

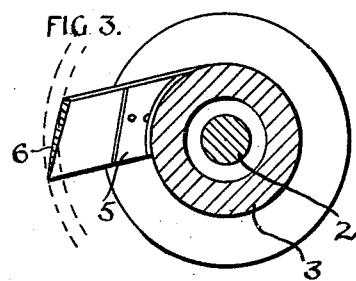
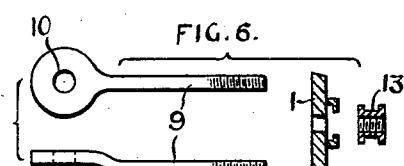
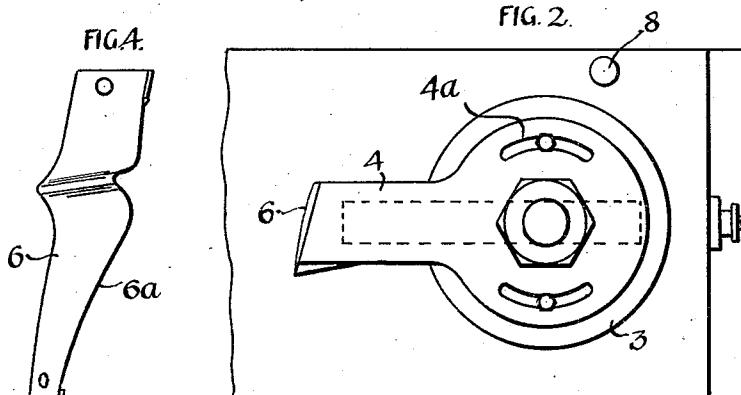
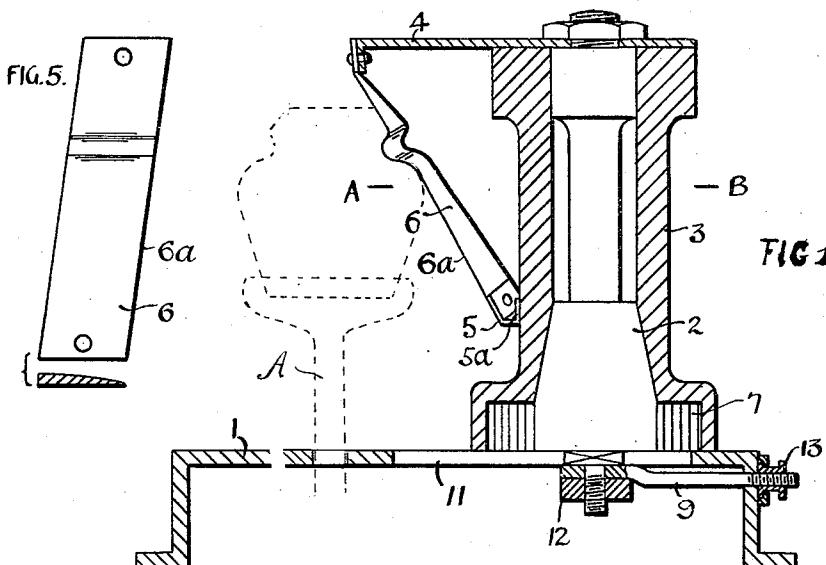
F. HANCOCK.

APPARATUS OR MACHINE FOR USE IN SHAPING ARTICLES OF POTTERY.

APPLICATION FILED MAR. 27, 1911.

1,069,130.

Patented Aug. 5, 1913.



Witnessed

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# UNITED STATES PATENT OFFICE.

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## APPARATUS OR MACHINE FOR USE IN SHAPING ARTICLES OF POTTERY.

1,069,130.

Specification of Letters Patent.

Patented Aug. 5, 1913.

Application filed March 27, 1911. Serial No. 617,231.

To all whom it may concern:

Be it known that I, FREDERICK HANCOCK, a subject of the King of Great Britain and Ireland, residing at Stoke-upon-Trent, England, have invented certain new and useful Improvements in Apparatus or Machines for Use in Shaping Articles of Pottery, of which the following is a specification.

My invention relates to the class of plastic block and earthenware apparatus, and has special reference to a novel and improved device to be used in connection with an apparatus for shaping the exterior of pottery and articles such as basins, jam jars, paste boxes, electrical insulators, and body portions of cups, mugs, tea pots, and similar articles during the course of their manufacture, and has for its object to expedite the manufacture of such articles and to reduce the cost of production thereof.

With the foregoing and other objects in view, the invention consists in the construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

Heretofore outline shaping of semi-plastic articles was mainly accomplished on the potter's horizontal lathe by the use of freehand tools.

The invention is described with reference to these accompanying drawings which serve to illustrate my invention:—

Figure 1 is a sectional elevation of my improved device, the cutting blade being shown in full, a jam jar being supported on the spindle of a potter's lathe, shown in dotted lines. Fig. 2 is a plan view of the device. Fig. 3 is a sectional plan on line A—B of Fig. 1, excluding the box base or table. Fig. 4 is a detail perspective view of the blade. Fig. 5 illustrates a front view and a cross section of the blade. Fig. 6 shows some of the parts separately.

Upon a table 1, through which passes a spindle A, to a lathe or jigger, is a vertical capstan-like tool, or device, which comprises a pillar 2, on which a sleeve 3 is rotatably fitted. The sleeve 3 is provided with adjustable radial arms 4 and 5 at its top and base respectively, the arm 4 being circumferentially adjustable by means of the bolts 4 in the slots 4<sup>a</sup>. These arms 4 and 5 carry an oblique metal profile blade 6 having a cutting edge at 6<sup>a</sup>. The arm 5 is circumferentially adjustable by means of a rivet which passes from the sleeve 3, through the

horizontal slot in the member 5<sup>a</sup> of the arm 5. This blade 6 is raked or paracentrically arranged with respect to its circuit of rotation in such a manner that in any horizontal section the cutting edge is farther from the axis of rotation than the back edge as shown in Fig. 3. The blade 6 is also arranged with its knife edge at an angle to the vertical as shown in Fig. 5 so that only a part of the edge is cutting at any time. A coil tension spring 7 is disposed between the sleeve 3 and the table, one end of the spring being connected to the sleeve 3 and the other end to the said pillar 2. The tension spring 7 is adapted to yield to the rotary action of the sleeve 3 when the tool is drawn to the work and to withdraw the tool from the work when the handle 4' is released, the action of the spring operating to bring the tool back to its initial position.

In practice the side cutting tool 6 is gradually brought into contact with the clay material, by means of the upper radial arm 4, which is used as a handle. The upper radial arm 4 and the tool leaves the clay at the point where a diametrical line crosses the spindle, if extended would pass through the center of the rotating tool. The tool has suitable rake and therefore its rear portion clears the working surfaces, only the front edge thereof entering the clay so that when the tool is withdrawn it does not engage the clay articles.

In order to retain the cutting blade at a suitable starting point, a stop lug 8 is secured to the upper side of the table 1 the back of the blade 6 contacting the stop lug 8 which limits the movement of the sleeve 3. A screw bolt 9, having an eye 10, engages with the lower end of the pillar 2, which has a prismatic lug 2' passing through a slot 11 in the box 1 and is secured by a nut 12 the said bolt passing lateral through the box 1 and having a thumb nut 13 on the screw threaded projecting end. By slackening the nut 12 and turning the thumb nut 13 the bolt 9 is advanced or retracted and so causes the pillar 2 and consequently the tool 6 to move forward or backward from, the clay article under treatment, and after proper adjustment the nut 12 is tightened on the bolt. Or the bolt 9 may turn in a threaded part in the box 1 and be swivelly connected with the eye 10 of the bolt 9. By turning the bolt, the tool is moved forward or backward. Or the bolt

may engage with a projection on the sleeve in order to effect the movement as will be understood.

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

1. In a potter's tool, a table having a slot therein, a pillar having a lug extending through the slot and movable therein, a sleeve rotatable on the pillar, said sleeve having an annular aperture in its base, a coil spring in the aperture and having its ends secured respectively to the sleeve, and to the pillar, a blade secured to the sleeve and adapted to be brought into engagement with plastic material for coacting with a lathe spindle for shaping the exterior of said material, and means for rotating the sleeve against the action of the spring for bringing the plate into working relation.
2. In a device for coacting with a potter's lathe for shaping the exterior of plastic material, a table, a rotatable blade carrying device horizontally adjustable on the table, means for effecting horizontal adjustment of the device and resilient means for bringing the tool out of working relation with the plastic material.
3. In a potter's lathe tool comprising a vertically disposed pillar, means for supporting the pillar in operative relation to a potter's lathe, a sleeve rotatable on the pillar, a horizontally disposed arm pivoted on the top of the arm of the pillar, said arm having arcuate slots therein, means passing through the said slots and engaging the sleeve for securing the arm in adjusted relation to the sleeve, a tool having an end secured to the arm, and having its other end secured to the sleeve, and means for moving the tool into cooperative relation with the lathe spindle for the purpose specified.
4. A potter's lathe tool comprising a table having a slot therein, a vertical pillar having a lug extending through the slot, and means for adjusting the position of the lug in the slot, a sleeve on said pillar having an enlarged base portion having an annular aperture therein, a coil spring in the aper-

ture and having its ends engaged respectively with the pillar and sleeve, an arm pivotally adjustable on the top of the pillar, means for securing the arm in adjusted relation with the sleeve, and a blade having an end secured to the arm and having its other end adjustably secured to the sleeve. 50 55

5. In apparatus for shaping articles of pottery, a table, a pillar supported by the table, a rotatable sleeve surrounding the pillar, a cutting blade supported by the rotatable sleeve, and means for adjusting the tool to its work.

6. In apparatus for shaping pottery, a table having a slot, a pillar supported by the table, said pillar having a screw threaded portion extending through said slot, a rotatable sleeve surrounding said pillar, a cutting blade supported by the sleeve and adapted to rotate therewith, a screw threaded bolt secured to the screw threaded portion of the pillar, and one end of said bolt extending through an opening in the side of said table, a thumb piece on the end of said bolt which upon being turned advances or retracts the tool to or from its work. 75

7. In apparatus for shaping articles of pottery, a work support, a pillar, a rotatable sleeve surrounding the pillar, an arm secured to the upper end of said sleeve, a cutter blade supported by the sleeve and the arm the cutting blade being set askew while the blade is in operation, and means for rotating said sleeve.

8. In apparatus for shaping articles of pottery, a work support, a rotatable sleeve, 85 a cutting blade adapted to operate with the sleeve, said blade comprising an arm having a knife edge adjacent one end thereof, and means for supporting the arm askew with respect to its circuit of rotation.

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

FREDERICK HANCOCK.

Witnesses:

GEORGE T. MILLARD,  
CYRIL T. CLARKE.