

Sept. 22, 1925.

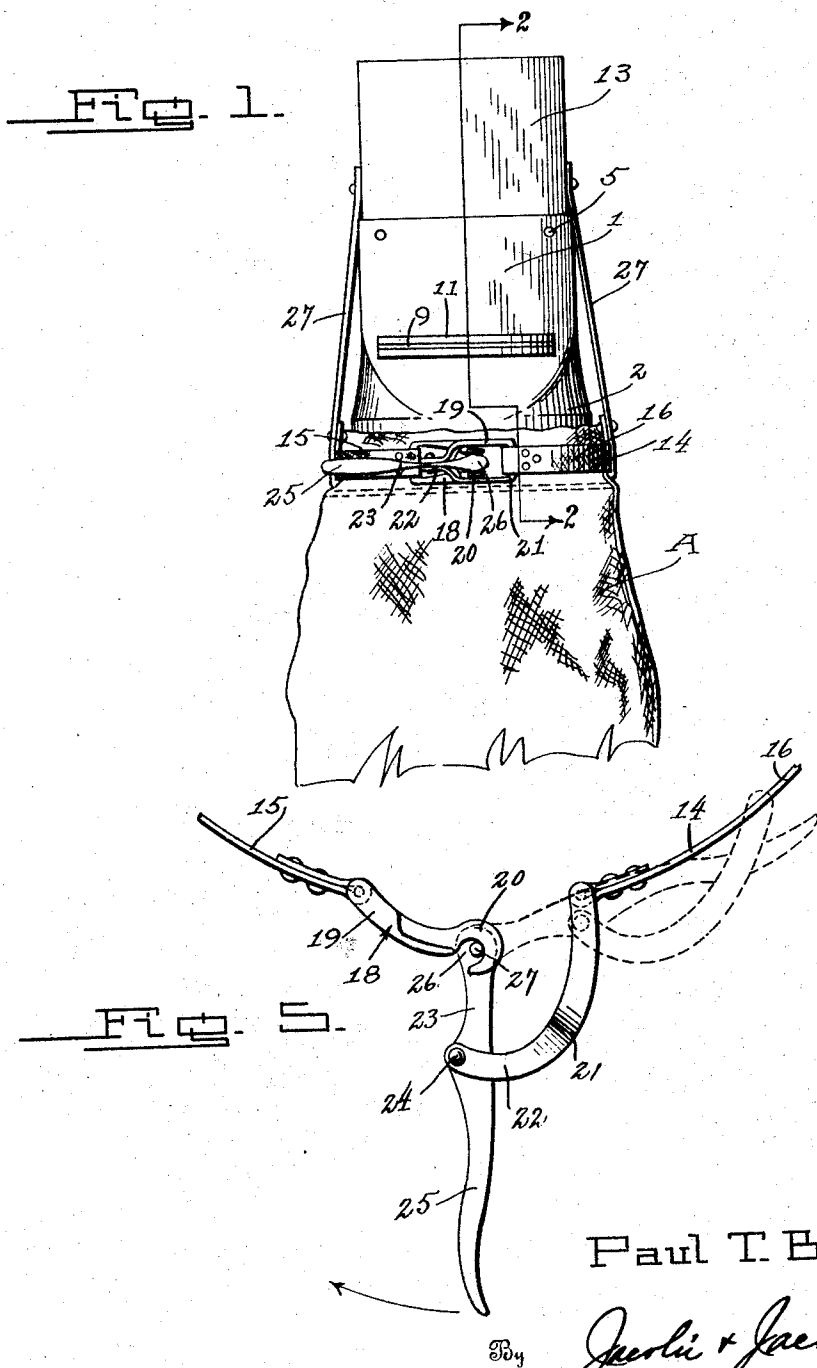
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P. T. BERGER

BAG HOLDING AND FILLING DEVICE

Filed Oct. 8, 1923

2 Sheets-Sheet 1



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Fig. 2. Fig. 3.

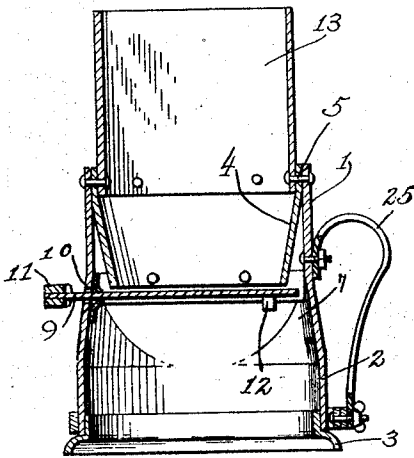
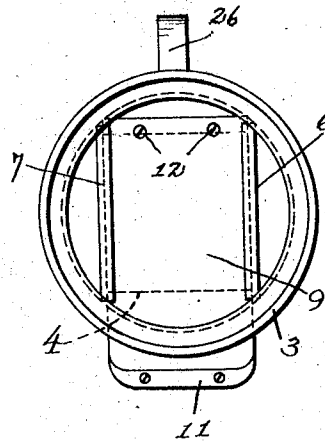
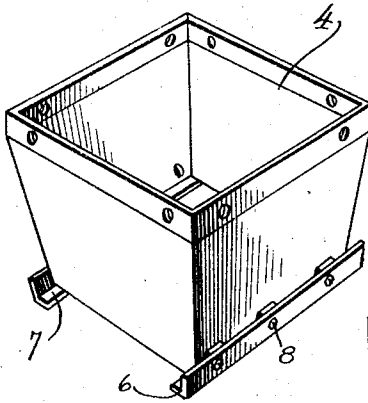
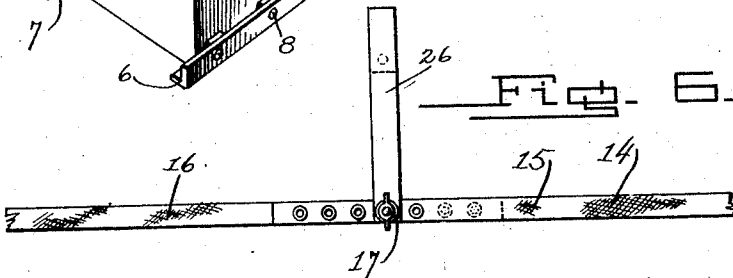


Fig. 4.



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UNITED STATES PATENT OFFICE.

PAUL T. BERGER, OF BATAVIA, NEW YORK.

BAG HOLDING AND FILLING DEVICE.

Application filed October 8, 1923. Serial No. 667,335.

To all whom it may concern:

Be it known that I, PAUL T. BERGER, a citizen of the United States, residing at Batavia, in the county of Genesee and State of New York, have invented certain new and useful Improvements in Bag Holding and Filling Devices, of which the following is a specification.

This invention relates to a bag holding and filling device and has for its principal object to provide a simple and efficient means for holding a bag in such a position as to enable the same to be filled very easily and quickly, and is especially adapted in conjunction with the filling of bags with flour, feed, seed and other similar material.

Another important object of the invention is to provide a device of the above mentioned character wherein means is provided for detachably supporting the bag upon the device when the same is being filled and also providing means for cutting off the supply to the bag after the latter has been filled to the proper height or amount.

A still further object of the invention is to provide a bag holder and filling device of the above mentioned character, which is simple in construction, inexpensive, strong and durable and further well adapted for the purpose for which it is designed.

Other objects of the invention will become apparent during the course of the following description.

In the accompanying drawings forming a part of the specification and in which like numerals designate like parts throughout the same.

Figure 1 is a front elevation of my invention.

Figure 2 is a vertical section thereof.

Figure 3 is a bottom plan view of my invention.

Figure 4 is a perspective view of the hopper.

Figure 5 is a detail view of the locking means, and

Figure 6 is a fragmentary view of the locking band showing the adjusting feature thereof.

In the drawings wherein for the purpose of illustration is shown the preferred embodiment of my invention, the numeral 1 designates the frame which is substantially rectangular in cross section and terminates at its lower end into the circular portion as shown at 2 in the drawings. An annular

flange 3 is secured to the bottom of the lower circular portion in any suitable manner. The frame is formed of any suitable metallic material and is adapted to support therein a hopper 4. The hopper 4 is also formed of similar metallic material as the frame 1 and is also substantially rectangular in cross section and tapers towards its bottom as clearly shown in Figure 2 in the drawings.

This hopper 4 is adapted to be supported in the frame 1 in such a manner as to have the upper end thereof extending flush with the upper edge of the frame 1 and suitable fastening means is adapted to extend through the sides of the frame and hopper such as shown in 5 of the drawings while the lower portion of the hopper is disposed a short distance above the bottom of the frame.

On one pair of opposed sides of the bottom of the hopper 4 are supported the inwardly extending angle irons 6 and 7 respectively. These angle irons are adapted to provide guide means for receiving a suitable cut off hereinafter to be more fully described. These angle irons 6 and 7 respectively are furthermore supported upon the bottom of the hopper by suitable fastening means such as is shown as 8 in the drawings and these guides extend inwardly below the hopper as shown clearly in Figure 3 of the drawings.

Slidably supported within the angle irons 6 and 7 is the cut off plate designated by the numeral 9. This cut off plate 9 is adapted to slide between the guides 6 and 7 and extend through a suitable slot 10 provided in one side of the frame 1, and a portion of the plate is adapted to be provided with a suitable handle 11 whereby the same may be actuated. Mounted on the bottom of the cut off plate 9 adjacent the inner free end thereof are a pair of lugs 12 which are adapted to limit the outward movement of the plate 9 so that the inner end of the plate will not be accidentally disengaged from the guides 6 and 7, when the handle 11 is pulled outwardly.

If desired a suitable extension designated by the numeral 13 also of rectangular formation in cross section may be detachably supported upon the upper portion of the frame 1. The purpose of the extension 13 being to provide a means for forming an enlarged hopper for holding the material in

larger quantities and thereby enabling the bags to be filled more rapidly.

The bag to be filled and designated by the letter A is adapted to be placed around the annular flange 3 formed on the bottom of the circular portion 2 of the frame and will extend for a substantial distance around the outer face of the circular portion. For the purpose of holding the mouth of the bag in position on the frame 1 I provide the locking band 14. This band 14 is formed of suitable flexible material and it comprises the sections 15 and 16. One pair of ends of these sections are adapted to be adjustably secured together as shown as 17 in the drawings, and the free ends of the sections are adapted to support the cooperating locking elements hereinafter to be more fully described.

The locking means comprises a U-shaped hook engaging member 18 which has its base portion supported in the looped end of the section 15. The arms 19 of the U-shaped hook engaging member 18 are provided at their outer ends with the laterally extending fingers 20 as clearly shown in figure 5 of the drawings. The free end of the section 16 is also provided with a U-shaped member 21 and this U-shaped member has its base portion also supported in the looped portion of the section 16 in a similar manner in which the U-shaped member 18 is supported on the free end of the section 15. The arms of the U-shaped member 21 converge towards their outer ends and extend substantially parallel at their outer ends as shown at 22 in the drawings.

The parallel extending portions 22 of the arms of the U-shaped member 18 are adapted to support therebetween the locking lever 23. This locking lever 23 is pivoted on the transversely extending pin 24 which extends between the parallel arms 22 and is provided with the handle 25.

The forward end of the locking hook 23 is provided with the enlarged portion 26 and extending laterally from both sides of the enlarged portion 26 are the locking lugs 27 which are adapted to engage the fingers 20 provided on the outer ends of the arms 19 of the U-shaped member 18 whereby the sections of the band 14 may be drawn together in a locked position, and by swinging the handle 25 inwardly so as to bring the portion thereof intermediate the lugs 27 between the parallel arms 22 of the U-shaped member 21, a camming action will be obtained so as to lock the band 13 around the mouth of the bag A when the latter is in position on the lower portion of the frame.

In this manner the bag will be held in position on the frame and after the cut off plate 9 has been opened by pulling outwardly upon the handle 11 so that the same

is clear of the bottom of the hopper 4 the feed or other material within the hopper will be permitted to gravitate or discharge into the bag located directly beneath the hopper. After the proper amount of material has been discharged into the bag, the sliding cut off plate 9 is moved inwardly so as to close the bottom of the hopper whereby the material within the hopper is prevented from being further discharged therefrom into the bag. Upon the bag being filled to the proper amount, the band 13 is released from engagement with the same by releasing the handle 25 of the locking hook whereby the band is disengaged so as to permit the bag to be easily and quickly removed from the frame, and permit the same to be tied in the usual manner and ready for shipment.

It will thus be seen, from the foregoing description, that a bag holding and filling device has been provided which is simple in construction and which will enable a number of bags to be filled in a comparatively short time and which will save considerable time and labor as well as prevent the person operating the device from using his hands in the filling of the bags and holding the same during such filling. Furthermore by constructing the device of the above mentioned character there is no possibility of the material within the hopper becoming clogged within the guides whereby the efficient operation of the sliding cut off is prevented as frequently occurs with the bag filling devices now in use.

To further permit the device to be easily moved from one place to another a handle such as is shown at 26 may be provided. Also carried by the bag holder are the locking band supporting straps 27 secured at their upper ends to the extension 13 and looped at their lower ends to receive the band 14 whereby the latter is supported therein at all times.

In order to prevent any dust from escaping through the slot 10 provided in the frame 1, a strip of canvas may be secured in any suitable manner on the inner side of the frame in such a manner as to have the slot in the frame register with the slot of similar length provided in the canvas. The edges of the canvas adjacent the slot formed therein will engage the upper and lower faces of the sliding cut off plate 9 and thereby prevent any of the dust in the hopper escaping through the slot 10.

From the foregoing description of the construction of my improved apparatus, it will be seen that I have provided a simple, inexpensive and efficient means for carrying out the objects of the invention, and while I have particularly described the elements best adapted to perform the functions set forth, it is obvious that various changes in

form, proportion, and in the minor details of construction may be resorted to, without departing from the spirit or sacrificing any of the principles of the invention.

5 Having thus described my invention what I claim is:

A bag holder of the class described, comprising a flexible band formed of two sections having one of their ends adjustably
10 secured together, a U-shaped hook member pivotally connected to the opposite end of one of said sections, a U-shaped and arcuately designed link member having its one

end pivotally connected to the opposite end of the other section of said band, a lever 15 fulcrumed intermediate of its ends between the outer furcations of said link member, and lateral studs carried in the one end of said lever engaging said hook, whereby when said lever is actuated in one direction the 20 ends of said band sections will be drawn together, as and for the purposes described.

In testimony whereof I affix my signature.

PAUL T. BERGER.