

(No Model.)

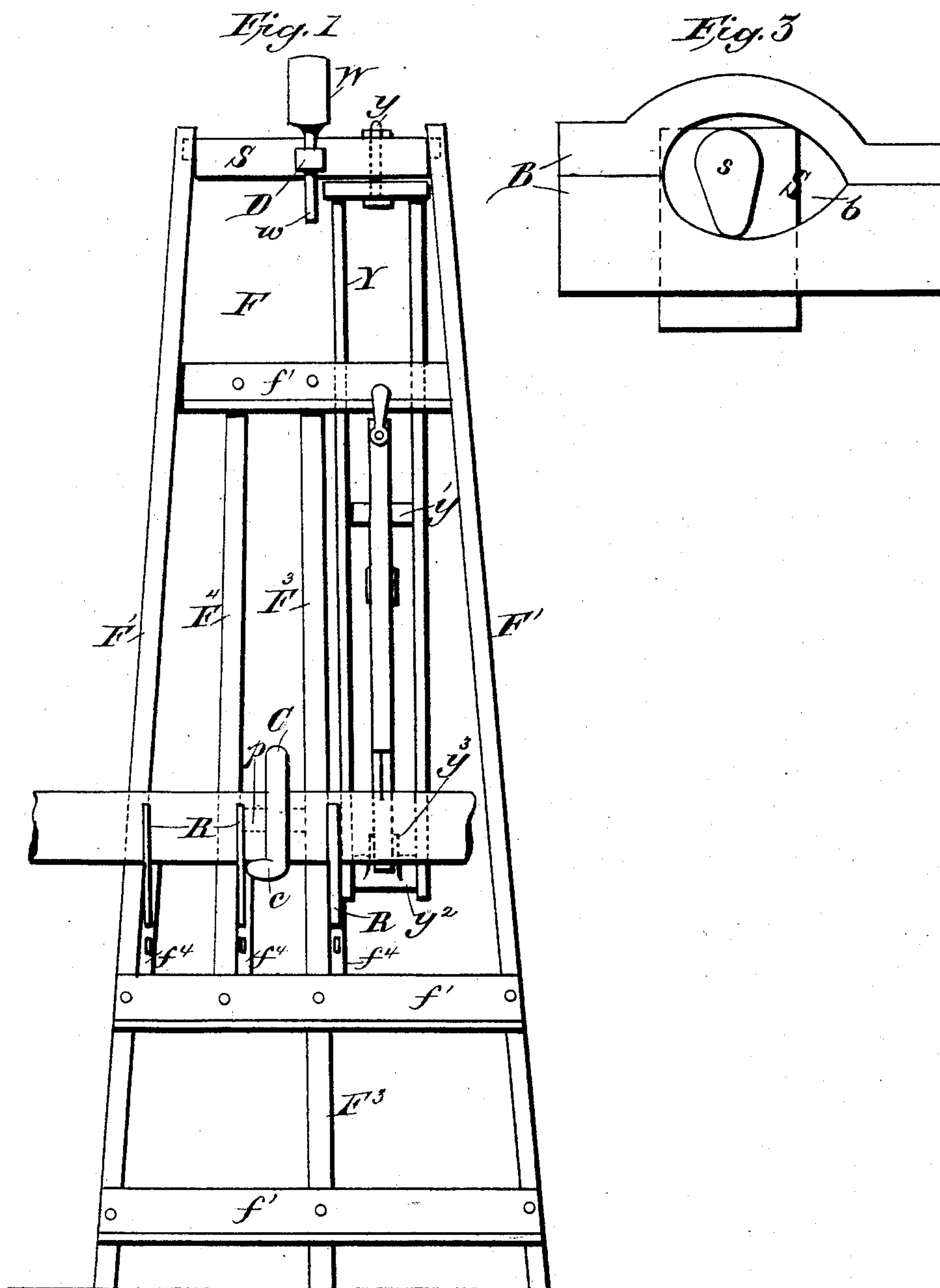
3 Sheets—Sheet 1.

N. NAUDEY.

SAWING MACHINE.

No. 371,211.

Patented Oct. 11, 1887.



Attest.

W. E. Luntin.
C. M. Hallam

Inventor:-

Nicolas Vandey.
by Henry M. B.
his attorney

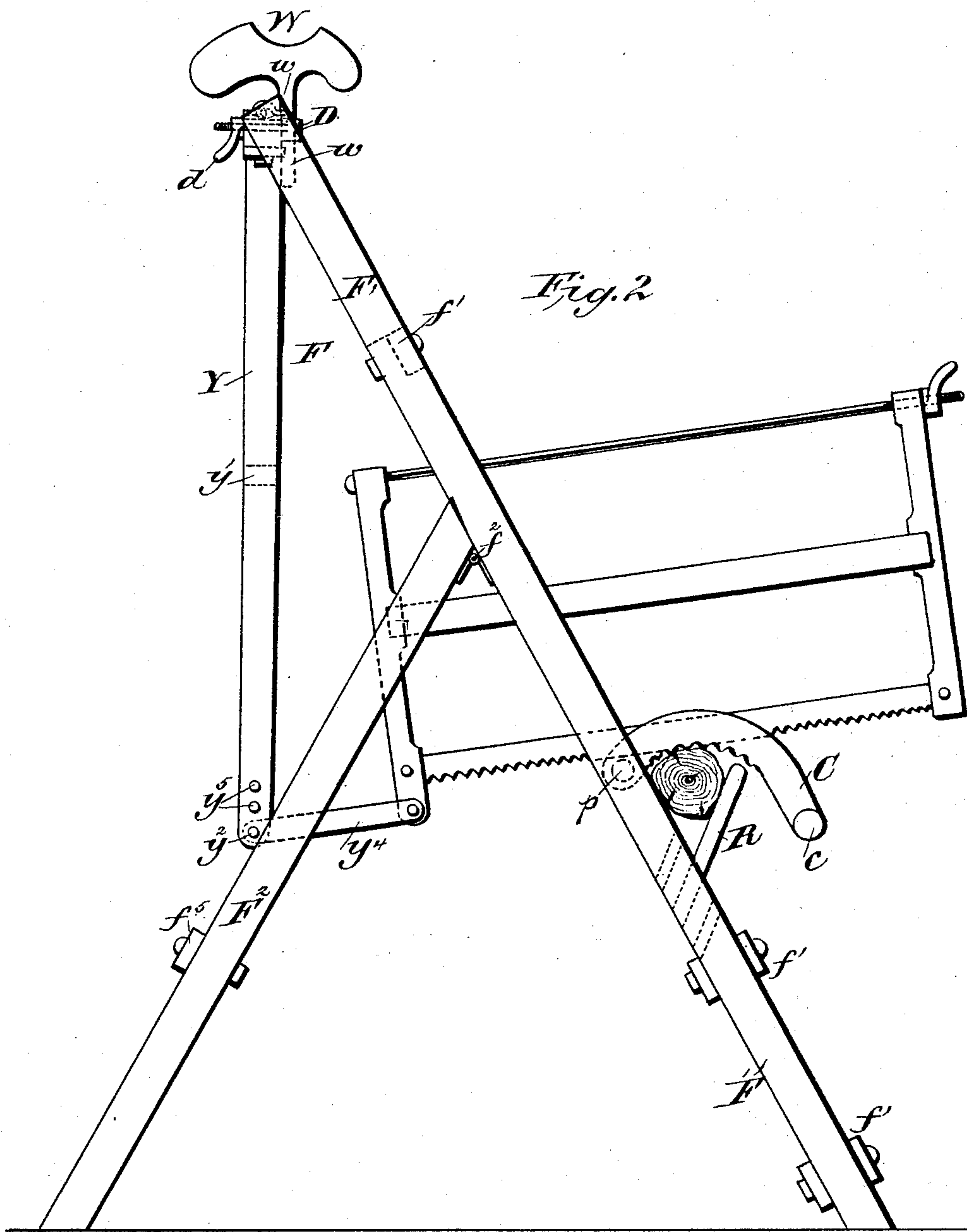
(No Model.)

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N. NAUDEY.
SAWING MACHINE.

No. 371,211.

Patented Oct. 11, 1887.



Attest:-
W. C. Sullivan
C. M. Gallahan

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His attorney

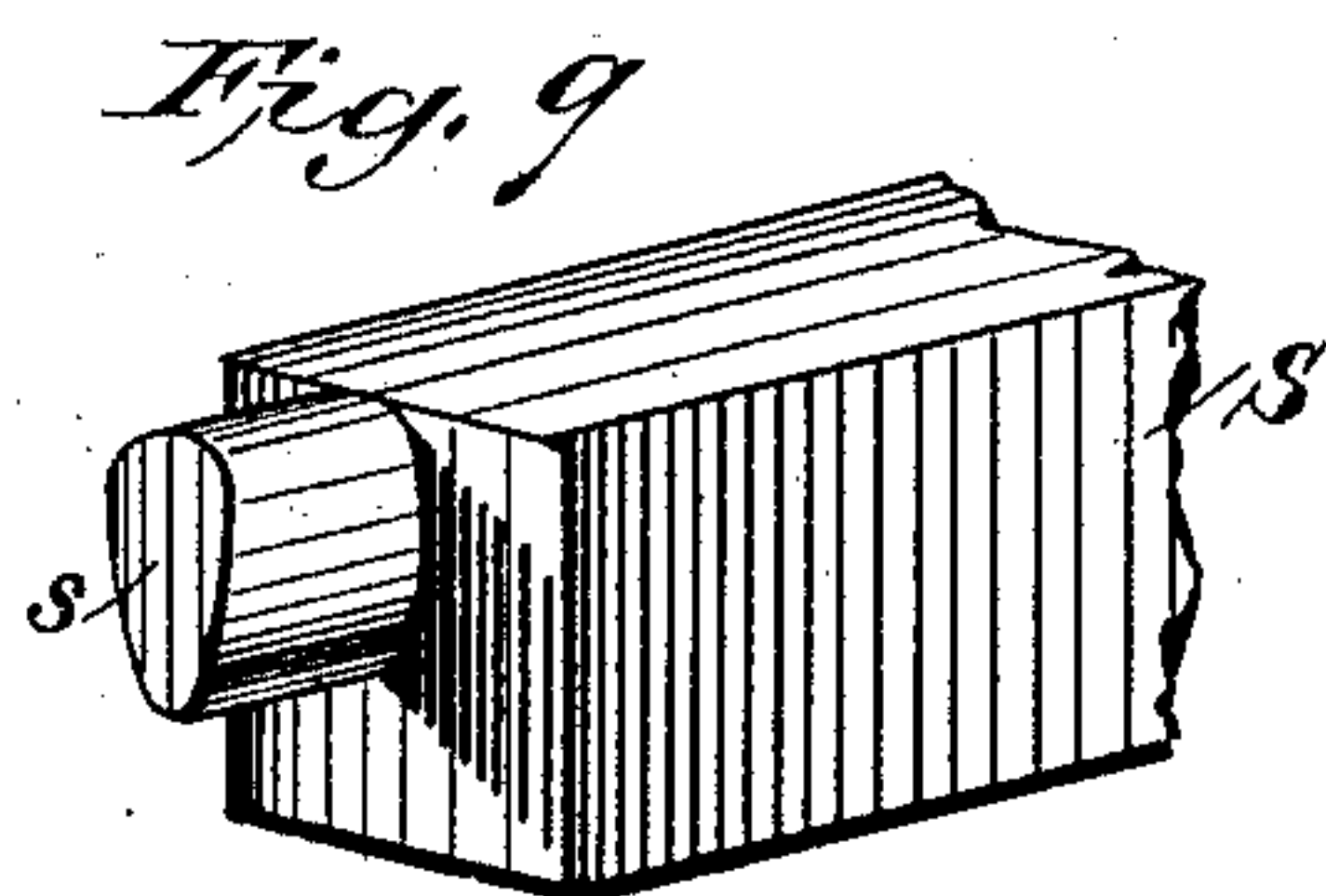
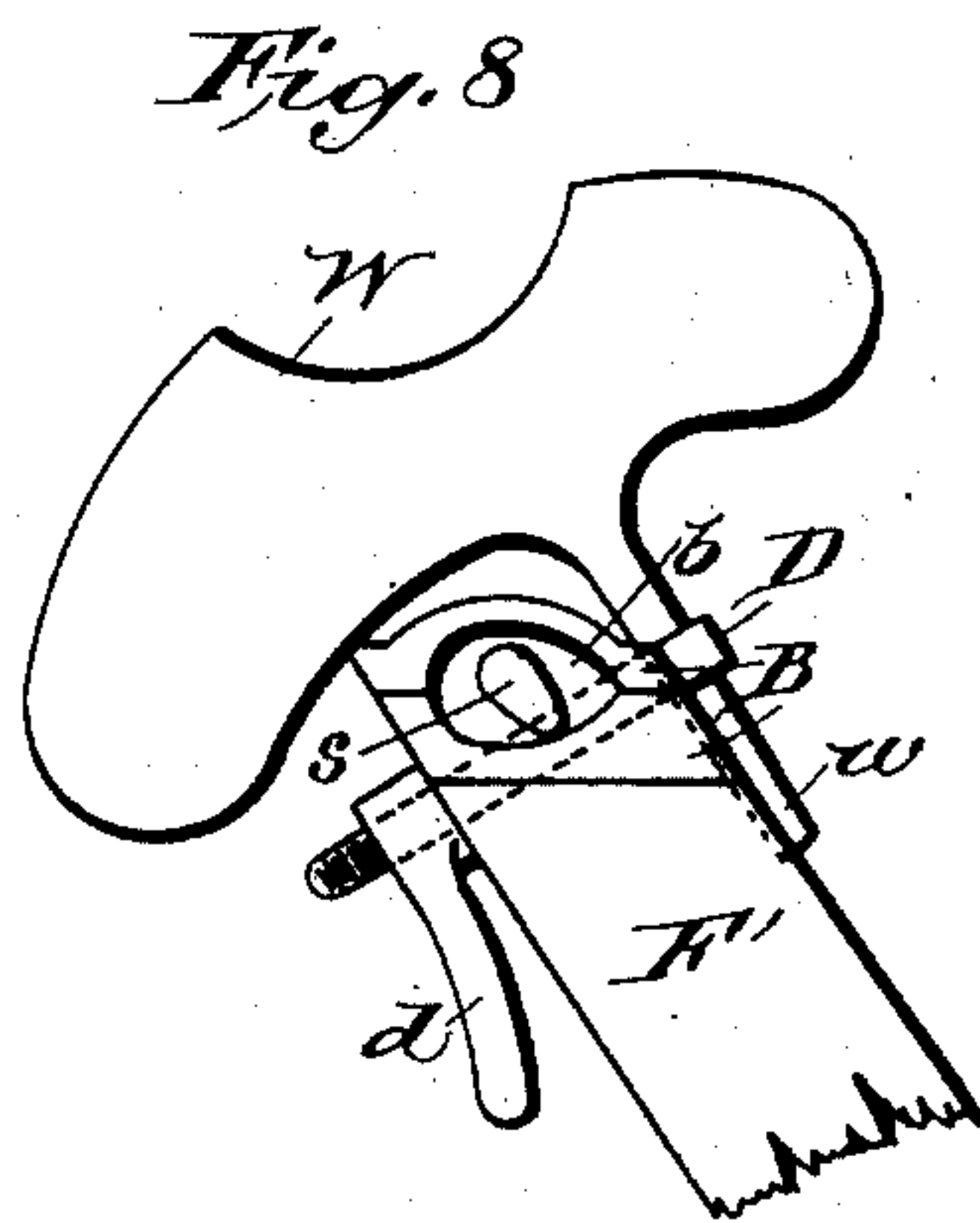
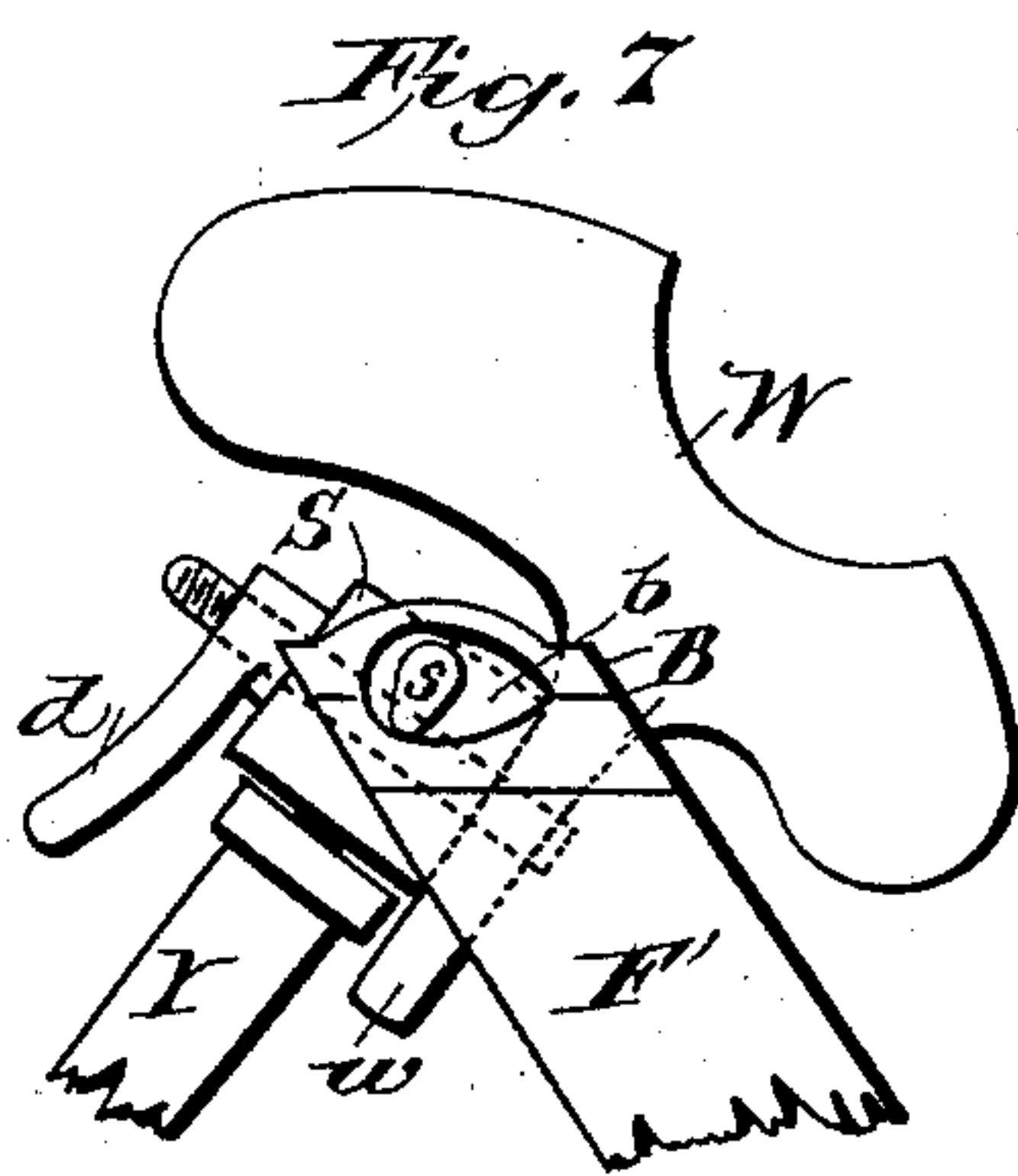
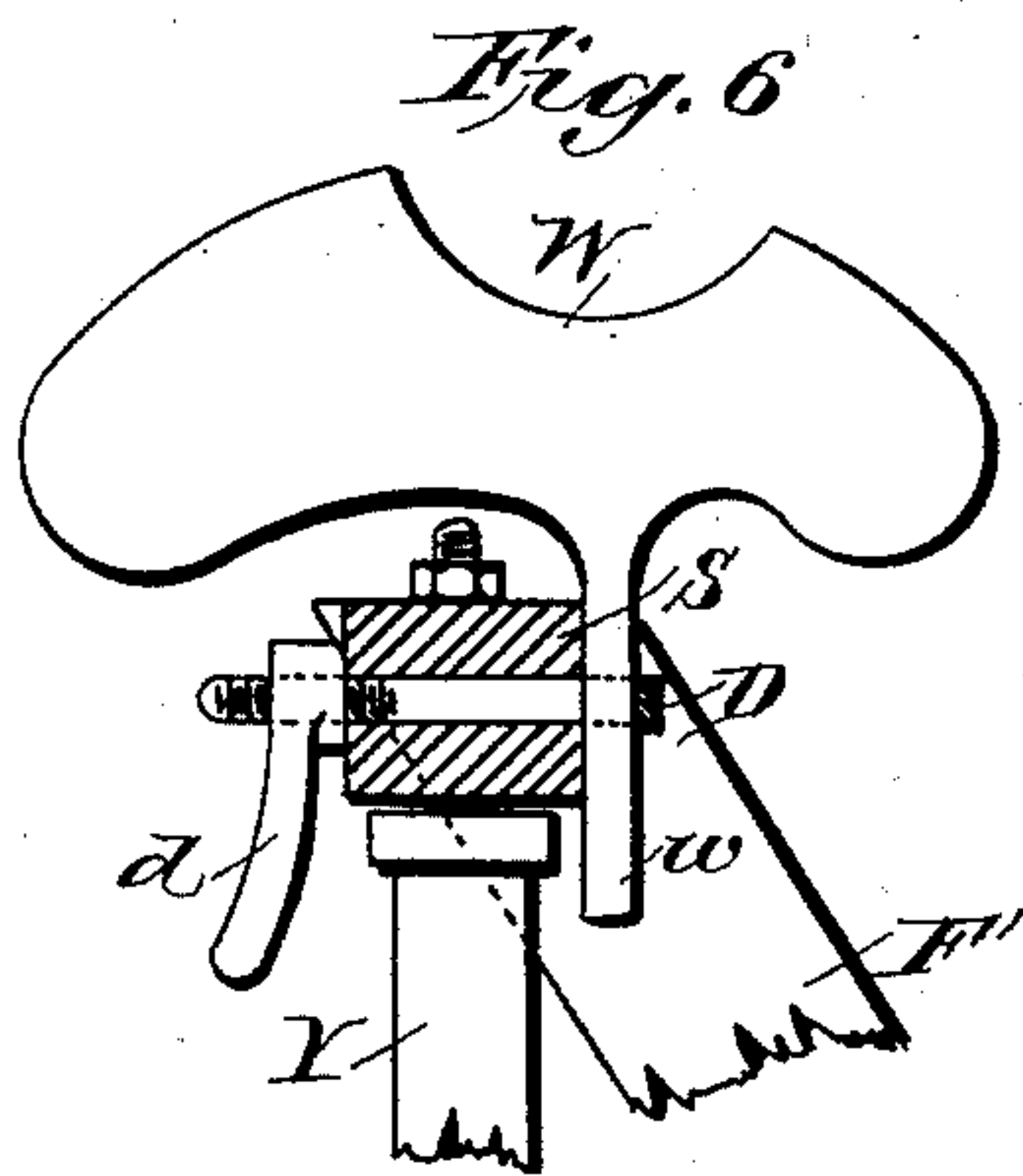
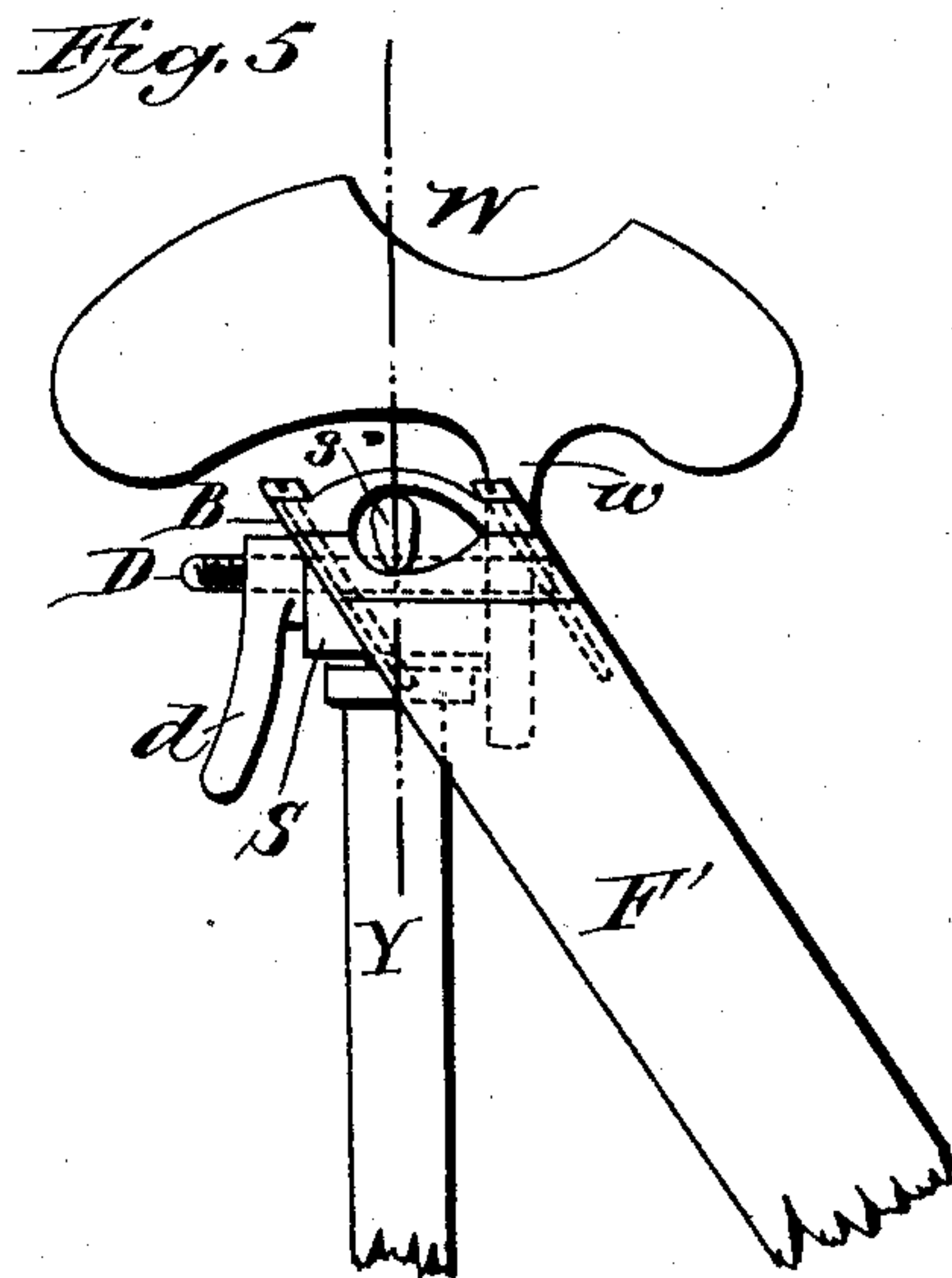
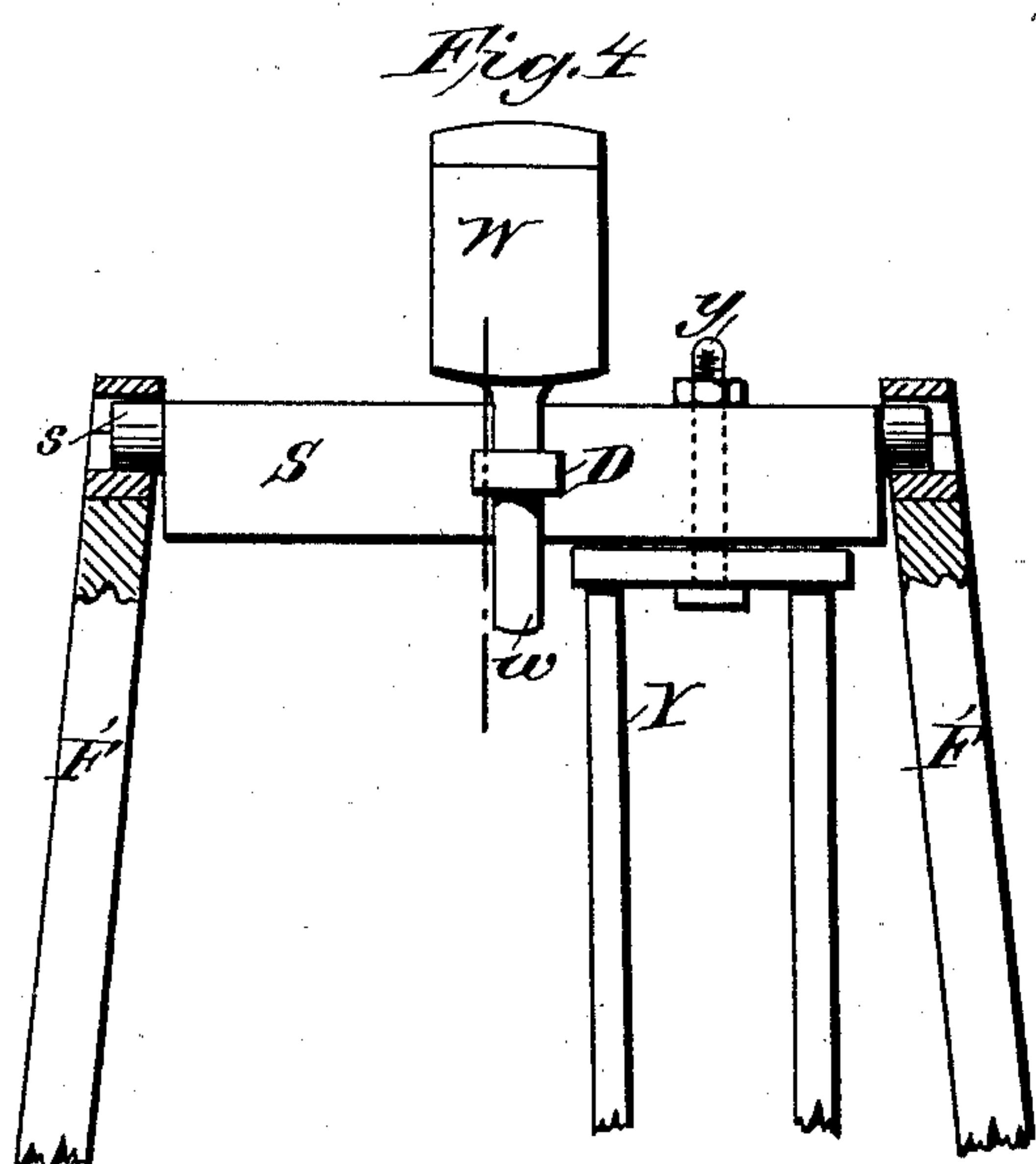
(No Model.)

3 Sheets—Sheet 3.

N. NAUDEY.
SAWING MACHINE.

No. 371,211.

Patented Oct. 11, 1887.



Attest:
W. O. Rucker
C. M. Hallahan

Inventor:
N. Naudey
by Henry O. Rucker
his attorney

UNITED STATES PATENT OFFICE.

NICOLAS NAUDEY, OF CUSE, DOUBS, FRANCE.

SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 371,211, dated October 11, 1887.

Application filed June 11, 1887. Serial No. 241,041. (No model.) Patented in France October 2, 1886, No. 178,722.

To all whom it may concern:

Be it known that I, NICOLAS NAUDEY, a citizen of the French Republic, residing at Cuse, Department of Doubs, in the French Republic, have invented certain new and useful Improvements in Sawing-Machines, (for which I have obtained Letters Patent in France, No. 178,722, bearing date October 2, 1886;) and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

Referring to the drawings, Figure 1 is a front elevation, and Fig. 2 a side elevation, of my improved sawing-machine. Fig. 3 is an enlarged side view of one of the bearings for the rock-shaft, showing said shaft in end elevation. Fig. 4 is a detached elevation of the upper portion of the frame, showing the bearings for the rock-shaft in section. Fig. 5 is an enlarged side elevation of Fig. 4; Fig. 6, a transverse section of the rock-shaft, showing the means of securing the counter-weight thereto. Figs. 7 and 8 are side views of a portion of the upper end of the frame, showing the different positions of the counter-weight in sawing; and Fig. 9 is an isometric view of a portion of the rock-shaft.

This invention relates to improvements in sawing-machines, and has for its object to relieve the operator as much as possible from the labor inherent to the operation of sawing; and it consists in the construction of the machine and in the combination of the parts thereof, substantially as hereinafter described, and as set forth in the claims.

The frame F of the machine has, as shown, the general form of an easel, the shorter legs or braces, F², being hinged at f² to the longer legs or standards, F¹, so as to adapt the frame to be folded together when not in use. The shorter legs or braces, F², are connected together by means of cross-braces f³, and the standards or legs F¹ are connected together by cross-braces f⁴. The cross-braces f⁴ are further strengthened by a third or central standard, F³, that also affords a more stable bearing to the frame and renders it less liable to sway or rock with the motion of the saw, or in a direction at right angles thereto. A fourth vertical brace, F⁴, connects the upper and inter-

mediate cross-pieces f⁴. To each standard F³ and F⁴ and to the left-hand standard, F¹, is secured a cheek-piece, f⁴, that has a plurality of holes or sockets for the reception of a rest-bar, R, said holes or sockets being so formed that the rest-bars R will lie at an angle to the standards for the reception of the log of wood, as more plainly shown in Fig. 2, said rest-bars being adjustable vertically on the cheek-pieces, according to the thickness of the log, by placing them in one or the other of the holes or sockets of the cheek-piece f⁴.

Upon a bolt or pin, p, (shown in dotted lines in Figs. 1 and 2,) secured to the standards F³ F⁴, is pivoted a toothed segment-lever, C, provided with a hand-hold, c, for holding the log of wood on its supports.

To the upper end of each standard F are bolted bearing-blocks B, so constructed as to form an ellipsoidal bearing, b, for the correspondingly or cam shaped journal s of a rock-shaft, S, that is preferably square in cross-section, as more plainly shown in Figs. 3, 6, 7, and 9. About centrally of the cross-shaft is secured a weight, W, so constructed that its center of gravity, when the weight is in a vertical position, will coincide with the longer axis of the journals s of the shaft S. As shown in Fig. 6, the weight is secured to one side of the shaft by means of an eyebolt, D, that extends through said shaft and embraces the stem or shank w of the weight, and by means of a nut, d, that works on the screw-threaded end of said bolt.

It will be seen that by the described construction of the journals and journal-bearings of the shaft S said shaft has practically knife-edge bearings, so that the friction between the shaft and its bearings is reduced to a minimum. It will further be observed that by arranging the weight W so that its center of gravity will lie in the plane of the longer axis of the journals s of the shaft S the dead-centers of the latter are not only readily overcome, but a comparatively small amount of power is required to rock the shaft in its bearings. Further than this, the weight W is so constructed that it will exert its greatest power during the effective stroke of the saw—that is to say, when the saw meets with the greatest resistance to its passage through the wood—

thereby materially reducing the power necessary to the effective work of the saw.

From the shaft S is suspended a yoke, Y, by means of a bolt, y , on which said yoke is revolvable, so as to permit the cutting on lines other than straight lines, or lines at right angles to the longitudinal axis of the shaft. The arms of the yoke are braced together by means of braces y^1 y^2 , the lower brace, y^2 , being provided with perforated lugs or ears y^3 , (shown in dotted lines in Fig. 1,) to which the buck-saw-frame is connected by means of a link, y^4 . The brace y^2 , to which the link y^4 is connected, is adjustable vertically in the yoke, the arms of which are provided with holes y^5 , Fig. 2, for this purpose.

From the above description the operation of the machine will be readily understood, and needs, therefore, no further elucidation.

Instead of a bucksaw, any other form of crosscut-saw may be employed.

Having now particularly described my invention, what I claim is—

1. In a sawing-machine, the combination of a rock-shaft supported by and working on knife edge bearings, with a saw and a rigid

yoke, to one end of which said saw is pivoted, and a pivot-bolt connecting the other end of the yoke to the shaft, substantially as and for the purpose specified.

2. In a sawing-machine, the combination of the following instrumentalities: a frame composed of long and short legs pivotally connected, a rock-shaft supported by and working on knife-edge bearings at the upper end of the longer legs of the frame, a counter-weight secured to the rock-shaft, a rest for the wood to be sawed, adjustable toward and from the rock-shaft on the frame, a saw, a yoke to one end of which the saw is pivotally connected by means of a link, and a bolt secured to the rock-shaft on which the other end of the yoke is pivoted, substantially as and for the purposes specified.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of March, 1887.

NICOLAS NAUDEY.

Witnesses:

ROBT. M. HOOPER,
LEON SCHMITTBUHL.