

(No Model.)

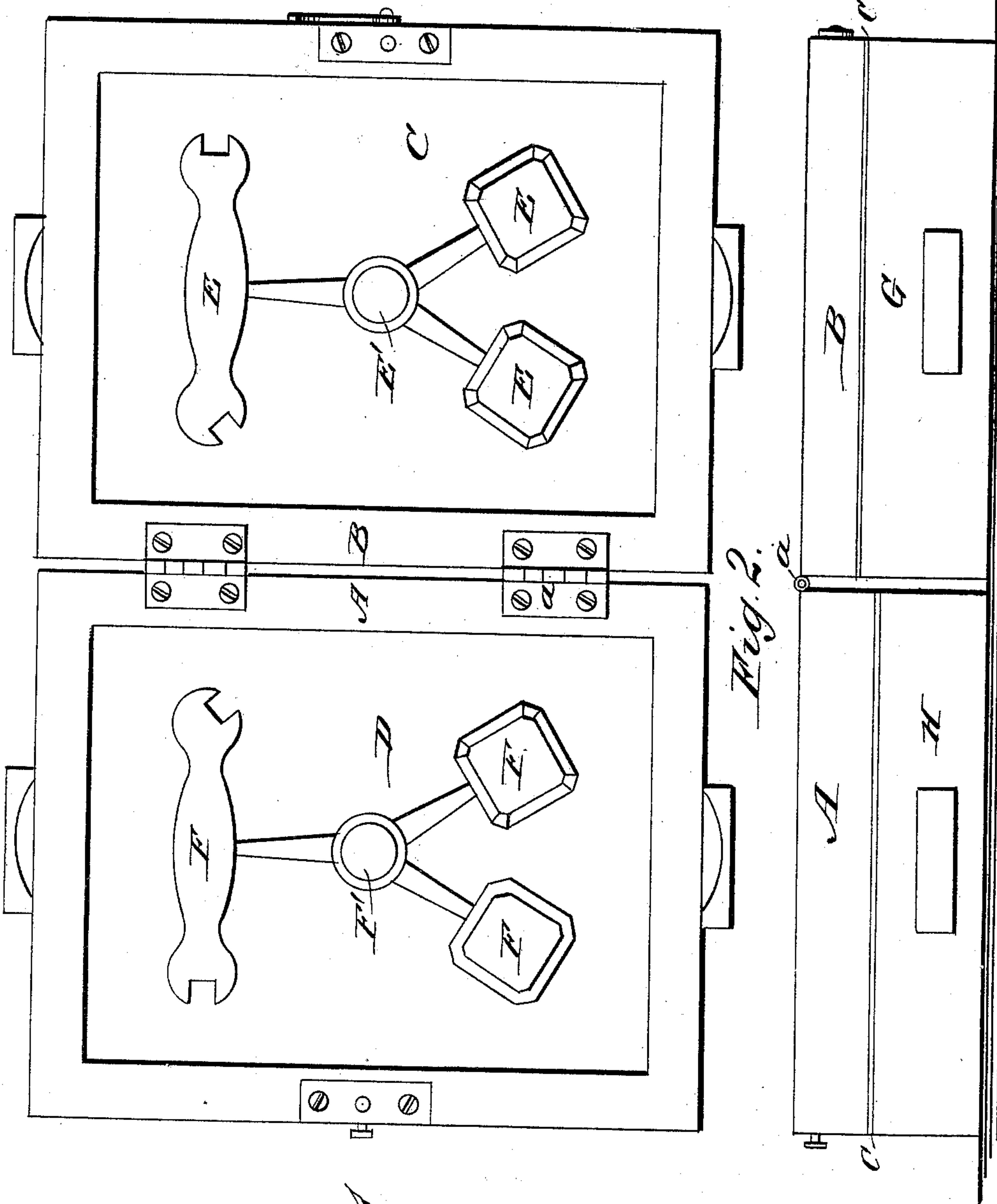
2 Sheets—Sheet 1.

E. REDDY.

APPARATUS FOR MAKING MOLDS.

No. 396,893.

Patented Jan. 29, 1889.



WITNESSES:

J. M. A. A. A.
C. Sedgwick

Fig. 1

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E. Reddy
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BY

ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3

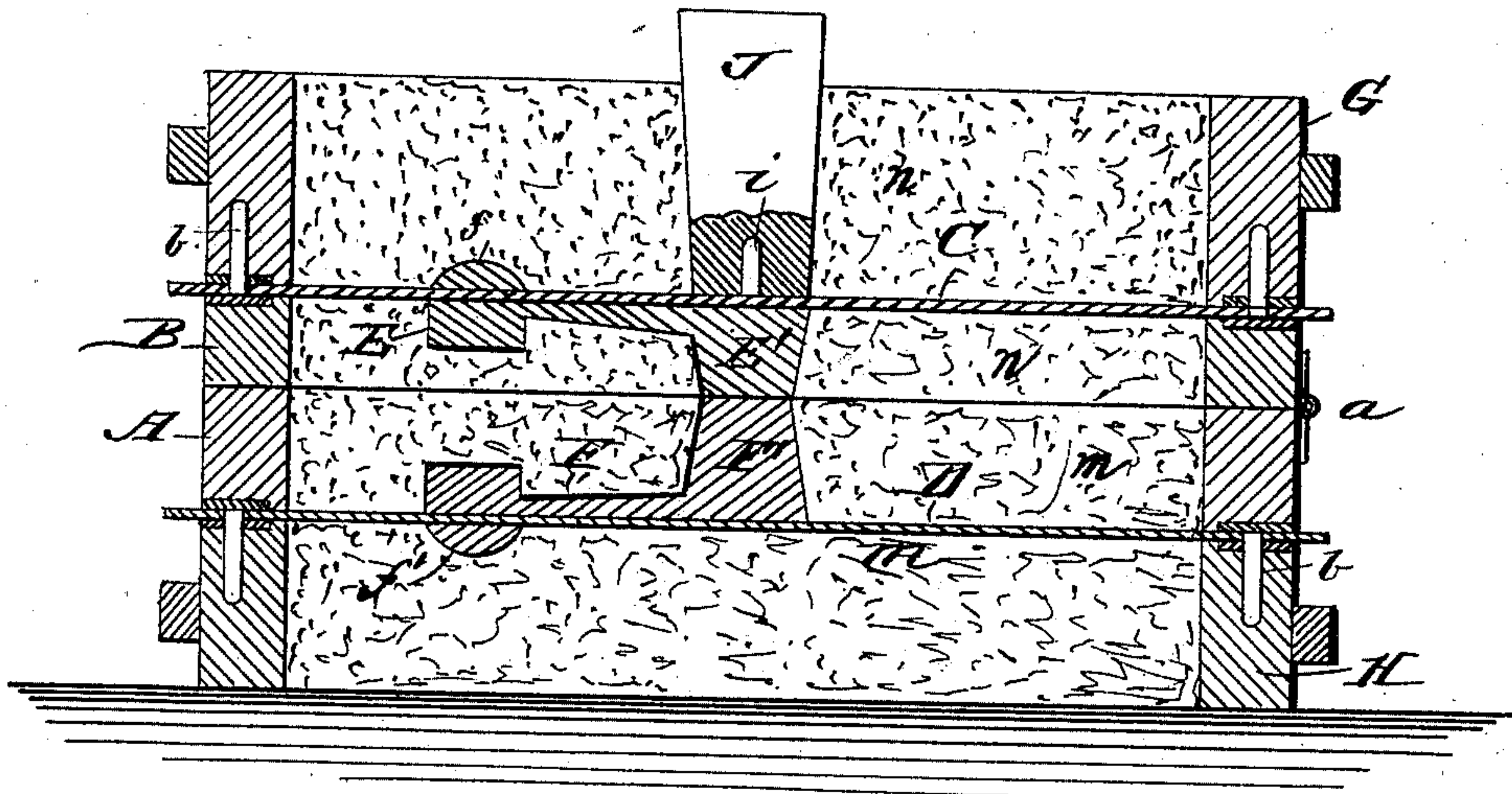
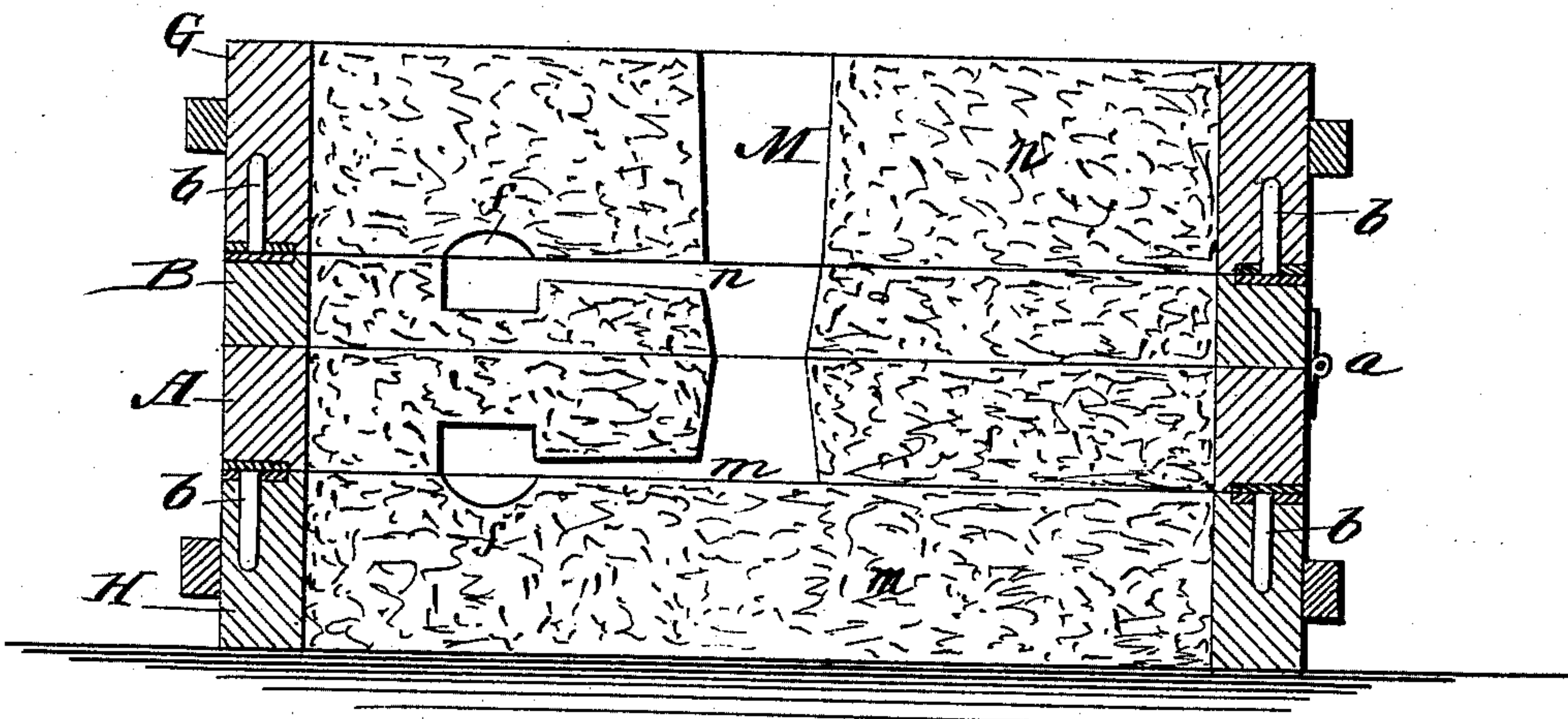


Fig. 4



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UNITED STATES PATENT OFFICE.

EDWARD REDDY, OF LITTLE FALLS, NEW YORK.

APPARATUS FOR MAKING MOLDS.

SPECIFICATION forming part of Letters Patent No. 396,893, dated January 29, 1889.

Application filed November 8, 1888. Serial No. 290,265. (No model.)

To all whom it may concern:

Be it known that I, EDWARD REDDY, of Little Falls, in the county of Herkimer and State of New York, have invented a new and Improved Apparatus for Making Molds, of which the following is a full, clear, and exact description.

I employ two sets of patterns, which I mold in the sand facing each other, one portion of each set of patterns being arranged to form a gate or passage from one mold to the other, a single sprue being formed by means of a removable core in one section of the mold. The patterns are attached to removable plates adapted to be held in the flask while the two inner sections of the mold are formed. The two outer sections of the mold are formed upon the backs of the said plates, one being provided with a sprue-core, and then the plates are removed and the four sections are put together, making the mold complete.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my new casting-flask shown open in the center and provided with the plates to which the patterns are secured. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional elevation of the entire flask, and Fig. 4 is a similar view of the flask and molds ready for pouring the metal.

A B represent two frames attached together at the edges, preferably by the hinges *a a*, so that said frames may be conveniently opened out, as shown in Figs. 1 and 2, and closed, as shown in Figs. 3 and 4. The outer edges of the said frames A B are provided with pins *b b*. C D represent plates adapted to be placed upon said pins, as shown in Fig. 3, to properly connect said plates with said frames. Upon one or both of the surfaces of each of said plates are secured the patterns E F and gates E' F'.

In Fig. 3 the portions *f f'* of the patterns are placed upon the outer surfaces of the plates opposite to the main portion of the patterns.

G H represent two outer frames adapted to be placed upon the pins *b b*, for connecting them, respectively, with the frames A B, as shown in Figs. 3 and 4.

J represents the tapering sprue-core, attached to the plate C by a stud or pin, *i*, or

other suitable means, in line with the gates E' F'.

In use the flask is first to be provided with the plates C D, having the patterns attached or placed thereon, the said plates being placed between the sections A H and B G of the flask, with the patterns facing each other when the flask is closed. The flask is then opened in the middle and two sections of the mold formed—that is, frames A and B are filled and rammed on plates C D over the patterns. The flask is then closed and the two outer sections of the mold formed in frames G H upon the outer surfaces of the plates C D. Frame H is first filled and rammed and then removed from frame B, and plate D and its patterns and gate removed. The frame H is then replaced upon the frame B, and the flask is then reversed. In filling frame G the tapering sprue-core J is fitted in the center of the plate C, in line with the gates E' F'. After this is filled and rammed, the said sprue-core is removed, and the frame G is lifted off from frame A and the plate C removed, drawing the patterns and gate attached thereto. The frame G is then replaced upon frame A, thus completing the mold ready for pouring. In this manner it will be seen that the bottom *m* and top *n* of the mold are each formed of two separate and independent sections of sand, and that both molds may be filled at a single pouring through a single sprue, M.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The apparatus for making molds herein shown and described, consisting of inner and top and bottom frames adapted to be placed together, in combination with pattern-plates adapted to hold the patterns and to be held between the frames for forming the mold, and to be removed from the frames for drawing the patterns, substantially as described.

2. The removable and oppositely-placed plates C D, having patterns E F, secured to the plates, formed with coinciding gates E' F', in combination with the separate frames of the flask, substantially as described.

EDWARD REDDY.

Witnesses:

EDWARD HURLEY,
EDWARD WALSH,