

(No Model.)

2 Sheets—Sheet 1.

W. E. BASSETT.
MACHINE FOR SHAPING CIGAR MOLDS.

No. 568,290.

Patented Sept. 22, 1896.

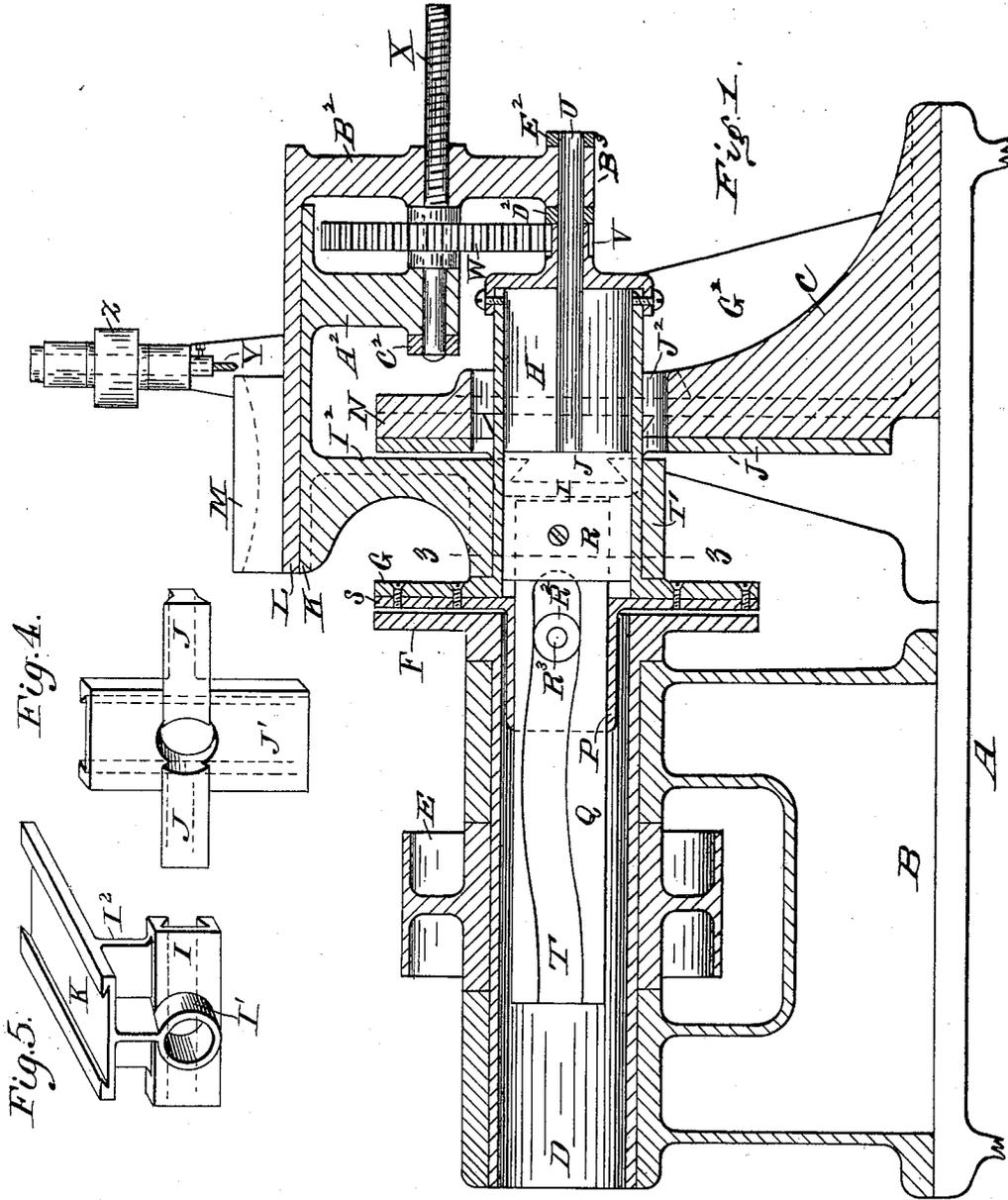


Fig. 4.

Fig. 5.

Witnesses:

John E. Fitzpatrick
H. Smith

Inventor.

Walter E. Bassett

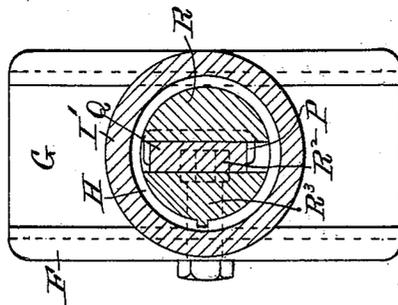
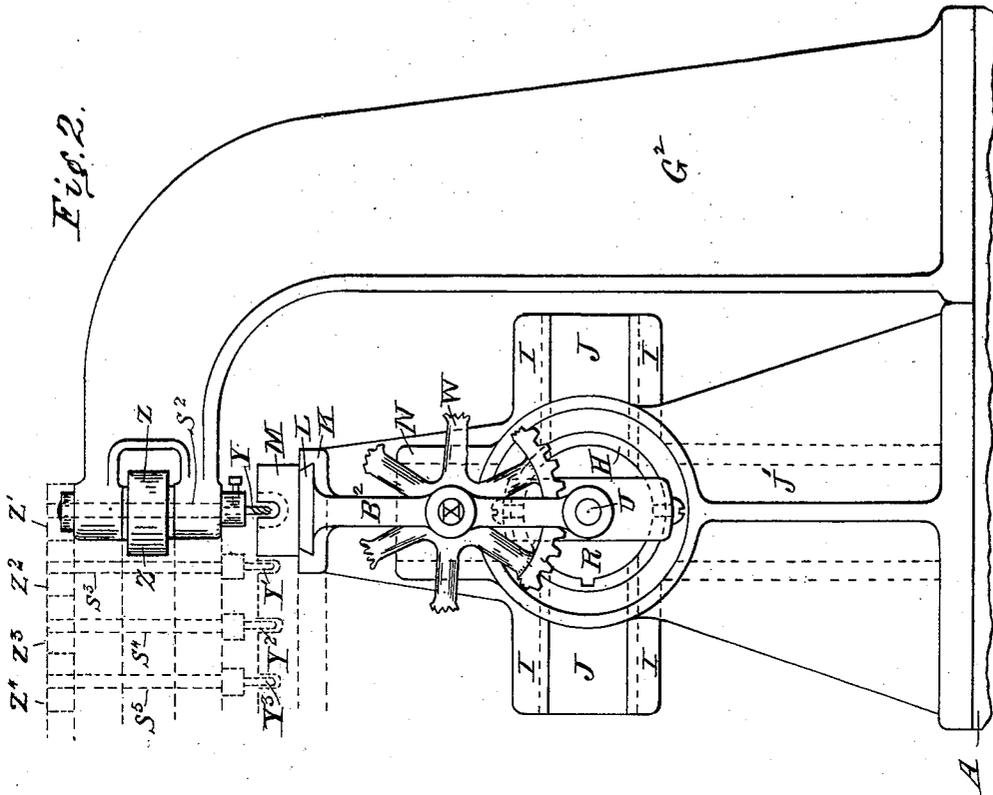
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UNITED STATES PATENT OFFICE.

WALTER E. BASSETT, OF NORWOOD, OHIO.

MACHINE FOR SHAPING CIGAR-MOLDS.

SPECIFICATION forming part of Letters Patent No. 568,290, dated September 22, 1896.

Application filed September 26, 1895. Serial No. 563,689. (No model.)

To all whom it may concern:

Be it known that I, WALTER E. BASSETT, a citizen of the United States, and a resident of the village of Norwood, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Machines for Shaping Cigar-Molds, of which the following is a specification.

The several features of my invention and the various advantages resulting from their use conjointly or otherwise will be apparent from the following description and claims.

In the accompanying drawings, making part of this application, and in which similar letters of reference indicate corresponding parts, Figure 1 represents a view of a machine embodying my invention. In this view most of the mechanism is shown as of a central vertical longitudinal section of the machine, and the remaining parts are shown in elevation. Fig. 2 represents an elevation of that end of the machine which faces toward the right in Fig. 1. Fig. 3 is a section taken in the plane of the line 3 3 of Fig. 1. Fig. 4 is a view in perspective of the slide J' and slideway J. Fig. 5 is a view in perspective of the slideway K, slide I, inner connection I², and part or sleeve I', surrounding the wrist-pin.

In construction the machine is provided with a suitable base A. To this base is secured the housing B, stand C, and housing G².

Journalled in the housing B is a hollow shaft D, whose right-hand end carries a slideway F, rigidly attached thereto. A slide G interfits this slideway F and carries a hollow wrist-pin H. In connection with the latter is mechanism for supporting the block M to be shaped into a cigar or other mold, and this mechanism has a capacity for vertical and horizontal reciprocal movement at right angles to the axes of the wrist-pin H and of shaft D and of reciprocal motion in lines parallel to these axes. This frame and its connections are substantially as follows: A piece I' surrounds or is fitted on the wrist-pin H, as shown, and rigidly connected to slide I. Rigidly secured to slide I is the part I², in turn carrying a slideway K, holding and guiding the movement of a slide L, allowing a reciprocal movement in the planes parallel to the axis of shaft D. The slide L supports the block M, and the latter is temporarily fastened thereto while and until it is duly shaped. The slide I allows horizontal movement of the

block-supporting mechanism at right angles to the length of the wrist-pin, and the means for conferring a capacity for a cross-vertical movement to said block-supporting mechanism consist of the slideway N, rigidly secured to stand C, and a slide J', sliding therein and attached to slideway J² at right angles thereto. The power whereby the machine is operated is of any suitable description and is applied so as to rotate the shaft D. In the illustrative drawings a pulley E, fixed to and around shaft D, is shown. A belt from the source of power turns this pulley. Next to this power the primary means whereby the mechanism is operated are two—first, the shaft U, and, secondly, the pattern. First, as to the pattern: A plate S is secured to the slide G, and this plate S has a guide P, in which latter moves a plate Q, having in one face a groove T. This plate Q is secured at one (right-hand) end to a plug R, fitted in the wrist-pin H. A roller R² is supported on the end of a pin R³, located and fixed in the slideway end of shaft D. Secured to the said plug R is the shaft U, having at one end the collars D² and E². Between these collars the shaft U rotates in a boss or journal B³ on the end of bracket B² of slide L, aforementioned.

Gearing into a pinion-wheel V, secured to the end of wrist-pin H, is a gear-wheel W, keyed to shaft X. This shaft X is journalled at one end in bracket A² on slideway K and held in place therein by aid of a collar C², the other end of this shaft being threaded and fitted in a nut fixed in bracket B².

The cutter for operating directly on the block M is fastened in a mandrel supported by housing G² and is rotated by pulley Z.

The operation of the aforescribed mechanism is substantially as follows: Having secured the block M to the slide L, rotary motion is transmitted to shaft D by means of a pulley E or other suitable means. This causes wrist-pin H to rotate and with it pinion V, shaft U, plug R, and plate Q. The rotation of pinion V will rotate gear-wheel W, which will turn shaft X, causing housing B² to move and carrying shaft U, plug R, and plate Q, slide L, and blocks M in a line parallel with the axis of shaft X, thus causing the cutter Y to travel the length of the mold or cup to be cut. Simultaneous with this rectilinear motion we have a movement of the slide G, caused by the action of roller R² in groove T

of the plate Q, which carries wrist-pin H to or from alinement with shaft D, thus causing more or less of a crank movement. This motion being conveyed horizontally to slide I and vertically to slide J', carrying with it slideway J², will give a complete rotary motion to block M, this motion being such that any and every point in the said block will describe a circle of the same diameter described by the center of the wrist-pin H. These diameters being caused to vary in regular form, as in a cigar, by the pattern T, which is the exact contour of one side of the cigar to be molded, it follows that the cutter Y, rotating at right angle to the face of block M and entering below said face the proper depth, will cut a similar semicircular cavity in said block, such as are used on the lids of cigar-molds. For cutting deeper than a semicircle the cutter enters deeper, and the cavity formed would have vertical sides and a semicircular bottom. This cavity is used in the bottom part of a cigar-mold.

The pattern-plate Q can be changed to suit any desired shape and any number of cavities cut at the same time, it being necessary only to add more cutters, it being the intention to make a mold of twenty cavities in one operation.

A preferred mode of employing the additional cutters with block is indicated by dotted lines in Fig. 2, where, in addition to spindle S², are shown additional spindles S³, S⁴, and S⁵, each of the said spindles being respectively provided with its cutters Y' Y² Y³ and with gear-wheels Z², Z³, and Z⁴, the spindles being duly mounted substantially as indicated and in like manner as spindle S². The gear Z¹ being fixed to spindle S² and meshing with gear Z², the latter in turn meshing with gear Z³ and the latter in turn meshing with gear Z⁴, enables the positive rotation of the spindle S², substantially as already described, to operate the other spindle and consequently their respective cutters.

Among the numerous advantages resulting from the use of my invention may be mentioned the following: first, the obtaining of a variable crank movement by a novel and simple method and by reduced, cheap, and durable mechanism; secondly, the obtaining a rotary (so to speak) motion of the block and of its support, whereby it is possible to cut any number of cavities at the same time and of the same shape and size.

It will be understood that the gage or pattern can be worked in the same plane with the wrist-pin slide, at right angles to the line of its movement. The construction shown simplifies the mechanism for moving same.

What I claim as new and of my invention, and desire to secure by Letters Patent, is—

1. The rotatable hollow shaft, containing pattern T, and having end slide F, G, and wrist-pin H connected to the other end of the complementary portion of said slide, and also to a cross-slide I, and a vertical slide J', I², car-

rying a slideway K, having a slide L, and a transverse slide I, J, in part connected to said wrist, and a cutter Y, the stationary portions of slides I, J and J', N being connected to the stationary bed or base, substantially as and for the purposes specified.

2. The rotatable hollow shaft, containing pattern T, and having end slide F, G, and wrist-pin H, connected to the other end of the complementary portion of said slide, and also to a cross-slide I, and a vertical slide J', I², carrying a slideway K, having a slide L, and a transverse slide I, J, in part connected to said wrist, and a cutter Y, the stationary portions of slides I, J and J', N being connected to the stationary bed or base, and means for simultaneously imparting to the block to be shaped a movement parallel to the axis of the shaft D, substantially as and for the purposes specified.

3. The rotatable hollow shaft, containing pattern T, and having end slide F, G, and wrist-pin H, connected to the other end of the complementary portion of said slide, and also to a cross-slide I, and a vertical slide J', I², carrying a slideway K, having a slide L, and a transverse slide I, J, in part connected to said wrist, and a cutter Y, the stationary portions of slides I, J and J', N being connected to the stationary bed or base, and the shaft U connected to the pattern, and bracket B² of slide L, receiving shaft U, and pinion V, shaft X, journaled in bracket A², B², and having screw-thread engaging nut in bracket B², and gear-wheel W for rotating shaft X, substantially as and for the purposes specified.

4. In a machine for cutting molds, the combination of shaft D and pattern slidable within, and roller R² of shaft D operating on the pattern, and shaft U connected to the pattern and to a frame carrying the block to be shaped, and capable of reciprocation on the supporting-frame, and means substantially as described whereby rotation of shafts D and U operate to move the block longitudinally, and means for enabling the pattern and roller to impart vertical and horizontal movements to the block, substantially as and for the purposes specified.

5. The combination of an automatically variable crank with two rectilinear slides whose lines of movement are not parallel but in planes at right angle to the axis of the crank, and at an angle to each other, substantially as and for the purposes specified.

6. A shaft and wrist-pin, connected together by means of a slide, in combination with an automatically adjusting gage or pattern for the purpose of moving said wrist-pin to and from alinement with shaft, substantially as described.

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Attest:

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K. SMITH.