April 13, 1926.

1,581,048

W. A. FOSTER

BAG HOLDER

Filed August 31, 1923

2 Sheets-Sheet 1

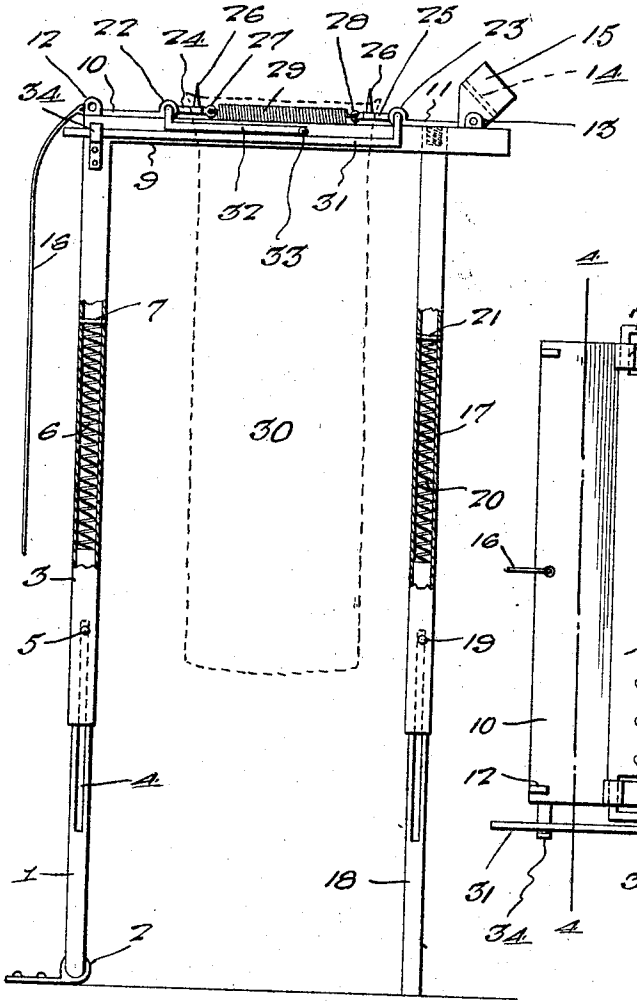


Fig. 1.

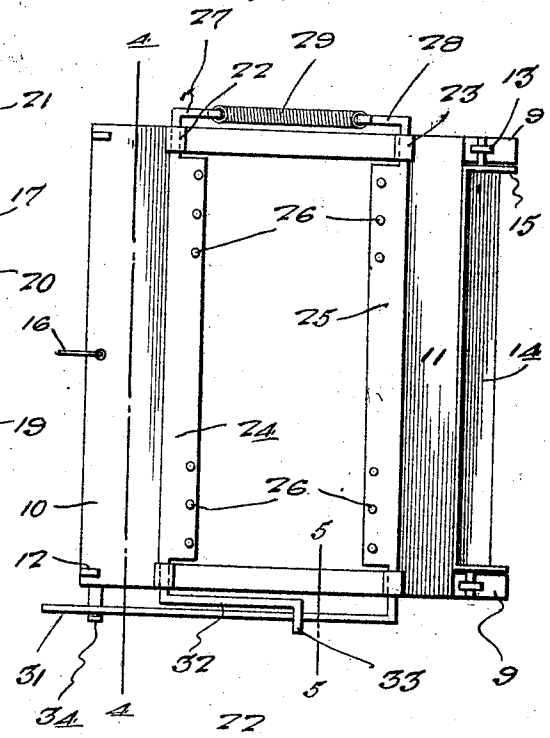


Fig. 3.

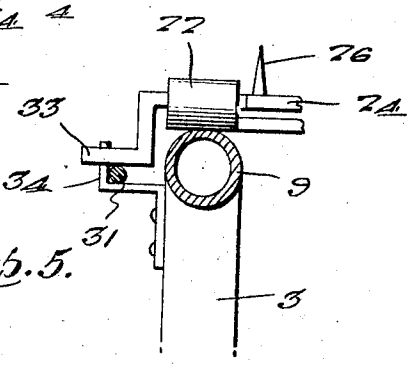


Fig. 5.

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2 Sheets-Sheet 2

Fig. 2.

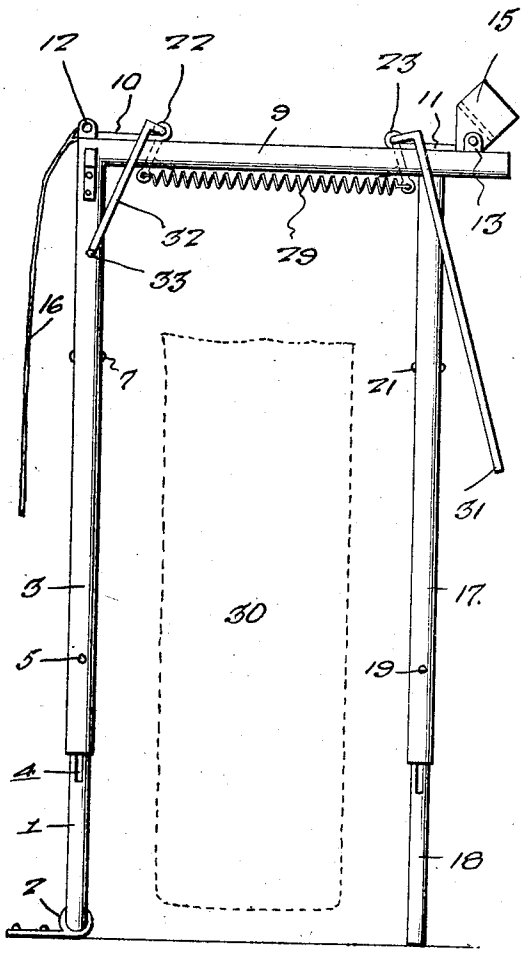


Fig. 4.

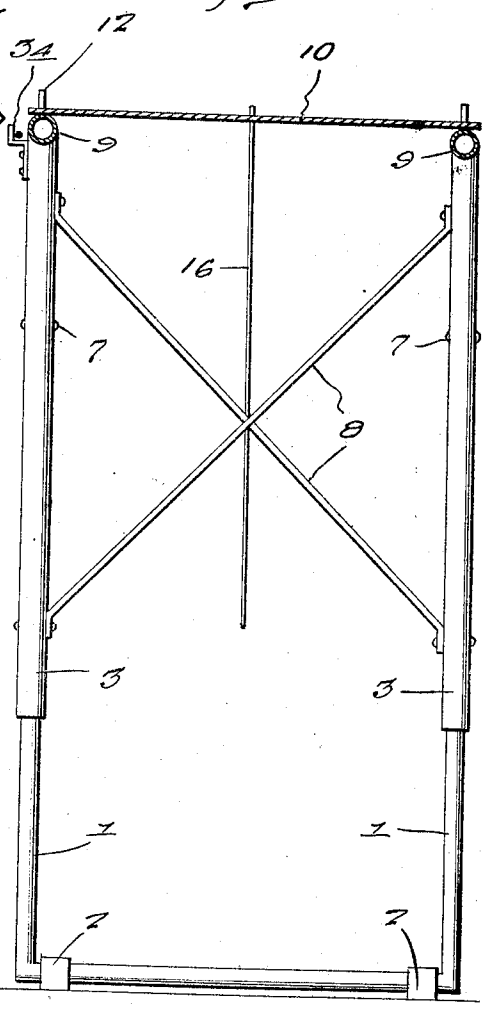
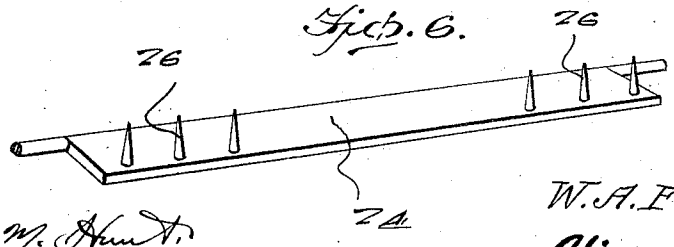


Fig. 6.



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Patented Apr. 13, 1926. 1,581,048

UNITED STATES PATENT OFFICE.

WALTER A. FOSTER, OF CLARKS FORK, IDAHO.

BAG HOLDER.

Application filed August 31, 1923. Serial No. 660,423.

To all whom it may concern:

Be it known that I, WALTER A. FOSTER, a citizen of the United States, residing at Clarks Fork, in the county of Bonner and State of Idaho, have invented new and useful Improvements in Bag Holders, of which the following is a specification.

My present invention has reference to a self-adjusting bag holder.

A further object is to produce a bag holder that may be used in connection with scales, graneries, cellars, in fields, warehouses and any other place where bagging is required, and has for its primary object to produce a telescopic frame, the upper section of which being spring influenced, and carrying spring influenced toothed plates to engage a bag, susceptible to swinging to release the bag but latched for holding the mouth of the bag open for the filling thereof.

With the aforementioned broadly stated object, and others which will present themselves as the nature of the invention is better understood, reference is to be had to the drawings which accompany and which form part of this application.

In the drawings:—

Figure 1 is a side elevation of a bag holder in accordance with this invention.

Figure 2 is a similar view showing the arrangement of parts when the filled bag is released.

Figure 3 is a top plan view of the improvement.

Figure 4 is a sectional view on the line 4—4 of Figure 3.

Figure 5 is a sectional view on the line 5—5 of Figure 3.

The remaining figures illustrate details.

The frame of my improvement is preferably constructed of tubular members, the back of which comprising a lower substantially U-shaped member, the parallel arms of which being indicated by the numeral 1. The lower connecting element for the arms 1 have arranged therearound adjustable clips 2, in the nature of hinges for attaching the frame to scales, etc. The upper frame sections are in the nature of rightangular tubes, the vertical arms 3 of which being telescopically received over the arms 1. Passing through the arms 3 and through elongated slots 4 in the arms 1 there are pins 5, while above these pins there are secured in the arms 1 helical expansive springs 6 connected to means 7 in the arms 2. The lower ends of the springs 6 rest on the top of the arms 1. The pins 5, being fixed to the arms 3 and slidable in the slots 4 of the arms 1, limit the upward movement of the upper frame section when influenced by the springs 6, while the pins 5, contacting with the lower walls provided by the slots 4, limit the downward movement of the upper frame section. By this arrangement it will be also noted that the upper section of the frame is normally moved away from the lower section thereof.

Between the arms 3 there are suitable cross braces 8 and the upper rightangular arms of the said upper members of the frame are indicated by the numeral 9. Connected to these arms 9 at the rear corner of the upper frame section there is a plate 10, and likewise connected to the said arms 9 adjacent to their outer ends there is a second plate 11. Both of these plates adjacent to their ends are provided with eyes 12—12 and 13—13 respectively. One pair of these eyes 12 or 13 may be employed for the reception of flexible elements, hooks or the like, for supporting the frame in an upright position, while the other pair of eyes support on the top of the frame a guard 14. The guard is in the nature of a plate, having angle sides 15 provided with trunnions to be received in the eyes 12 or 13.

To the plate 10 there is centrally connected a flexible element 16 which is employed for fastening the frame to the uprights on scales and to other places when the adjustable leg for the frame hereinafter described, is removed.

The adjustable leg comprises two telescopic tubular sections, the upper section 17 of which being removably secured by means 18 to the plate 11. The upper section 17 telescopically receives therein the lower section 18 of the leg. Passing through the section 17 and through elongated slots in the section 18 of the leg there is a pin 19, and secured in the top of the lower section 18 there is a pressure spring 20 engaged by a pin or similar contact 21 in the section 17.

The plates 10 and 11 have their confronting corners provided with barrels 22 and 23 respectively. These barrels receive therethrough short shafts or trunnions projecting from the inner corners of substantially rectangular bars 24 and 25 respectively.

Each of the bars adjacent to its outer end is provided with upstanding spurs 26. The trunnions which pass through the barrels at one side of the frame have cranked ends, indicated by the numerals 27 and 28 respectively. The outer elements of the cranks 27 and 28 are offset, and to these ends there is connected a helical spring 29. The spring has a tendency to swing the tooth carrying bars or plates to vertical position with respect to the frame whereby a bag 30 engaged by the teeth will be automatically released therefrom when moved downwardly by the weight thereof with the upper section of the frame.

The second trunnion on the tooth carrying plate 25 has a downturned end terminating in a straight extension that provides a lever 31. The second trunnion of the tooth carrying plate 26 has its end bent to provide a rightangular extension 32 whose end is disposed at an outward angle, as indicated by the numeral 33. This angle end or finger 33 is designed to rest on the lever 31 to force the same in engagement with a keeper 34 secured on one of the arms 3 of the upper frame section. In this manner the bag is sustained on the frame and the mouth thereof held in open position. The guard 14 which is hingedly connected to the frame prevents spilling of the material that is directed into the bag. This guard, as previously stated, may be arranged either at the front or back of the frame. When the bag is filled, the lever 31 is released from its keeper 34. The weight of the bar during the filling thereof will cause the descent of the upper section of the frame, and when the lever is released, the spring 29 will swing to tooth carrying bars or plates to automatically release the bag therefrom. The upper sections of the frame and the supporting leg therefor will, through the medium of the springs between the said upper and lower sections, move to initial position, arranging the device for engagement by another bag to be filled. Of course, the lever 31 is brought to engagement with its keeper 34 during the filling of all of the bags.

It is believed that the foregoing description, when taken in connection with the drawings will fully set forth the construction of the improvement and the advantages thereof, but I reserve the right to make any such changes therefrom as properly fall within the scope of the appended claims.

Having described the invention, I claim:—

1. In a bag filling device, including a yieldably supported frame, pivoted hook carrying plates on the top of the frame, spring means influencing the plates to swinging position to release a bag therefrom, a lever extending from the trunnion of one of the plates, an arm extending from the trunnion of the second plate having an offset finger to overlie the lever, and means for latching the lever to the frame for holding the plates horizontally with respect thereto.

2. In a bag filling device, a horizontally disposed yieldably supported frame, bag engaging toothed bars having inner cranked ends which are pivotally supported on the top and at the confronting inner transverse members of the frame, spring means connected to the cranks at one end of the plates for swinging the same downwardly in the frame, the second cranked end of one of the plates providing a lever and that of the opposite plate having its cranked end offset to normally underlie the lever, a keeper element on the frame engageable by the lever for holding the plates on the frame in horizontal position, and a removable and swingable guard on the frame.

In testimony whereof I affix my signature.

WALTER A. FOSTER.