

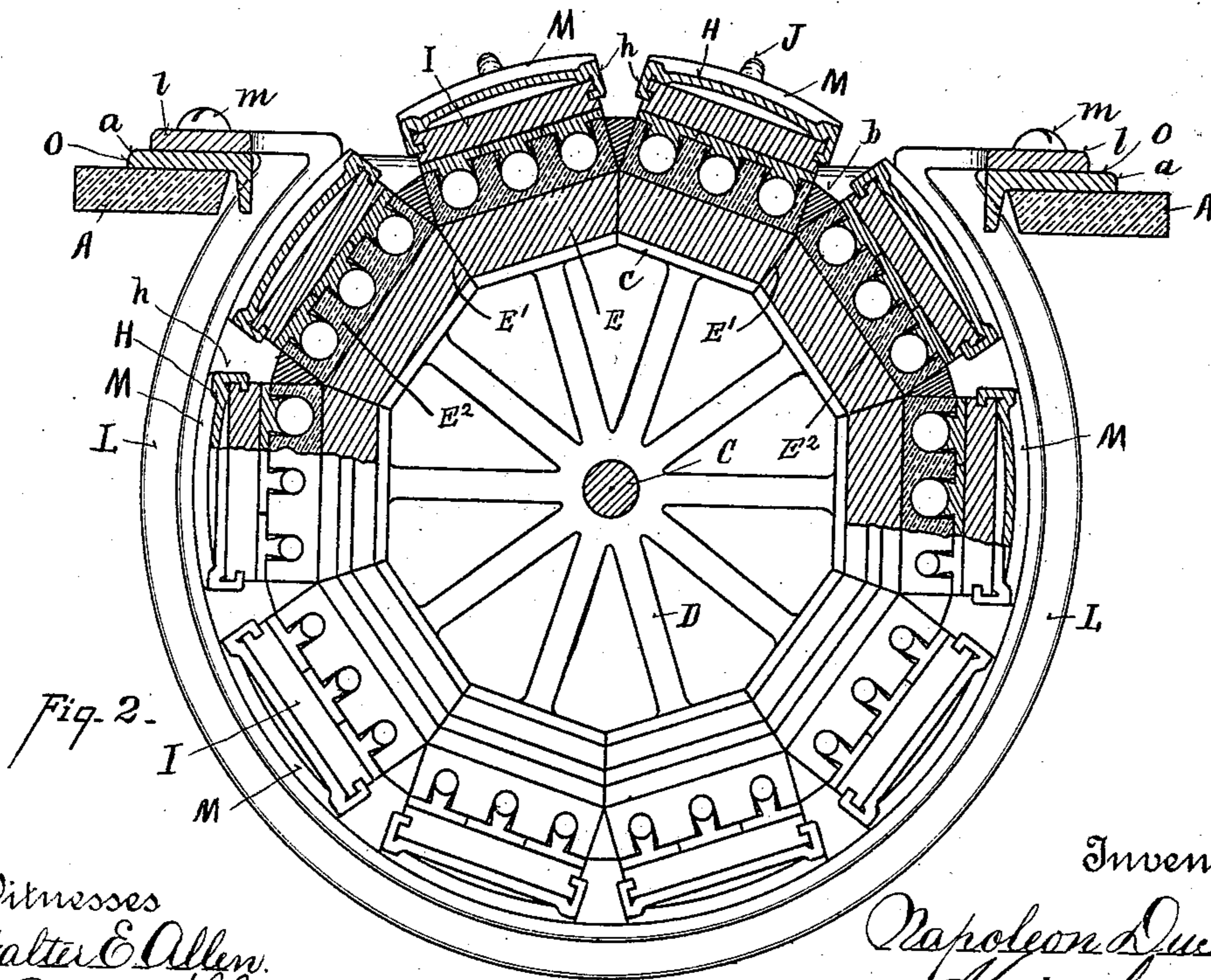
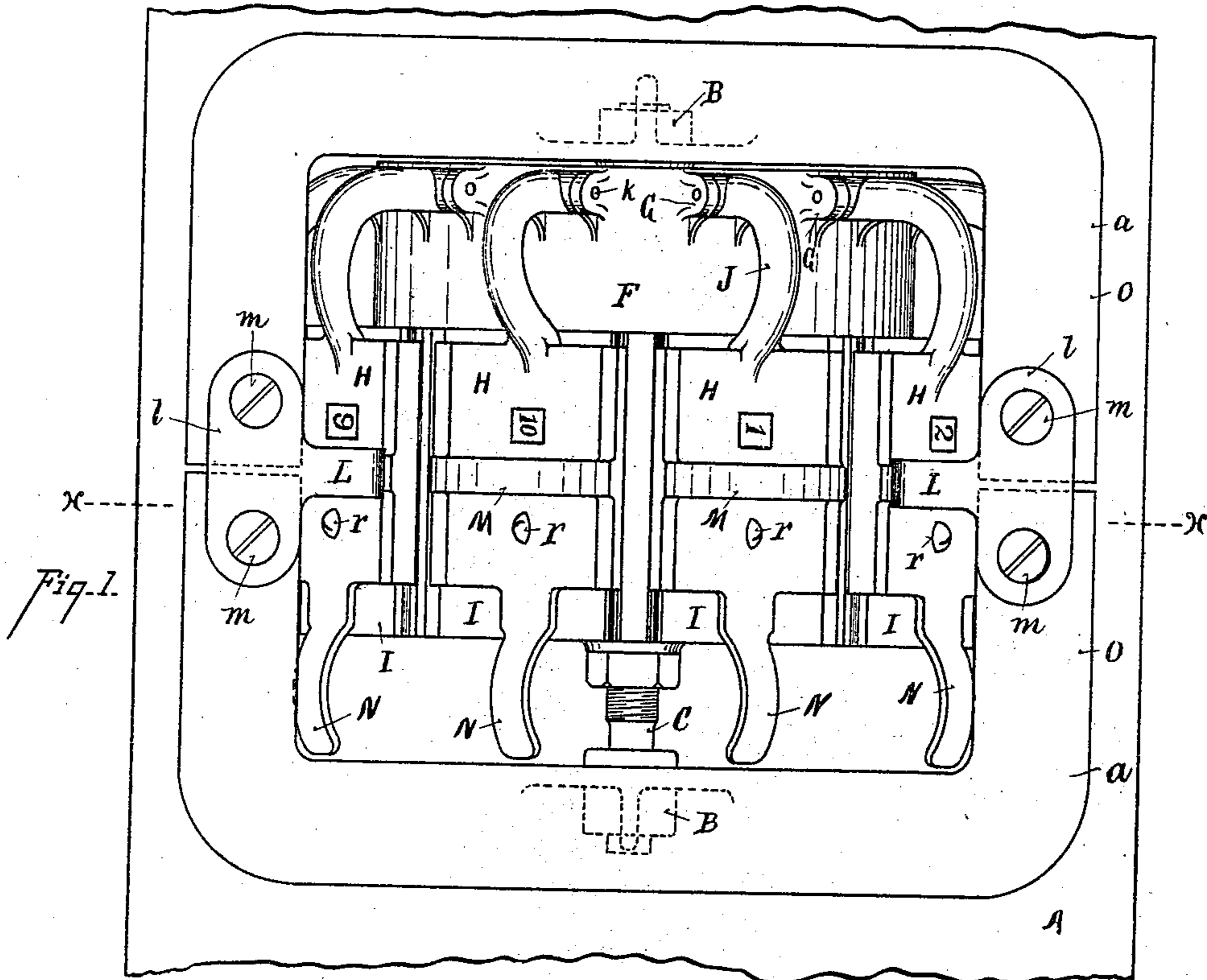
(No Model.)

2 Sheets—Sheet 1.

N. DU BRUL.  
CIGAR MOLD.

No. 552,317.

Patented Dec. 31, 1895.



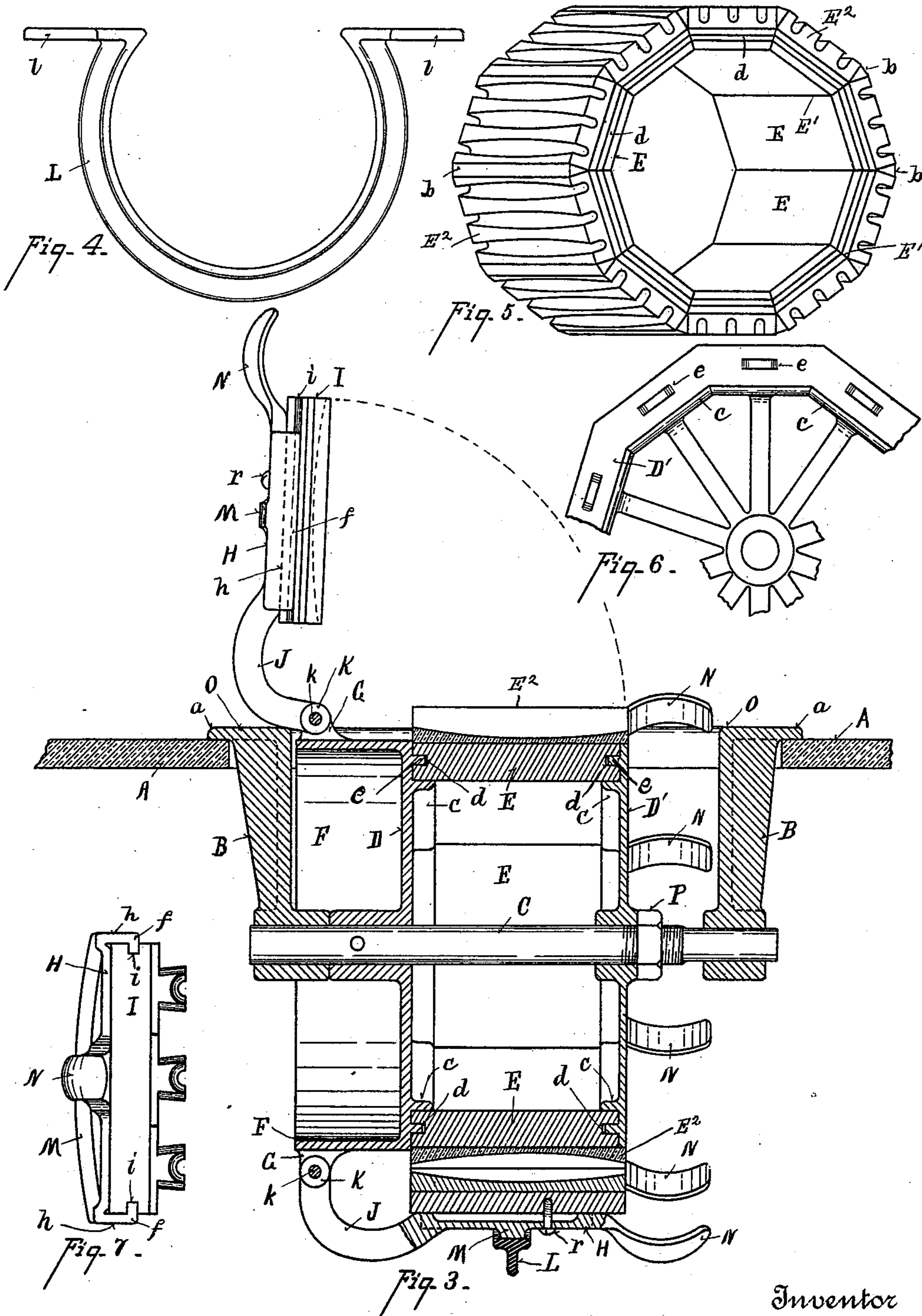
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# UNITED STATES PATENT OFFICE.

NAPOLEON DU BRUL, OF CINCINNATI, OHIO.

## CIGAR-MOLD.

SPECIFICATION forming part of Letters Patent No. 552,317, dated December 31, 1895.

Application filed December 31, 1894. Serial No. 533,489. (No model.) Patented in England January 14, 1895, No. 866.

*To all whom it may concern:*

Be it known that I, NAPOLEON DU BRUL, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Cigar-Molds, (for which I have obtained a patent in Great Britain, No. 866, bearing date January 14, 1895,) of which the following is a specification.

My invention relates to that class of cigar-molds in which the cup-blocks and matrix-blocks are mounted upon revoluble heads or supports.

The objects of my invention are, first, to provide strong supports for the cup-blocks and matrix-blocks; secondly, to provide ready means for changing the cup-blocks and matrix-blocks; thirdly, to provide means for the central compression of the cigar-bunch; fourthly, to provide a convenient and revoluble mold which is adapted to be operated by one or more persons at the same time.

The features of my invention will be more fully set forth in the description of the accompanying drawings, making a part of this specification, in which—

Figure 1 is a top plan view of my improved cigar-mold. Fig. 2 is a section on line  $x x$ , Fig. 1, part being in elevation. Fig. 3 is a central vertical section. Fig. 4 is a side elevation of the compression-ring. Fig. 5 is a perspective view of the matrix drum or ring. Fig. 6 is a detail elevation of one of the supporting-heads. Fig. 7 is an end elevation of one of the cup-block carriers and its cup-block.

In the preferred form of construction the revoluble mold is supported on a table A by means of hangers B, which depend from the supporting-frame O, each portion of which frame is formed with an overlapping flange  $a$ , resting upon the table A. Hangers B serve as bearings for supporting the shaft C.

DD' represent heads upon which the matrix-block sections are mounted. In the preferred form of construction the matrix-block sections are composed of a series of inner blocks E, having tapering or beveled sides E'. These inner blocks are detachably connected to the heads and provided with matrix-blocks E<sup>2</sup>. Preferably a series of these sections are united together and are more firmly secured into an

endless ring or drum by means of the V-shaped wedges  $b$ , glued to the sides of the matrix-blocks, which strengthens and supports the sides thereof and unites them into a continuous band. In order to firmly anchor the sections in position and to support the same vertically against the thrust of the cups, I provide the heads with sectional flanges  $c$ , upon which the bases of the matrix-block sections rest.

$d$  represents the grooves cut in the ends of the lower blocks of the matrix-block sections.

$e$  represents the lugs on the sides of the heads, which enter the grooves  $d$  and firmly anchor the matrix-block sections in position upon the revoluble heads.

F represents an annular rim projecting laterally from the head D and preferably formed integral therewith.

G represents a series of ears appropriately placed at intervals around said rim. These ears are preferably bifurcated or formed in pairs. H represents cup-block carriers. In the preferred form of construction these carriers are each provided with flanges  $h$ .  $f$  represents the hooks formed on the ends of the flanges that engage in grooves  $i$  of the cup-blocks I.

J represents curved or goose-necked arms projecting out from the cup-block carriers. Each of the arms is provided with a boss K which is pierced with an opening.

$k$  represents axial pins passing through the ears G and through the boss K of the cup-block carriers, and upon which the cup-block carriers are hinged and turn. In order to apply compression centrally to the cup-blocks, I provide a segmental ring L. This ring is secured by flanges  $l$  to the opposite sections of the frame O. The outer faces of the cup-block carriers H are provided with projecting transverse ribs M engaging the face of the ring L.

N represents handles on each of the cup-block carriers by means of which they are raised and lowered and the cigar-mold revolved.

The supporting-frame O is made in two sections and secured to the table. The flanges  $l$  of the segmental ring L are extended to overlap the abutting ends of the sections O and

are provided with screw-holes through which the screw-bolts *m* are passed to securely anchor the supporting-frame in position on the table. This holds the two sections of supporting-frame and heads in position. The cup-block sections are secured to the cup-block carriers by means of one or more screws *r*. When it is desired to change the style of molds the screws *r* are removed and the cup-blocks will slide out endwise from the cup-block carriers. The screws *m* are removed from the flanges *l*, one of the sections of frame *O* is lifted out and the nut *P* is slackened and removed, the shaft *C* moved endwise out of the hanger *B*, when one of the heads *D* or *D'* is moved from the shaft or the shaft moved endwise out of the heads, so that the drum or ring of matrix-block sections can be removed and another one inserted and placed between the heads and the parts secured together again.

Mode of operation: The operator who fills the matrices with cigar-bunches raises the carrier *H* up in the position shown in Fig. 3. When the matrix-block of a matrix-block section is filled the cup-block carrier is brought back in position and the heads turned on their shaft, and the rib *M* of the cup-block carrier as it is turned around will bear against the inner periphery of the segmental ring *L* and force the carrier down, compressing the bunches, and they are held under compression until the revoluble mold is turned around far enough to cause the carrier to pass out at the opposite end of the segmental ring when the cup-block carrier is raised and the bunches removed. By thus applying the pressure centrally upon the cup-block carrier and cup-blocks, forcing the cups into the matrix-blocks, pressure is applied uniformly along the entire length of the bunches, and they are held in compression long enough to become set, forming much more durable, convenient and effective cigar-molds than those hitherto employed. A sufficient number of hinged carriers are arranged around the rim *F* and an equal number of the sections are located on the heads, so as to give time enough for the bunches to become set by the time the mold has been revolved, so that the first-filled mold-section comes opposite to the opening in the compression-ring above the table. By this means the same person who fills the molds can take out the bunches as they arrive at this point and roll the wrapper around them, and this can be continued until the sections of molds are all emptied, when the revoluble mold can be refilled, as before. This construction of the molds also permits two persons to work, one on each side of the machine. After the molds have been once filled by the bunch-maker the person who wraps the bunches can take them from the opposite side and wrap the bunches as they arrive on his side of the table. For this reason the opening in the top of the compression-ring is sufficiently

wide to allow two mold-sections to be opened at one time. As a rule, the person who fills the molds can do that work twice as fast as the wrapper can take the bunches out and roll them into cigars, so it is sometimes desirable to have three persons employed, one to make the bunches and the other two to take them out—that is, one person working on one side of the table can fill two molds while the two wrappers on the opposite side of the table take out the bunches and roll them into cigars. The lowering of the drum and the hinging of this series of cup-block carriers below the surface of the cigar-maker's table are of great importance. The bulk of the machine being below the surface of the table renders it more compact and convenient than if set on the table. It enables the operators to see one another and to see the top of the mold, so that they can operate the machine harmoniously in regard to the speed of each other's work. Besides being less bulky, the machine when hung below the surface of the table is in a more convenient position for operation and the machine does not obstruct the light. The operator is also not obliged to leave his seat, but may make his bunches, operate the mold, and, if desired, take out the bunches and wrap them to form cigars from the same position, which renders the work of making the cigars easier than by the molds hitherto constructed.

It is not essential to glue the matrix-block sections together so as to form an endless drum, as each section may be detachably connected to its respective support, when the frame *O* can be formed in one piece. When the matrix-block sections are, however, glued together to form an endless band, then the sectional frame *O* is provided only as a convenient means for taking the machine apart to change the matrix-block sections.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A revoluble cigar-mold comprising heads, a series of matrix-block sections having matrix-blocks united together to form a continuous band and adapted to be detachably connected to the heads, substantially as specified.

2. In a revoluble cigar-mold the combination of the heads, a series of matrix-block sections having matrix-blocks attached to the heads, a series of cup-block carriers hinged to one of said heads and a ring adapted to compress successively the cup-block carriers, substantially as specified.

3. In a cigar-mold the combination of the revoluble supporting heads *D*, *D'*, provided with engaging lugs on their inner faces and an endless series of matrix-block sections having matrix-blocks united together, and provided with recesses engaging with the lugs of the supporting heads, substantially as specified.

4. A support for a revoluble cigar-mold

comprising the table A, the frame O, the hangers B, the shaft C, provided with revoluble heads and a series of matrix-block sections having matrix-blocks; substantially as specified.

5. A support for a revoluble cigar-mold comprising the table A, the sectional frame O, the compression ring L, the hangers B, the shaft C provided with the revoluble heads and a series of matrix-block sections having matrix-blocks; substantially as specified.

6. A revoluble cigar-mold comprising a table, the frame, the hangers, the shaft and revoluble heads supported on the shaft, a series of matrix block sections having matrix-blocks and detachably supported between said heads, and a series of cup-block carriers hinged upon one of said heads and adapted to register with the matrix-block sections, substantially as specified.

7. In a revoluble cigar-mold, the combination of the shaft C, the heads D, D', provided with the annular flanges c a series of matrix-block sections having matrix-blocks supported on the flanges and means for clamping said heads together, substantially as specified.

8. The combination of the supporting frame formed in two parts with overlapping flanges and with hangers, the compression ring having flanges secured to the supporting frame the shaft, the heads, the matrix-block sections having matrix-blocks, the carriers, and the cup-blocks secured to the carriers; substantially as specified.

In testimony whereof I have hereunto set my hand.

NAPOLEON DU BRUL.

Witnesses:

• W. WOOD,  
C. W. MILES.