Dec. 11, 1923. 1,477,211

J. DLESK

FEEDING DRUM

Filed April 6, 1922

Fig. 1.

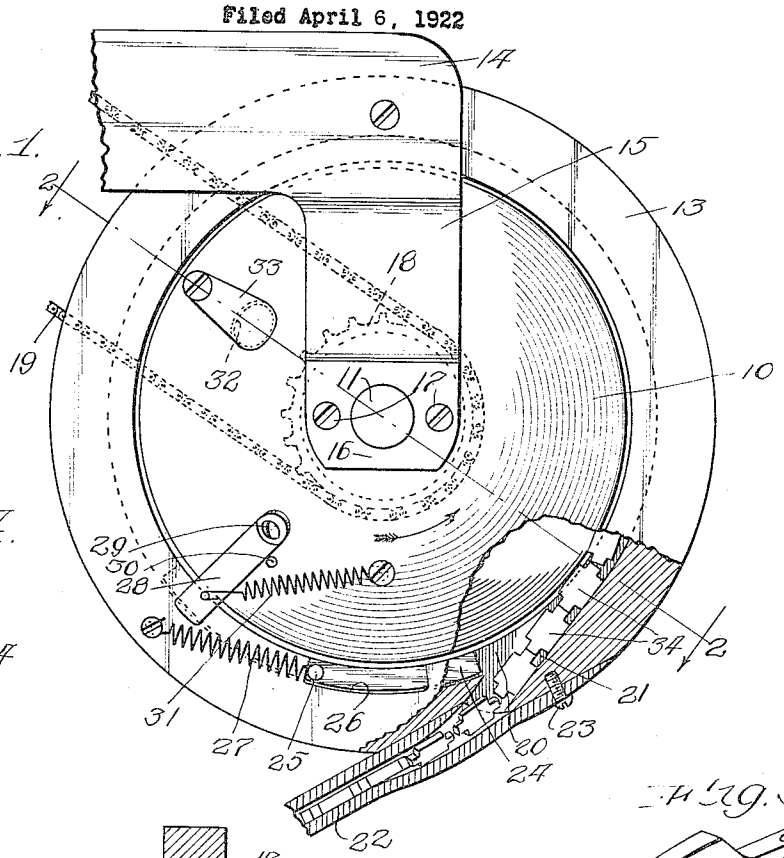


Fig. 4.

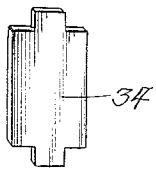


Fig. 3.

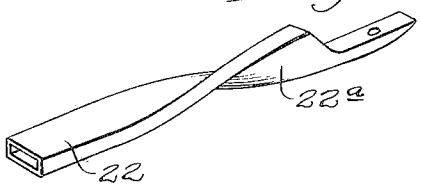


Fig. 2.

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UNITED STATES PATENT OFFICE.

JOHN DLESK, OF BERWYN, ILLINOIS, ASSIGNOR TO U. S. BALL BEARING MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

FEEDING DRUM.

Application filed April 6, 1922. Serial No. 550,236.

To all whom it may concern:

Be it known that I, JOHN DLESK, a citizen of the United States, residing at Berwyn, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Feeding Drums, of which the following is a specification.

This invention relates to mechanism for feeding rivets and the like, one after another, to a chute and is fully described in the following specification and shown in the accompanying drawings, in which:

Figure 1 is a side elevation partly in section of an embodiment of the invention;

Fig. 2 is a longitudinal section on the line 2—2 of Fig. 1;

Fig. 3 is a perspective view of the upper end of the chute; and

Fig. 4 is a perspective view of a form of rivet which may be fed by this device.

The device as illustrated comprises a drum made up of two facing conical members 10 secured upon a shaft 11 by means of pins 12, leaving an annular opening between the outer edges of the drum members 10.

An annular ring 13 surrounds the drum members 10 and is carried by the suitable support 14. This support has two pending members 15 to which bearings 16 are secured by means of screws 17. A shaft 11 is journalled in the bearings 16 and has a sprocket 18 keyed thereon by means of which the drum is driven from any suitable source of power by means of the chain 19.

An internal groove 20 of a width substantially equal to the width of the opening between the drums 10 is formed within the annular ring 13, said opening and groove being in registration. This groove is uninterrupted except for the passage 21 which leads downwardly preferably at an angle of substantially 45° as shown in Fig. 1.

A chute 22 which has an internal opening of a size and shape to permit the desired rivet to slide endwise therethrough is secured in alignment with the passage 21 by means of the screw 23. The upper end 22^a of this chute is preferably given a 90° twist as shown in Fig. 3, so as to cause the rivets to be turned upon their side as they slide down the chute.

A plunger 24 is curved to fit the internal groove in which it is adapted to slide and has a pin 25 extending laterally through a slotted opening 26 in the side of the annular ring 13. A spring 27 tends always to maintain this pin at the upper end of the slot 26 as shown in Fig. 1.

The drum 10 carries a finger 28 which is pivotally mounted thereon at 29 and is normally held in the position shown in Fig. 1 against the stop 30 by means of the spring 31. The outer end of this finger passes over the spring 27 but engages the pin 25.

An opening 32 is provided in the side of the drum 10 through which rivets may be induced and is covered by means of a spring cover 33.

The operation of the device is as follows: Rivets are introduced through the opening 32 into the drum 10, the cover 33 closed and the drum driven in counter-clockwise direction. The width of the opening between the drum members 10 and of the internal groove 20 is substantially equal to the thickness of the rivet 34 as shown in Fig. 4 so that the rivets will work out, one at a time, through this opening into the internal groove. At each revolution of the drum the finger 28 will strike the pin 25 and thereby push the plunger 24 around, agitating the rivets in the passage 21. The plunger 24 will keep on moving until the pin 25 strikes the right-hand end of the slot 26 or until the tension in the spring 27 overcomes the tension in the spring 31, in either of which cases the finger 28 will be drawn back against the action of the spring 31 until it passes over the pin 25. The plunger 24 is then returned to its normal position as shown in Fig. 1. In this way the rivets 34 are brought into alignment and gravitate down the chute 22 as shown.

While I have shown and described certain embodiments of my invention, it is to be understood that it is capable of many modifications. Changes, therefore, in the construction and arrangement may be made without departing from the spirit and scope of the invention as disclosed in the appended claims, in which it is my intention to claim all novelty inherent in my invention as broadly as possible in view of the prior art.

What I claim as new, and desire to secure by Letters Patent, is:

1. A drum for feeding articles having flattened substantially parallel faces, means for rotating said drum, an annular opening in the periphery of said drum normal to the axis of the drum, an annular ring sur-

rounding said drum and having an internal groove registering with said opening, means for agitating the articles at the opening into said passage and a passage leading from said internal groove, whereby when said drum is turned with respect to the annular ring, said articles will pass edgewise through said opening into the groove and out through said passage.

2. A drum for feeding articles having flattened substantially parallel faces, means for rotating said drum, an annular opening in the periphery of said drum normal to the axis of the drum, an annular ring surrounding said drum and having an internal groove registering with said opening, means operable by said drum for agitating the articles at the opening into said passage, and a passage leading from said internal groove, whereby when said drum is turned with respect to the annular ring, said articles will pass edgewise through said opening into the groove and out through said passage.

3. A drum for feeding articles having flattened substantially parallel faces, means for rotating said drum, an annular opening in the periphery of said drum normal to the axis of the drum, an annular ring surrounding said drum and having an internal groove registering with said opening, a plunger reciprocable in said groove at the junction with said passage for agitating said articles and a passage leading from said internal groove, whereby when said drum is turned with respcet to the annular ring, said articles will pass edgewise through said opening into the groove and out through said passage.

JOHN DLESK.