June 13, 1939. F. P. NOFFSINGER 2,162,113

BAG HOLDER

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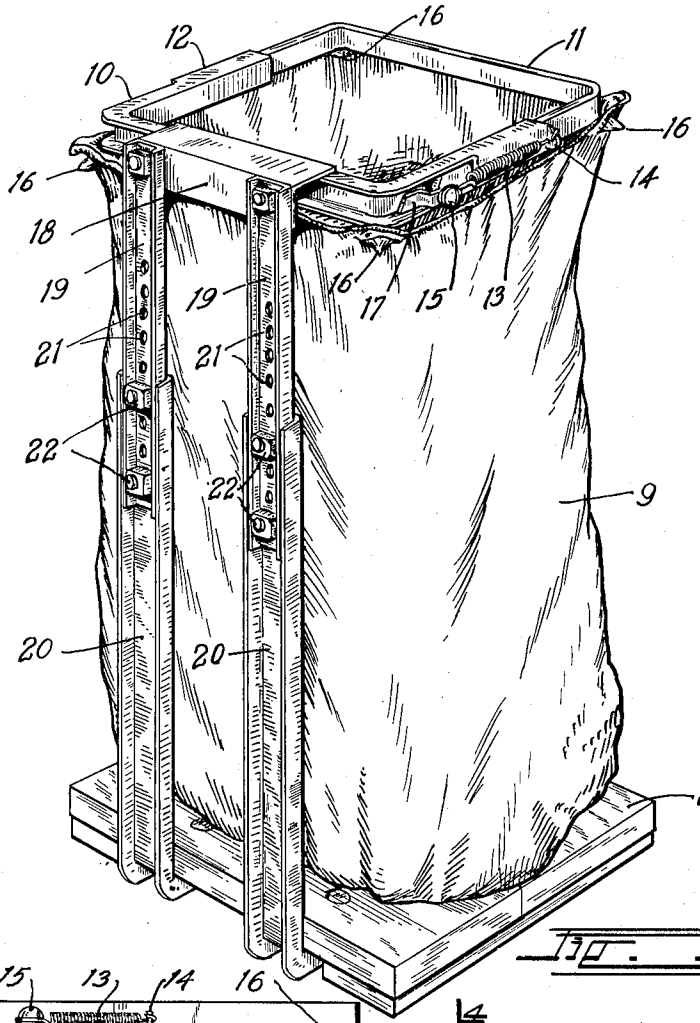


FIG. 1.

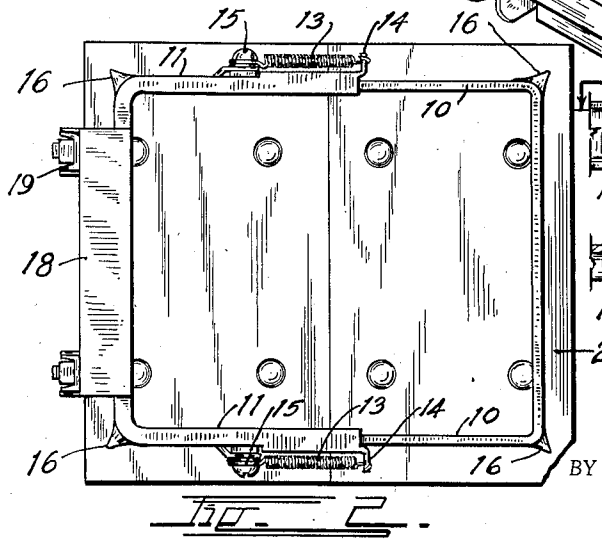


FIG. 2.

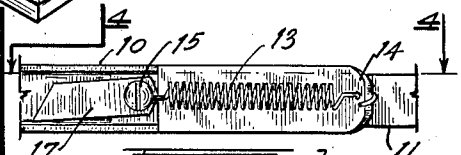


FIG. 3.

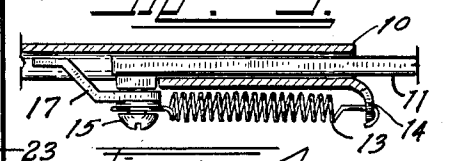


FIG. 4.

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BAG HOLDER

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2 Claims. (Cl. 248—100)

This invention relates to a bag holder, and while particularly designed for supporting burlap potato bags on potato grading machines, it is not limited to this particular use, but will be found useful in flour mills, grain elevators, vegetable picking plants, sugar factories, and many other places where bag filling is carried on.

The principal object of the invention is to provide a simple, efficient, quick-acting device upon which the empty bags can be quickly and easily placed and the filled bags removed without requiring any hand manipulation of the bag holder itself, and yet which will securely support the bag with its throat wide open, regardless of the weight thereon, until it is desired to remove the same.

Other objects of the invention are to provide means whereby the bag holder will, when the operator simply leans against it, automatically disconnect the bag therefrom; to so construct the bag holder that there will be no dangerous, spring actuated hooks, arms, etc., which might result in injury to the operator; to construct a bag holder which forms a rigid frame within the entire top of the bag to facilitate the filling thereof; and to provide a support for the bag holder which can be adjusted to accommodate bags of different sizes and lengths.

Other objects and advantages reside in the detail construction of the invention, which is designed for simplicity, economy, and efficiency. These will become more apparent from the following description.

In the following detailed description of the invention reference is had to the accompanying drawing which forms a part hereof. Like numerals refer to like parts in all views of the drawing and throughout the description.

In the drawing:

Fig. 1 is a perspective view illustrating the device in use for supporting a bag.

Fig. 2 is a plan view thereof with the bag removed.

Fig. 3 is a detail side view of the spring joint in the bag frame.

Fig. 4 is a section through the spring joint taken on the line 4—4, Fig. 3.

A typical burlap bag is illustrated at 9.

The bag holder proper consists of a first U-shaped, stationary, frame member 10, preferably formed of channel iron, as illustrated. A movable U-shaped frame member 11 extends into the extremities of the frame 10, so that the two frames together outline a rectangular frame. The flanges of the channel iron of which the member 10 is formed form perfect guide members to maintain the member 11 in horizontal alignment with the member 10.

The two extremities of the member 10 are preferably, but not necessarily, closed to form tunnels 12 through which the extremities of the member 11 pass. A tension spring 13 extends between the extremities of the frame member 10, and the extremities of the frame member 11 at each side of the frame. The spring 12, as illustrated, is secured between an ear 14 on the tunnel 12 and an attachment screw 15 threaded into the extremity of the member 11. The screw 15 contacts the tunnel and serves as a stop to limit the extreme opening of the frame. A pushing finger is hinged on each screw 15 and extends rearwardly therefrom supported by the lower flange of the channel iron of the member 10. Each member carries two pointed bag hooks 16, there being one hook at each corner of each member.

When placing a bag on the device, the operator leans against the member 11, thus forcing it toward the member 10 and stretching the springs. He then places the back of the bag in the rear of the member 10, so that it will engage the two hooks 16 thereon. He now lifts the front of the bag in front of the member 11 and allows the springs to expand the frame so that all four hooks 16 are forced into the bag material. The holder then forms a continuous rectangular frame within the top of the bag, as illustrated in Fig. 1.

When the bag is filled, the operator again leans against the member 11, forcing it inwardly. This movement causes the two pushing members 17 to travel rearwardly along the lower flanges of the member 10, until they engage the bag and push it from the two rearward hooks 17. This releases the bag at the back and allows it to be easily drawn from the hooks at the front. The operation can be reversed, if more convenient for the operator, by placing the bag on the front hooks first and then raising behind the frame 10.

The bag frame or holder, as thus described, forms the principal part of the invention. This holder may be supported in any desired way by attaching the member 10 to any suitable supporting structure. For instance, in a potato grading machine, the member 10 would be secured directly to the frame of the machine below the delivery chute. As illustrated, however, the frame is supported upon a portable platform structure to form a complete bag supporting unit.

This structure consists of an angle iron bar 18, which is welded along the edge of one of its flanges to the upper edge of the member 10, so as to

extend rearwardly and downwardly therefrom, as shown in Fig. 1. This allows an open channel along the back of the member **10** for the placing of the bag. The angle bar **18** is bolted to a pair of upper channel members **19** which telescopically fit into a pair of lower channel members **20**. The channel members are formed with a series of spaced-apart bolt holes **21** through which a pair of clamp bolts **22** are placed. This allows the members **19** and **20** to be adjusted for vertical heighth to accommodate any length of bag. The members **20** are turned at the bottom to extend beneath a platform **23**, upon which the bag rests, as it is being filled.

While a specific form of the improvement has been described and illustrated herein, it is desired to be understood that the same may be varied, within the scope of the appended claims, without departing from the spirit of the invention.

Having thus described the invention, what is claimed and desired secured by Letters Patent is:

1. A bag holder comprising: a horizontal, fixed, U-shaped frame member; a movable U-shaped frame having its extremities overlapping the extremities of the first frame and lying in the same plane therewith; means on the extremities of one frame for guiding the extremities of the other; tension springs extending between the overlapped extremities of the two frame members so as to force them oppositely outward from each other; bag engaging members on each frame positioned so as to be forced into the material of a bag as said frame members move outward from each other; and means on said movable frame for disconnecting the bag from the bag engaging members of the fixed frame member when said two members approach each other.

2. A bag holder comprising: a first U-shaped frame member, there being a channel extending longitudinally about said member on the outer face thereof; a second movable U-shaped frame member having its extremities traveling in the channel of the first frame member to form a rectangular frame; bag engaging fangs on each frame member, the fangs of one frame member extending oppositely outward from the fangs on the other frame member; a spring positioned to force said frames away from each other to cause said prongs to engage a bag; and a pushing member hinged to each extremity of said second member and riding in the channel of the first member so that when said two frame members are forced together said pushing members will push said bag from the bag engaging hooks of the first member.

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