(No Model.)

2 Sheets—Sheet 1.

J. LATSHAW.

SAND MOLDING MACHINE.

No. 283,905. Patented Aug. 28, 1883.

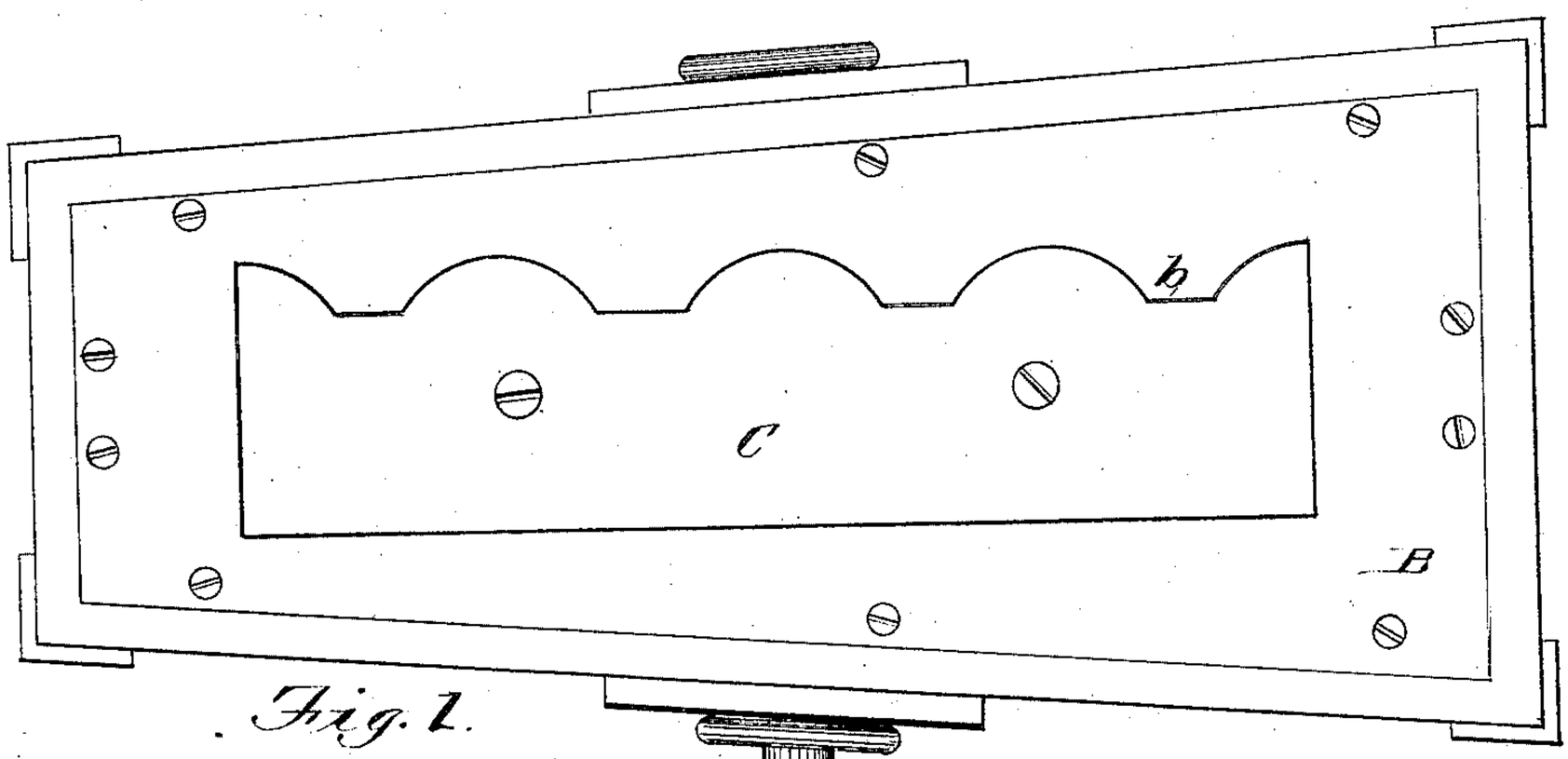

Fig. 1.

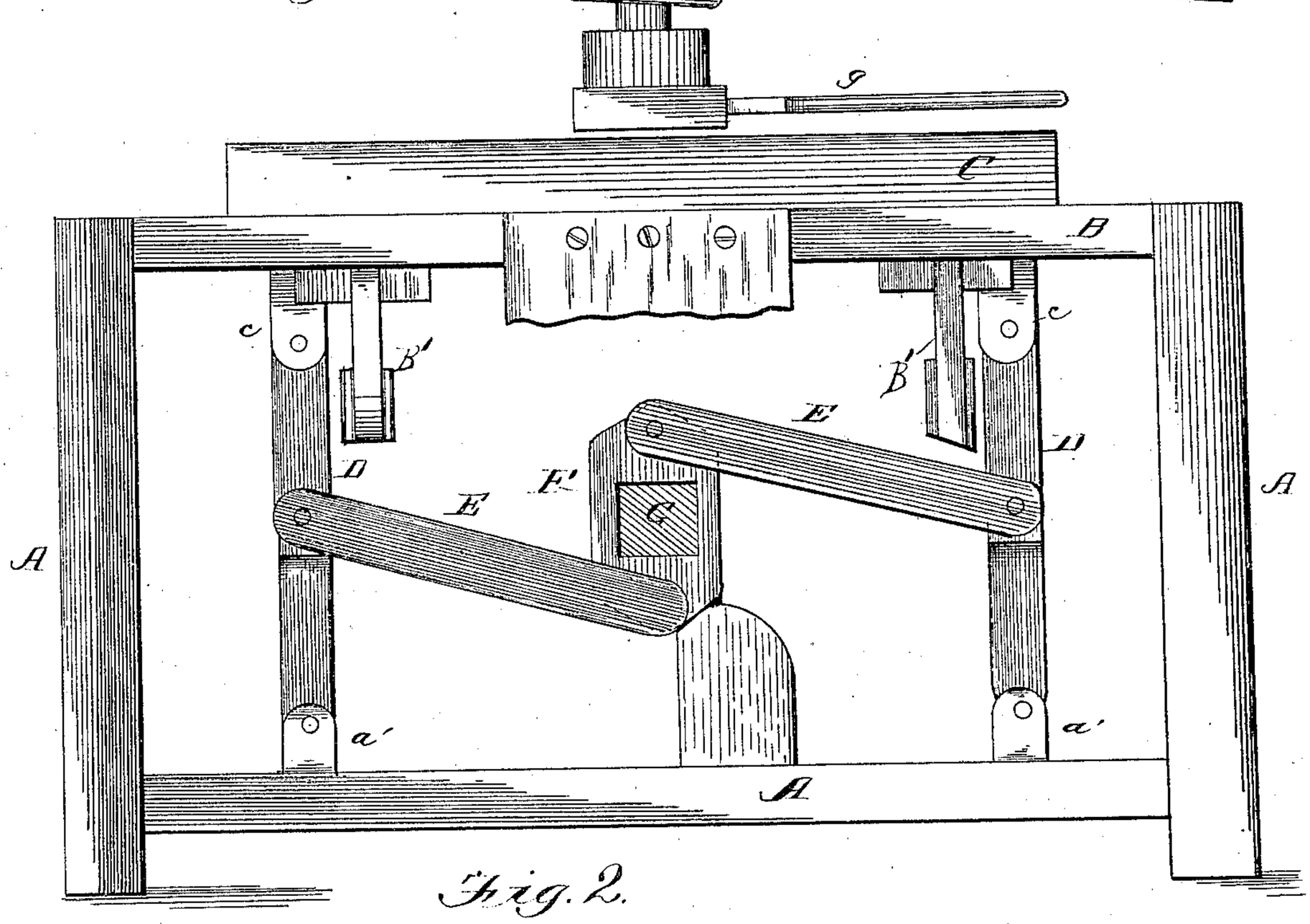

Fig. 2.

WITNESSES

Wm. L. Duvall

A. Bernhard.

INVENTOR

John Latshaw

per Edson Bros.

Attorneys.

(No Model.) 2 Sheets—Sheet 2.

J. LATSHAW.

SAND MOLDING MACHINE.

No. 283,905. Patented Aug. 28, 1883.

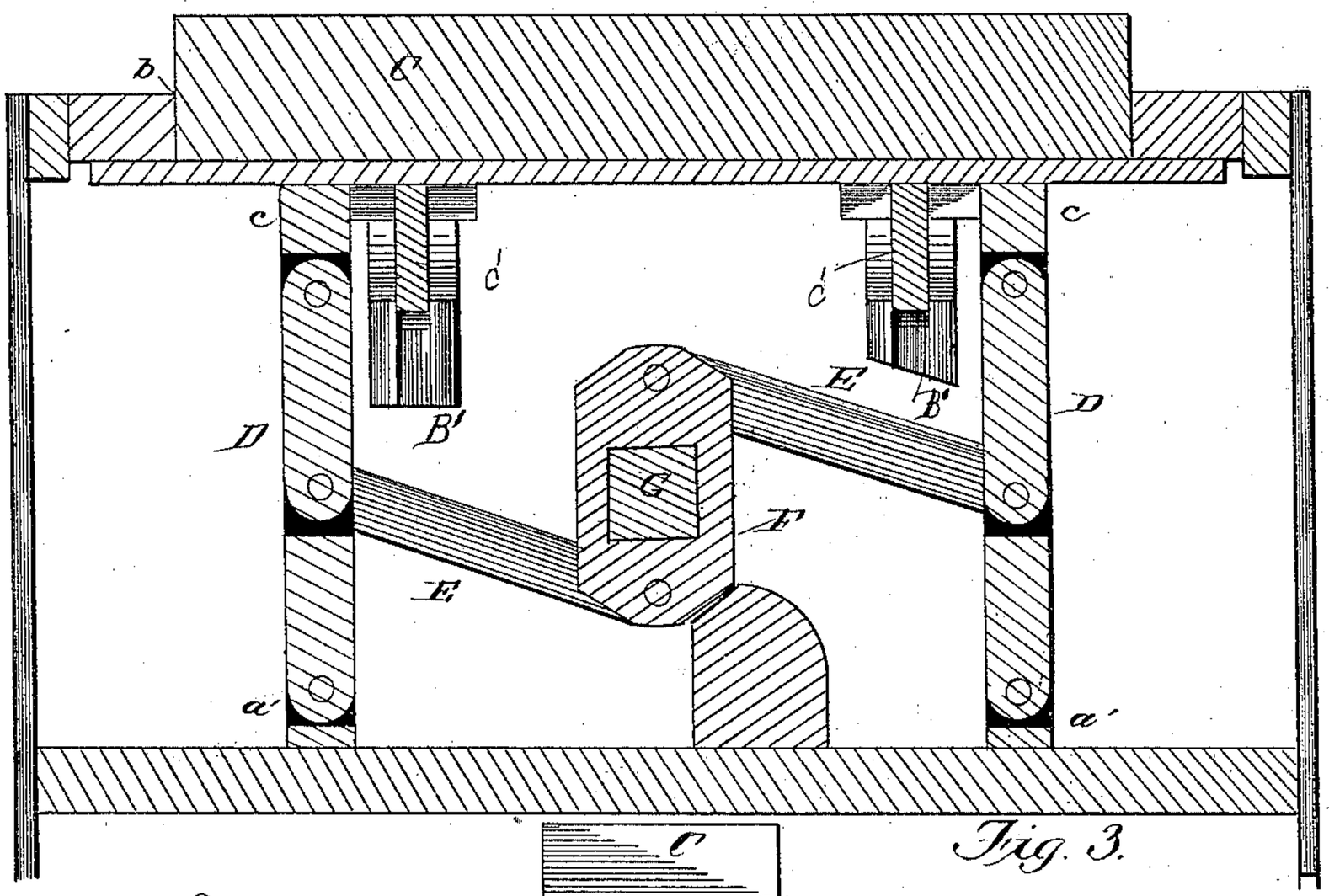

Fig. 3.

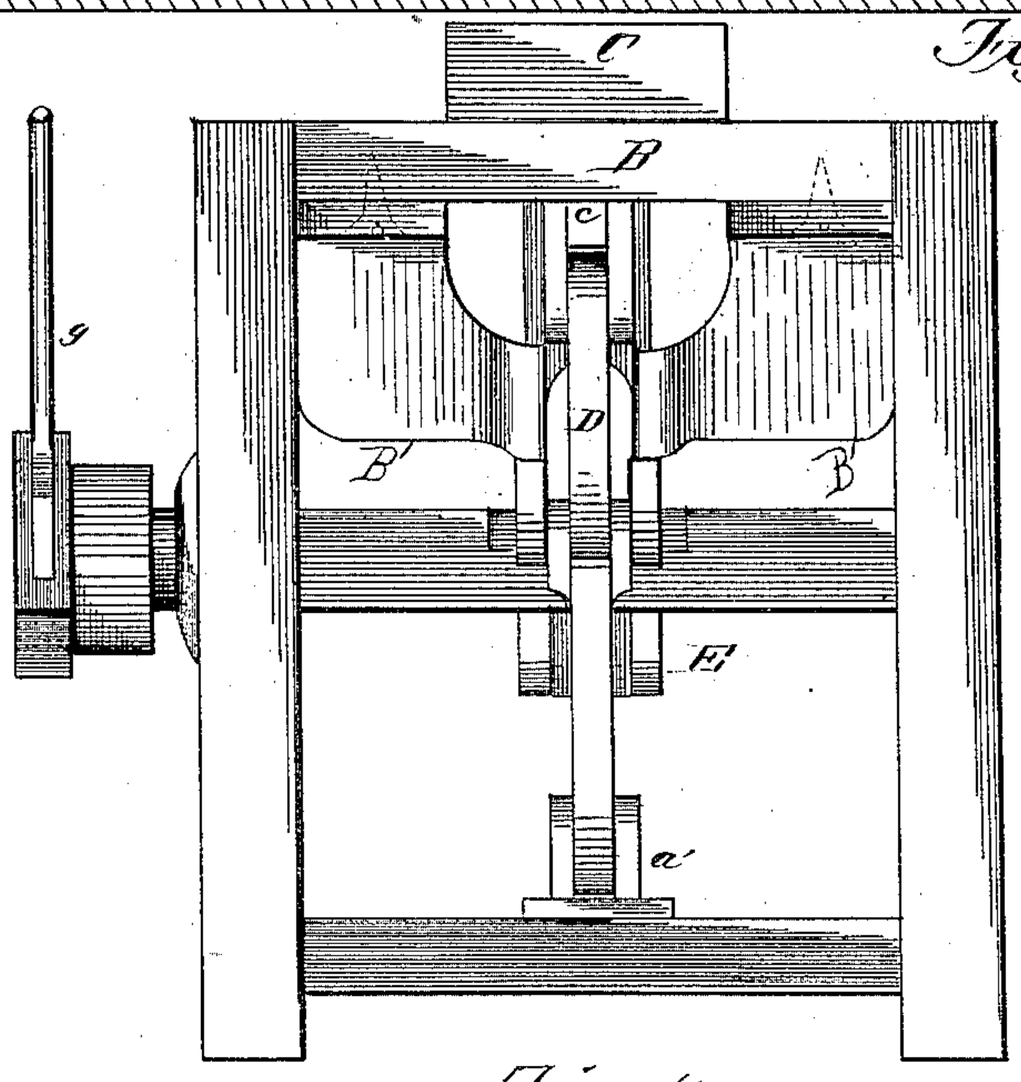

Fig. 4.

WITNESSES

W. Dieudonné

D. Gerhard.

INVENTOR

John Latshaw

per Edson Bros,

Attorneys

UNITED STATES PATENT OFFICE.

JOHN LATSHAW, OF INDIANAPOLIS, INDIANA.

SAND-MOLDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 283,905, dated August 28, 1883.

Application filed May 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN LATSHAW, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Sand-Molding Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to sand-molding machines for metal castings; and the novelty consists in the construction and arrangement of parts, as will be more fully hereinafter set forth, and specifically pointed out in the claim.

The invention is fully illustrated in the accompanying drawings, in which Figure 1 is a top plan view. Fig. 2 is a side elevation, partly in section. Fig. 3 is a vertical longitudinal section, and Fig. 4 an end elevation.

Referring to the drawings, in which similar letters of reference indicate like parts in all the figures, A designates a supporting-frame, having a table portion, B, with parallel ends and one side inclined, which table is provided with a recess, *b*, in which reciprocates the pattern C. This pattern C is provided near either end with a perforated lug, *c*, to which is secured one of a pair of toggle-levers, D, the other lever of each pair being pivoted to a lug, *a'*, on the frame A. Each of these pairs of toggle-levers are pivoted together at their centers, and from these points extending inward are the links E, one of which is pivoted to either arm of a cross-bar, F, which is rigidly hung on a rock-shaft, G, journaled in the main frame, as shown, and operated by a convenient lever, *g*. Lugs or projections *c' c'*, secured to the under side of the pattern C, move or slide in brackets B' B' depending from the table B. The pattern C having been first raised through the table B, a half-flask is placed on the table over the pattern, and the sand is then put in the flask and rammed. The toggle-levers then, being put in motion, operate to withdraw the pattern, at first slowly and then uniformly, to prevent injury to the mold thus made.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

The combination, with the follower C, having lugs *c*, of the toggle-levers D, links E, arms F, and rock-shaft G, having lever *g*, as and for the purposes specified.

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

JOHN LATSHAW.

Witnesses:
AUSTIN F. DENNY,
G. A. BRADLEY.