

(Model.)

J. V. SMITH.

FLUTING AND IRONING MACHINE.

No. 277,520.

Patented May 15, 1883.

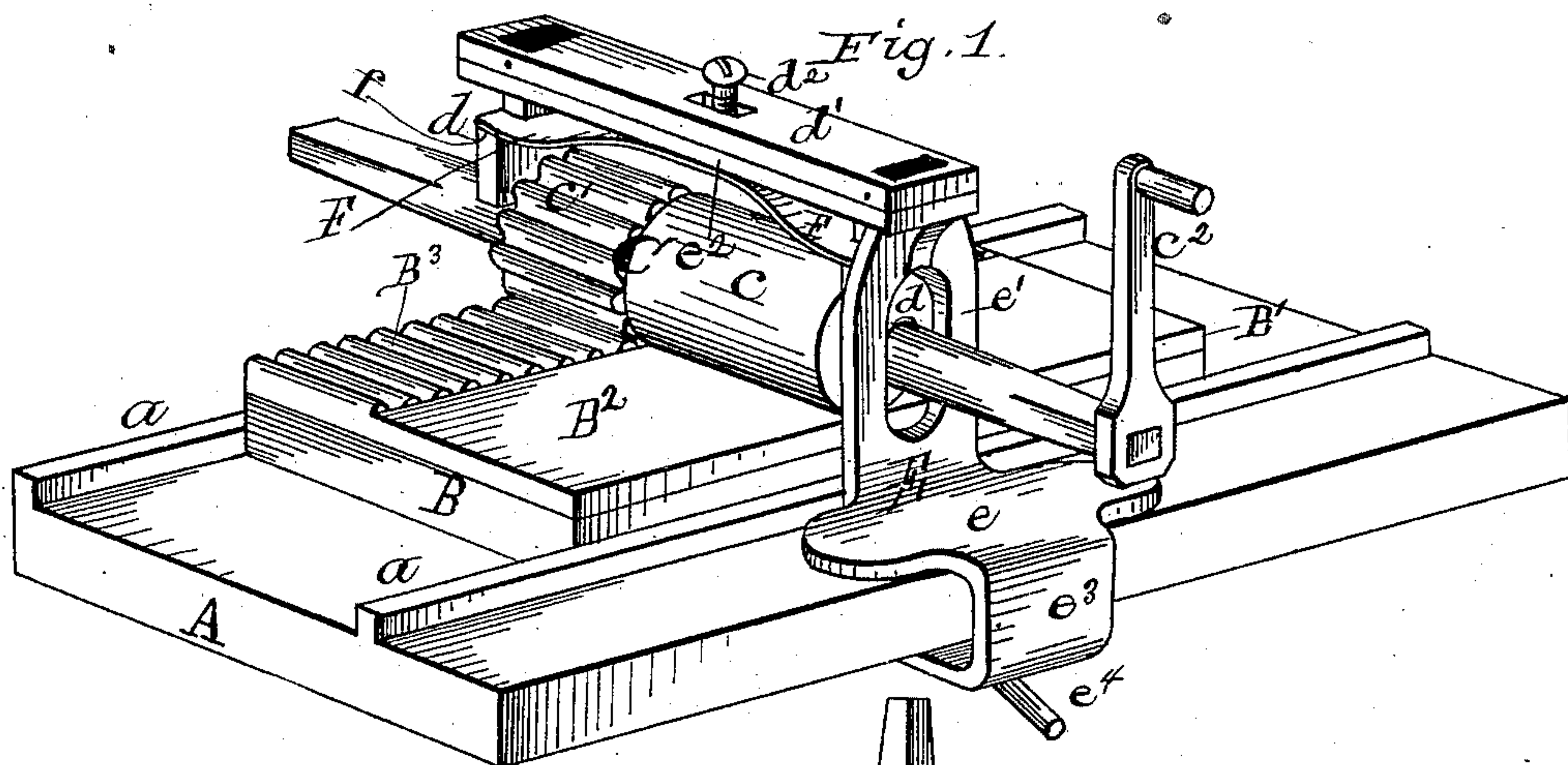


Fig. 2.

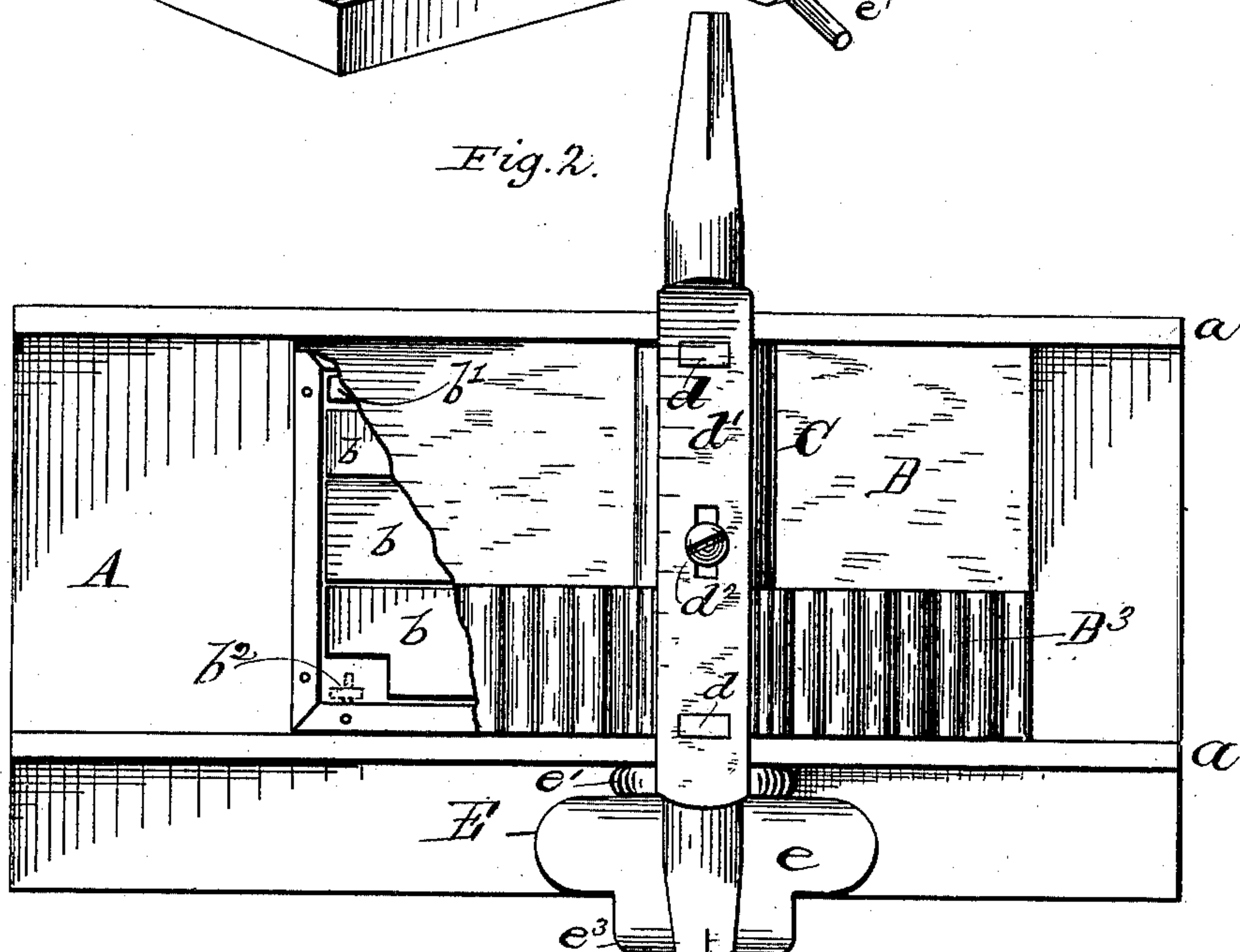
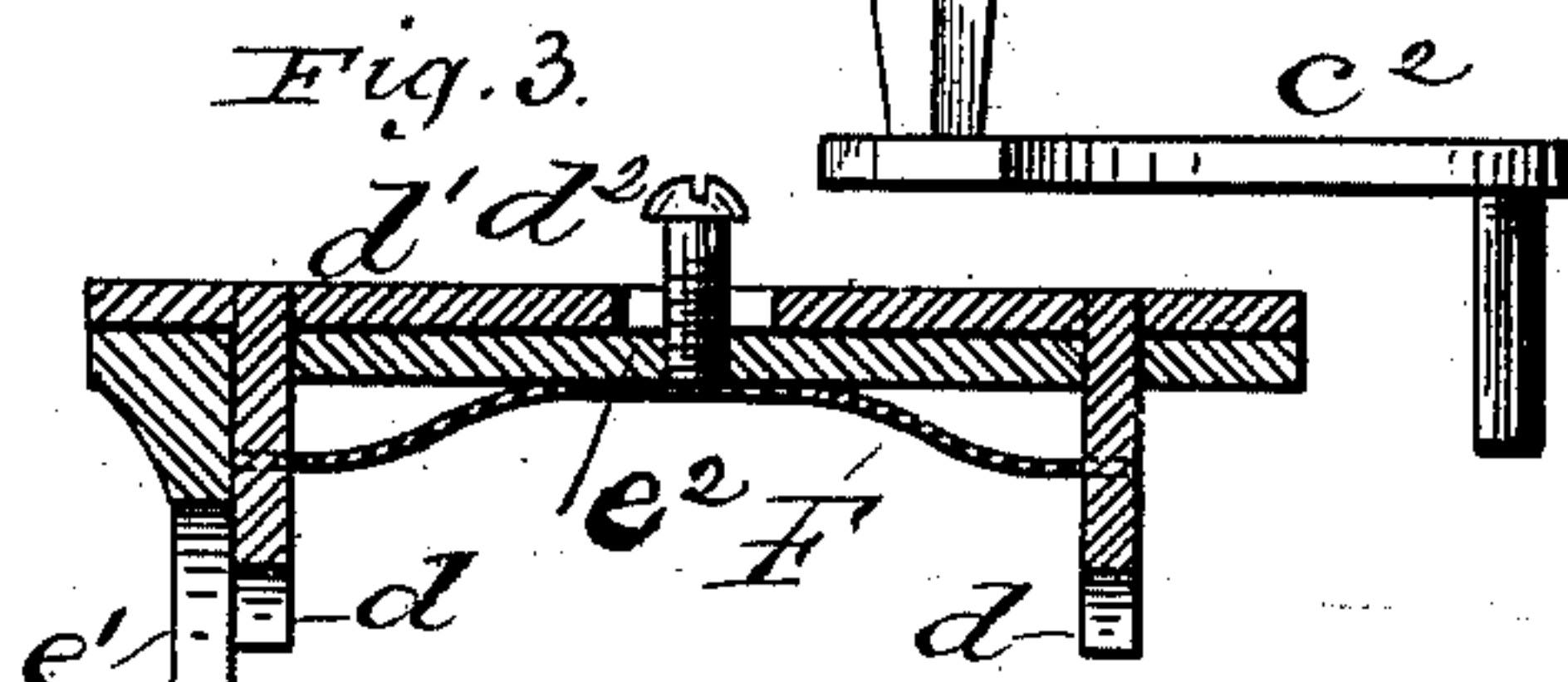


Fig. 3.



Witnesses:

W. R. Masson

E B Stocking

Inventor:

Josephine A. Smith

H₄ C. W. Stevens

1111

UNITED STATES PATENT OFFICE.

JOSEPHINE V. SMITH, OF HORNELLSVILLE, NEW YORK.

FLUTING AND IRONING MACHINE.

SPECIFICATION forming part of Letters Patent No. 277,520, dated May 15, 1883.

Application filed October 20, 1882. (Model.)

To all whom it may concern:

Be it known that I, JOSEPHINE V. SMITH, a citizen of the United States, residing at Hornellsville, in the county of Steuben and State of New York, have invented certain new and useful Improvements in Fluting and Ironing Machines, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a perspective of a machine embodying my invention; Fig. 2 a plan, and Fig. 3 a sectional detail, of the same.

Like letters refer to like parts in all the figures.

A represents the table of the machine, and this may be a plate of any suitable material provided with parallel cleats *a a*; or, if desired, similar cleats may be secured to an ordinary table, whereby the remaining elements of the machine can be used in connection therewith. Within the cleats *a a* is a reciprocating heating-box, B, within which heated metal bars *b* are placed to impart heat to the cover B' of the box. The cover is secured in proper position upon the box by a depending lug, *b'*, at each corner thereof, and the metal bars, which would otherwise prevent the entrance of the lugs into the box are cut away, as clearly shown in Fig. 2. The upper surface of the cover forms the fluting and ironing surface, and is constructed with plain and ribbed corrugated or fluted surfaces disposed parallel to and alongside of each other, as shown at B² and B³, respectively.

C represents a fluting and ironing roll, having suitable corresponding plain and fluted surfaces *c c'*, respectively, so that when rotated above and upon or against the cover B' the operations of fluting and ironing may be conjointly or separately performed. The roller is provided with usual bearing-surfaces or journals, which are extended to form duplicate crank or handle terminations—that is to say, each end of the roller-shaft is adapted to receive at will the handle *c*². The roller is retained in operative position by and revolves in bearing-blocks *d d*, mortised into and depending from a bridge-piece, *d'*, to which the blocks are rigidly secured.

E represents a casting, which comprises a broad bearing or base, *e*, an adjacent upright,

e', slotted for the passage of the roller-shaft and extended at a right angle to form an arch, *e*², through which the bearing-blocks pass. A spring, F, rests upon seats *f* formed on the blocks *d*, and bears centrally against the under side of the arch. A screw, *d*², is tapped into the arch, so that when turned against the spring the tension of the latter (and thereby the pressure of the roller C upon the cover B') is regulated at will. In this instance the bridge-piece is shown slotted for the passage there-through of the screw; but, if desired, the screw may be tapped therein and bear against the upper surface of the arch, when, by turning the screw, the bridge-piece may be lifted from the arch, bringing the bearing-blocks with it against the resistance of the spring, and thus releasing the roll from the pressure thereof; but in this construction the greatest pressure of the roll upon the bed is that of the tension of the spring, and I therefore prefer the construction illustrated, as the pressure and tension of the spring can be increased beyond its natural or normal degree. The lower portion of the casting E forms a clamp, *e*³, and by means of a cam-lever, *e*⁴, or it may be by means of a thumb-screw, the casting is secured to the table A, or it may be to any ordinary table; or, furthermore, the clamp may be adapted in size to embrace both the table A and any ordinary table in a manner readily apparent.

By the construction described it is clear that the roller and bed or cover B' are reversible, so that the extreme edge of garments or fabrics may be only fluted when these elements are arranged as shown in Fig. 1; or in the same arrangement said fabrics may be fluted a distance from the edge and plainly ironed at the edge; or in the arrangement of the elements as shown in Fig. 2 a fluted edge and an adjacent inner plain surface may be produced, while in either arrangement fluting and plain ironing may be separately performed. Otherwise the operation is too apparent to require further description than that as the roll is rotated by the crank the box moves longitudinally within the cleats, it being provided with rolls *b*², one of which only is shown, Fig. 1, to facilitate said movement, which is caused by the fluting of the cover and roll acting after the manner of a rack and pinion. The

principal elements are the roll, the clamp, and the box, with their accessories, and these are simple in construction, not liable to get out of repair, and readily secured in operative position and as readily taken apart and packed for storage or transportation.

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

10 1. A fluting and ironing machine comprising a roller, a bed, a clamp and roller bearing support constructed in one piece, and a locking device, as e^4 , whereby the machine is adapted to be secured to an ordinary table, substantially as shown and described.

15 2. In a fluting-machine, the frame E, cast in one piece, comprising a clamp, e^3 , a slotted upright, e , and an arch, e^2 , substantially as shown and described.

20 3. The combination of the casting E, bridge-piece d' , bearing-blocks d , spring F, and screw d^2 , substantially as shown and described.

4. In a fluting-machine, a roller provided with

a plain surface, a fluted surface, and a shaft adapted at each end to receive an operating- 25 crank, in combination with the frame E, provided with a slotted upright, e , the bridge-piece d' , having depending bearing-blocks d , the bed B^2 , and table A, substantially as shown and described.

30 5. The box B, provided with a cover, B' , the upper surface of which is corrugated over a portion of the same and plain over the remaining portion, substantially as shown and described.

35 6. The combination of the casting E, lever e^4 , table A, box B, roll C, bridge-piece d' , screw d^2 , and spring F, substantially as shown and described.

In testimony whereof I affix my signature in 40 presence of two witnesses.

JOSEPHINE V. SMITH.

Witnesses:

ROBERT W. SMITH,
CHARLES J. CLARK.