March 17, 1925. 1,529,691

R. P. M. DAVIS

MOLD CLEANING DEVICE

Filed Oct. 4, 1922

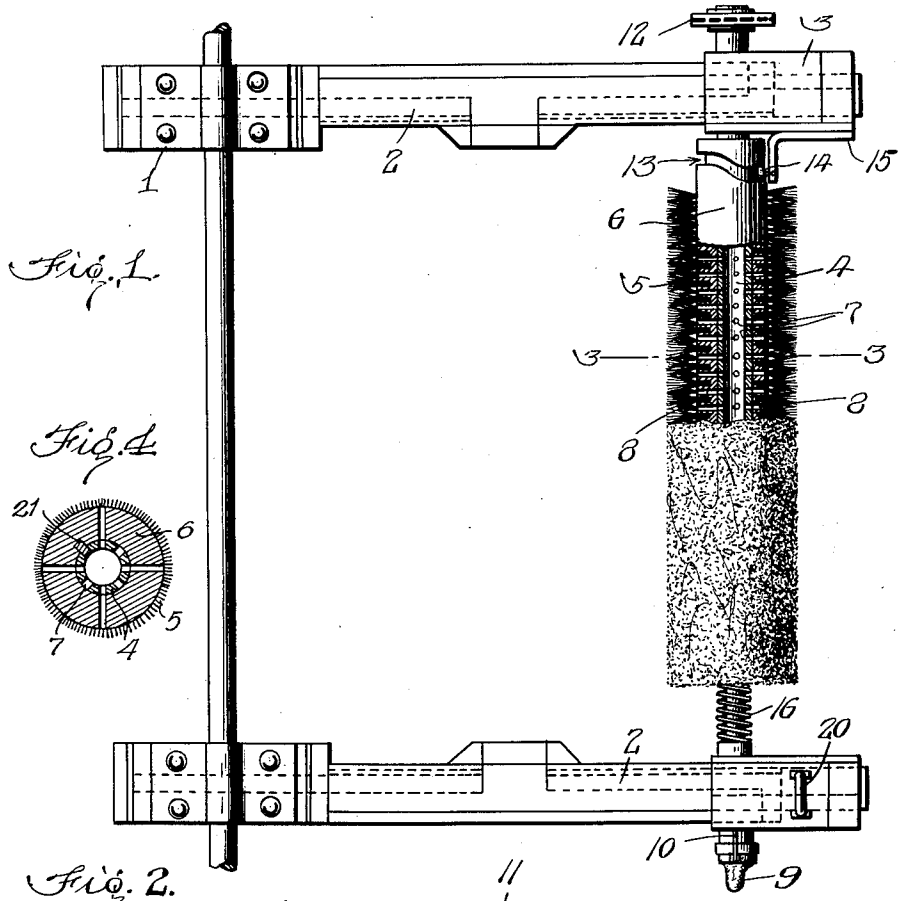


Fig. 1.

Fig. 4.

Fig. 2.

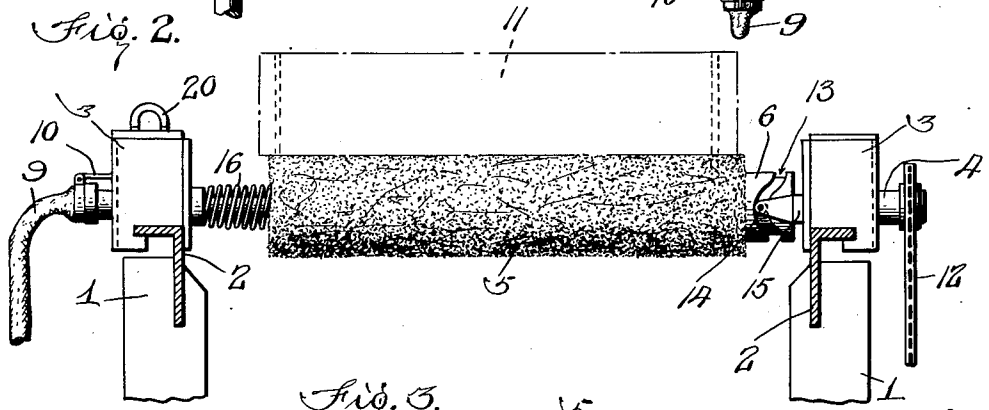
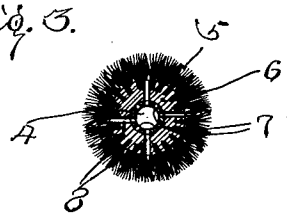


Fig. 3.



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UNITED STATES PATENT OFFICE

ROY P. M. DAVIS, OF MOUNT UNION, PENNSYLVANIA.

MOLD-CLEANING DEVICE.

Application filed October 4, 1922. Serial No. 592,225.

To all whom it may concern:

Be it known that ROY P. M. DAVIS, a citizen of the United States of America, residing at Mount Union, in the county of Huntingdon and State of Pennsylvania, has invented certain new and useful Improvements in Mold-Cleaning Devices, of which the following is a specification.

My invention relates to cleaning devices for molds and more particularly molds used in brick making machines.

In making brick, it frequently happens that considerable quantities of the mud or material from which the bricks are made will adhere to the bottom plate of the mold after the brick has been removed therefrom This adhering material interferes with the making of a perfect brick and it is the object of the present invention to obviate this objectionable condition.

In the accompanying drawings forming part of this specification:

Figure 1 is a plan view of the brush;

Figure 2 is an end view of the brush;

Figure 3 is a section on the line 3—3 of Figure 1, and

Figure 4 is a detail view showing the key connection between the sleeve and shaft.

Referring more particularly to the drawings wherein like reference numerals refer to corresponding parts throughout the several views, 1 denotes a base upon which are mounted tracks 2. Slidably mounted on the tracks 2, are bearing blocks 3, which support the ends of a hollow brush shaft 4.

The brush 5, is fixedly mounted on a perforated sleeve 6, keyed for sliding movement upon the hollow brush shaft 4, the perforations 7, in the shaft 4, being adapted to register at times with the perforations 8 in the sleeve 6, as will be more fully explained hereinafter. A flexible hose 9, is loosely connected to the end of the hollow shaft 4, and is held against turning movement with the shaft, by means of an arm 10, on the base 1. This hose is connected to any suitable source of steam or compressed air supply (not shown). Any suitable mechanical means (also not shown) is employed for moving the brush shaft and brush carried thereby to and fro upon the tracks 2, or if desired this may be done by hand. It will be understood that the mold 11, shown in outline in Figure 2, will be suitably positioned in inverted position above the brush shaft, and in the path of movement thereof. Rotary movement is imparted to the brush shaft and brush by means of a sprocket and chain drive 12, connected with any suitable source of power (not shown).

In addition to the rectilinear motion of the brush just described, the brush is given a vibratory motion in a direction parallel to the axis of the shaft on which it is mounted. The sliding sleeve 6 upon which each brush 5 is carried is formed at one end with a cam groove 13, in which seats a roller 14 on the end of a finger 15 attached to one of the brush bearing blocks previously described. As the brush is rapidly rotated by the sprocket and chain drive previously described the action of the roller 14 shifts the sleeve and consequently the brush very rapidly to and fro along its shaft, thus imparting a more or less vibratory movement to the brush, coil springs 16, on the opposite end of the brush shaft helping to hold the brush firmly and prevent chattering thereof.

In operation the mold having been filled with brick making material and the brick formed therein, the mold is inverted and the brick ejected therefrom. The rapidly rotating shifting brush is then moved along the tracks 2, as by means of a handle 20, and the steam or compressed air being turned on, a thorough cleaning of the mold is effected.

It will of course, be understood that certain of the perforations in the brush shaft, sleeve and brush come into and out of register intermittently. However there will be at all times sufficient of the perforations in register to produce a practically uninterrupted flow of cleaning fluid.

The use of the steam or air has proven very effective in actual practice, and where certain brick making material is employed in the mold the rotating and shifting of the brush may be entirely dispensed with.

Having thus described my invention what I claim is:

1. In an apparatus for cleaning brick molds, means for brushing the mold comprising a shaft, a sleeve keyed for sliding movement on said shaft, a brush fixed to said sleeve, means for moving said shaft across the face of the mold, means for rotating said shaft, means for reciprocating said sleeve on said shaft, and means for feeding a charge of cleaning fluid under pressure to said brush while the brush is in motion.

2. In an apparatus for cleaning brick molds, a pair of tracks, a shaft mounted for movement on said tracks across the mold, a sleeve keyed for slidable movement on said shaft having a cam groove therein, a brush on said sleeve, means for actuating the shaft to move it across the mold, means for rotating the shaft, a finger bodily movable with said shaft engaging in said cam groove to cause the sleeve and brush to reciprocate on said shaft as said shaft is rotated.

3. In an apparatus for cleaning brick molds, a rotating hollow brush, means for causing said brush to move across said mold, means for imparting a transverse movement to said brush with respect to the mold, and means for feeding a charge of cleaning fluid under pressure to said brush while said brush is in motion.

In testimony whereof I affix my signature in presence of two witnesses.

ROY P. M. DAVIS.

Witnesses:
T. L. ARCHEY,
W. L. WALLETT.