(No Model.)

A. LOWRY.

POTTERY MACHINE FOR FORMING OVAL WARE.

No. 519,610. Patented May 8, 1894.

Fig. 1

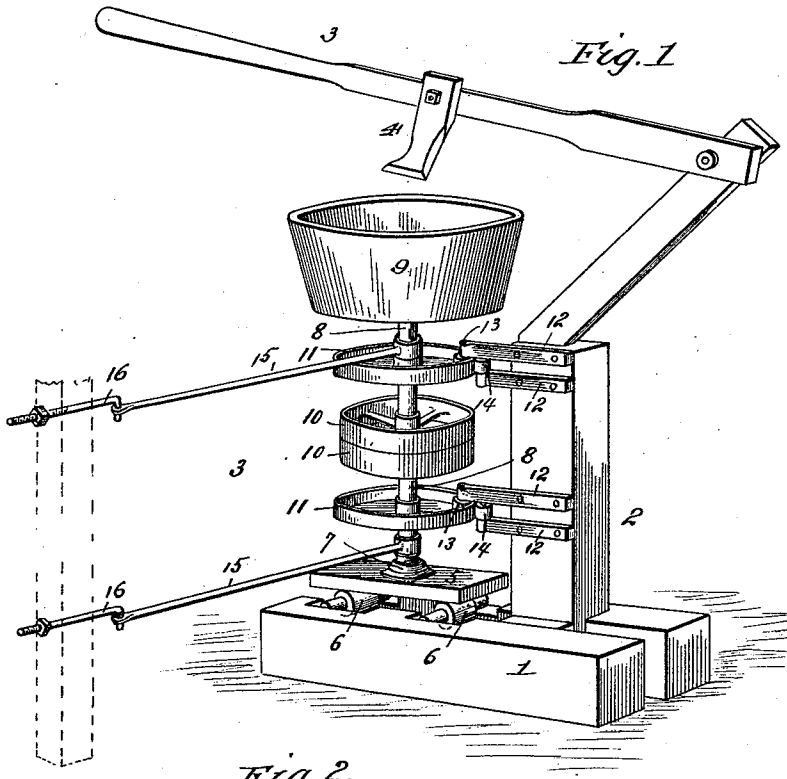


Fig. 2.

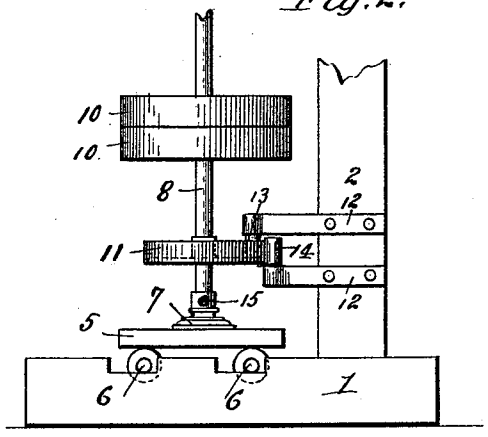
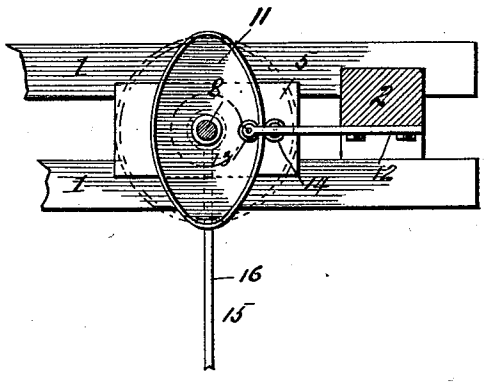


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

AUSTIN LOWRY, OF ROSEVILLE, OHIO, ASSIGNOR OF TWO-THIRDS TO JOHN H. BEEM AND GEORGE LOWRY, OF SAME PLACE.

POTTERY-MACHINE FOR FORMING OVAL WARE.

SPECIFICATION forming part of Letters Patent No. 519,610, dated May 8, 1894.

Application filed January 5, 1894. Serial No. 495,833. (No model.)

To all whom it may concern:

Be it known that I, AUSTIN LOWRY, a citizen of the United States, residing at Roseville, in the county of Muskingum and State of Ohio, have invented certain new and useful Improvements in Pottery-Machines for Forming Oval Ware, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 designates a perspective view of the improved machine; Fig. 2 a side elevation of a portion thereof; and Fig. 3 a horizontal section taken on the line 3, 3 of Fig. 1.

This invention relates to that class of pottery machines designed to form oval and other non-circular ware, the special object of the invention being to adapt the simple machines now in common use in forming circular ware for the forming of non-circular vessels, as more fully hereinafter appears.

Referring to the drawings, the numeral 1 designates a suitable base, 2 a standard mounted thereon, 3 a vertically swinging lever pivoted on the standard and carrying a suitable forming-tool 4. A plate 5 is supported upon two rollers 6 journaled movably in recesses in the base, and stepped in a socket 7 on plate 5 is a vertical shaft 8, which carries at its upper end the usual mold-holder 9 and about midway its length the usual tight and loose pulleys 10. The shaft may be driven by means of manual or other power, the driving belt working on the pulleys 10. Secured on the vertical shaft are two cams 11, one being located above the pulleys and the other below the same and each being provided with a vertical flange extending entirely around its edge on its upper side. These cams are shaped alike and are set directly in line with each other on the shaft; they are shown as being elliptical, but of course they may be otherwise shaped, according to the contour of the crock desired. Secured stationarily on the standard 2 are two pairs of arms 12, one pair being located adjacent to each cam. The upper member of each pair is longer than the lower member thereof and extends over or beyond the flange on the adjacent cam, while the lower member of each pair of arms terminates short of the adjacent cam. Secured on the end of each of the upper arms is a roller 13 which extends downward and bears upon the inner side of the flange of the adjacent cam, and journaled on each of the shorter arms is a vertical roller 14 which bears upon the adjacent cam. These rollers 13 and 14 may have their bearing surfaces covered with hard rubber or other suitable cushioning material.

To assist in supporting the shaft 8 in a vertical position and at the same time permit it to move horizontally a limited distance, horizontal rods 15 are connected to said shaft near its upper and lower ends, the outer ends of said rods are pivotally connected to a suitable post by means of adjustable bolts 16. The inner ends of rods 15 carry collars which loosely embrace shaft 8, thereby permitting the latter to revolve freely. It will be observed that as the shaft 8 is revolved, the flanged oval cams working against the stationary rollers will cause said shaft 8 to move bodily in a horizontal direction without throwing it out of a true vertical position. As the shaft shifts back and forth it carries with it the plate 5 supported on the rollers and also the head 9 carried at its upper end. While the shaft is thus rotating and also moving bodily horizontally, the operator manipulates the tool 4 vertically to form the crock in the usual manner. It is understood of course that the usual removable mold is carried by the head 9 to give the exterior contour to the crock, the interior shape being imparted to the crock by means of the tool. In this manner the crock will have imparted to it a shape corresponding in horizontal section to the non-circular shape of the cams. When the crock is formed, the mold containing it is removed from the head and another mold is inserted in the usual manner. It will be seen that the interior of the molds themselves may be shaped by means of this machine, thereby insuring a uniformly-shaped article. It will also be seen that the cams may be varied in shape according to the shape of the articles desired.

Having thus fully described my invention, what I claim is—

1. In a pottery machine the combination of a base and a standard thereon, a bodily movable shaft supported adjacent to said standard, means for bodily moving said shaft dur-

ing its rotation, horizontally swinging arms connected to said shaft and adapted to be connected to a stationary post, and a forming tool, substantially as described.

2. In a pottery machine, the combination of a base and a standard thereon, lateral arms on the standard carrying rollers, a vertical shaft and a movable plate supporting said shaft, a mold holder carried by the shaft, flanged non-circular cams carried by said shaft, said cams having their flanges working between said rollers, substantially as described.

3. In a pottery machine, a base supporting the standard, a plate and roller supporting the same on the base a vertical shaft stepped on said plate and carrying a mold head, means for driving the shaft, horizontally swinging arms supporting the shaft and adapted to be connected to an adjacent stationary part, oval shaped cams secured on the vertical shaft and flanged, rollers engaging the flanges on the cams and journaled on stationary arms carried by the standard, and a movable forming tool, substantially as described.

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

AUSTIN LOWRY.

Witnesses:
JOHN A. WILLIAMS,
JOHN W. WILLIAMS.