(No Model.) 2 Sheets—Sheet 1.

J. WALKER.

MOLDING MACHINE.

No. 246,049. Patented Aug. 23, 1881.

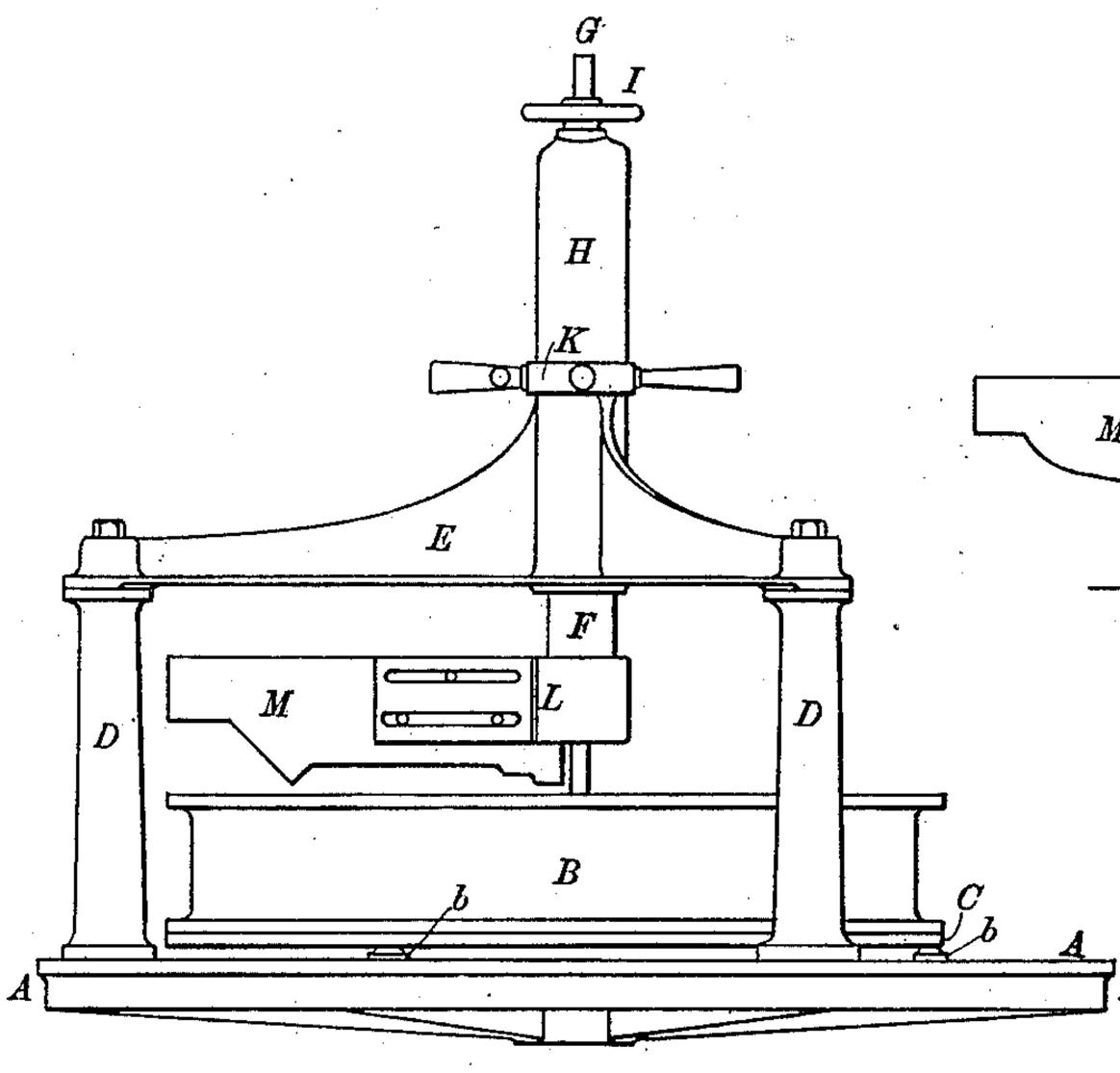

FIG. I.

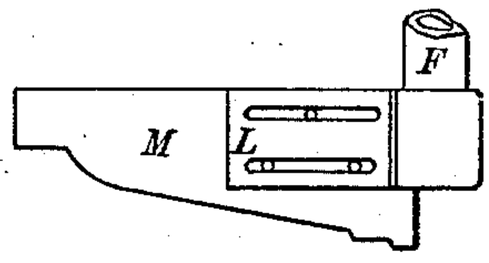

FIG. III.

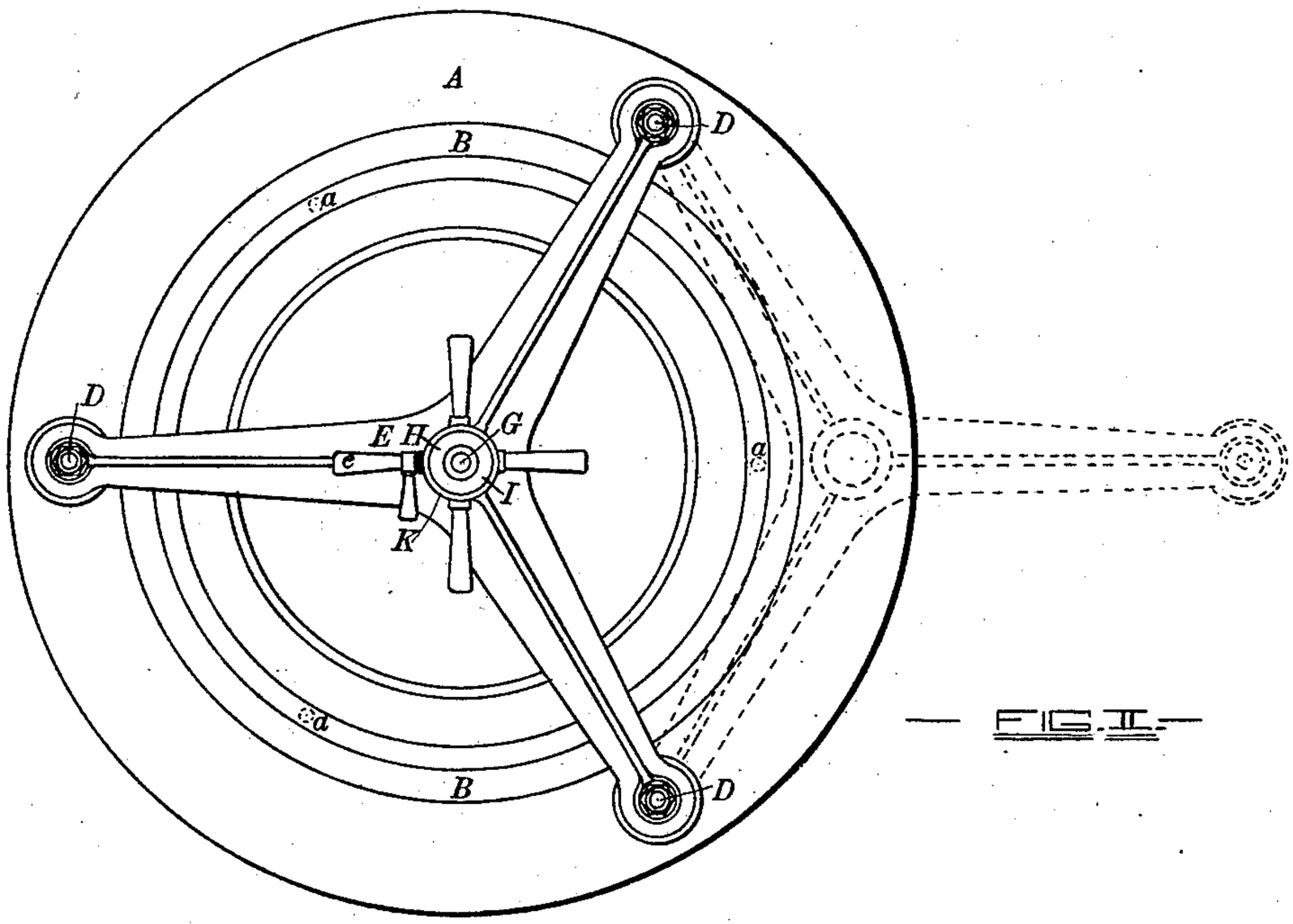

FIG. II.

WITNESSES:

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Harry V. Albaugh.

INVENTOR:

John Walker,

by E. H. K. S. Howard,

Attys.

(No Model.) 2 Sheets—Sheet 2.

J. WALKER.

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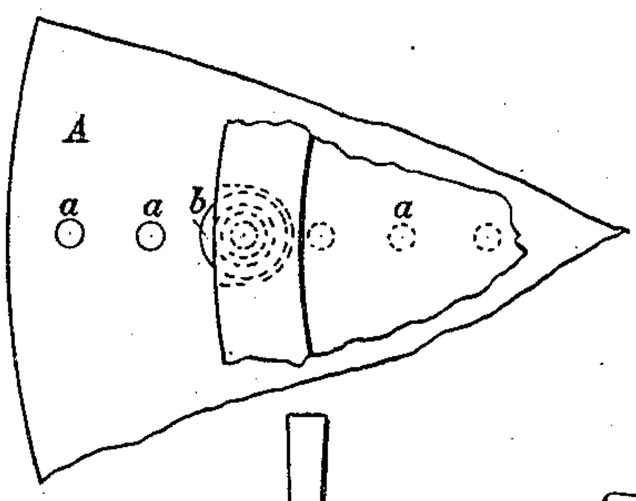
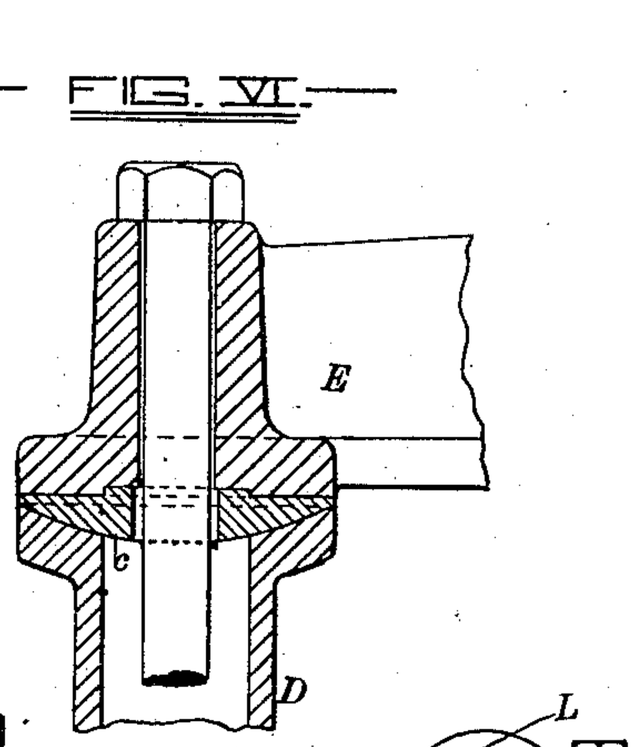
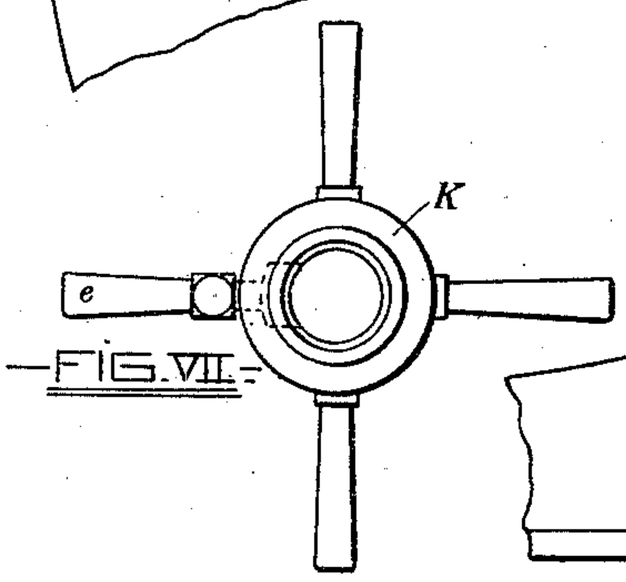
— FIG. V. —



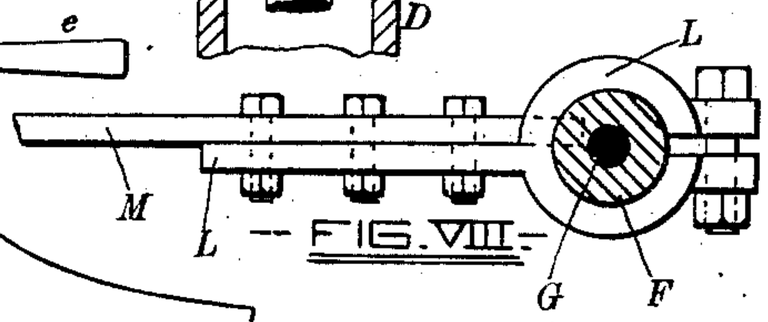
— FIG. VI. —



— FIG. VII. —



— FIG. VIII. —



— FIG. IV. —

— WITNESSES: —

Geo. A. Boyden,

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— INVENTOR: —

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Attys.

UNITED STATES PATENT OFFICE.

JOHN WALKER, OF INDIANAPOLIS, INDIANA.

MOLDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 246,049, dated August 23, 1881.

Application filed January 8, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN WALKER, of Indianapolis, in the county of Marion and State of Indiana, have invented certain Improvements in Molding Machinery, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to certain improvements in a striking-machine—that is to say, a machine which is used to prepare the surfaces of the cope and drag sections of a mold without the employment of a pattern; and it consists in a novel construction of certain parts of the machine, as will hereinafter fully appear.

In the description of my improved mold-striking machine which follows reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure I is an exterior side view of the improved machine. Fig. II is a plan of the invention. Figs. III, IV, V, VI, VII, and VIII are views of parts of the machine, the latter five figures being on an enlarged scale.

Similar letters of reference indicate similar parts in all the views.

A is the bed-plate of the machine, upon which the flasks are placed. The bed-plate is provided with a series of pin-holes, *a*, into which removable pins *b* are inserted to sustain the flask B, the bottom of which is faced so as to present a straight or true surface.

The bottom plate, C, of the flask has a faced or true inner surface, and forms, with the flask, a true joint; but its outer or lower surface is left rough, and said plate is slotted where the pins *b* pass through it. By this means, if the bed-plate is level, the flask must also be level, without respect to the bottom plate of the flask.

D D are columns rising from the bed-plate, which support the spindle-frame E. One of the columns D is used as a pivot, on which the said frame is turned after the elevation of the spindle, as shown in dotted lines, Fig. II, to admit of the placing in the machine of either the cope or drag-flask.

To avoid subjecting the frame E and the pivotal column, in turning the said frame, as described, to an injurious strain, I place between the said frame and the collar of the pivotal column what I term a "ball-washer," *c*—that is to say, a washer having a spherical under surface which admits of the overhanging part of the frame being slightly elevated and depressed independently of the said column, as will be readily understood by referring to Fig. VI of the drawings.

F is a hollow spindle adapted to turn freely in the hub of the spindle-frame E and about a central rod, G, which rests in a hole in the bed-plate. The upper end of the rod G passes through a cap, H, covering the portion of the spindle projecting above the spindle-frame; and the said rod, when adjusted to its place, is secured by means of a split tapered plug, *d*, which is screwed into the cap by means of a hand-wheel, I. The upper portion of the spindle F is threaded and provided with a nut, K, having handles *e*, whereby the spindle is adjusted vertically. One of the handles *e* is used to lock the nut K.

L is an arm projecting from the spindle F, to which the strike M is secured. The lower edge of the strike is the operative one, and when revolved with the central spindle forms either the cope or drag section of the mold, together with the prints for the circular cores, and, when used in connection with a gear-molding machine, the seat for the teeth-block employed in that machine. The different strikes are shown in Figs. I and III of the drawings.

It will be understood that the cope and drag flasks are matched, and when fitted together form, with the contained sand and the cores, a complete mold.

I claim as my invention—

1. In a mold-striking machine, a bed-plate adapted for and having adjustable pins for centering and sustaining a flask, a revoluble central spindle adapted for and having an arm to carry a strike, and means for effecting the vertical adjustment of the said spindle and strike, substantially as herein specified.

2. In a mold-striking machine, a hollow revoluble central spindle having means whereby it may be vertically adjusted and locked, a central rod extending through the said hollow spindle, and supports for the upper and lower end of the said rod, substantially as herein specified.

3. In a mold-striking machine, a frame for

sustaining the central spindle thereof, having supporting-columns, one of which is provided with a ball-washer, whereby it is adapted as a pivot upon which the said frame may be revolved without placing an injurious strain upon the said pivotal column or the bed-plate, substantially as herein specified.

4. In combination with the bed-plate of a mold-striking machine, having adjustable pins for supporting and centering a flask, a flask having holes in its lower face to receive the pins, and a bottom plate slotted to admit of the passage through it of the said pins, substantially as and for the purpose herein specified.

5. In a mold-striking machine, the frame E, hollow spindle F, and cap H, combined with the central rod, G, the said rod having a split tapered screw-plug, *d*, whereby the said rod may be locked within the said cap, substantially as herein specified.

JOHN WALKER.

Witnesses:
FRED. K. SHEPARD,
WM. G. WASSON.