

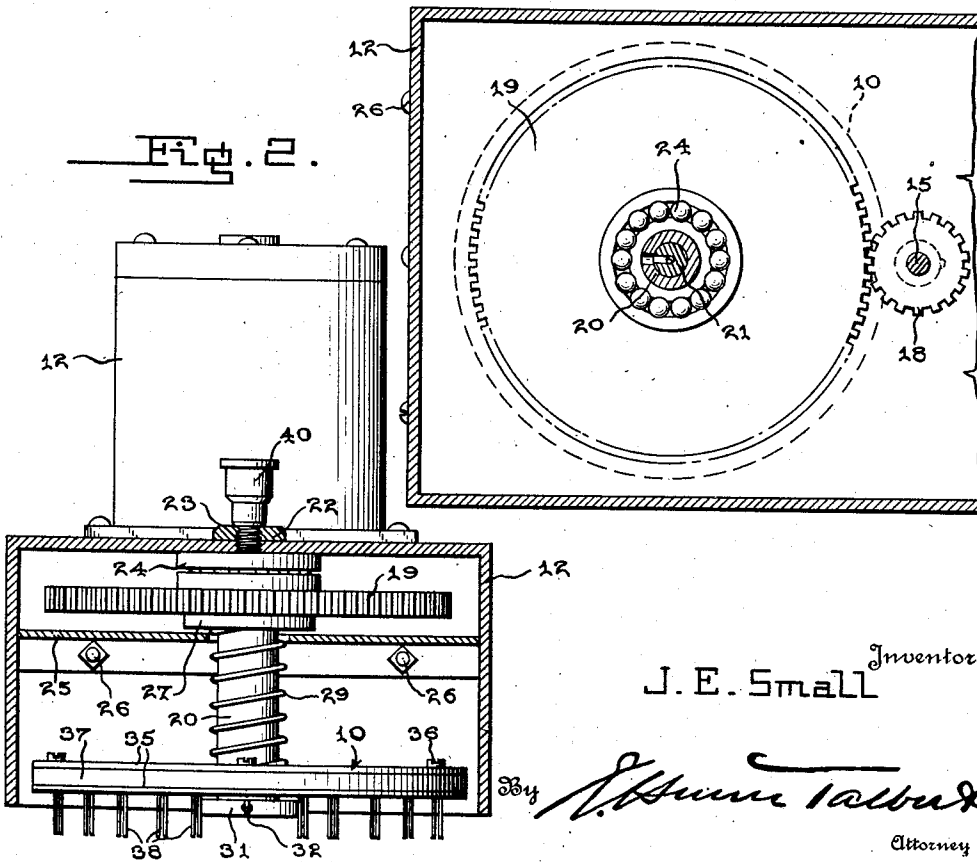
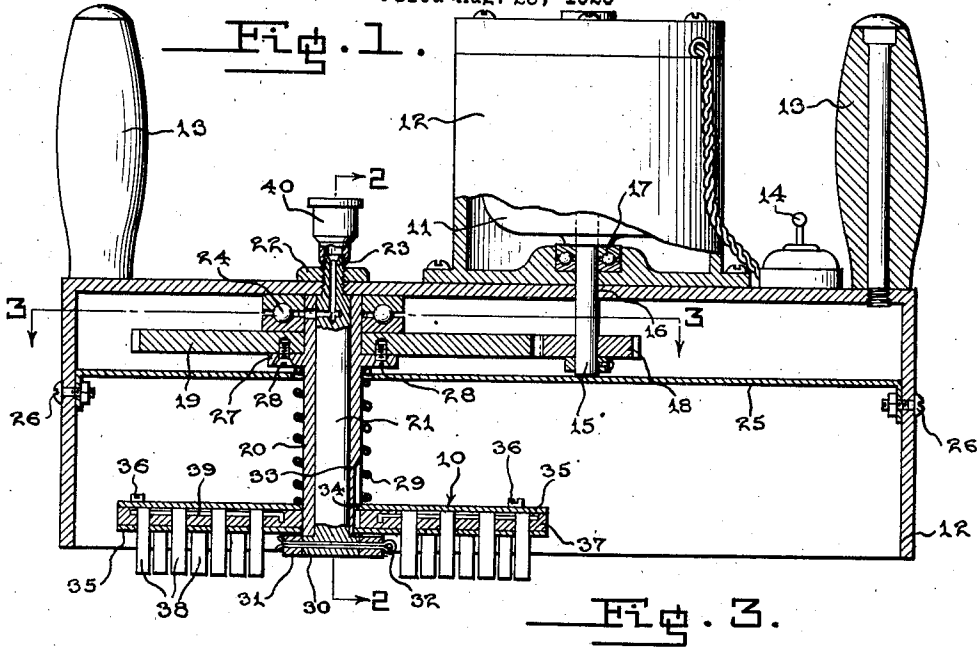
Aug. 30, 1927.

J. E. SMALL

1,641,103

MEAT BLOCK CLEANER

Filed Aug. 25, 1925



J. E. Small ^{Inventor}

J. Sumner Talbot
Attorney

UNITED STATES PATENT OFFICE.

JOHN E. SMALL, OF CONNELLSVILLE, PENNSYLVANIA.

MEAT-BLOCK CLEANER.

Application filed August 25, 1925. Serial No. 52,363.

The primary purpose of the invention is to provide a device particularly adapted for cleaning meat blocks and the like where the cleaning operation necessitates a firm, constant and uniform pressure on the surface to be cleaned; to provide a motor-actuated rotary brush positively driven to insure its movement at all times when yieldingly held against the surface in order that it may reach low and high places thereon alike; to provide a construction which may be readily handled by the operator; and to provide a device consisting of few parts and yet efficiently designed, in order that a serviceable product may be produced and marketed at small cost.

With this purpose in view, the invention consists in a construction and combination of parts of which a preferred embodiment is illustrated in the accompanying drawings, wherein:

Figure 1 is a central longitudinal sectional view of the invention.

Figure 2 is a transverse sectional view on the plane indicated by the line 2—2 of Figure 1.

Figure 3 is a horizontal sectional view on the plane indicated by the line 3—3 of Figure 1.

The brush or cleaner 10, which has a geared driving connection with the motor 11, is housed within a casing 12, the latter being preferably of rectangular form with an open bottom, the motor 11 being supported on the closed top and the handles 13 being mounted at the remote ends of the latter, so that the device as a whole may be manipulated by the two hands of the operator, of which one is in convenient reach of the motor control switch 14.

The motor is preferably of the vertical type with a drive shaft 15 disposed in depending position and passing through an opening 16 in the top of the casing, the armature of the motor being carried on the ball thrust 17 and the shaft below the casing top carrying the pinion 18. The pinion 18 meshes with a gear 19 connected with the brush spindle 20 at the upper end of the latter, the brush spindle being hollow or in the form of a sleeve and rotatably supported on a shaft 21 secured in the top of the casing by a nut 22 abutting the upper face of the top and engaging a reduced portion 23 which projects through the top.

A thrust ball bearing 24 is interposed between the gear 19 and the top of the casing. The gear 19 and pinion 18 are housed in a compartment of the casing defined by the top and side walls thereof and a division plate 25 secured in position in the casing as by bolts 26. The brush spindle 20 is flanged, as at 27, and the gear 19 rests upon this flange and is secured thereto by screws 28.

A compression spring 29 is interposed between the brush and the flange 27 and yieldingly forces the brush into engagement with the upper surface of the block. The brush spindle is maintained on the shaft by the head 30 at the lower end of the shaft constituting a shoulder abutting the lower end of the spindle and the brush which is mounted for movement axially of the shaft but precluded from relative angular movement thereon is limited in its downward movement by a collar 31 surrounding the head and retained in position thereon by a cotter pin 32.

The brush spindle is formed with a key-way 33 traversed by a feather 34 on the brush, this feather constituting tongues on the upper and lower disks 35 of the brush which are secured together by screws 36 serving also to hold the interposed filler block 37 in position. The bristles 38 of the brush are of steel fixed in a retainer plate 39 disposed against the upper plate 35 with the filler block bearing upon it and the lower plate 35 engaging the under face of the filler block.

Obviously, when the motor is in operation, rotary movement is imparted to the brush and as the casing is moved over the surface to be cleaned, the brush effects a scraping or cleaning action on the surface, following any undulations thereof as a result of being yieldingly impelled toward the surface by the spring 29.

Lubrication of the thrust bearing 24 and brush spindle is had through the medium of a lubricant cup 40 mounted at the upper end of the shaft 21.

The invention having been described, what is claimed as new and useful is:

A device for the purpose indicated comprising a casing having an open bottom, a motor mounted on the top of the casing, a division plate secured to and spanning the casing and spaced from the top wall thereof to define a compartment, a depending shaft secured to the top wall of the casing and ex-

tending through said division plate, a brush having a hollow spindle rotatably mounted on said shaft and extending through said division plate, the brush being keyed to the spindle to permit axial but preclude from angular movement relative thereto, a spring yieldingly impelling the brush in a direction away from said division plate, and gearing operatively connecting the motor with the brush spindle and housed in the compartment defined by said division plate. 10

In testimony whereof he affixes his signature.

JOHN E. SMALL.