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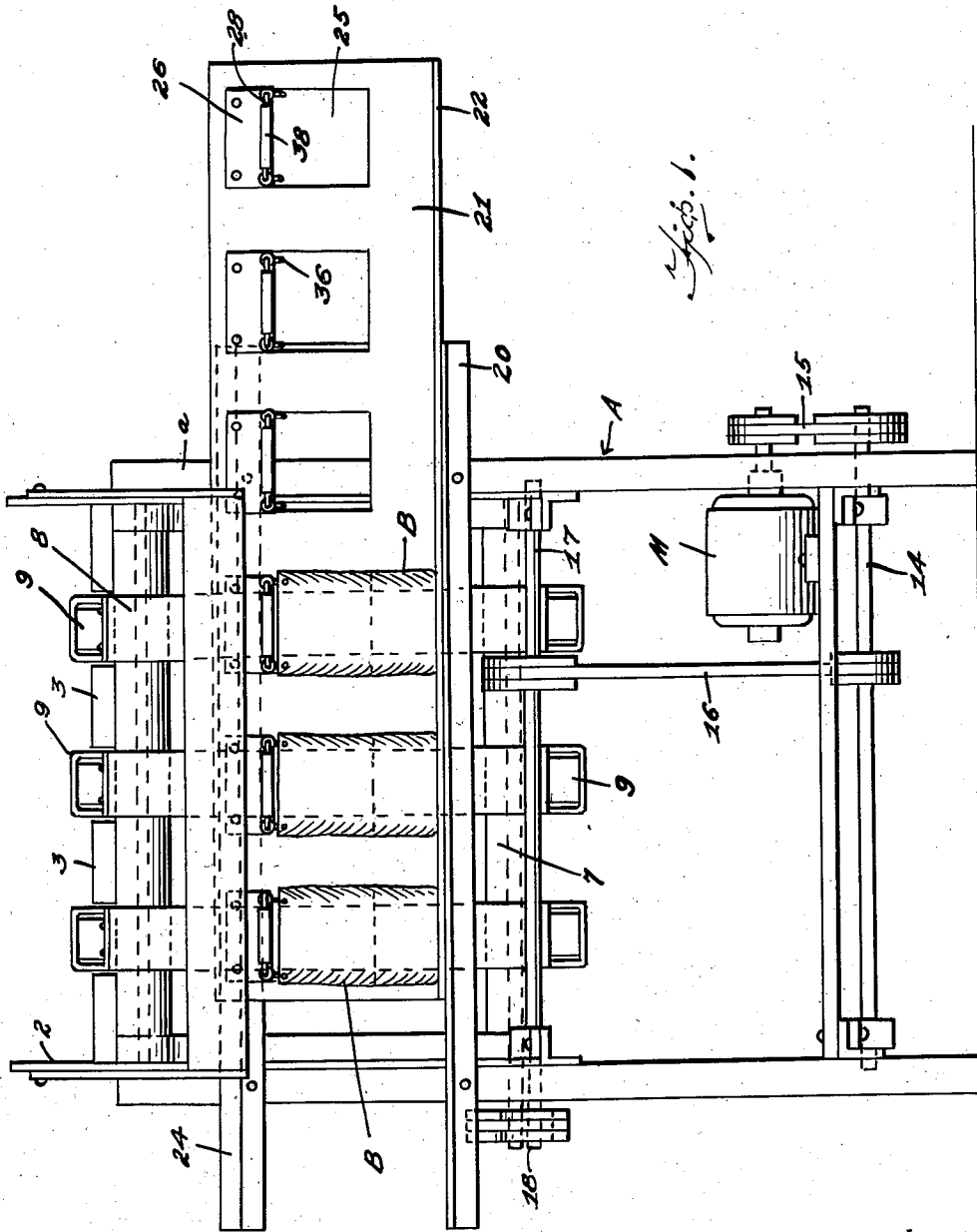
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2,275,335

POTATO SACKING MACHINE

Filed Nov. 5, 1940

4 Sheets-Sheet 1



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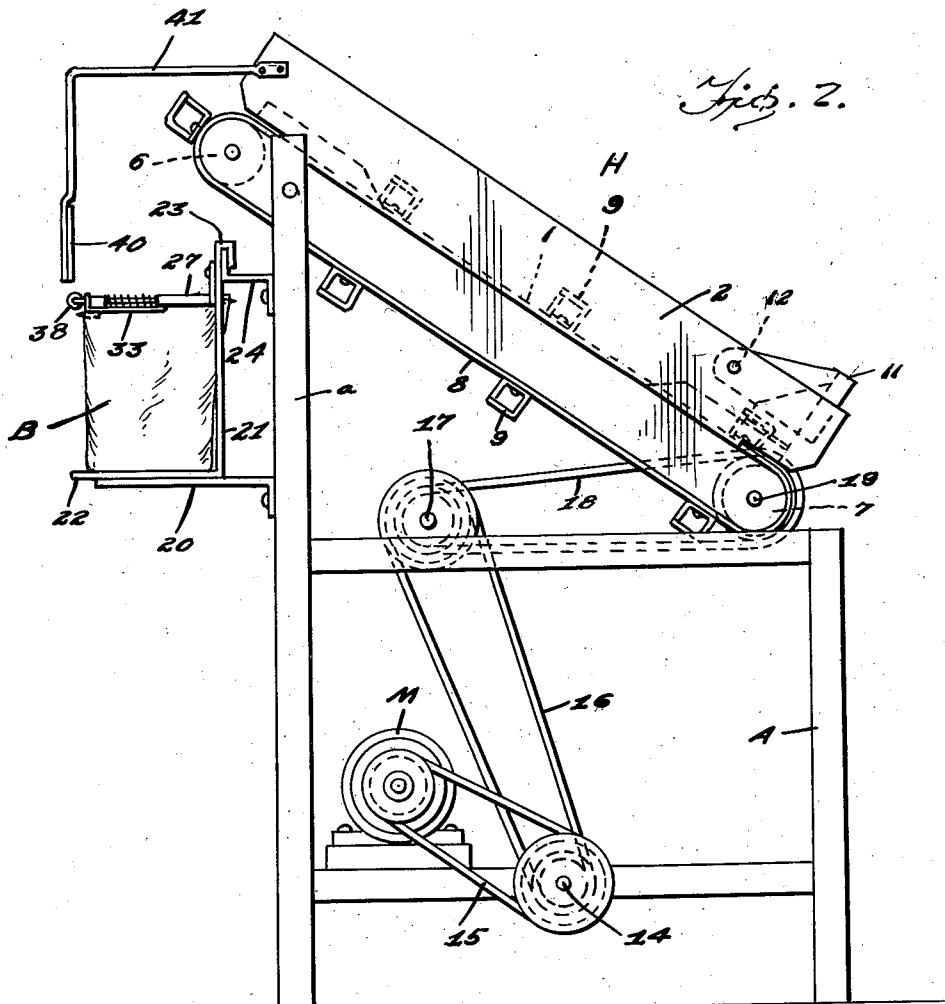


Fig. 2.

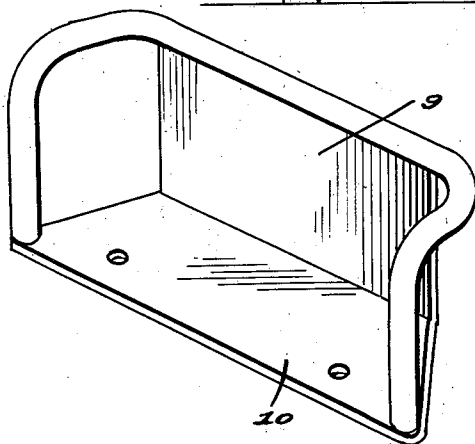


Fig. 6.

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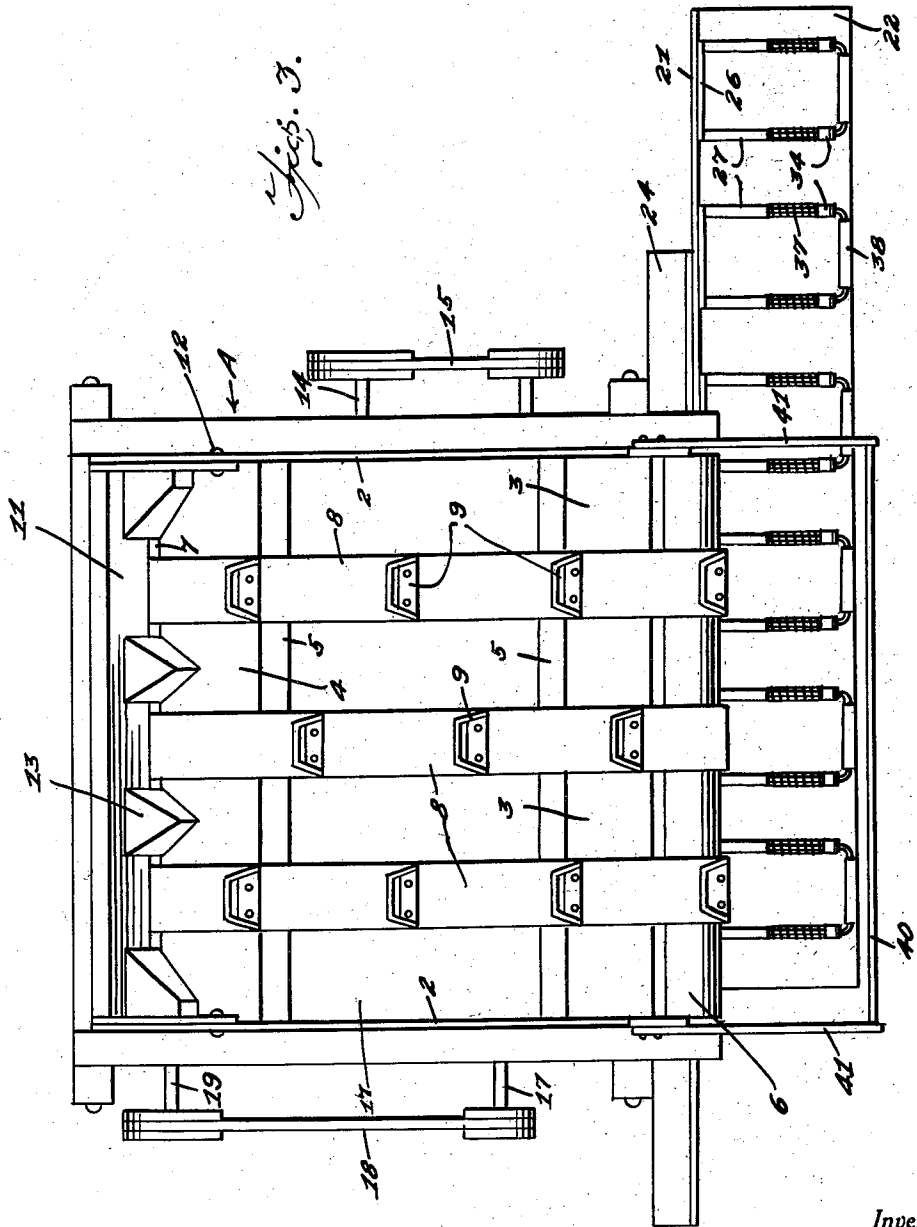
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POTATO SACKING MACHINE

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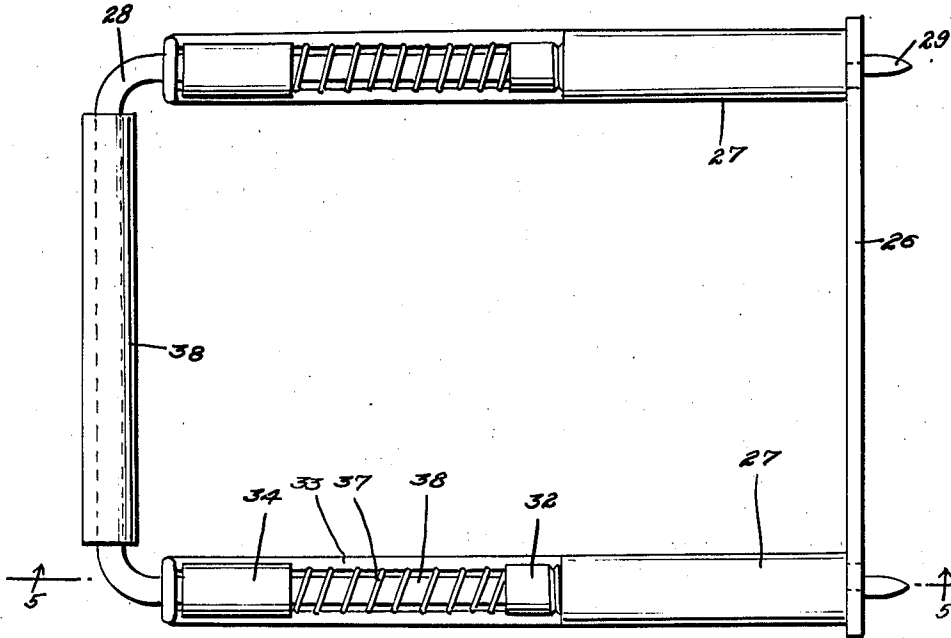
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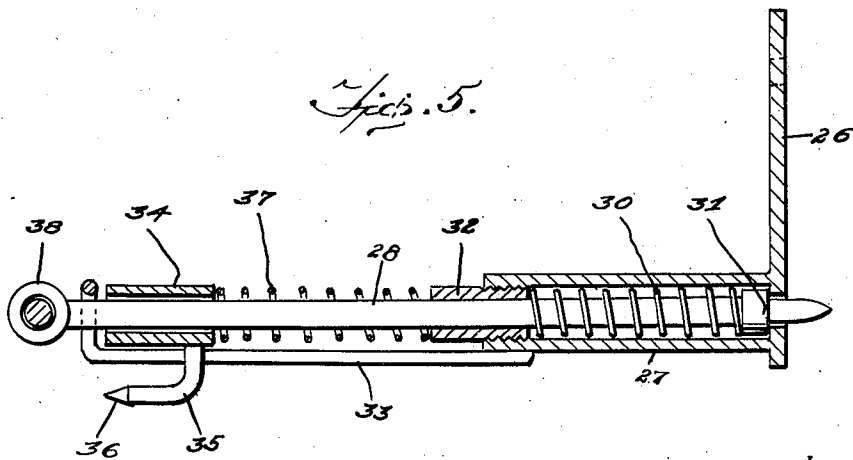
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Figs. 4.



Figs. 5.



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UNITED STATES PATENT OFFICE

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POTATO SACKING MACHINE

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Application November 5, 1940, Serial No. 364,447

1 Claim. (Cl. 226-61)

This invention relates to a sacking machine for potatoes and other objects, the general object of the invention being to provide means whereby potatoes or other objects can be easily and quickly placed in sacks, the device placing the potatoes in a plurality of sacks while other sacks are being put in position on a slide member so that when the first group of sacks have been filled the slide member can be moved to a position where the other group of sacks can be filled while the filled sacks are being removed from the machine, with belt means for moving the potatoes from a hopper into the sacks.

Another object of the invention is to provide means whereby a sack can be easily and quickly supported in open position on the machine and just as easily be removed from the machine after being filled.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which—

Figure 1 is a front view of the machine.

Figure 2 is a side view of the machine.

Figure 3 is a top plan view thereof.

Figure 4 is a top plan view of a sack engaging member.

Figure 5 is a section on the line 5-5 of Figure 4.

Figure 6 is a view of one of the cups of a belt.

In these views the letter A indicates an upright frame which has its front part extended upwardly as shown at *a* and a hopper H slopes downwardly and rearwardly from the upper portion of the part *a* to the rear of the main frame. This hopper includes the bottom member 1, the upright side members 2 and the spaced upper blocks 3 at the top of the hopper and the spaced blocks 4 at the lower end thereof, these blocks having the inner ends beveled as shown at 5 so that the potatoes or other objects can readily ride over the same. An upper roller 6 extends across the upper end of the hopper and a lower roller 7 extends across the lower end of the hopper, these rollers being slightly spaced below the plane of the bottom member 1 and a plurality of belts 8 pass over the rollers and between the blocks, the blocks acting as guide means for the upper

reaches of the belts. Each belt carries a plurality of cups 9, one of which is shown in detail in Figure 6 and as will be seen from this figure each cup is of elongated form with its front open and having a plate 10 forming its bottom, said plate being fastened to the belt and each cup includes a rear wall and end walls with the end walls diverging rearwardly from the back wall. A yoke-shaped member 11 has its arms extending forwardly and pivoted to the side walls 2 as shown at 12 and a plurality of blocks 13 extend forwardly from the bight of the yoke and have sloping side walls, these blocks acting to cause the potatoes rolling down the bottom of the hopper to be directed upon the belts so that they will be engaged by the pockets and carried upwardly with the belts.

A motor M is supported by a lower part of the main frame and its shaft is connected to a lower shaft 14 journaled in the lower part of the main frame by the belt and pulleys shown generally at 15 and this shaft 14 is connected by the belt and pulleys shown generally at 16 to an upper shaft 17 which, in turn, is connected by a pulley and a belt 18 with a pulley on one of the pintles 19 of the lower roller 7. Thus the belts will be actuated from the motor and at a suitable speed.

A sack supporting shelf 20 extends outwardly from the lower portion of the upright part *a* of the frame and a slide member 21 has a horizontally extending bottom part 22 which slides on the shelf and the upper end of the member 21 has the channel part 23 for slidably engaging a vertical portion of a Z-shaped bracket 24 attached to a part of the frame portion *a*. The slide member 21 is of much greater length than the width of the frame and it has a longitudinally extending row of openings 25 therein and a supporting plate 26 is fastened to the member 21 above each opening. Each plate 26 has projecting forwardly therefrom the tubular members 27 and these members slidably receive the limbs of a U-shaped member 28, the ends of the limbs being pointed as shown at 29 and pass through holes in the plate 26 and through the top part of the opening 25. A spring 30 encircles each limb of the U-shaped member 28 and is located in a tubular member 27 and said spring has one end bearing against a collar 31 on the limb and against a sleeve 32 threaded in the outer end of each tubular member 27. These springs tend to hold each U-shaped member with its pointed ends projecting through the holes of the plate 26 and the upper end of the large hole 25. A

guiding member 33 of U-shape has the ends of its limbs connected with lower portions of the outer end of each of the tubular members 27 with the bight end bent at right angles to form a loop through which the outer end of each limb of the U-shaped member 28 passes. A sleeve 34 is slidably arranged on each limb of the member 28 and carries an angle hook 35 at its lower part, one portion of which extends forwardly and terminates in a point 36. This hook 35 passes between the limbs of the member 33 and this member prevents turning movement of the sleeve 34 and the hook 35 and it also acts to limit outward movement of the sleeve 34. A light spring 37 encircles each limb of the member 28 and has one end bearing against the sleeve 32 and its other end against the sleeve 34 so that this spring holds the sleeve 34 in its outermost position. A tubular handle 38 encircles the bight of each member 28 and forms a hand grip.

The sacks or bags B are seated on the part 22 of the member 21 and their upper ends have their rear portions engaged by the pointed ends 29 of the U-shaped members 28 and the front portions of said upper ends are hooked over the hooks 35. Thus the open end of the bag is held in open position and the parts are so arranged on the member 21 that when the member 21 is in one position, a number of bags will be held under the upper ends of the belts 8 so as to receive the potatoes or other objects dropping from the cups or buckets 9 of the belts. Other bag holding means of the member 21 will be placed to one side of the machine so that when the first group of bags is being filled from the objects dropping from the belts other bags can be put in position at the other openings 25 of the member 21. Then when the first group of bags is filled the member 21 is moved to its second position or to the left in Figure 1 so that the filled bags will be moved to the left of the machine while the bags just put in place will be moved to filling position to receive the objects from the belts.

It is simply necessary to grab the grip 38 and exert a pull upon the member 28 to pull the legs with the pointed ends 29 into the tubular members 27 which will free portions of the bag from said pointed ends 29 and then the bag is moved

off the shelf forming part 22 forwardly so that it will release the bag from the hooks 35. In placing a bag in position the rear portion of the open end thereof is so placed that it will be engaged by the pointed ends 29 of the member 28 and then the front portion of its open end is placed on the hooks 35. By providing the openings 25 portions of the bags can pass through the same as shown in Figure 2.

A horizontally extending plate 40 is supported slightly above and outwardly of the bags placed on the member 21 by the angle arms 41 connected with the upper ends of the side pieces 2, this plate 40 acting to prevent potatoes dropping from the cups from falling forwardly of the bags.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts provided that such changes fall within the scope of the appended claim.

Having described the invention, what is claimed as new is:

In a bag filling machine, an elongated slide member, means for supporting the same for horizontal sliding movement and a plurality of bag holding means carried by the sliding member, some of the means holding the bags in position for receiving objects while other bag holding means are receiving empty bags, said slide member having a shelf forming part for supporting the bottoms of the bags, tubular members extending from the upper portions of the slide member, a yoke-shaped member forming each bag supporting means and having its limbs passing through the tubular members with the ends of the limbs pointed to pass through rear portions of the bags, spring means for moving the U-shaped members to cause their pointed ends to engage parts of the bags, a sleeve on each limb of each U-shaped member, a hook having a forwardly extending part carried by each sleeve for engaging a forward part of the bag, a spring for normally holding the sleeve in a forward position and guide means for each hook.

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