Aug. 8, 1961 G. F. BADER 2,995,000

PLASTIC GARMENT BAGGER

Filed Jan. 15, 1959 2 Sheets-Sheet 1

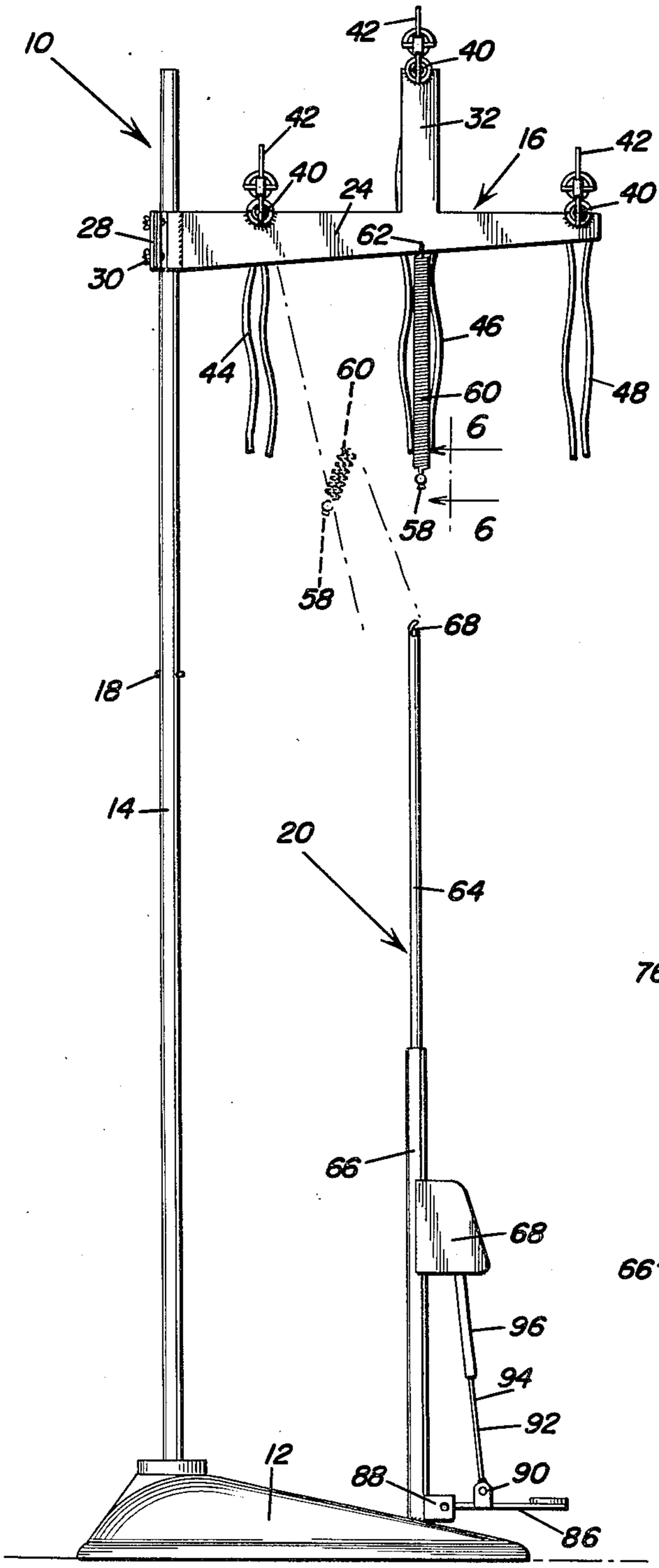

Fig. 1

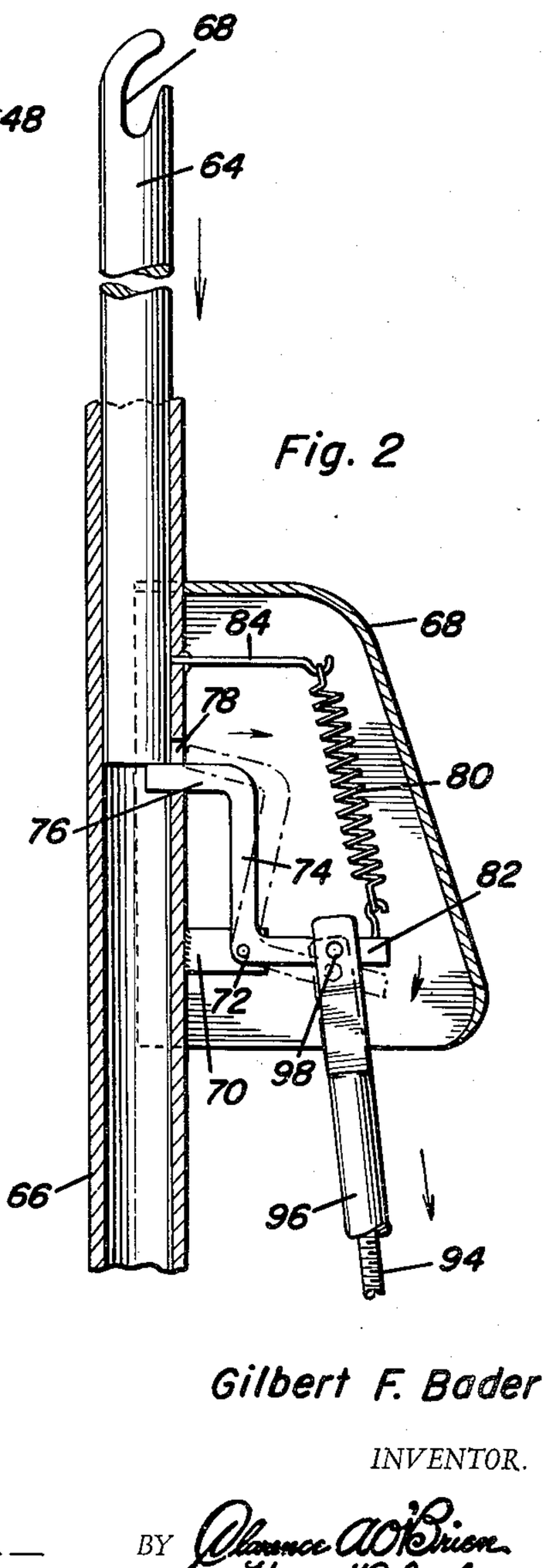

Fig. 2

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Filed Jan. 15, 1959 2 Sheets-Sheet 2

Fig. 3

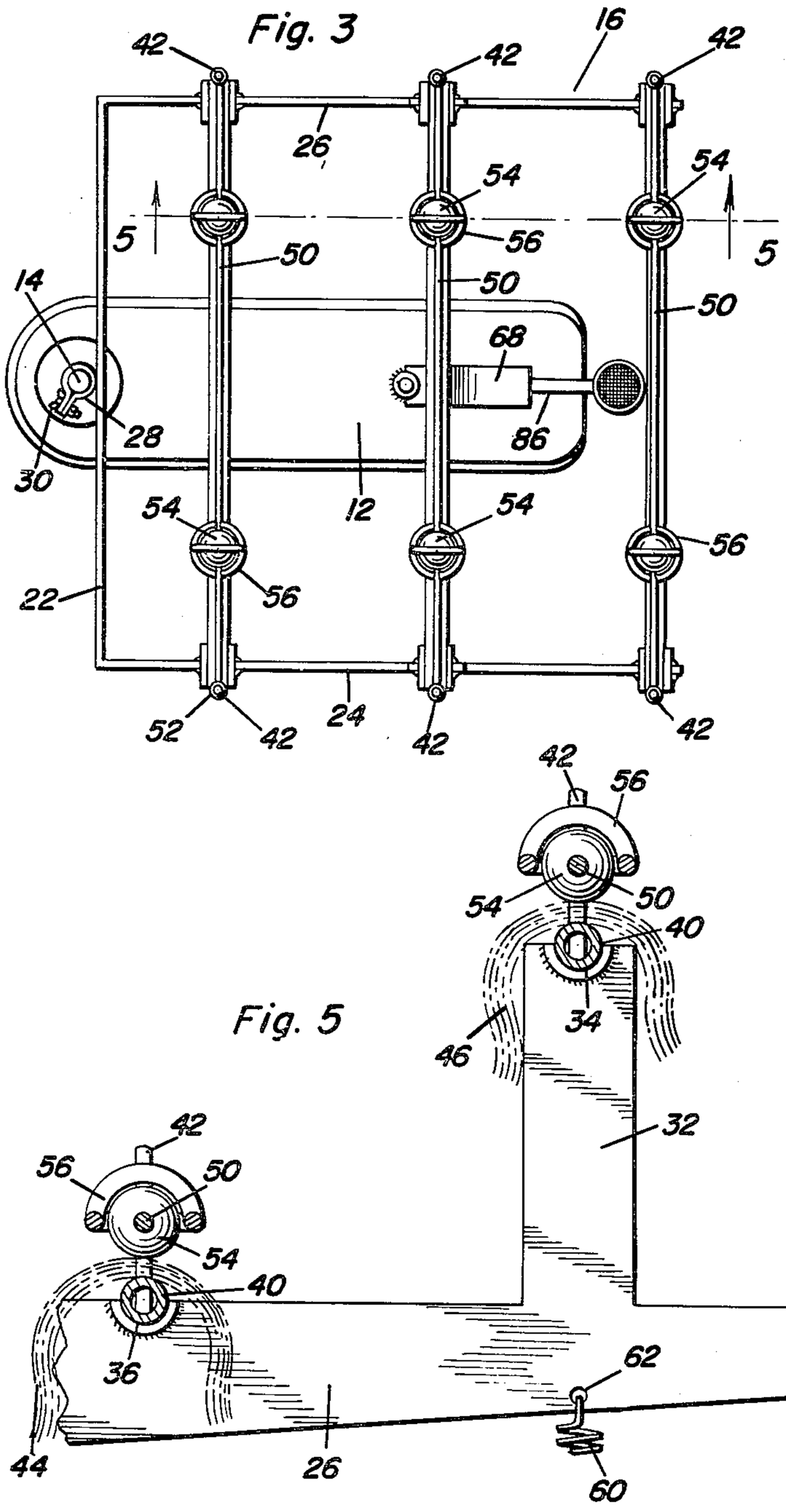


Fig. 4

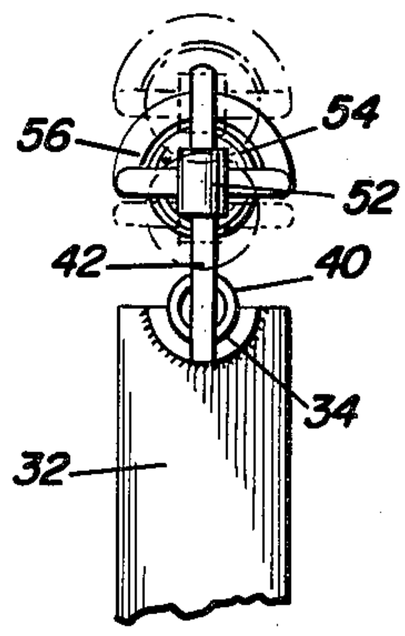
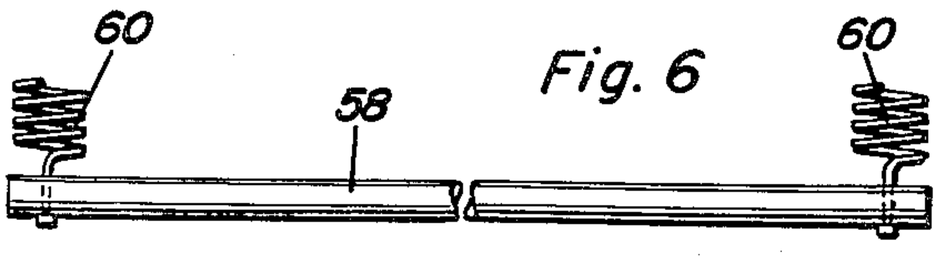


Fig. 5

Fig. 6



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PLASTIC GARMENT BAGGER

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6 Claims. (Cl. 53—256)

This invention comprises a novel and useful plastic garment bagger and more particularly relates to an apparatus which will greatly facilitate the placing of plastic bags upon garments which have been dry cleaned in preparation for storing the garments or returning them to their owners.

It has now become conventional practice in the industry for dry cleaners after the completion of the cleaning jobs to cover the garments with thin plastic bags before delivering the same to the customer. These bags usually come in different sizes in accordance with the size of the garment which they are to cover. Without some machine to assist in placing the bags over the clothing when the latter is on its hanger, a great deal of time and care was required to cover the clothing or other article with the bag, inasmuch as the bags are so thin that they are hard to open, and static electricity tends to make the bags stick together or to other articles. The tendency of these thin plastic bags to accumulate static charges of electricity is expressly pronounced where a stack of bags are supported in readiness for use and one bag at a time is drawn from the stack to be placed about a garment, this movement of the bag with respect to the adjacent bag of the stack especially tending to augment the static charges generated or stored therein.

It is therefore the primary purpose of this invention to provide an apparatus for dispensing plastic garment bags in a manner which will largely overcome the above mentioned disadvantages of prior practice.

A further object of the invention is to provide a garment bagging apparatus in accordance with the foregoing object which shall have provision for effectively dissipating or eliminating static charges upon the plastic garment bags as they are dispensed or drawn from their place of storage in the apparatus when they are to be used.

A still further object of the invention is to provide a garment bagging apparatus in accordance with the foregoing objects wherein the customary different sizes of bags customarily employed in dry cleaning operations may be effectively accommodated by the apparatus, may be independently dispensed therefrom, and wherein any static electrical charge accumulating upon a bag may be effectively dissipated as the bag is dispensed.

Yet another object of the invention is to provide an apparatus in accordance with the above mentioned objects wherein there is provided a combined means for retaining a stack of bags in position in the apparatus in readiness for dispensing therefrom and which will also effectively prevent or dissipate the accumulation of static charges upon the bag to be dispensed.

A further object of the invention is to provide an apparatus in accordance with the preceding objects in which there is provided a resiliently mounted guide bar to facilitate positioning a bag regardless of the stack of bags from which the same is dispensed in position above the bagging stand upon which the garment to be bagged is supported.

A subordinate object in accordance with the immediately preceding object is to provide a resilient guide which may operate effectively to guide a bag from any selected stack of bags of different sizes into position above the bagging stand.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to

the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a side elevational view of a conventional type of bagging stand incorporating therein the principles of this invention, the stand being shown as supporting three different sizes of plastic bags thereon, and an alternative position of the resilient guide bar of the invention is shown in dotted lines therein, the garment support rod being shown in its elevated position;

FIGURE 2 is a detail view in vertical central section taken upon an enlarged scale and showing a portion of the garment support stand together with the locking means for retaining the same in its elevated position, parts being broken away, and the release position of the locking means being shown in dotted lines therein;

FIGURE 3 is a top plan view of the arrangement of FIGURE 1;

FIGURE 4 is a detail view showing in end elevation one of the garment bag support bars, its mounting upon the rack and the disposition of the static eliminator thereon, alternative positions being shown in dotted lines therein;

FIGURE 5 is a fragmentary view in elevation of a portion of the rack shown in FIGURE 1, part being broken away, and being taken upon an enlarged scale, the position of the garment bags upon their support bars being shown in dotted lines therein; and

FIGURE 6 is an elevational view taken substantially upon the plane indicated by the section line 6—6 of FIGURE 1, part being broken away, and showing the resilient guide bar in accordance with this invention.

Referring first to FIGURE 1 it will be seen that a conventional type of garment bagging apparatus indicated generally by the numeral 10 consists of a base 12 from which rises a supporting standard 14 whose upper end slidably supports a vertically adjustable support rack indicated generally by the numeral 16. The rack 16 is adjustable vertically upon and rotationally adjusted upon the upper portion of the standard 14 in a manner and for a purpose to be subsequently set forth, there being provided a transverse pin 18 on the standard 14 which acts as a stop to limit downward sliding movement of the support rack.

Also mounted upon the base 12 is a vertically adjustable bagging stand which is indicated generally by the numeral 20 and which serves to support a garment carried by its usual garment hanger during the bagging operation of the garment.

Referring now especially to FIGURES 1 and 3 it will be observed that the support rack 16 includes a generally U-shaped frame consisting of a plate 22 forming the web portion thereof and a pair of plates 24 and 26 which comprise the arms of the U-shaped frame. At its midportion the plate 22 is provided with a split clamp 28 of a conventional type having wing nuts and bolts 30 by which the same is clamped upon the standard 14. Thus, by loosening the wing nuts the support rack may be raised or lowered, or swung horizontally upon the standard and then may be clamped in the selected position of adjustment by use of the wing nuts and bolts. By this means the support rack and the plastic bags carried thereby may be vertically adjusted for the proper operative position with respect to the bagging stand 20; or may be swung horizontally to one side and lowered so that it may rest upon the stop means 18 to facilitate loading of the support rack with a plastic bag.

Referring now particularly to FIGURE 5 in conjunction with FIGURE 1, reference also being made to FIGURE 3, it will be seen that the support rack arms 24 and 26 are provided intermediate their ends with integral upstanding portions each designated by the numeral 32.

The upper surface of the portions **32** are provided with horizontally and transversely aligned semi-cylindrical seats **34** and similar transversely and horizontally aligned seats **36** and **38** are provided in the upper surface of the arms **24** and **26** on opposite sides of the portions **32**. These three sets of seats, **34**, **36** and **38** detachably receive and support support bars each indicated by the numeral **40**. As will be best apparent from FIGURE 3, each of these support bars at its outer ends is provided with upstanding tubular pins **42**.

Indicated at **44**, **46**, and **48** are three different stacks of bags, each being supported by one of the support bars **40**, as suggested in FIGURE 1, in readiness for use. As will be understood, each stack of bags is received upon a support bar between the two upstanding pins **42** at the ends thereof in a position above the bagging stand **20**.

At this point it may be noted that the plastic bags are usually shipped 500 to a carton, consisting of two bundles of 250 bags each. Each bundle is folded over a triangular cardboard divider so that by lifting the bundle by the cardboard divider, it is possible to slip the support bar **40** between the cardboard divider and the bags and then by raising the support bar to lift the bags off the divider whereby the bags will be supported solely on the support bar. The latter can then be replaced in the seats or sockets **34**, **36** or **38** depending upon the size of bags and the position in which the same are to be placed upon the support rack. Thus, in use the pile of bags can be quickly placed upon the support rack, it being understood that the latter may be adjusted vertically or rotationally for this purpose as previously explained by use of the thumb screws **30**.

Vertically slidably mounted upon each pair of pins **42** on each of the support bars **40** is a combined pressure bar and static eliminator, designated generally by the numeral **50**. The latter consists of a rod having eyes or sleeves **52** at its opposite ends which are slidably received upon the pins **42** for vertical sliding movement thereon. Rotatably received upon the pressure bar **50** of each of the support bars **40** is a plurality of metallic rollers, preferably in the form of spheres or balls as shown at **54**. A semi-cylindrical wire-like or rod-like cage **56** may surround the upper and side portions of these balls as shown in FIGURES 3 and 5 in particular. It will be understood that the spheres or balls **54**, their cages **56**, the pressure bars **50**, the pins **42** and the entire support rack **16** are in good electrical connection with each other and with the support standard **14** in order to ground any static or electrical charges.

In operation, each of the combined pressure bars and static eliminators is free to slide downwardly upon the guide pins **42** and thus rest directly upon the top of the stack of plastic bags **44**, **46** or **48**. By their weight, they thus hold the stack of bags upon their support bars **40** and as the individual bag is drawn from its stack, any tendency of the bag to collect static charges by virtue of its sliding movement over the stack of bags will be dissipated by contact of the rollers **54** therewith and this static charge will be dissipated and grounded through the metallic frame of the apparatus. Thus, the members **54** comprise rotatable static eliminators or dissipators for this apparatus.

There is further provided a resilient guide to assist in guiding the bags from the stacks **44**, **46** or **48** into position above the bagging stand **20**. This resilient guide comprises a horizontally extending bar **58** supported by springs **60** at its opposite ends. These springs in turn are connected to the arms **24** and **26** of the rack as by being anchored in apertures **62** therein.

The arrangement is such that when it is desired to dispense a bag from any of the stacks, one side of the bag may be grasped and drawn through the support springs **60** and over the guide bar **58** and thence pulled downwardly until the bag has its open lower end disposed above the garment supported by the bag stand **20**. The springs enable the guide bar **58** to be moved in alignment with the top of the bagging stand **20** and the selected stack of bags **44**, **46** or **48** from which the desired bag is to be drawn. Thus the bag is guided from the stack during its downward travel in the bagging operation while the above mentioned combined pressure bar and static eliminator serves to dissipate any static and thus facilitate the drawing of a single bag from a stack.

Reference is now made especially to FIGURES 1 and 2 for an understanding of the construction of the bagging stand **20** as illustrated in the apparatus disclosed herein. The bagging stand comprises telescoping tubular upper and lower sections **64** and **66**, the upper section being provided with a recess or hook **68** in which may be secured the garment hanger with a garment thereon.

As will be noted from FIGURE 2, the upper section **64** may comprise a solid rod, while the lower section **66** is preferably a tube slidably receiving the upper section. At a convenient place intermediate its ends the lower section is provided with a hood-like housing **68** secured thereto and projecting laterally therefrom, which housing is open at its lower end. A support bracket **70** projects laterally from the lower housing **66** into the hood **68** and carries a fulcrum **72** by which a **Z**-shaped trigger **74** is pivotally supported. The latter has an upper horizontally projecting finger **76** slidably received in a slot **78** in the lower section **66** whereby this finger may be, upon pivotal movement of the trigger, inserted into the slot or withdrawn therefrom. When the finger is inserted in the slot as shown in full lines in FIGURE 2, it will prevent downward movement of the upper section **64** thereby supporting the latter in its raised position to thereby support a garment in proper position for the placing of a bag thereon. However, when the trigger is moved into its dotted line position so that the finger **76** is withdrawn from the slot, the upper section is free to slide downwardly to the lower section thereby lowering the garment carried thereby into a position whereby it may be conveniently withdrawn by the operator. It will be understood that in some instances the pin **72** may be directly carried by the housing **68** and the bracket **70** may be dispensed with, the housing **68** being then directly secured to the lower section **66**. In other instances, the bracket **70** may serve to likewise support the housing **68** through the pin **72** which may extend entirely through the housing if desired.

A tension spring **80** has its opposite ends connected to the lower horizontally extending arm **82** of the trigger and to a bracket or support **84** within the housing **68** to thereby yieldingly urge the trigger into its locking position to retain the upper section in its raised position. In order to withdraw the trigger against the resistance of the spring **80** there is provided a pedal or foot operated lever **86** secured to a bracket **88** at the lower end of the lower section **66**, and which is pivotally connected as at **90** intermediate its ends to a lower rod section **92** having an externally threaded upper end **94** which is adjustably received in the internally threaded upper rod section **96**. The latter extends upwardly into the open lower end of the hood **68** and is pivotally connected as at **98** to the arm **82** of the trigger lever **74**. Thus, by depressing the pedal **86**, the trigger may be withdrawn to the dotted line position shown in FIGURE 2 permitting the upper section **64** of the bagging stand to slide downwardly in the lower section under the influence of gravity. When it is desired to return the stand to its raised position for use with the next garment, the stand **64** is lifted by hand, and as soon as the lower end of the upper section **64** passes above the slot **78**, the spring **80** will urge the trigger arm **76** through the slot into locking position beneath the upper section.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention

to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. An apparatus for applying plastic bags to garments comprising a support, a bagging stand mounted on said support and having means for holding a garment hanger in position for bagging a garment thereon, a support rack, means for mounting said rack above said bagging stand, a plurality of horizontal parallel support bars removably carried by said rack and each adapted to support a stack of plastic garment bags above said bagging stand and in position for dispensing bags singly from said stacks to said bagging stand, a guide bar disposed between said support bars and said bagging stand and adapted to span the width of and guidingly support the upper portion of a bag being passed thereover and lowered from a stack while the lower portion of the bag is being lowered to envelop a garment carried by said bagging stand, and means resiliently supporting said guide bar from said rack whereby the guide bar may be shifted into positions between said bagging stand and a selected support bar.

2. An apparatus for applying plastic bags to garments comprising a support, a bagging stand mounted on said support and having means for holding a garment hanger in position for bagging a garment thereon, a support rack, means for mounting said rack above said bagging stand, a plurality of horizontal parallel support bars removably carried by said rack and each adapted to support a stack of plastic garment bags above said bagging stand and in position for dispensing bags snugly from said stacks to said bagging stand, and means on said rack for dissipating static charges from plastic bags supported thereby or being removed therefrom, a guide bar disposed between said support bars and said bagging stand and adapted to support above said bagging stand a bag drawn from a stack while the bag is being lowered upon a garment carried by said bagging stand, means resiliently supporting said guide bar from said rack whereby the guide bar may be shifted into positions between said bagging stand and a selected support bar.

3. An apparatus for applying plastic bags to garments comprising a support, a baggnig stand mounted on said support and having means for holding a garment hanger in position for bagging a garment thereon, a support rack, means for mounting said rack above said bagging stand, a plurality of horizontal parallel support bars removably carried by said rack and each adapted to support a stack of plastic garment bags above said bagging stand and in position for dispensing bags snugly from said stacks to said bagging stand, and means on said rack for dissipating static charges from plastic bags supported thereby or being removed therefrom, said static dissipating means mounted one upon each support bar and comprises metallic members rotatably mounted and engaging the topmost bag of the stack of bags carried by its support bar.

4. An apparatus for applying plastic bags to garments comprising a support, a bagging stand mounted on said support and having means for holding a garment hanger in position for bagging a garment thereon, a support rack, means for mounting said rack above said bagging stand, a plurality of horizontal parallel support bars removably carried by said rack and each adapted to support a stack of plastic garment bags above said bagging stand and in position for dispensing bags singly from said stacks to said bagging stand, means on said rack for dissipating static charges from plastic bags supported thereby or being removed therefrom, said static dissipating means including means associated with each support bar for yieldably and frictionally retaining a stack of bags on said support bar, said support bars having vertical pins at their opposite ends, said retaining means being slidably engaged upon said pins.

5. An apparatus for applying plastic bags to garments comprising a support, a bagging stand mounted on said support and having means for holding a garment hanger in position for bagging a garment thereon, a support rack, means for mounting said rack above said bagging stand, a plurality of horizontal parallel support bars removably carried by said rack and each adapted to support a stack of plastic garment bags above said bagging stand and in position for dispensing bags singly from said stacks to said bagging stand, means on said rack for dissipating static charges from plastic bags supported thereby or being removed therefrom, said static dissipating means including means associated with each support bar for yieldably and frictionally retaining a stack of bags on said support bar, said support bars having vertical pins at their opposite ends said retaining means being slidably engaged upon said pins, said static dissipating means comprising metallic members rotatably journaled in said retaining means.

6. An apparatus for applying plastic bags to garments comprising a support, a bagging stand mounted on said support and having means for holding a garment hanger in position for bagging a garment thereon, a support rack, means for mounting said rack above said bagging stand, a plurality of horizontal parallel support bars removably carried by said rack and each adapted to support a stack of plastic garment bags above said bagging stand and in position for dispensing bags snugly from said stacks to said bagging stand, and means on said rack for dissipating static charges from plastic bags supported thereby or being removed therefrom, a guide bar disposed between said support bars and said bagging stand and adapted to span the width of and guidingly support the upper portion of a bag being passed thereover and lowered from a stack while the lower portion of the bag is being lowered to envelop a garment carried by said bagging stand, and means for resiliently supporting said guide bar for lateral movement to positions between said bagging stand and said support bars.

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