July 4, 1950 L. W. CALDWELL 2,513,449

EGG CLEANER

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FIG 1

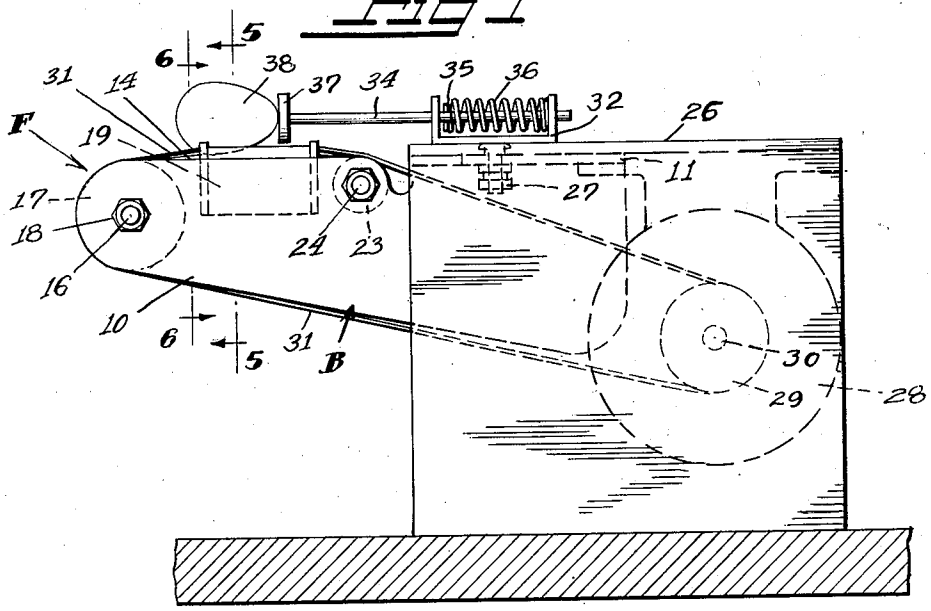


FIG 2

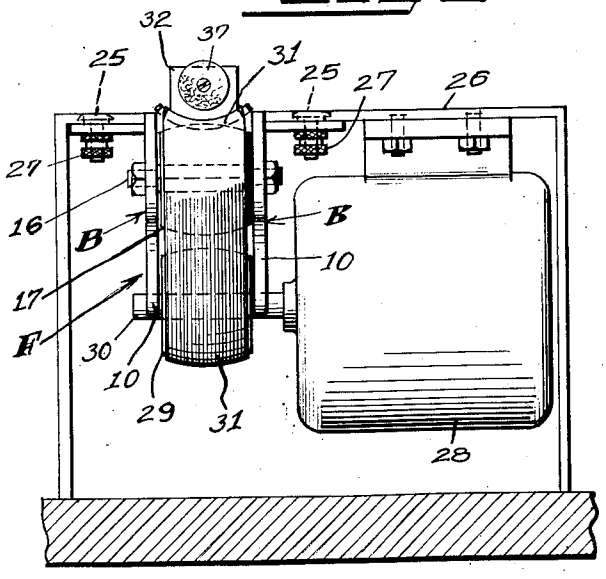
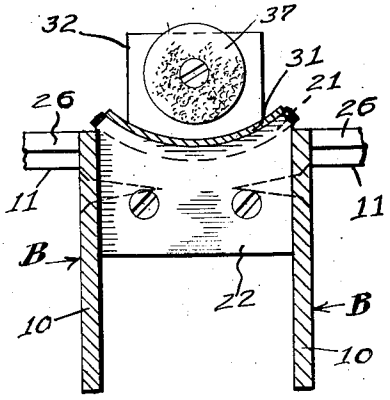


FIG 6



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FIG 3

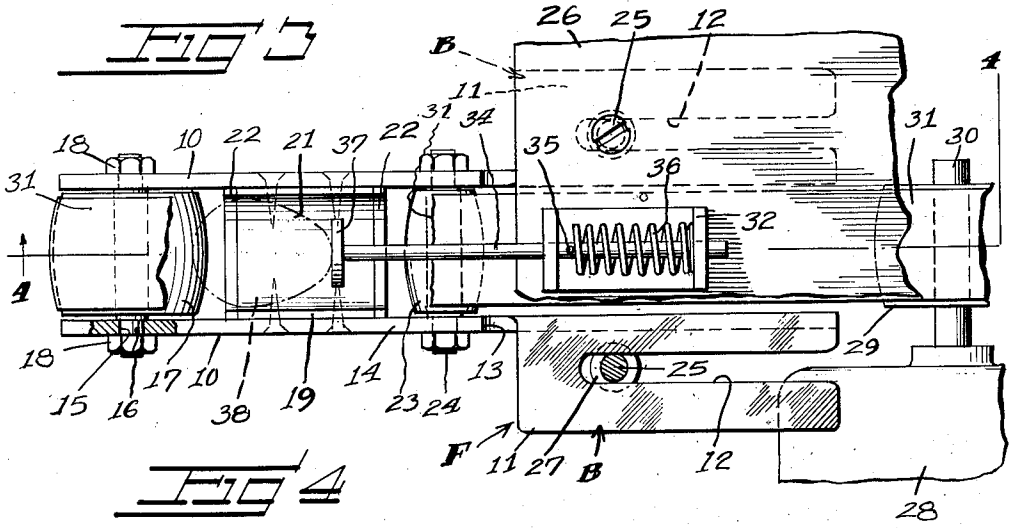


FIG 4

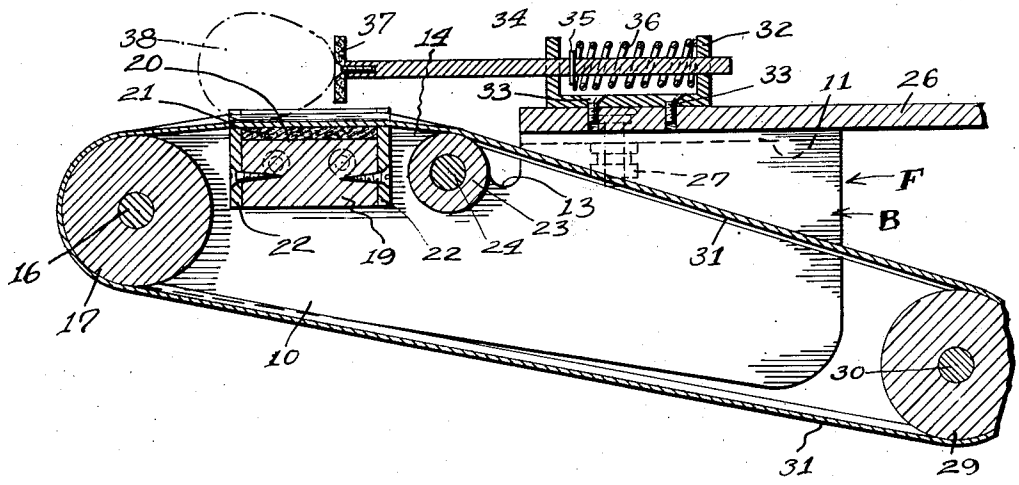
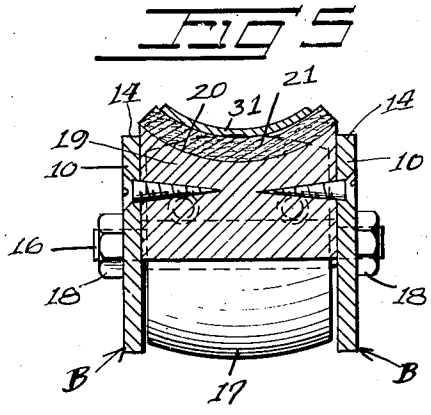


FIG 5



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UNITED STATES PATENT OFFICE

2,513,449

EGG CLEANER

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Application February 9, 1948, Serial No. 7,191

3 Claims. (Cl. 51—135)

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My invention relates to farm implements and more particularly to a device for cleaning eggs.

The object of my invention is to provide an egg cleaner adapted to be attached to a table top or the like and to support an egg while it is being cleaned by a belt of slightly abrasive quality driven by a motor.

Another object of my invention is to provide an egg cleaner of the character indicated above equipped with a spring biased push rod having a leather disk at its end adapted to prevent the egg from slipping out of the operator's hand while it is moved over the abrasive belt.

A further object of my invention is to provide an egg cleaner of the character indicated above adapted to clean eggs without wetting them, whereby spoilage of eggs caused by wetting them, is prevented.

A still further object of my invention is to provide an egg cleaner of the character indicated above, which is adapted to be disassembled easily so that it can be packed into a small box or the like for shipping purposes.

Other objects of my invention not specifically mentioned may appear in the following specification describing my invention with reference to the accompanying drawing illustrating a preferred embodiment of my invention. It is, however, to be understood, that my invention is not to be limited or restricted to the exact construction and combination of parts described in the specification and shown in the drawing, but that such changes and modifications may be made which fall within the scope of the claims appended hereto.

In the several figures of the drawing, similar parts are designated by similar reference characters, and

Figure 1 is a view in side elevation of an egg cleaning apparatus constructed in accordance with an embodiment of the invention;

Figure 2 is a view in front elevation;

Figure 3 is a view in top plan with the table top broken away;

Figure 4 is a sectional view taken substantially on line 4—4 of Figure 3;

Figure 5 is a sectional view taken substantially on line 5—5 of Figure 1; and

Figure 6 is a sectional view taken substantially on line 6—6 of Figure 1.

The egg cleaner forming the subject matter of my invention comprises a frame F formed by two brackets B. Each bracket has a plate-like vertically arranged body 10, and on the upper edge of the front end portion of each body a

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laterally extending flange 11 is formed. A centrally located slot 12 extends from the front edge of each flange rearwardly into said flange for a purpose to be described later. Adjacent the rear end of each flange 11, a shallow downwardly extending notch 13 is provided in the upper edge of each body 10, and the upper edge portion 14 of each body located rearwardly of said notch is arranged at a somewhat higher level than the top surface of the flange 11. At a distance below the rear edge portion 14 and in front of the rear edge of each body 10, a hole 15 is provided. An axle 16 extends through the holes 15 in both bodies and a crown pulley 17 is rotatably mounted on said axle which is provided on each of its end portions with a nut 18 to secure it in position. An elongated block 19 is located between the two bodies 10 somewhat in front of the front surface portion of the crown pulley 17, so that the upper edges of said block project a little above the upper edges of the two bodies. The upper surface of the block 19 is concaved transversely as indicated at 20 and is lined with a layer of felt 21 glued or otherwise secured onto said block. On each end of the block an end plate 22 is secured protecting the ends of the felt layer. An idler pulley 23 is rotatably mounted on a second axle 24 extending through the two plate-like bodies 10 just rearwardly of the notch 13 and somewhat below the top rear edge 14 of each body.

Two countersunk bolts 25 or the like extend through a table top 26 or the like and project beyond the lower surface thereof. These bolts are located at an equal distance from the rear edge of the table top and at such a distance from each other, that they are adapted to enter slidably into the slots 12 of the brackets B, after these brackets are connected with each other by means of the block 19 secured to and located between the bodies 10. A knurled nut 27 or the like mounted on each bolt 25 secures the assembled frame F to the under surface of the table top.

A motor 28 is mounted in any desired conventional manner under the table top, so that a rubber pulley 29 rigidly mounted on the motor shaft 30 is in alignment with the idler pulley 23 and the crown pulley 17. A slightly abrasive belt 31 is trained over the three pulleys and extends over the concaved surface of the block 19. The tautness of the belt is adapted to be regulated by positioning the brackets 10 relative to the motor 28 by means of sliding the brackets into the desired position and securing them in this position by tightening the nuts 27.

A U-shaped guide bracket 32 is secured to the top surface of the table top 26 by means of screws 33, extending through the web of the guide bracket into the table top. A push rod 34 extends slidably through the flanges of the guide bracket at a distance above the table top 26. A stop pin 35 extends diametrically through said push rod adjacent the inner surface of the rear flange of the guide bracket and the push rod projects rearwardly beyond this guide bracket flange and part way over the block 19. A light helical spring 36 surrounds the push rod between the front flange of the guide rod and the stop pin and urges the push rod into its rear most position. A leather disk 37 is secured to the rear end of the push rod.

When eggs are to be cleaned, the motor 28 is started and an egg 38 is held lightly against the portion of the moving belt 31 traveling over the concaved block 19, and is turned lengthwise and crosswise so that said belt touches all portions of the egg and cleans it. The concave felt lined surface of the block 19 serves to support the belt and to curve into a shape adapted to surround a comparatively large part of the egg to expedite the cleaning process. The belt 31 travels forwardly over the block 19 urging the loosely held egg against the leather disk 37 on the spring biased push rod 34 so that the egg cannot slip out of the hand of the operator under the light urge of the cleaning belt. The belt is prevented from slipping since it is trained over the motor pulley 29 which is made from rubber.

I claim:

1. An egg cleaner comprising a table, a motor therebeneath and including a shaft and pulley mounted thereon, a pair of long plates disposed with their side faces vertical and in horizontally spaced parallel relation with two adjacent ends beneath the table, means securing said ends beneath the table, said pulley being in line with the space between the plates, the plates having adjacent top edge portions lying in a horizontal plane closely approaching the plane of the table top, a pulley rotatably mounted on a horizontal axis between the other two adjacent ends of the plates, a cleaning belt encircling said pulleys and having the top run thereof passing between the plates, a belt supporting and shaping block secured between the plates between the said top edge portions thereof and having a transversely concaved top surface in which the top run of the belt fits and slides, and means supported on the table top and extending longitudinally of and above the top surface of the spacing block for facilitating manual maintenance of an egg in position on the block supported portion of the belt.

2. An egg cleaner of the character described in claim 1, in which the said means securing said ends of the plates beneath the table comprises oppositely directed lateral flanges carried by the plates adjacent to the first mentioned two adjacent ends and disposed against the underside of the table top, each of said flanges having a long slot therein extending longitudinally of the plates and a securing bolt engaging in each of the slots and connected to said table, said slotted flanges and bolts facilitating the tensioning of the belt by movement of the plates longitudinally.

3. An egg cleaner of the character stated in claim 1, with a felt liner within the said concaved top of the block and protecting plates for the ends of said liner secured to the ends of the block and projecting above the concaved surface of the block to the level of the top of the liner, said belt sliding across the top edges of said protector plates.

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