

McEnally & Farrell

Molding Dovetails.

N^o 97,308.

Patented Nov. 30, 1869.

Fig. 1.

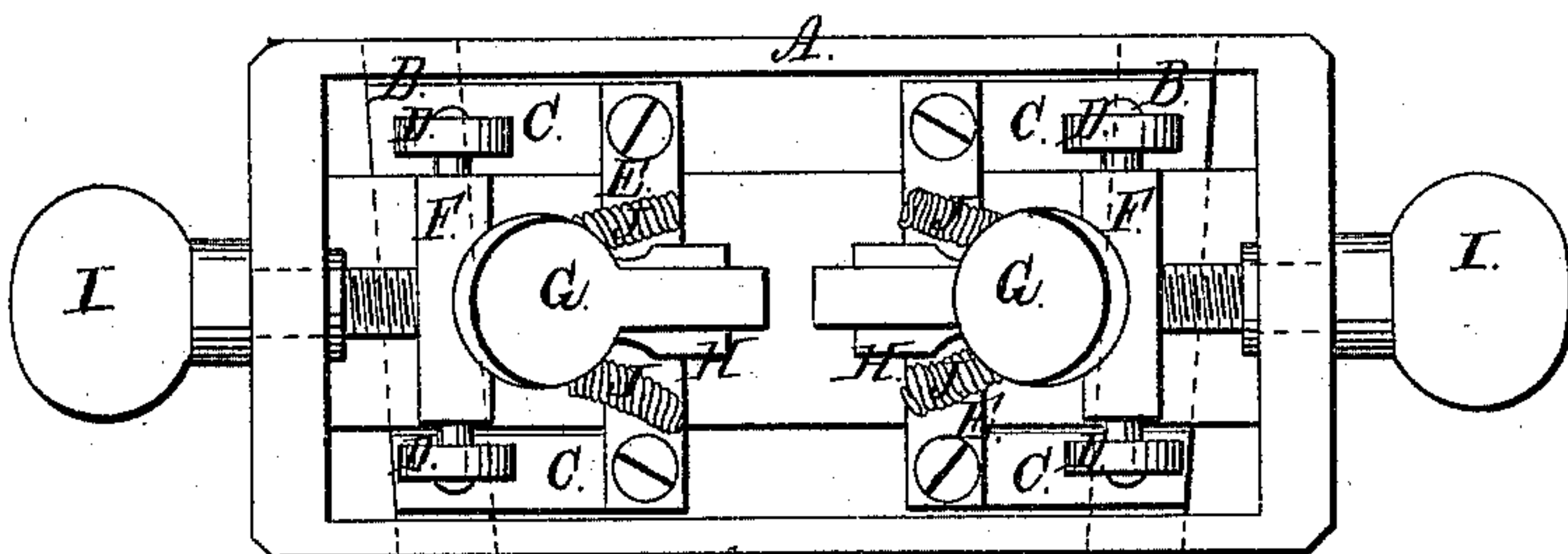


Fig. 2.

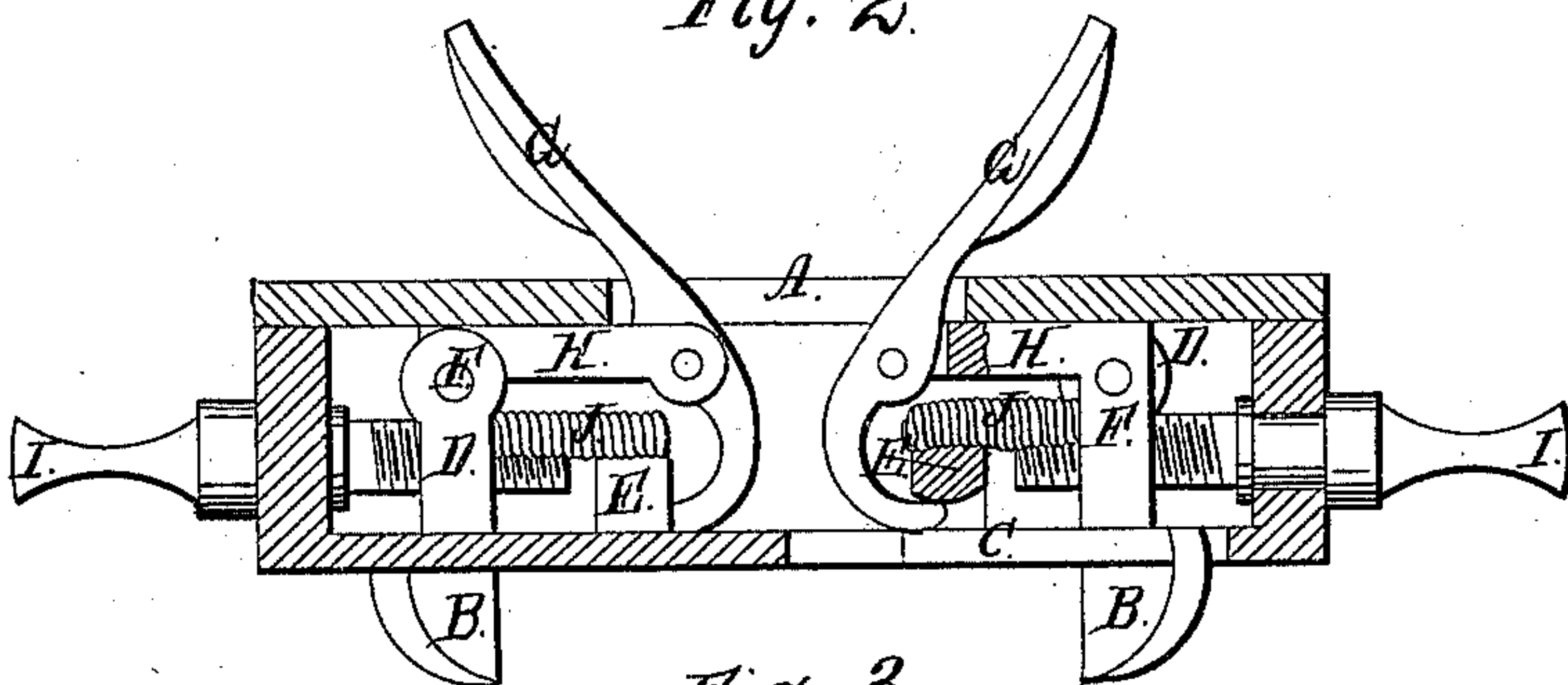
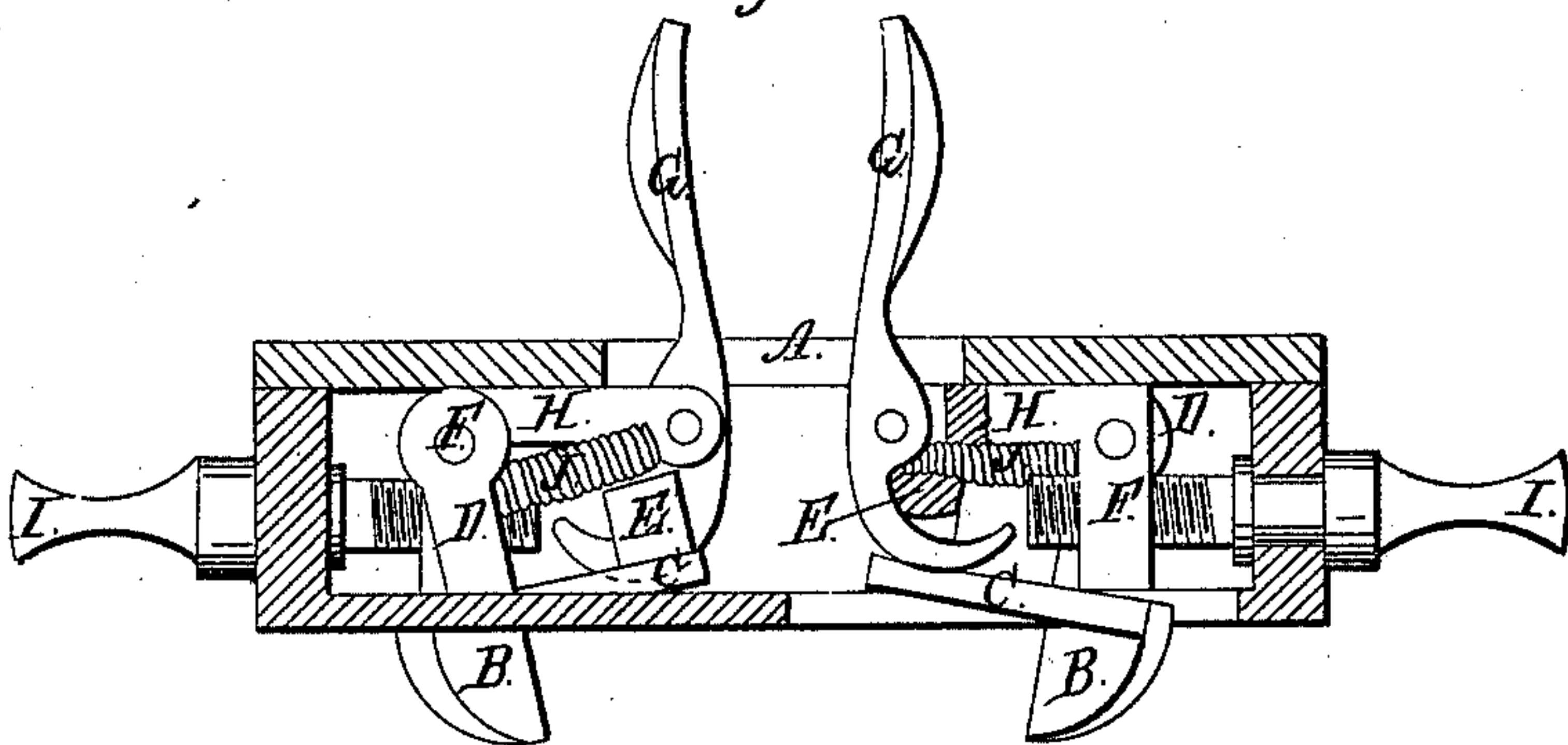


Fig. 3.



Witnesses.

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BERNARD McENALLY AND EDWARD FARRELL, OF DETROIT, MICHIGAN.

Letters Patent No. 97,308, dated November 30, 1869; antedated November 13, 1869.

IMPROVEMENT IN TOOL FOR MOULDING DOVETAILS.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern:

Be it known that we, BERNARD McENALLY and EDWARD FARRELL, of Detroit, in the county of Wayne, and State of Michigan, have invented a new and useful Improvement in Hand-Tool for Moulding Dovetails; and we do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

Figure 1 is a top view, with the cover removed, to show the internal mechanism.

Figure 2 is a side elevation in the left-hand half of the sketch, and a vertical central section in the right-hand portion, both showing the position of the lugs, when the implement is at rest, or when entering and leaving the sand.

Figure 3 is a similar view of the same, showing the position of the lugs in forming the dovetails in the sand.

Like letters indicate like parts in each figure.

The nature of this invention relates to a tool to be used by moulders of stove-plates, by means of which the lugs for forming the dovetails upon the under side of the bottom plate, for holding the stove-legs in place, are moulded in the sand, accurately, and with far greater certainty and less trouble than they can be produced by the ordinary methods.

The invention consists of a pair of pattern-lugs worked by thumb-levers and springs, the whole arranged in a suitable frame, and adjustable to suit the different sizes of legs to be used by means of proper set-screws.

It also consists in a peculiar arrangement of all the various parts.

A, in the drawings, represents a suitable metallic frame, enclosing the mechanism of the tool.

B are pattern-lugs, whose relative position is somewhat diagonal to the bottom plane of the frame, as shown in dotted lines in fig. 1.

These pattern-lugs are provided with arms, C and D, the arms C being secured to the cross-bars E, while the arms D are fulcrumed to the cross-heads F.

G are thumb-levers, fulcrumed to the bifurcated arm H of the cross-head.

The lower ends of these levers are hooks, as shown, and these hooks engage with the under side of the cross-bars E, the longitudinal centre of which is rounded off for the purpose, as shown in the sectional portions of figs. 2 and 3.

I are set-screws passing through and secured into the ends of the frame, and engage with the cross-heads F, and by their means the distance between the lugs is determined, as may be necessary.

J are spiral or other springs, by means of which the lugs are brought back to place, as in fig. 2, after the pressure upon the thumb-levers in fig. 3 has been released.

The distance between the lugs having been determined, by means of the set-screws, to fit the lugs to be used, and the pattern of the stove-plate moulded in the ordinary way, the lugs being in the position shown in fig. 2, are inserted into the cavity in the sand formed by the print, when, by pressing together the thumb-levers, the cross-bars E are elevated, carrying with them the ends of the arms C, by means of which the lugs assume the position shown in fig. 3, compressing the sand between them. This being done and the pressure upon the thumb-levers being removed, the springs restore the lugs to their original position, when the tool may be taken away.

The diagonal position of the lugs, with the plane of the bottom, as in fig. 1, enables the operator to make the double dovetail required for the purpose.

What we claim as our invention, and desire to secure by Letters Patent, is—

The arrangement of the lugs B, the arms C and D, the cross-bars E, the cross-heads F, the thumb-levers G, the bifurcated arm H, the set-screws I, and the springs J, in connection with the frame A, when constructed and operating as and for the purpose above described.

BERNARD McENALLY.
EDWARD FARRELL.

Witnesses:

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