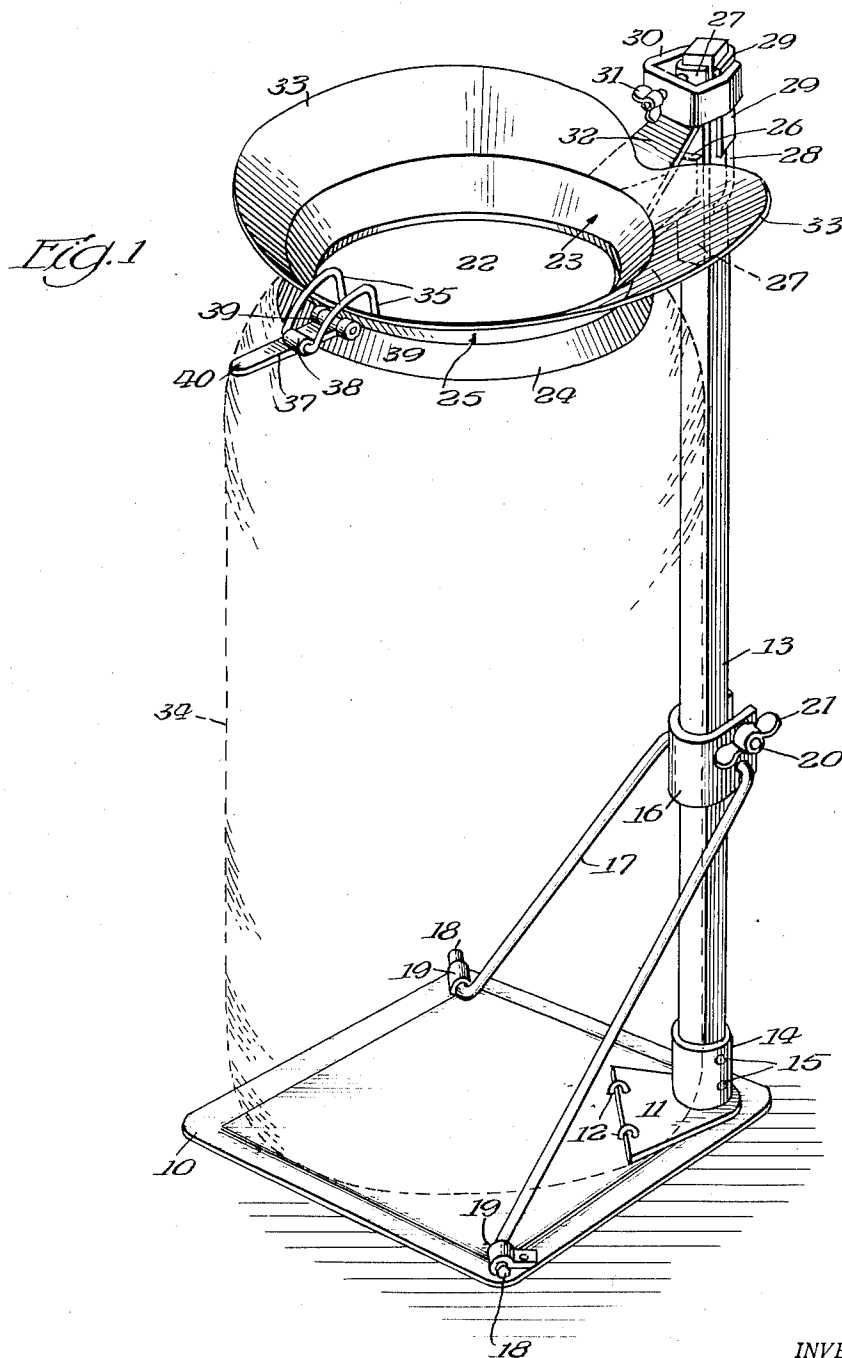


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SACKING DEVICE

3 Sheets-Sheet 1



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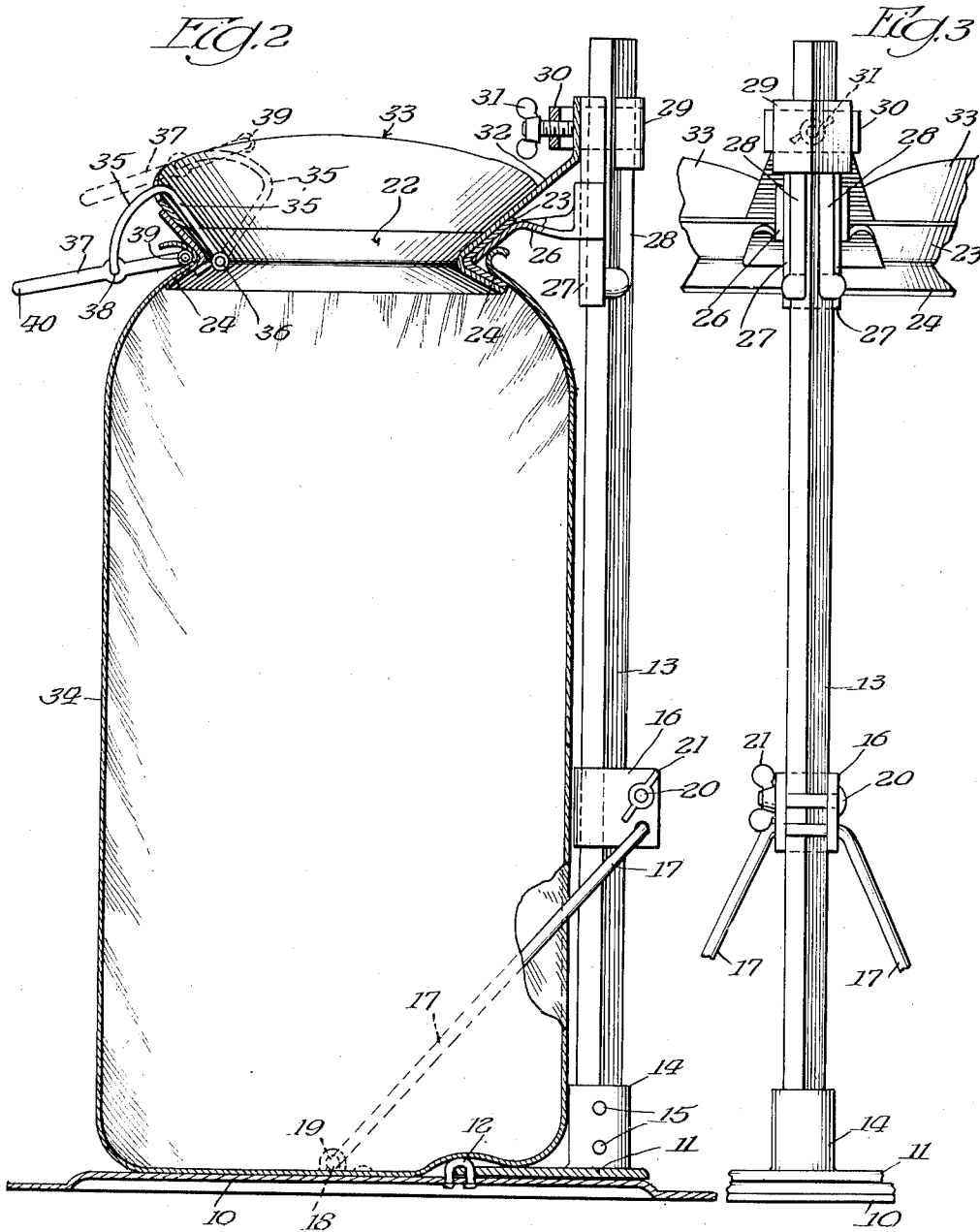
April 18, 1950

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SACKING DEVICE

2,504,572

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3 Sheets-Sheet 2



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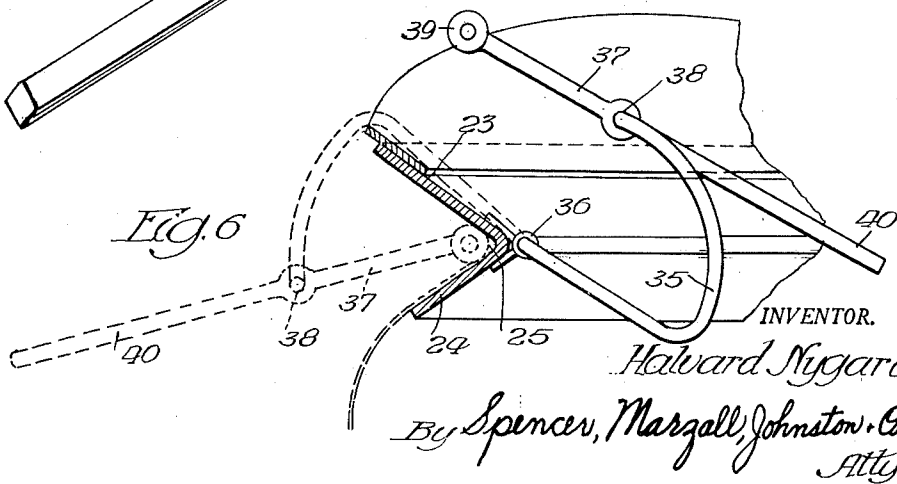
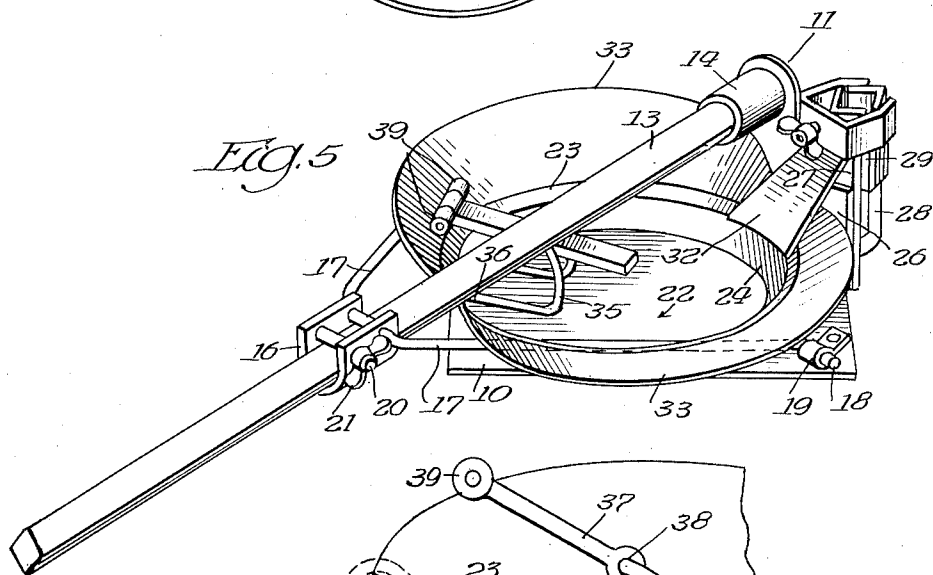
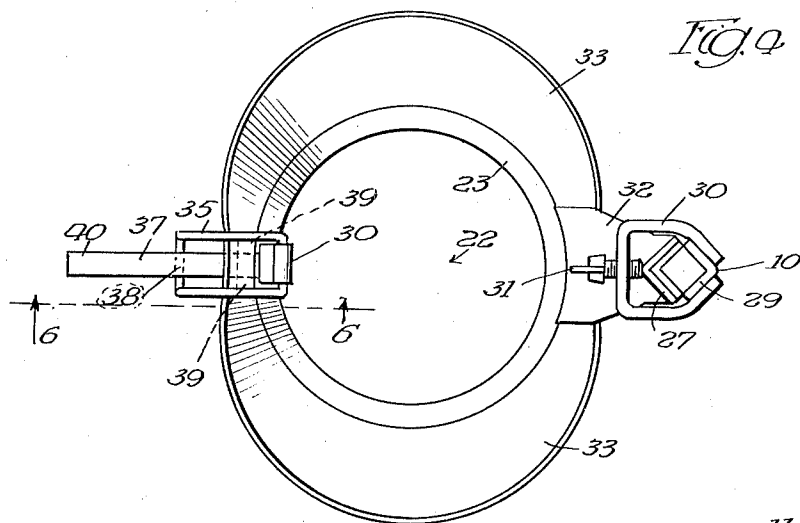
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SACKING DEVICE

2,504,572

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UNITED STATES PATENT OFFICE

2,504,572

SACKING DEVICE

Halvard Nygard, Madison, Wis.

Application December 24, 1946, Serial No. 718,224

15 Claims. (Cl. 248-97)

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This invention relates, in general, to a sacking or bagging device, and one of the objects of the invention is to provide an improved holder for supporting and holding the sack or bag open to permit filling it.

Another object is to provide in a device of this character, improved means for detachably connecting or securing the mouth of a bag to a filling hopper.

A further object is to provide an improved device of this character, embodying means for holding the bag or sack in an upright position, and which means is readily adjustable to accommodate bags of varying sizes.

A still further object is to provide an improved device of this character, which may be readily collapsed or folded into compact form for storage or transportation.

Still another object is to provide an improved device of this character, which is of a simple and durable construction, cheap to manufacture, and effective and efficient in operation.

To the attainment of these ends and the accomplishment of other new and useful objects as will appear, the invention consists in the features of novelty in substantially the construction, combination and arrangement of the several parts, hereinafter more fully described and claimed, and shown in the accompanying drawings exemplifying this invention, in which

Fig. 1 is a perspective view of a bag or sack holder of this character, constructed in accordance with the principles of this invention.

Fig. 2 is a side elevation of Fig. 1, partly in section and partly broken away.

Fig. 3 is a right-hand end elevation of Fig. 2, with parts omitted and parts broken away.

Fig. 4 is a top plan view of Fig. 1, with parts omitted.

Fig. 5 is a perspective view of the device, with the parts nested and in folded relation.

Fig. 6 is a detail sectional view on line 6-6, showing the bag fastener or securing means in full lines in an inactive position, and in dotted lines in an active position.

The device consists essentially of a base or platform 10, which may be of any desired size and construction, and of any suitable material, but which is preferably of a rectangular configuration. At one corner thereof, there is provided a supporting member 11, which is hingedly connected to the base in any suitable manner, such as by means of connecting devices 12, adapting the support 11 to be positioned to extend across the base, as shown in Fig. 1, and to permit it to

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be hinged or turned into an upright position with respect thereto, for a purpose to be described.

An upright or standard 13 is connected to the support 11 in any suitable manner, such as by means of a tubular portion or socket 14, into which one end of the standard telescopes, and the standard is secured in position by suitable fastening devices 15. The supporting member 11 and the tubular or socket member 14 constitute a bracket, the socket or tubular portion being arranged at substantially right angles to the supporting member 11. The standard is of any desired height, and preferably angular in cross-section, and is supported in its upright position by means of a clamp or substantially U-shaped member 16 that is connected to a brace or strut member 17, the forward ends 18 of which latter project into bearings 19, secured to the base 10. The brace or strut passes through the clamp 16, beyond the upright 13, so as to be hingedly or pivotally connected to the clamp.

A bolt 20 passes through the sides of the clamp, and the nut or collar 21 serves as a means for causing the clamp 16 to grip and bind the upright 13.

With this construction, and with these parts in the position shown in Fig. 1, by loosening the nut or collar 21, the standard or upright 13 may be folded with respect to the base 10, and into the position shown in Fig. 5.

In order to direct the material into the bag or sack, an annular hopper member 22 is provided, the top and bottom of which are shaped to form diverging flanges 23, 24, to provide an intermediate, open, circumferential groove or channel 25.

Secured to the hopper member in any suitable manner, is a bracket 26, which in turn carries a channel-shaped member 27, of a configuration to fit against the upright or standard 13, and which member 27 may be of any desired length to form a suitable bearing upon and against the standard. Carried by the member 27, are arms 28 that extend to the rear of the standard, and connected to and supported by the arms, is a channel-shaped member 29 that contacts the rear of the standard and co-operates with the member 27, to clamp the standard therebetween, and thereby support the hopper 22 in any position to which it has been adjusted upon the standard.

A bearing member 30 is provided, which is preferably of a yoke configuration, and is supported by the member 29, and through which yoke the standard 13 passes, a thumb screw 31 being

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also provided, which screw passes through the yoke member and engages a bracket 32 that is secured to the member 27, and also to the hopper 22. By adjusting the screw 31 in one direction, the members 27 and 29 may be caused to clamp the standard 13, to hold the hopper 22 in its adjusted position with respect to the standard, and by loosening the screw, the hopper 22 may be adjusted or moved lengthwise of the standard. The angular cross-sectional shape of the standard 13 prevents the hopper from swinging about the standard as an axis.

The flanged upper portion 23 of the hopper may have secured thereto wing members 33, to provide an enlargement or guide at the mouth of the hopper to increase the size thereof, and to direct the material into the sack or bag to facilitate filling the latter.

After the hopper has been adjusted upon the standard 13, to the proper position, the mouth or open end of a bag or sack 34 may be secured thereto by sleeving or telescoping such end upon the lower flanged end 24 of the hopper, so that the rim of the opening will enter the channel or groove 25, and may be held in position with respect thereto by means of a clamping device. A suitable and efficient clamping device embodies a substantially U-shaped member or bail 35, pivotally supported by one end, as at 36, upon the hopper 22, on the inside thereof, and which is adapted to be swung about its pivot from the position shown in full lines in Fig. 6, over the edge of the hopper, into the position shown in dotted lines in said figure.

A lever member 37 is pivotally connected, intermediate its ends, to the bail, as at 38, and is preferably provided, on one end, with a bearing or contact element 39, which may, if desired, be in the form of one or more roller elements. The other end 40 of the lever 37 extends for any desired distance beyond the pivot 38, and serves as a means for operating or shifting not only the lever, but also the bail or member 35.

With this construction, and when the mouth of the bag is placed over the lower end of the hopper and into the circumferential groove 25 (see Fig. 6), the lever 37 is manipulated to swing the bail 35 over the edge of the hopper, so that the end 39 of the lever may be forced against the outside of the bag and into the groove or channel 25, to bind the bag to the hopper.

To collapse or fold the device when the bag is not attached thereto, the lever 37, and bail 35, are folded into the hopper, as shown in Fig. 5. The hopper is then removed from the standard, which may be done by loosening the thumb screw 31, after which the hopper is placed upon the base 10. The thumb nut 21 is then loosened, and the standard 13 may be folded with respect to the base 10, with the hopper between the base and standard, as shown in Fig. 5. The thumb nut 21 may then be tightened, and the hopper will be clamped between the standard 13 and the base 10. The standard supporting member 11 is of a size and configuration to permit of the collapsing and nesting of the parts, as clearly shown in Fig. 5.

While the preferred form of the invention has been herein shown and described, it is to be understood that various changes may be made in the details of construction, and in the combination and arrangement of the various parts, within the scope of the claims, without departing from the spirit of this invention.

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What is claimed as new is:

1. A bag holder embodying a base, a standard hingedly connected to the base, a strut hingedly connected to the base and to a member slidably engaging the standard, and means for binding the said member against movement upon the standard, whereby the standard may be maintained in a position for use, or in a folded position with respect to said base.

2. A bag holder embodying a base, a standard hingedly connected to the base at a point spaced a substantial distance laterally with respect to the standard, a strut hingedly connected to the base and to a member slidably engaging the standard, and means for binding the said member against movement upon the standard, whereby the standard may be maintained in a position for use, or in a folded position with respect to said base, in combination with a bag holding element detachably mounted upon said standard, the connection between the standard and base being such that the said bag holding element, when detached from the standard, may be placed upon the base, and clamped between the base and the standard, when the latter is folded with respect to the base.

3. A bag holder embodying a base, a standard hingedly connected to the base at a point spaced a substantial distance laterally with respect to the standard, a strut hingedly connected to the base and to a member slidably engaging the standard, and means for binding the said member against movement upon the standard, whereby the standard may be maintained in a position for use, or in a folded position with respect to said base, in combination with a hopper detachably mounted upon said standard, a bag holding clamp carried by the hopper, and foldable into the hopper when not in use, the connection between the standard and base being such that the said hopper, when detached from the standard, may be placed upon the base, and clamped between the base and the standard, when the latter is folded with respect to the base, the said standard also operating, when in folded position, to retain the bag holding clamp within said hopper.

4. A bag holder embodying a base, a supporting member hingedly connected to the face of the base, a standard pivotally connected to the base, said standard being connected to said member at a substantial distance from the point where the standard is pivoted to the base, whereby a substantial space will be provided between the standard and base when the standard is folded with respect to the base, a hopper slidable on the standard, means for holding the standard in an active position for supporting a bag, the said means being also operable to secure the standard in folded position with respect to said base, whereby the hopper may be clamped between the base and standard when the latter is folded with respect to the base.

5. A bag holder embodying a base, a standard hingedly connected to the base at a point spaced a substantial distance laterally with respect to the standard, whereby when the standard is folded with respect to the base, a space of substantial size will be provided between the standard and base, and means pivoted to the base and engaging the standard for securing the standard in folded position with respect to the said base, said means also serving to secure the standard in an upright position with respect to the base.

6. A bag holder embodying a base, a standard connected to the base and adapted to be folded and unfolded with respect thereto, a clamping

member slidable upon said standard, a strut member pivotally connected at one end to the base, at a point spaced from the point of connection of the standard with the base, and pivotally connected at its other end to said clamping member, whereby said standard may be selectively placed in a folded or an upright position with respect to said base, and means for rendering said clamping member effective to maintain the standard in either of its adjusted positions with respect to the base.

7. A bag holder embodying a base, a standard connected to the base and adapted to be folded and unfolded with respect thereto, a clamping member slidable upon said standard, a strut member pivotally connected at one end to the base, at a point spaced from the point of connection of the standard with the base, and pivotally connected at its other end to said clamping member, whereby said standard may be selectively placed in a folded or an upright position with respect to said base, means for rendering said clamping member effective to maintain the standard in either of its adjusted positions with respect to the base, and an annular hopper-like body slidably and detachably connected to said standard, to be engaged by the mouth of a bag, said hopper-like body being adapted, when detached from the standard, to be stored between said base and the standard when the latter is folded with respect to the base.

8. A bag holder of the character described, embodying a standard, an annular hopper-like body supported thereby and over a portion of which the mouth of a bag is adapted to be sleeved, and a clamping device supported by said body, said clamping device being disposed within said body and movable to the outside thereof into engagement with the bag to clamp the latter against the outer periphery of said body.

9. A bag holder of the character described, embodying a standard pivoted to the base, supporting means pivoted to the base and fastened to the standard, an annular hopper-like body supported by the standard and over a portion of which the mouth of a bag is adapted to be sleeved, said body having a circumferential groove in the outside face thereof, and a clamping device supported by said body, said clamping device being disposed within said body and movable to the outside thereof into engagement with the bag to force the bag into said groove and clamp it against the outer face of said body.

10. A bag holder embodying a base, an elongated plate pivoted to the base, a standard fixed to the plate, a member slidably mounted on the standard, struts pivoted to the base and to the member, an annular hopper-like body, a portion of the body being adapted to be inserted into the mouth of a bag, means for supporting said body slidably on the standard, a clamping element pivotally connected to, and within the said body, said element being adapted to be moved about its pivot from the inside of said body to the outside thereof, to clamp the adjacent portion of the bag to the outside face of said body.

11. A bag holder embodying a base, a standard pivotally mounted on the base, a collar mounted adjustably on the standard, struts pivoted to the base and to the collar, an annular hopper-like

body, a portion of which is adapted to be inserted into the mouth of a bag, said body being provided, in its outer face, with an open circumferential groove, means for supporting said body slidably on the standard, a clamping element pivotally connected to, and within the said body, said element being adapted to be moved about its pivot from the inside of said body to the outside thereof, to force the adjacent portion of the bag into the groove and clamp it against the outside of said body.

12. A bag holder embodying an annular hopper-like body, the upper and lower ends of which flare in opposite directions to provide a channel encompassing the outer face of the body, and into which channel the mouth end of a bag is adapted to be seated, a clamping member to clamp the bag to said body, a standard to which the body is slidably mounted, a base to which the standard is pivoted, a clamping collar surrounding the standard, and struts pivotally connected to said collar and to said base.

13. A bag holder embodying an annular hopper-like body having a circumferential channel opening through the outer face thereof, and spaced from the top and bottom of said body, a clamping structure disposed within the body and embodying an element pivotally connected to the body, a lever member pivotally connected intermediate its ends, to said element, one end of said lever adapted to serve as a handle, to swing said element about its pivot to move it out of said body, and to position the other end of the lever to engage and force the bag into said channel.

14. A bag holder embodying an annular hopper-like body having a circumferential groove opening through its outer face intermediate the top and bottom thereof, a bail-like element pivotally connected to the inner face of the body and adapted to be projected to the outside of the body to position a portion thereof adjacent the outer face of the body, and means carried by said bail adapted to be projected into the groove.

15. A bag holder embodying an annular hopper-like body having a circumferential groove opening through its outer face intermediate the top and bottom thereof, a bail-like element pivotally connected to the inner face of the body and adapted to be projected to the outside of the body to position a portion thereof adjacent the outer face of the body, and a lever pivotally connected intermediate its ends, to said bail, and bodily movable therewith, said lever adapted to be moved about its point of pivotal connection with the bail, to position one end of the lever within the said groove.

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