

(No Model.)

2 Sheets—Sheet 1.

W. J. SMITH.

WOOD MOLDING MACHINE.

No. 376,268.

Patented Jan. 10, 1888.

Fig. 1.

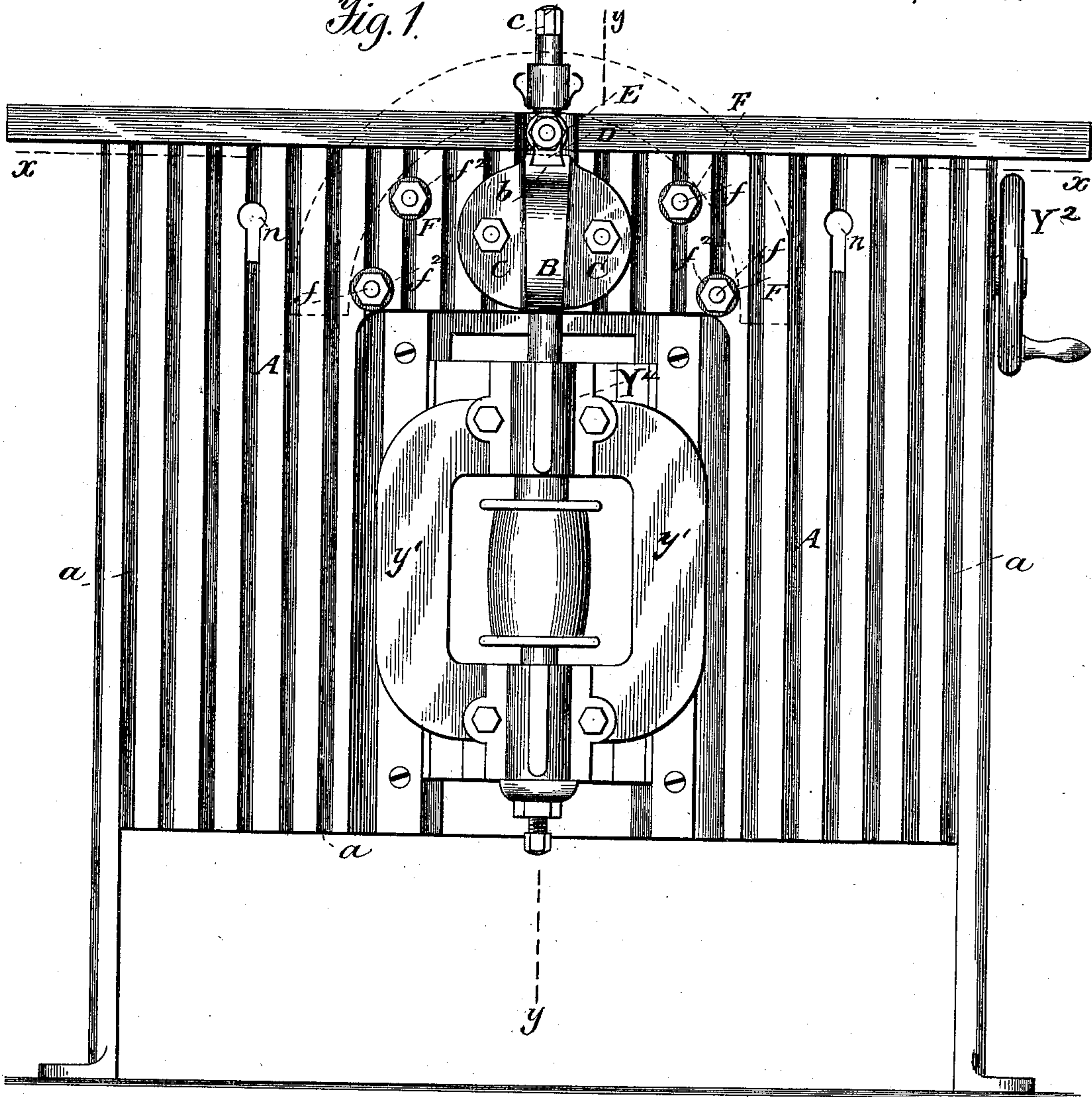
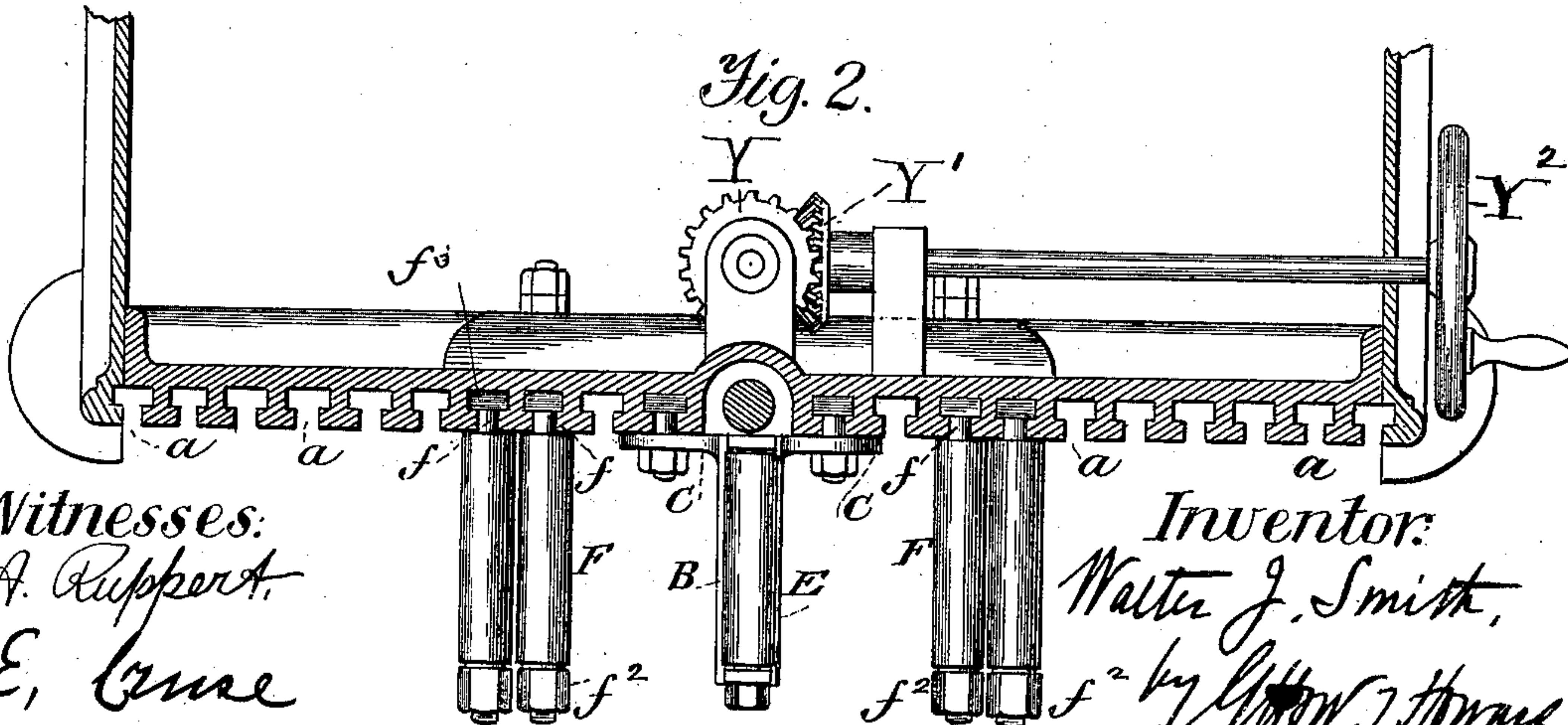


Fig. 2.



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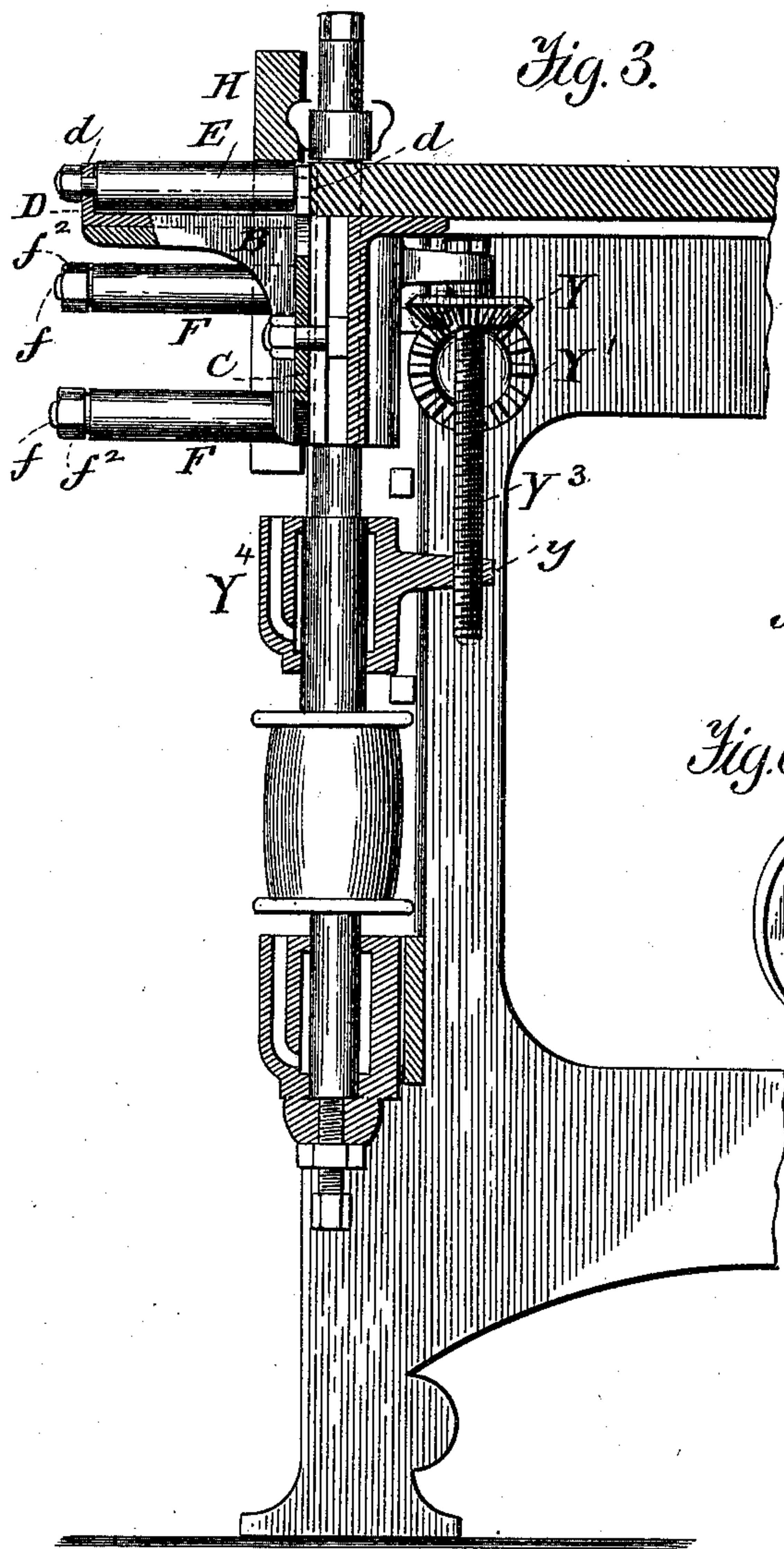


Fig. 3.

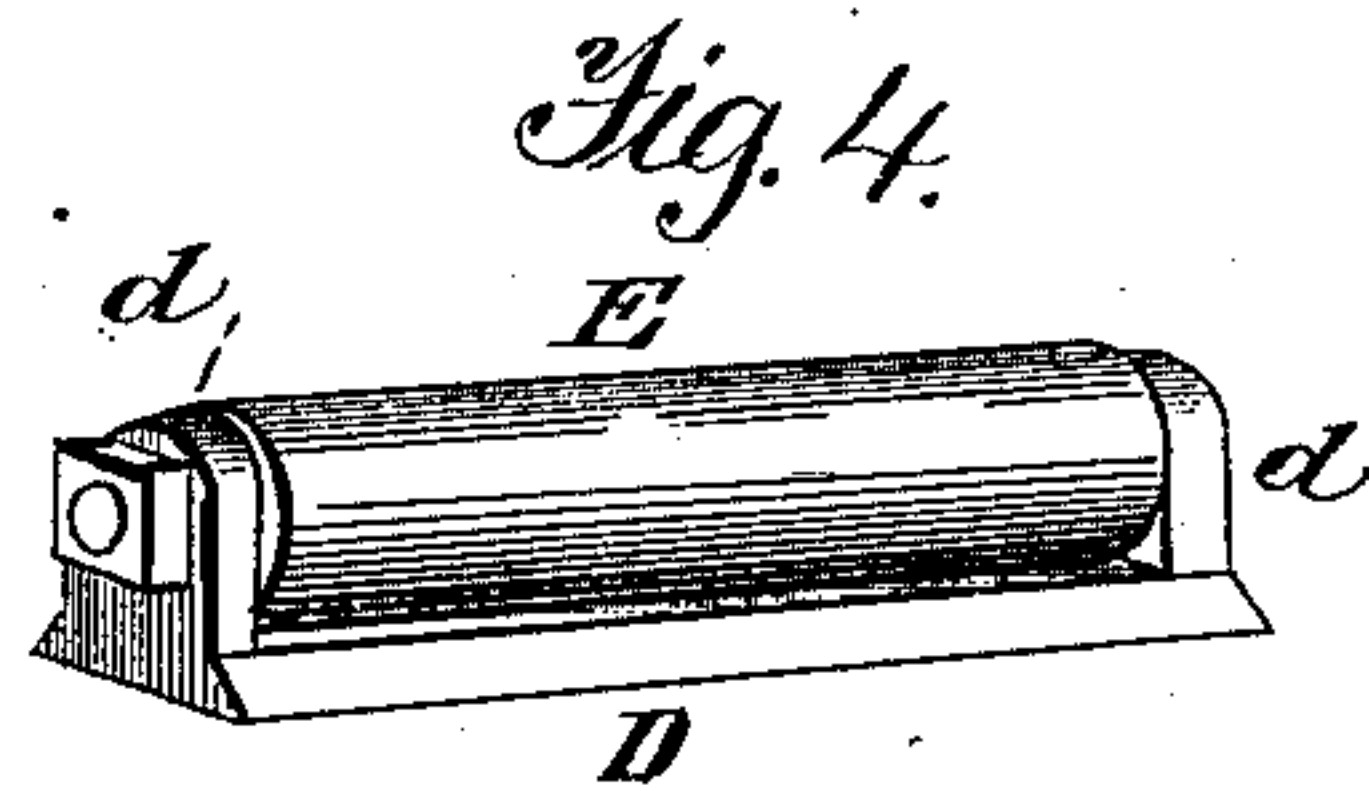


Fig. 4.

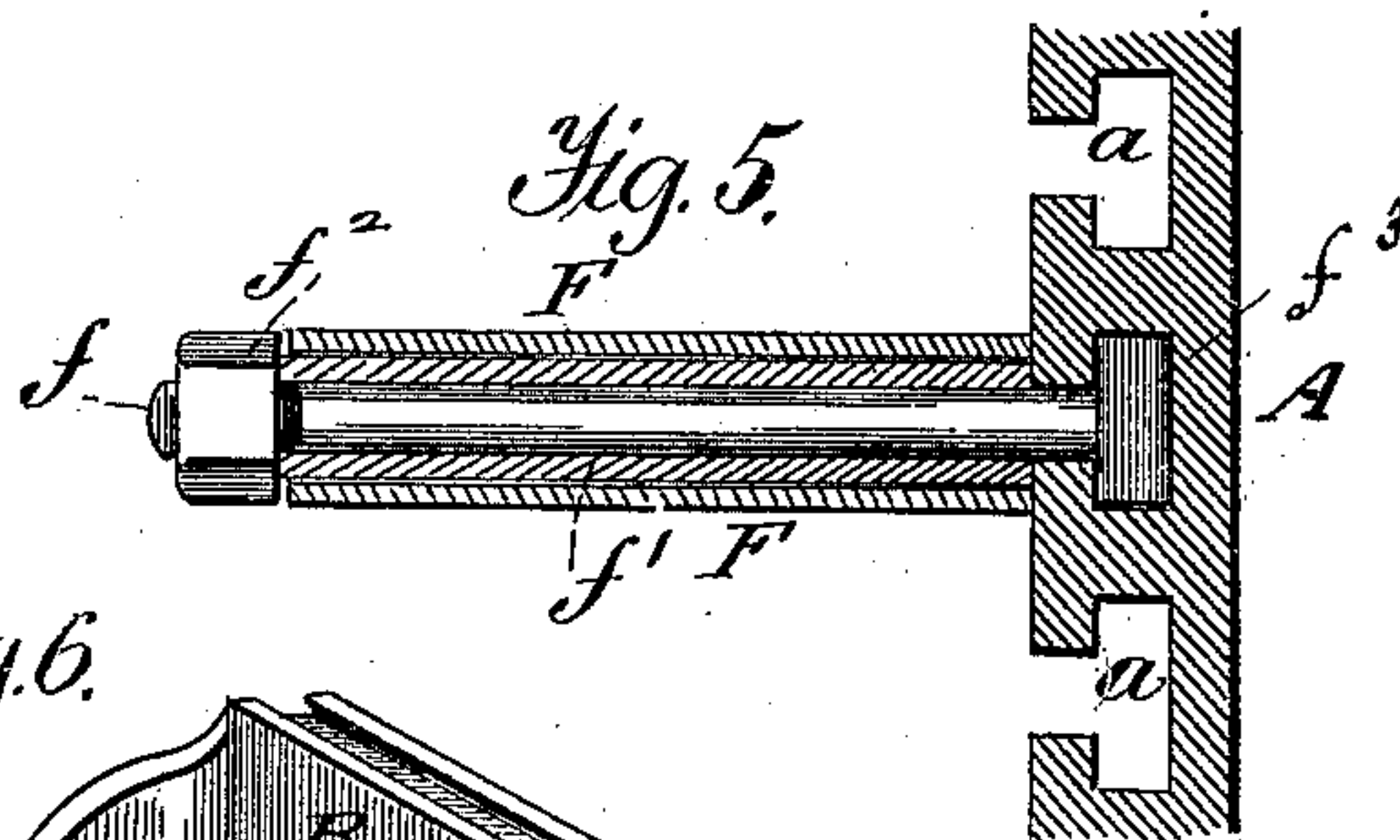


Fig. 5.

Fig. 6.

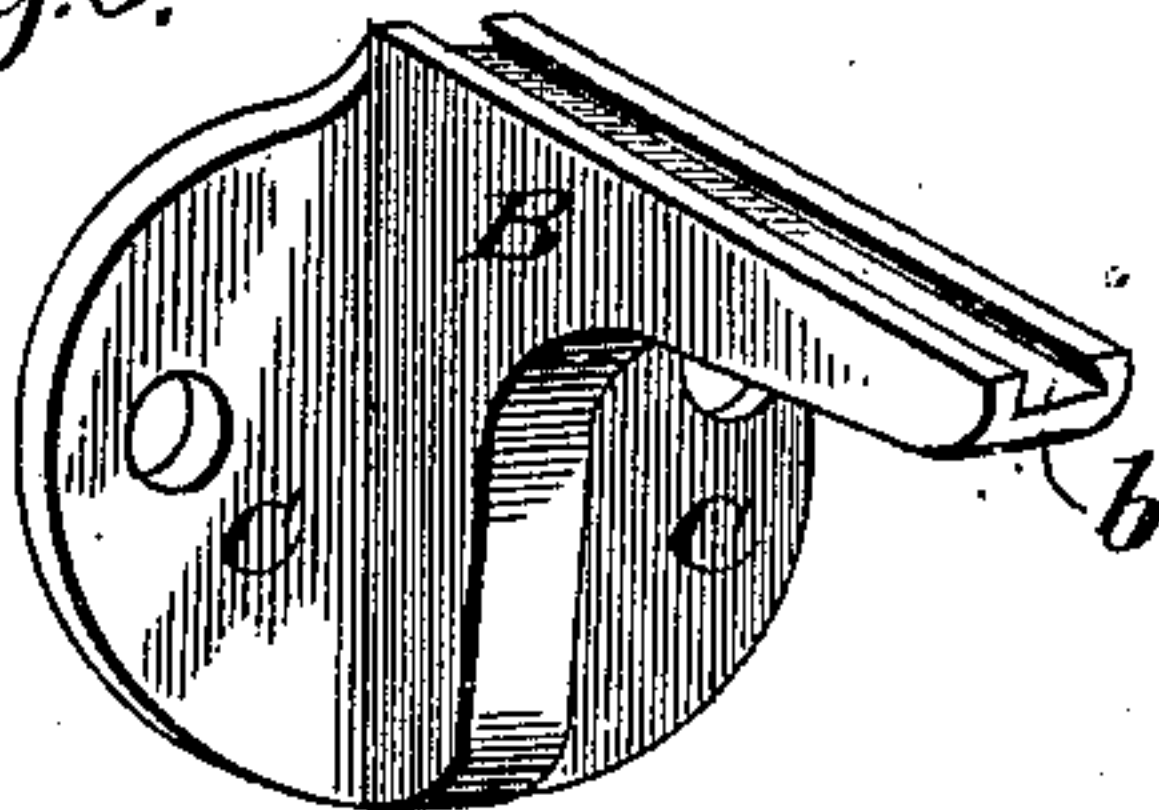


Fig. 7.

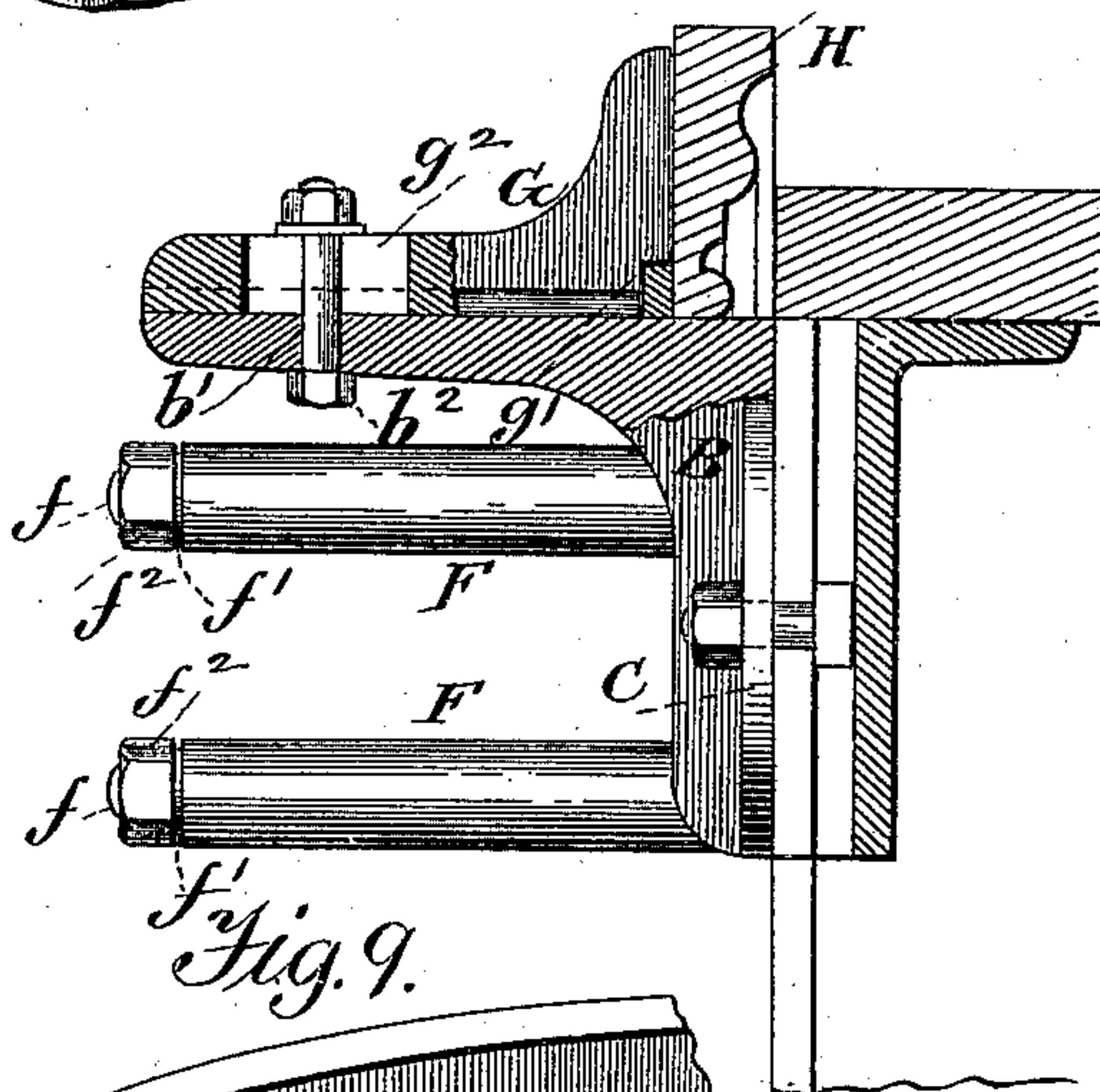
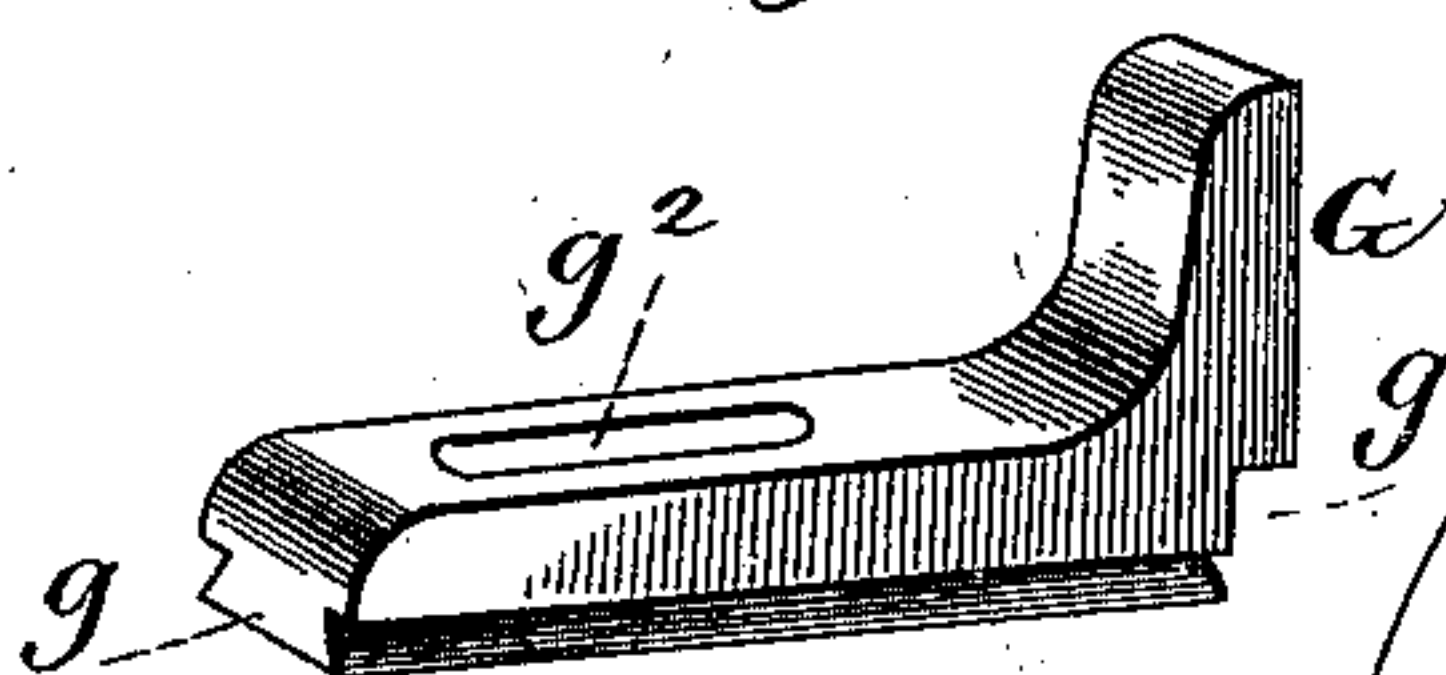


Fig. 9.

Fig. 8.



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UNITED STATES PATENT OFFICE.

WALTER J. SMITH, OF PHILADELPHIA, PENNSYLVANIA.

WOOD-MOLDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 376,268, dated January 10, 1888.

Application filed May 2, 1887. Serial No. 236,753. (No model.)

To all whom it may concern:

Be it known that I, WALTER J. SMITH, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Wood-Molding Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is to provide adjustable bearings for curved work, as will be fully set forth in the following specification and claims.

In the drawings, Figure 1 is a front view of a wood-molding machine. Fig. 2 is a transverse section on the line xx of Fig. 1. Fig. 3 is a vertical section on the line yy of Fig. 1. Figs. 4, 5, and 6 are detached details; and Figs. 7, 8, and 9 illustrate a modification, as will be hereinafter explained.

Similar letters of reference indicate similar parts in the respective figures.

A is a plate attached to the front of the frame of a wood-molding machine, having the T-shaped grooves a formed therein. B is an arm or rest forming a part of the casting C, which is adapted to be bolted to the plate A. This arm B is provided with a dovetailed groove, b , and a hole, b' , adapted to receive a bolt, b^2 . (See Fig. 7.)

D is a dovetailed slide, having arms d at each end, which form bearings for a roller, E. (See Fig. 4.) This slide is adapted to fit in the dovetailed groove b , and the roller E will form a central bearing, by which the other rollers, F, can be adjusted to suit a curve of any radius, the casting C being bolted to the plate A, so as to bring the roller E directly in a line with the spindle c , which carries the cutting-tool. The rollers F are arranged as follows, (see Fig. 5:) T-headed bolts f are inserted in the T-shaped grooves a . A piece of pipe, f' , somewhat longer than the roller F, (which is also a piece of pipe,) is fitted over the bolt f , and the roller F is loosely placed over the pipe f' . By operating the nut f^2 the bolt f can be firmly secured at any point in the T-shaped groove in which it is inserted, and thus the rollers F can be vertically adjusted in their respective grooves to suit a curve of any radius. The front plate is provided with

key-hole openings n , for the purpose of attaching a shelf in the usual way.

I do not limit myself to the number of rollers to be used, though practice shows five to be preferable.

The cutting-tool is adjustable vertically by means of the set-screw Y^3 , which passes through the lug y on the box Y^4 . The set-screw is provided with a beveled gear, Y, with which the beveled gear Y' engages. By operating the crank-wheel Y^2 the screw Y^3 can be revolved in either direction, and the frame y' , and with it the tool-spindle and the cutting-tool, can be raised or lowered, as the operator desires.

Referring now to Figs. 7, 8, and 9, I will state that heretofore it has been exceedingly difficult to mold pieces of wood having an elliptical form, owing to the irregularity of the curve, and it has been the custom to make elliptical moldings in three or more pieces. As a consequence, the work at the joints has always had a more or less imperfect appearance. By my invention, as illustrated in Figs. 7, 8, and 9, I have overcome this difficulty, as I will now proceed to explain. G is a bracket, its base having a dovetail, g , adapted to fit in the dovetailed groove b of the rest B. The lower part of the face of the bracket is cut out, as shown at g' , so as to form a shoulder. The bracket G is also provided with a slot, g^2 .

H represents a piece of wood of an elliptical form. To this piece of wood a narrow strip of wood, h , is temporarily attached, by nails or otherwise.

The operation of molding elliptical work is as follows: The bracket G is inserted in the dovetailed groove b , and adjusted, by means of the bolt b^2 and slot g^2 , to suit the thickness of the piece of wood to be molded. The piece of wood H is then inserted between the face of the bracket and the cutting-tool, the narrow strip h fitting in the shoulder g' , and the upper surface of the arm B forming a bearing for the piece of wood H. It will be readily seen that the piece of wood will be held firmly in position against the cutting-tool, and that the bearing will be uniform, no matter how much the curve may vary, and that elliptical moldings can be made in one piece, the work being uniform throughout.

Having described my invention, I claim—

1. In a wood-molding machine, a front plate provided with a series of vertical parallel grooves having a series of rollers whose axes are horizontal, adjustably retained therein, 5 combined with a rotary cutter, substantially as described.

2. In a wood-molding machine, a front plate provided with a series of parallel grooves in combination with rollers adjustably retained 10 therein, and an arm, B, provided with an adjusting-jaw having a recess, g' , within which a guide-strip upon the molding is adapted to pass, substantially as described.

3. In a wood-molding machine, a front plate

provided with a series of open-ended vertical 15 parallel grooves, a , in combination with supporting-rollers having a bolt extending longitudinally through and forming an axis for the rollers, one end of the bolt being provided with a head and the opposite end with a thread 20 and nut, for the purpose substantially as set forth.

In testimony whereof I hereunto set my hand and seal.

WALTER J. SMITH. [L. S.]

Witnesses:

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