

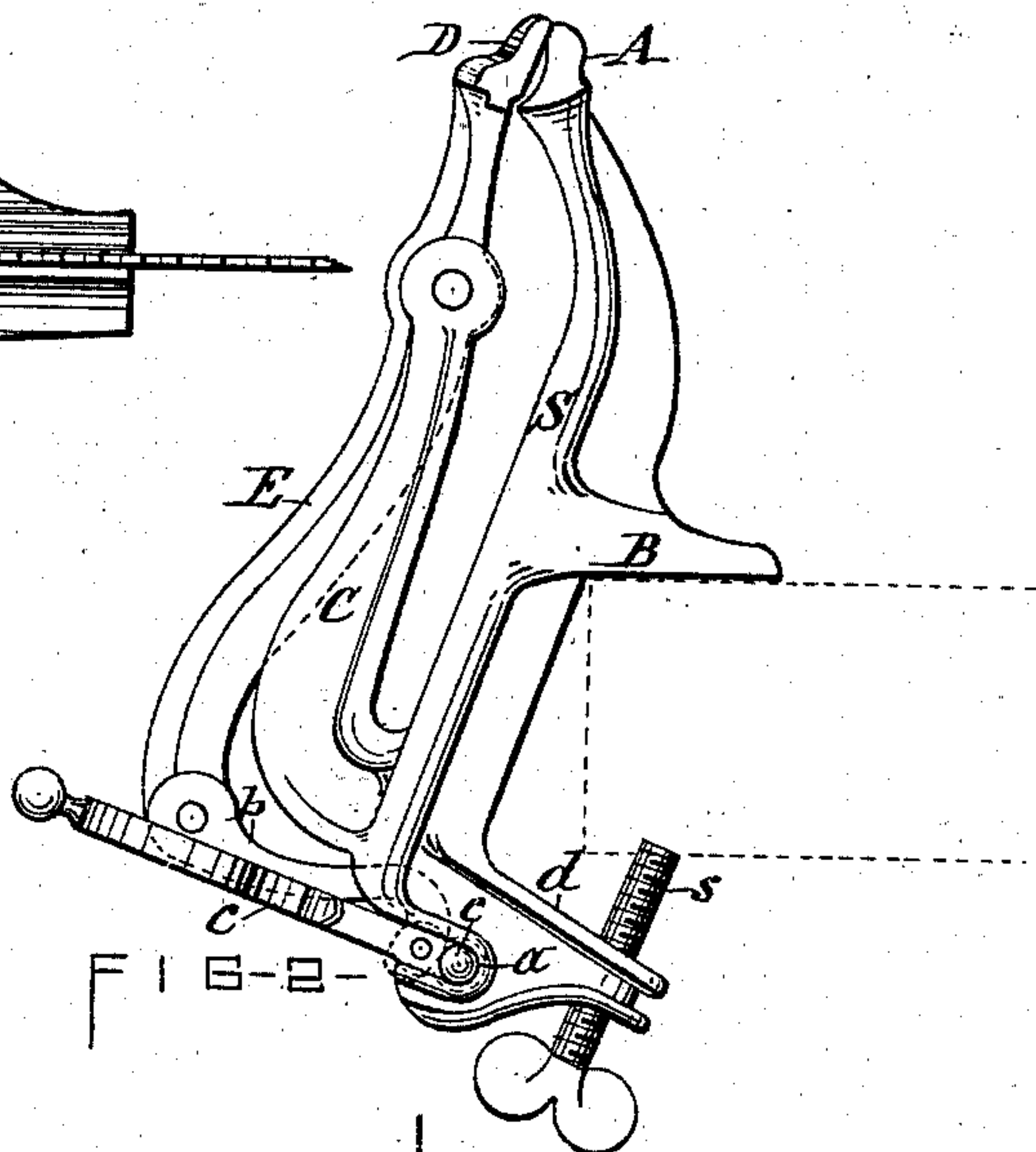
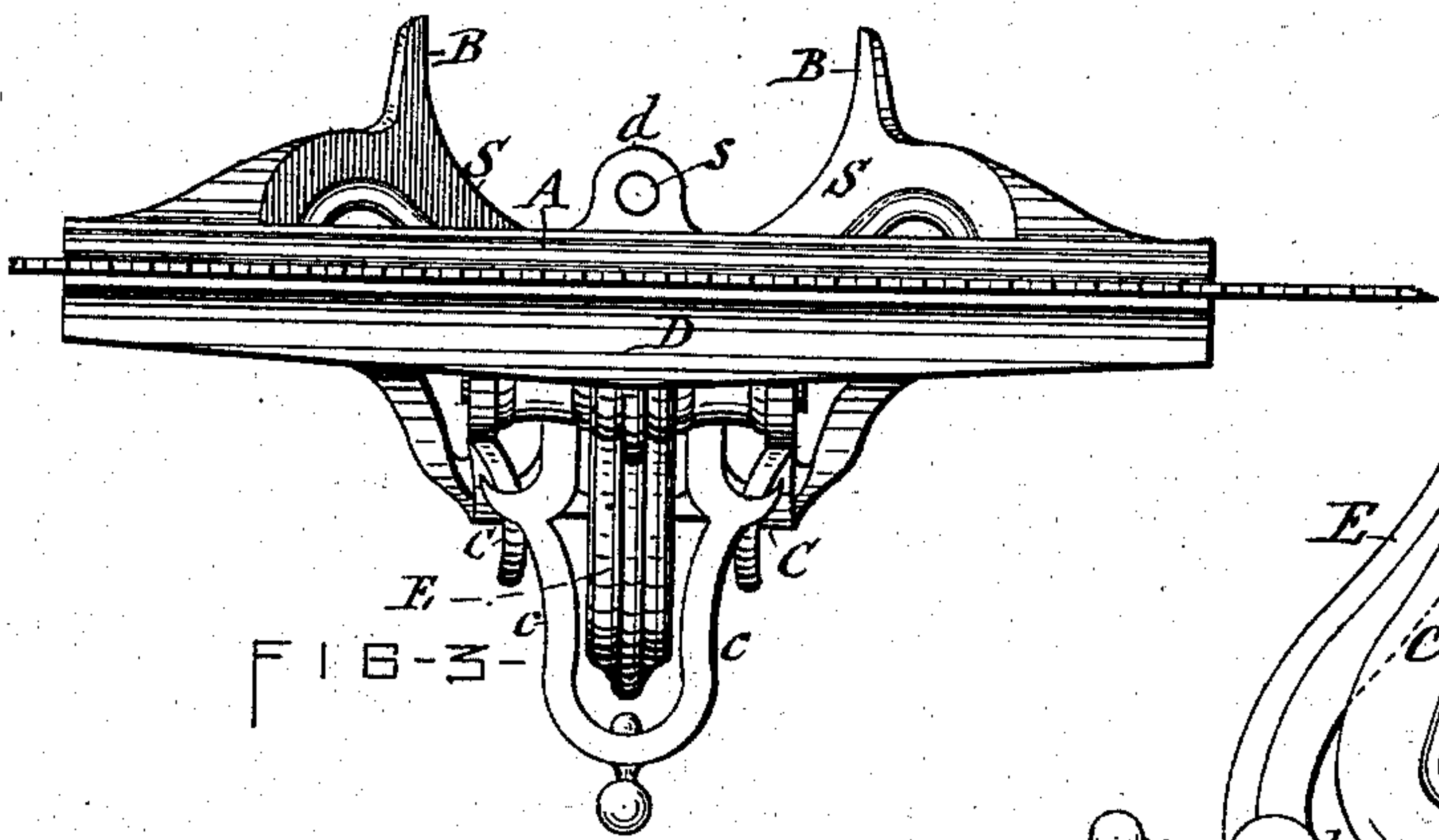
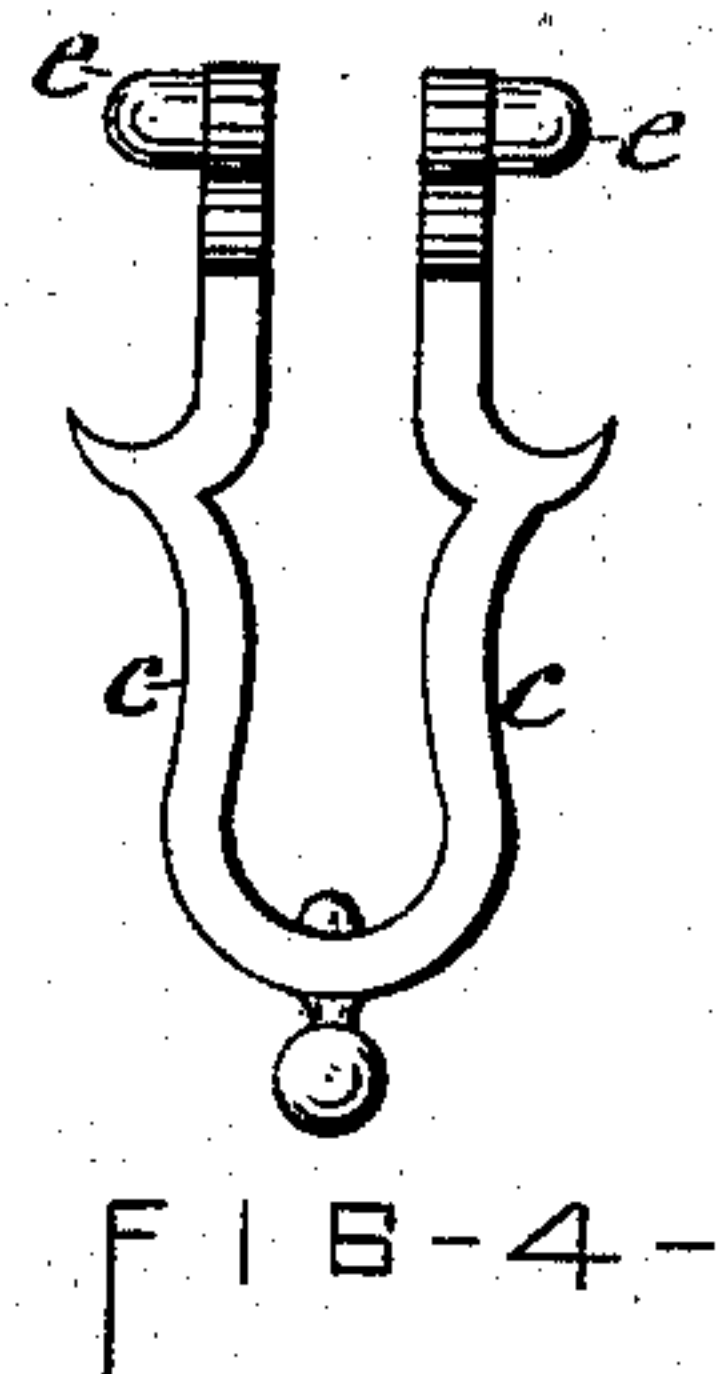
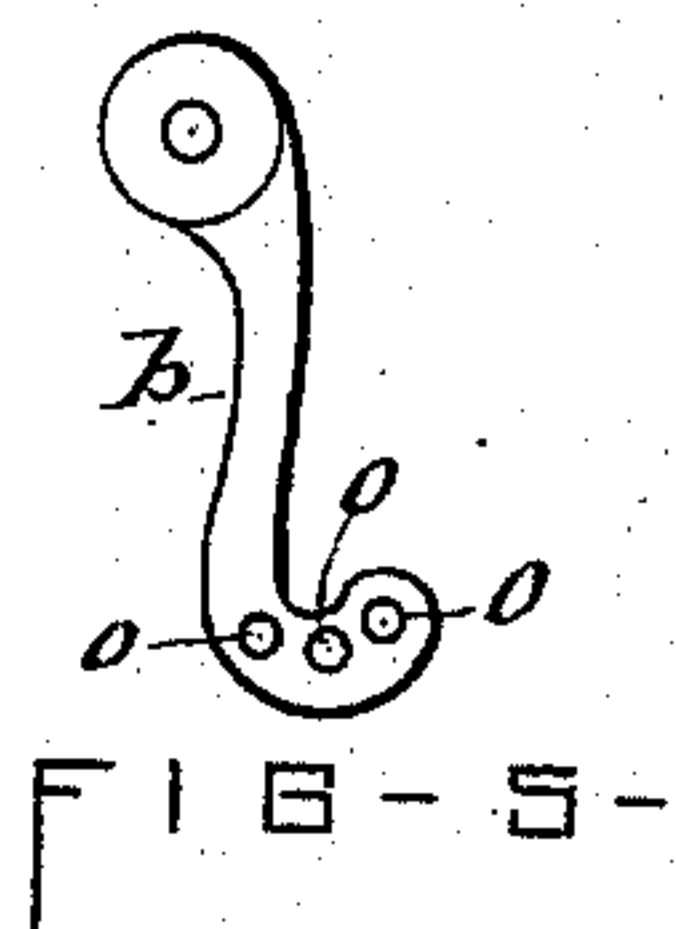
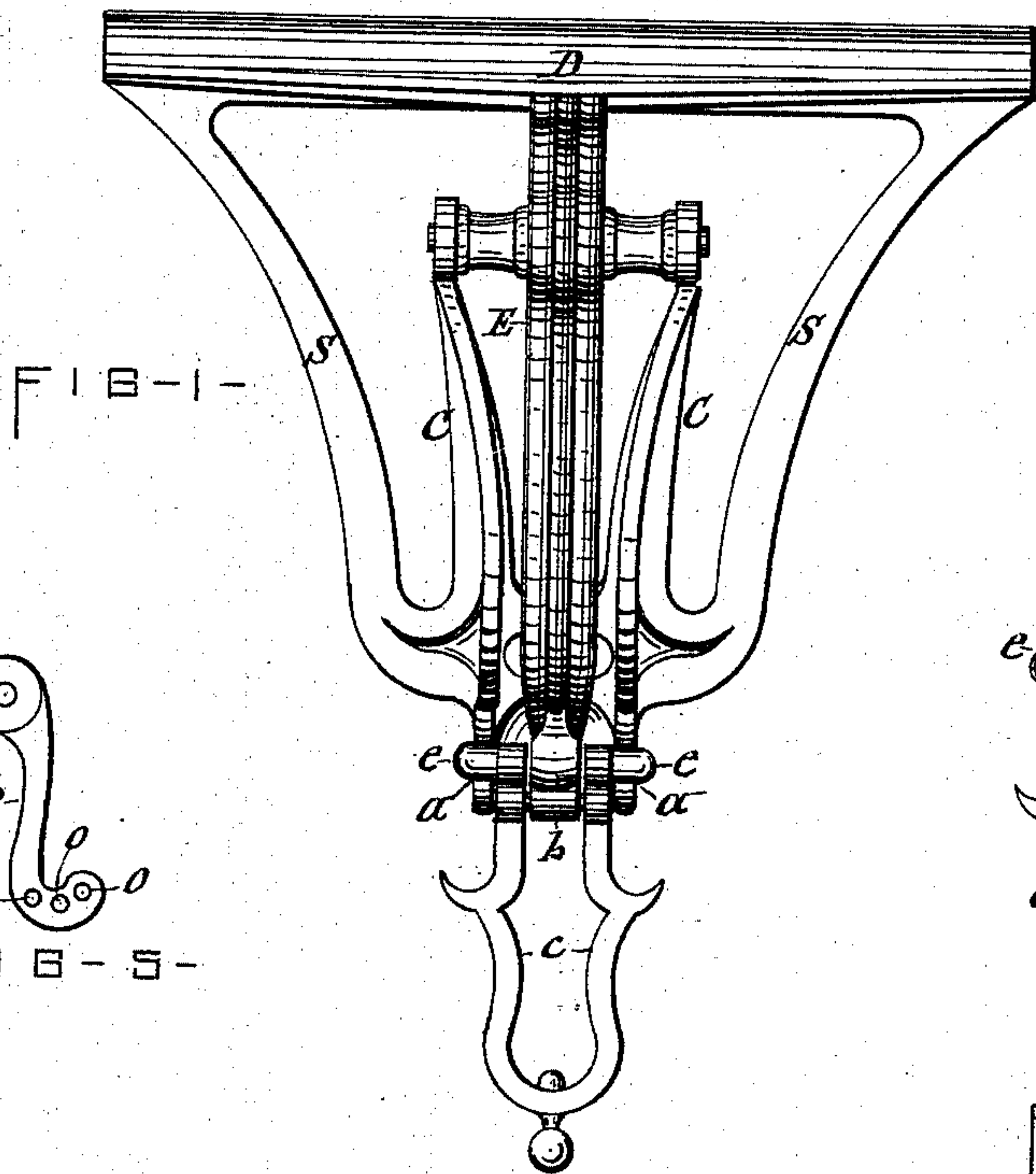
(No Model.)

G. N. STEARNS, Dec'd.

E. C. STEARNS, D. A. STEARNS and A. MEAD, Executors,  
SAW CLAMP.

No. 288,376.

Patented Nov. 13, 1883.



WITNESSES =  
*Wm L Raymond*  
*J. C. Laass*

INVENTOR =  
*George N. Stearns*  
*per Dull, Laass & Hey*  
*his Attys.*



# UNITED STATES PATENT OFFICE.

GEORGE N. STEARNS, OF SYRACUSE, N. Y.; EDWARD C. STEARNS, DELILAH A. STEARNS, AND AVIS MEAD, EXECUTORS OF SAID STEARNS, DECEASED.

## SAW-CLAMP.

SPECIFICATION forming part of Letters Patent No. 288,376, dated November 13, 1883.

Application filed May 3, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE N. STEARNS, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Saw-Vises, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention consists in a novel construction of a saw-vise designed to prevent vibrations of the saw during the operation of filing the same, and to afford greater convenience to the operator using the vise.

The invention is fully illustrated in the annexed drawings, wherein Figure 1 is a front elevation of my improved saw-vise, showing the lever in position for unclamping the jaws. Fig. 2 is a side view of the same with the jaws clamped or closed; Fig. 3, a top view with the saw clamped between the jaws. Fig. 4 is a detached plan view of the lever by means of which the two jaws are drawn together, and Fig. 5 is a detached view of the link which connects the aforesaid lever with the movable jaw.

Similar letters of reference indicate corresponding parts.

A denotes the stationary jaw, which is sustained in its position by two pendent arms or shanks, S S, which are connected, respectively, to the two extremities of the jaw A, for the purpose hereinafter explained, and are united at their lower ends. From the back of each of the shanks S projects an upwardly-inclined supporting-shoulder, B, by means of which the vise rests on the top edge of the table or bench, to which it is to be attached. The inclination of said shoulder causes the jaw to lean rearward or from the operator, so that when the saw is applied to said jaw the light will fall onto the front of the cutting-edge, and thus enable the operator to observe more closely the progress of the file on the saw-tooth. The jaw A is secured in the aforesaid position by means of a set-screw, s, inserted through a rearward projection, d, on the base of the jaw-shanks S, said set-screw engaging the under side of the table or bench, upon which the jaw rests, by the shoulder B, before described.

From the front of the base of the jaw-shanks

S project upward two arms, C C, between the upper extremities of which is hinged the shank E of the movable jaw D, to which it is attached at the center thereof. The said movable jaw is operated by means of a lever, c, which is of a U shape, as best seen in Figs. 1 and 4 of the drawings, and is provided on the exterior of its extremities with trunnions e e, by which it is hung in journal-bearings a a on the base of the shanks S of the stationary jaw A.

A link or strap, b, connects the lower extremity of the shank E of the movable jaw with the lever c intermediately between the trunnions e and the free end of the said lever, the bearings a a, on which said trunnions rest, serving as a fulcrum for the lever, an upward pressure on the free end of which latter throws the base of the shank E outward from the base of the stationary jaw-shanks, and thus closes the two jaws, as illustrated in Fig. 2 of the drawings. In clamping a saw-blade between a jaw held rigidly at its extremities and a jaw sustained solely at the center, as shown in Fig. 3 of the drawings, said blade receives a pressure at the ends of the said jaws, which effectually prevents the vibration of the saw-blade during the process of filing its teeth.

In order to admit of taking up the lost motion of the vise incident to the wear of the joints, I provide the link b with two or more holes, o o, for the reception of the coupling-pin, which connects said strap with the lever c.

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

1. The combination of the jaw A, having shanks S, provided at their base with journal-bearings a a, and with the rigid upward-projecting arms C C, the jaw D, having the shank E, hinged on the arms C C, the lever c, turning in bearings a a, and the link b, connected, respectively, with the lower extremity of the shank E, and with the lever c intermediately between the fulcrum and power of said lever, substantially as described and shown.

2. The combination, with the jaw A and its shanks S, of two arms, C C, projecting upward from the base of said shanks, and two journal-bearings, a a, beneath said arms, all



cast in one piece, the jaw D, having the shank  
E hinged between the arms C C, the lever *c* of  
U shape, and provided on its extremities with  
trunnions *e e*, hung in the bearings *a a*, and the  
5 link *b*, connected with the lower extremity of  
the shank E, and with the lever *c* between the  
two arms thereof, substantially as described  
and shown.

In testimony whereof I have hereunto signed

my name and affixed my seal, in the presence 10  
of two attesting witnesses, at Syracuse, in the  
county of Onondaga, in the State of New York,  
this 16th day of March, 1882.

GEORGE N. STEARNS. [L. S.]

Witnesses:

C. H. DUELL,

WM. C. RAYMOND.