

No. 804,199.

PATENTED NOV. 14, 1905.

H. F. BALLOU.
BAG HOLDER AND SPREADER.
APPLICATION FILED DEC. 20, 1904

Fig. 1.

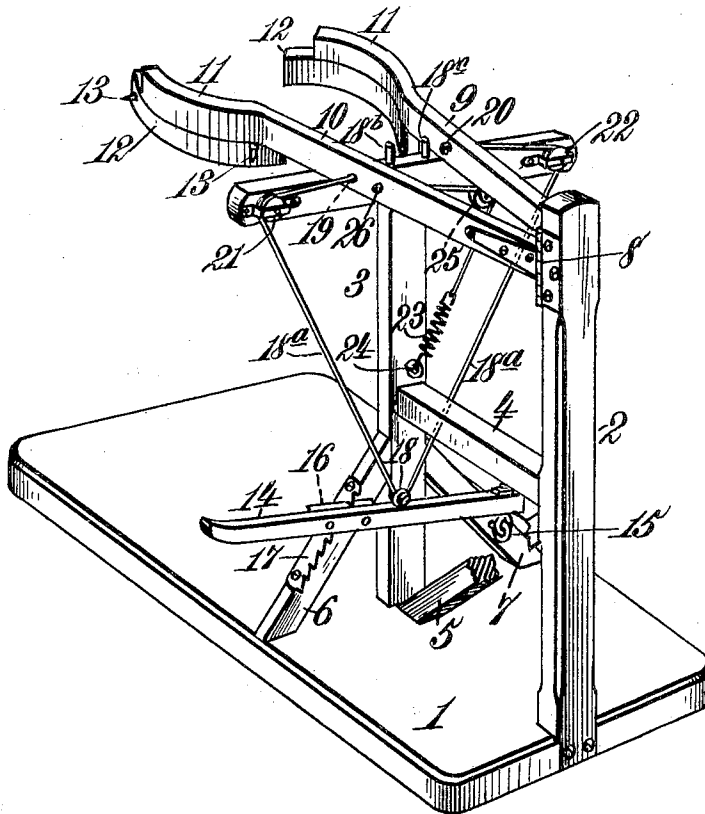
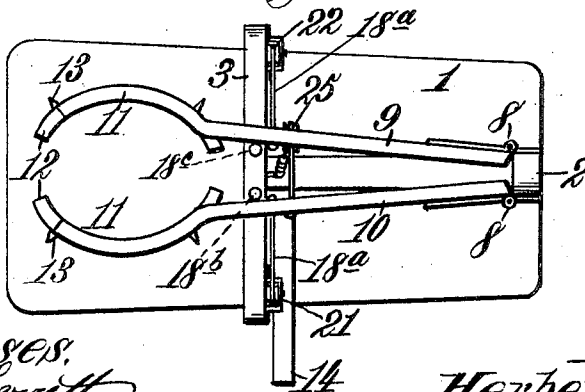


Fig. 2.



Witnesses:
Robert Smith,
Charles Kesler

Inventor:
Herbert F. Ballou.
By James L. Norrie,
Att'y.

UNITED STATES PATENT OFFICE.

HERBERT F. BALLOU, OF WINCHENDON, MASSACHUSETTS.

BAG HOLDER AND SPREADER.

No. 804,199.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed December 20, 1904. Serial No. 237,710.

To all whom it may concern:

Be it known that I, HERBERT F. BALLOU, a citizen of the United States, residing at Winchendon, in the county of Worcester and State of Massachusetts, have invented new and useful Improvements in Bag Holders and Spreaders, of which the following is a specification.

This invention relates to an improved device, hereinafter more specifically set forth, for holding as well as spreading open the mouth of bags or sacks.

The invention aims to provide a device of such class with a foot-operated means, as hereinafter set forth, for causing the spreading apart of the mouth of the bag or sack while the latter is supported by the device, as well as releasing the tension upon the upper end of the bag or sack, so the latter can be readily removed when occasion requires, said foot-operated means enabling the operator to have free use of his hands when positioning or removing the bag or sack.

The invention further aims to construct a bag holder and spreader which shall be simple in its construction, strong, durable, readily operated, efficient in its use, and comparatively inexpensive to set up.

With the foregoing and other objects in view the invention consists of the novel construction, combination, and arrangement of parts hereinafter more specifically described, and illustrated in the accompanying drawings, forming a part of this specification, wherein is shown the preferred embodiment of the invention; but it is to be understood that changes, variations, and modifications can be resorted to which come fully within the scope of the claims hereunto appended.

In the drawings, wherein like reference characters denote corresponding parts throughout both the views, Figure 1 is a perspective view of a bag holder and spreader constructed in accordance with this invention, and Fig. 2 is a plan thereof.

Referring to the drawings by reference characters, 1 denotes a platform or base to which is secured at one end thereof a vertically-extending standard 2, termed a "rear support," and upon the platform or base 1 forwardly of said standard 2 is secured a T-shaped support 3 of less height than the standard 2 and arranged approximately centrally of the platform or base 1. The standard 2 and support 3 are connected together through the medium of the cross member 4, and said standard 2 is braced through the medium of a forwardly-

extending inclined bar 5, secured at its lower end to the base or platform 1 and at its upper end to said standard 2. A pair of transversely-extending inclined braces is employed for the support 3. These braces are indicated by the reference characters 6 7 and are secured at their lower ends to the platform or base 1 and at their upper ends to the sides of the support 3.

Hinged, as at 8, to near the top of the standard 2 is a pair of forwardly-extending spreading arms 9 10, which are supported upon the horizontally-extending member of the T-shaped support 3, as well as extending forwardly of said member. The free ends of the supporting-arms 9 10 are formed in a curvilinear manner, as at 11, and have depending from their lower faces the curved holding members 12, each of which is provided with a plurality of pins 13, adapted to pierce and hold the bag in the proper position. These curved holding members 12 engage with the inside of the mouth of the bag, so that when the arms 9 10 are spread the said members 12 will cause the spreading of the mouth of the bag and at the same time hold or suspend the bag through the medium of the pins 13.

The arms 9 10 are spread apart through the medium of a foot-operated mechanism consisting of a tread-lever 14, pivoted, as at 15, to the bar 7 and arranged in proximity to the lower end of the support 3. The foot-lever at the front thereof, near one end, is provided with a spring-catch, as at 16, which is adapted to engage in the toothed rack 17, secured to the brace 7, to lock the lever 14 in the position set. The lever 14 is provided with an eye 18, through which passes an endless cable, (indicated by the reference character 18^a.) One end of the cable 18^a is connected, as at 19, to the arm 10, and the other end of the cable is connected, as at 20, to the arm 9. The cable passes over a pulley 21, secured to one end of the horizontal member of the support 3, and also passes over a pulley 22, secured to the other end of the horizontally-extending member of the support 3. The horizontally-extending member of the support 3 is provided with a pair of stop-pins 18^b for limiting the movement of the arms 9 10 toward each other.

The device is provided with a spring tensioning device which has a tendency to draw the arms 9 and 10 toward each other, or, in other words, has a pull opposite to that of the pull of the cable 18^a. Said spring ten-

sioning device consists of an elongated spring 23, connected at its lower end to the support 3, as at 24, and its upper end by a flexible connection with the arm 9, as at 26, the said
 5 flexible connection passing over a screw-pulley 25, which depends from the arm 10. The tensioning device causes the arms 9 10 to automatically move toward each other when the tread-lever 14 is released and retains the
 10 tread-lever 14 in the position set. This is evident owing to the pull of the tensioning device with respect to the pull of the tread-lever.

Having thus fully described my invention,
 15 what I claim as new, and desire to secure by Letters Patent, is—

1. A device of the character described, comprising a rear support, a T-shaped support, spreading arms hinged to said rear support
 20 and mounted upon said T-shaped support, holding members carried by said spreading arms, a foot-operated mechanism for spreading said arms, and a tensioning device connected with the arms and with said T-shaped
 25 support and adapted to exert a positive pull on the arms in an opposite direction to that of the pull of the foot-operated mechanism.

2. A device of the character described, comprising a standard, a support in advance of said
 30 standard, a pair of spreading arms hinged to

said standard and mounted upon said support, bag-holding members carried by said arms, a cable connected with said arms for spreading them apart, a tread-lever connected with the cable and adapted to operate them, and a
 35 spring connected with said arms and with said support for exerting a pull in the direction opposite to that of the pull of the cable.

3. A device of the character described, comprising a standard, a vertically-extending support having a horizontally-extending member,
 40 a pair of spreading arms hinged to said standard and supported by said member, bag-holding members carried by said arms, pulleys secured to said horizontally-extending member,
 45 a pulley carried by one of said arms, a tread-lever, a cable connected with said arms and said lever and passing over the pulleys carried by said member, a spring connected to one of said members, passing over the pulley
 50 carried by the other of said members and connected with said support, and a rack adapted to be engaged by said lever.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.
 55

HERBERT F. BALLOU.

Witnesses:

CHARLES C. MERRILL,
 WARREN W. GOODWIN.