligned with the rod 12 so that said rod will move through the bag X during the raising of said bag and the hand bar 33 moved downward to close the clips 28 onto the bag X and thereby hold the same. With the bag X thus held slight upward pressure on the head 20 will start the initial buckling of the toggle levers 22, which carry the springs 25 outward of dead centers whereby they become active and complete the buckling of the toggle levers 22 and raise the head 20, which carries the bag X upward with the rod extending therethrough and with its eye projecting therebelow. The dress Z is next placed on the coat hanger 16 and said coat hanger attached to the rod 12 by interlocking its hook 18 with the eye 17.

A downward pull on the lower portion of the bag X will straighten the toggle levers 22, against the action of the springs 25, and carry the bag X over the dress Z. During the final straightening movement of the toggle levers 22 the springs 25 move beyond dead centers and hold said toggle levers against the action of the springs 25. After the bag X is over the dress Z the hand bar 33 is raised to release the clips 28 and allow the bag X to slip therefrom and thereafter the coat hanger 16 is detached from the rod 12 and the bag delivered to a customer or suspended by the coat hanger from a horizontal bar or other support in a room or delivery truck.

The purpose of swiveling the eye 17 to the rod 12 is to permit the garment to be turned around about the axis of said rod for inspection before the bag is placed thereover.

What I claim is:

1. A device of the class described comprising a rod having means for anchoring the same at one end to a relatively fixed support, means for attaching a garment hanger to the rod at its other end, a bag holding head movably mounted on the rod, a toggle lever connecting the head to the rod, and yielding means under strain to buckle the toggle lever and move the head toward the anchored end of the rod.

2. The structure defined in claim 1 in which the yielding means is beyond a dead center when the toggle lever is substantially straight and thereby hold the toggle lever from being buckled by the yielding means.

3. The structure defined in claim 1 in which the toggle lever is provided with means to prevent its knee pivot from moving beyond a dead center, when said lever is substantially straight.

4. The structure defined in claim 1 in which

the yielding means is a coiled spring, one end of which is anchored in respect to the rod and the other end of which is attached to the toggle lever.

5 5. The structure defined in claim 1 in which the yielding means is a coiled spring, one end of which is anchored in respect to the rod and the other end of which is attached to the toggle lever and arranged to move beyond a
10 dead center when the toggle lever is substantially straight to hold said lever from being buckled by the spring.

6. A device of the class described comprising a rod having means for anchoring the
15 same at one end to a relatively fixed support, means for anchoring a garment hanger to the rod at its other end, a bag holding head movably mounted on the rod, yielding means under strain to move the head toward the
20 anchored end of the rod, and a buffer-equipped stop movable, at will, into a position to limit the movement of the head on the rod toward its anchored end.

7. A device of the class described comprising a rod having means for anchoring the
25 same at one end to a relatively fixed support, means for attaching a garment hanger to the rod at its other end, a bag holding head movably mounted on the rod, a pair of toggle
30 levers, the levers of said pair being on diametrically opposite sides of the rod and having one of their arms pivotally anchored in respect to the rod and their other arms pivotally attached to the head, and spring means
35 under strain to buckle the toggle levers and move the head toward the anchored end of the rod.

In testimony whereof I affix my signature.
40 MARK R. BOSWORTH.

45

50

55

60

65