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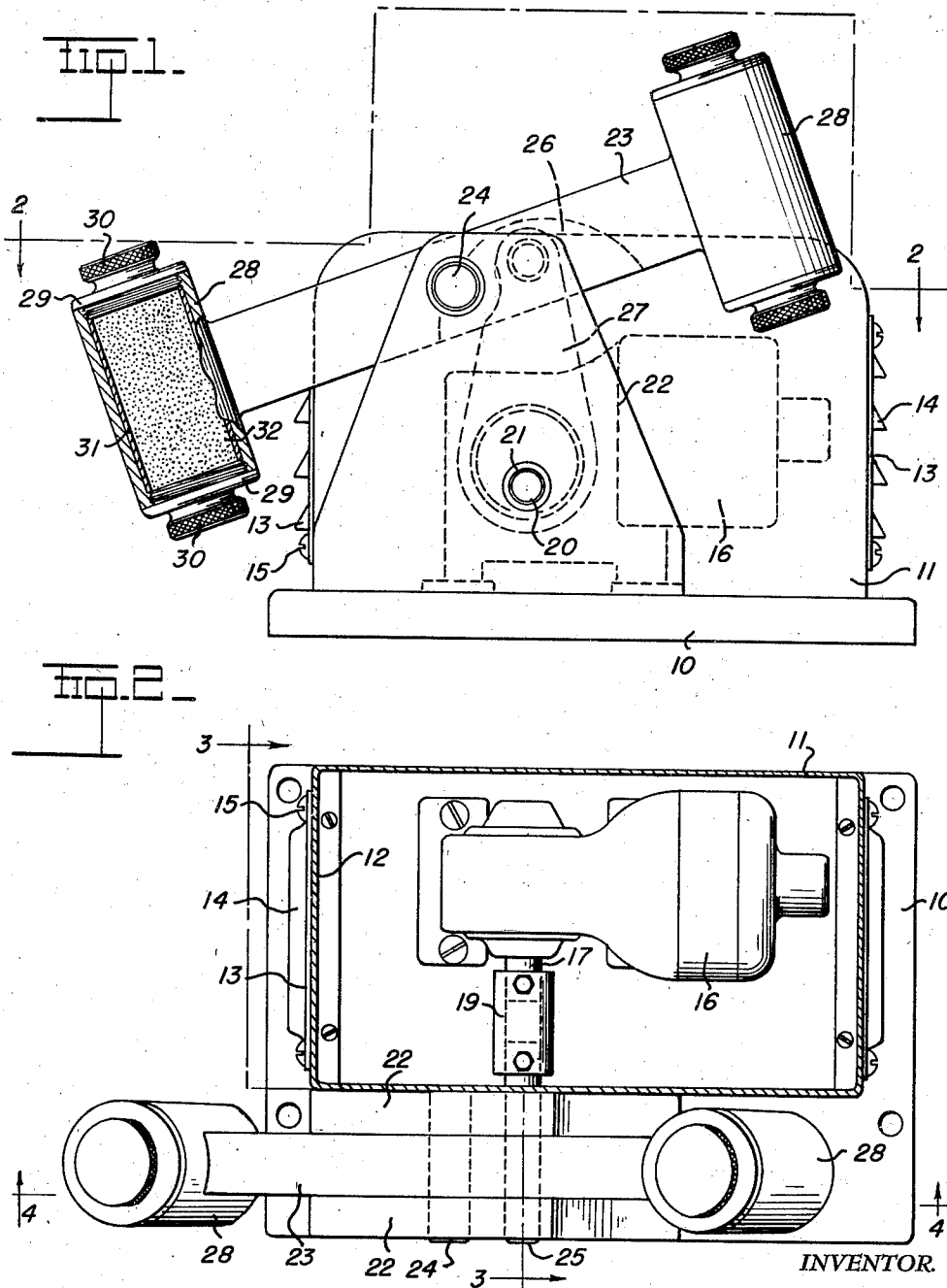
D. T. HAINES, SR

2,423,019

SHAKER FOR BURRING SMALL PARTS

Filed Oct. 8, 1945

2 Sheets-Sheet 1



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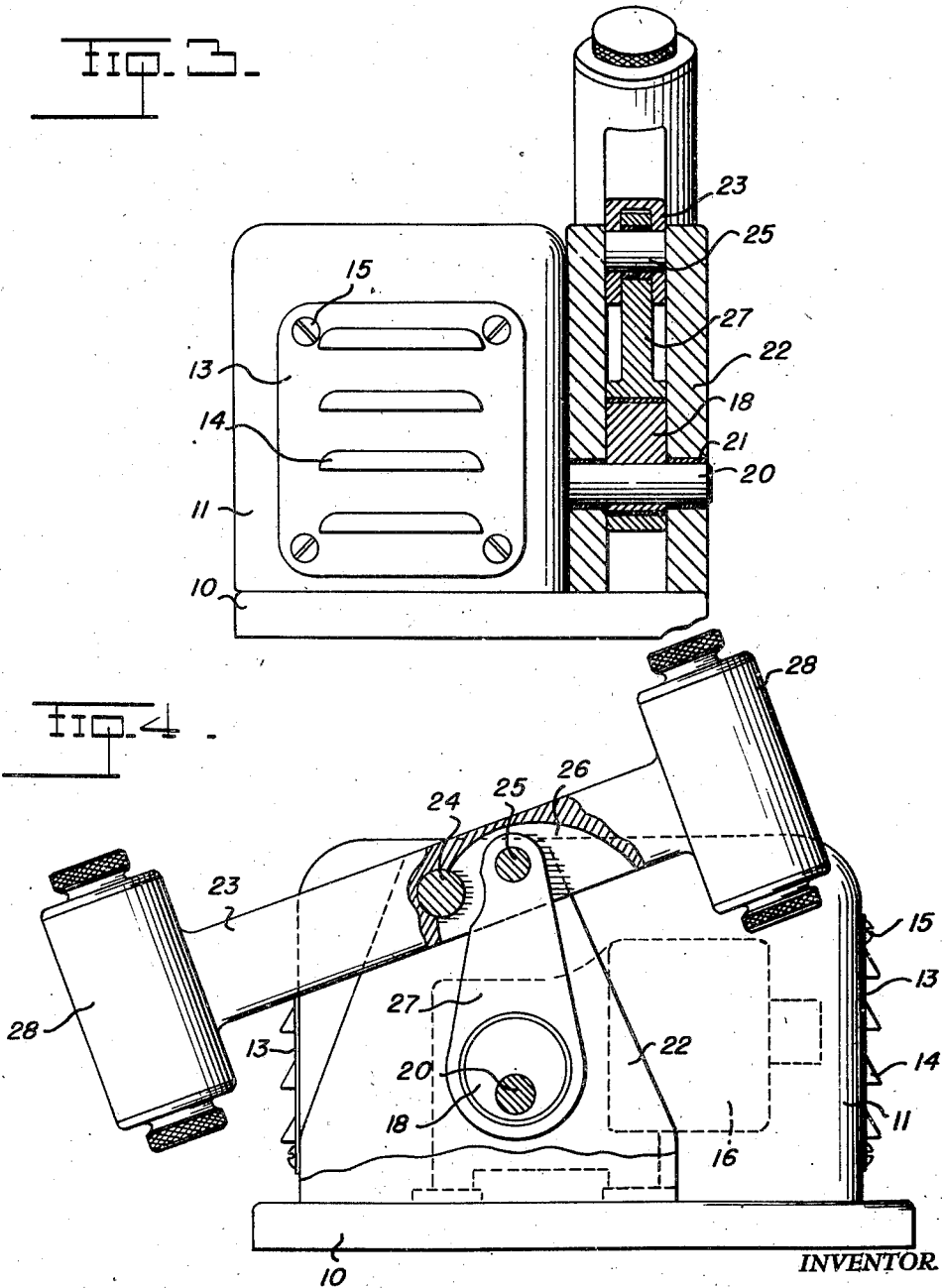
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UNITED STATES PATENT OFFICE

2,423,019

SHAKER FOR BURRING SMALL PARTS

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3 Claims. (Cl. 51-163)

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The invention relates to a burring machine, and more especially to a shaker apparatus for burring small parts.

The primary object of the invention is the provision of a machine or apparatus of this character, wherein small parts through a shaking action within containers thereof having abrasive substance in association therewith can be burred with dispatch and ease.

Another object of the invention is the provision of a machine or apparatus of this character, wherein the construction thereof is novel and unique, there being few parts, thus eliminating disorder and economical in repair work, the containers for the small parts being supported on a rocking beam, which is actuated from a motor having a speed reducer connected thereto, so that the burring operation is carried forth automatically with dispatch.

Another object of the invention is the provision of a machine or apparatus of this character, which is simple in construction, thoroughly reliable and efficient in operation, strong, durable, readily accessible, positive in the working thereof, and inexpensive to manufacture and install.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings, which show the preferred embodiment of the invention, and pointed out in the claims hereunto appended.

In the accompanying drawings:

Figure 1 is an elevation of the machine or apparatus constructed in accordance with the invention.

Figure 2 is a sectional view taken on the line 2-2 of Figure 1 looking in the direction of the arrows.

Figure 3 is a sectional view taken on the line 3-3 of Figure 2 looking in the direction of the arrows.

Figure 4 is a sectional view taken on the line 4-4 of Figure 2 looking in the direction of the arrows.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings in detail, the machine or apparatus constructed in accordance with the invention comprises a base panel 10 supporting an elongated housing 11, which at opposite ends 12 has removable ventilating cheeks 13, provided with louvers 14, the cheeks being

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detachable and secured in place by fasteners 15.

Within the housing 11 is an electric reduction motor 16, having a speed reducer connected thereto and its power shaft 17 driving an eccentric or cam 18, through the medium of a coupling 19, and the arbor 20 of this cam being journaled in suitable bearings 21, fitted within a pair of spaced upstanding or vertical supports 22, which rise parallel with each other from the base panel 10, with the eccentric or cam 18 turning therebetween in a vertical path of movement.

Above the eccentric or cam 18 and to one side of the same between the supports 22 is a rocking beam 23 which is vertically swingable on a cross pivot 24 fitting such supports, while pivoted at 25 within a clearance 26 in this beam 23 at its under side is an eccentric or cam yoke or strap 27 effecting a throw arm for the said beam 23, the strap or yoke embracing the said eccentric or cam 18 in the usual manner for displacement thereby.

On the outer ends of the beam 23 are cylindrical or barrel-like containers 28, each having removable opposite end caps 29, with external knurled knobs 30, while lining each of such containers 28 is an emery cloth 31, for abrasive action on the content 32 within each of such containers during shaking activity imparted thereto through the rocking motion of the beam powered from the motor 16, the coupling 19 being of an elastic type to effect shaking vibration to the containers when in operation. The supports 22 are next to the housing 11 to be located at one side thereof on the base panel 10, as best seen in Figures 2 and 3 of the drawing.

Small parts to be burred by the operation of the machine or apparatus are placed within the containers 28 by removing the upper caps 29, while such small parts are discharged from such containers by removal of the lowermost caps 29 thereto.

What is claimed is:

1. A machine of the kind described, comprising a vertically movable rocking beam, barrel-like containers at opposite ends of the beam and having abrasive linings thereto, said containers being internally threaded at each end thereof, screw threaded removable ends on the containers, knurled knobs on said ends for the removal thereof and power means for imparting rocking movement to the beam.

2. A machine of the kind described, comprising a vertically movable rocking beam, barrel-like containers at opposite ends of the beam and having abrasive linings thereto, said containers being internally threaded at each end thereof,

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screw threaded removable ends on the containers, knurled knobs on said ends for the removal thereof of power means for imparting rocking movement to the beam and an eccentric connection between the power means and beam.

3. A machine of the kind described, comprising a vertically movable rocking beam, barrel-like containers at opposite ends of the beam and having abrasive linings thereto, said containers being internally threaded at each end thereof, screw threaded removable ends on the containers, knurled knobs on said ends for the removal thereof of power means for imparting rocking movement to the beam, an eccentric connection be-

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tween the power means and beam and a motor having a speed reducer connected thereto included in the power means.

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The following references are of record in the file of this patent:

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