

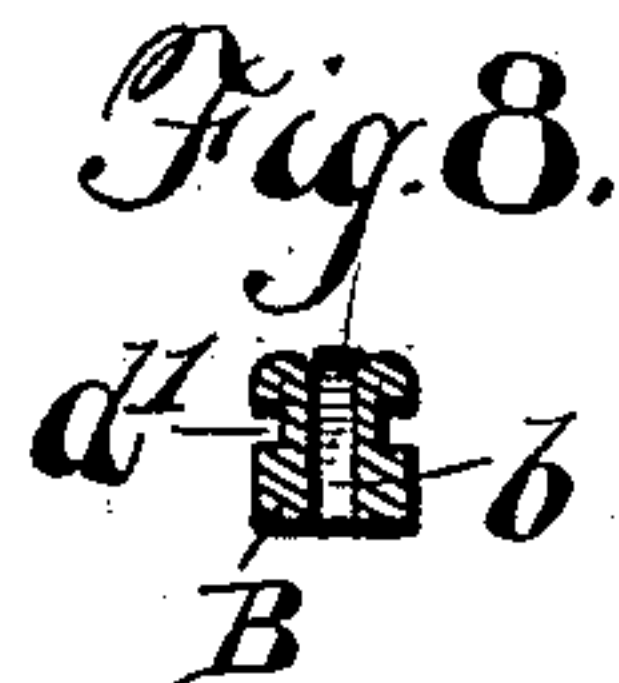
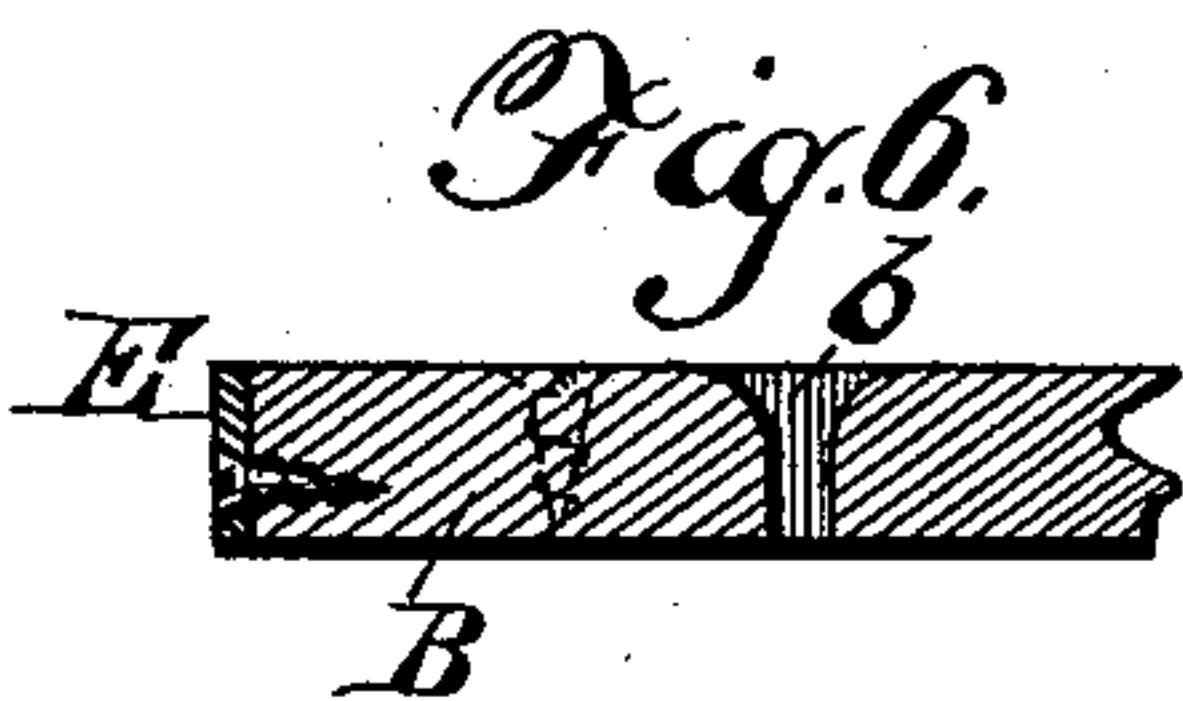
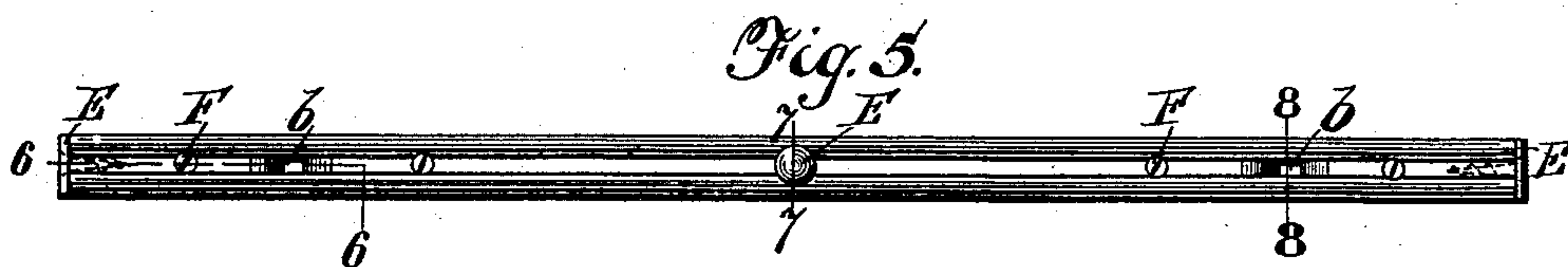
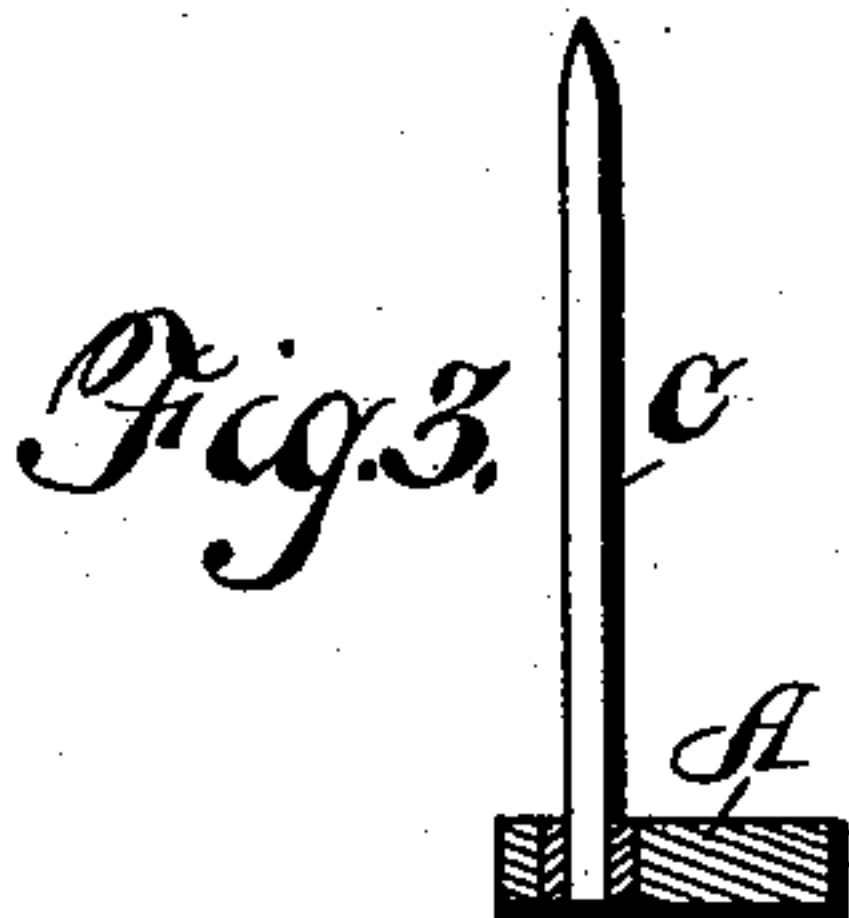
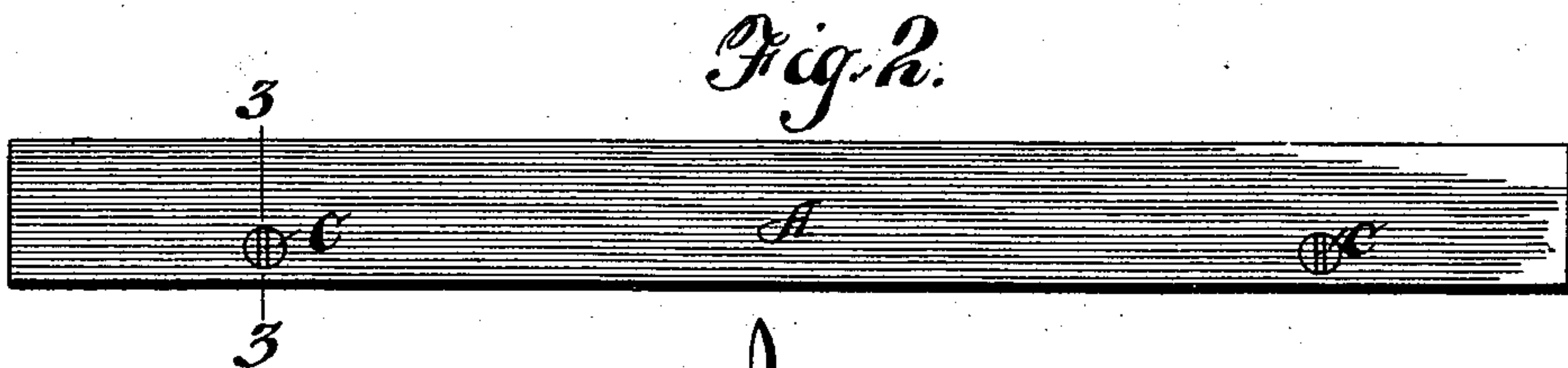
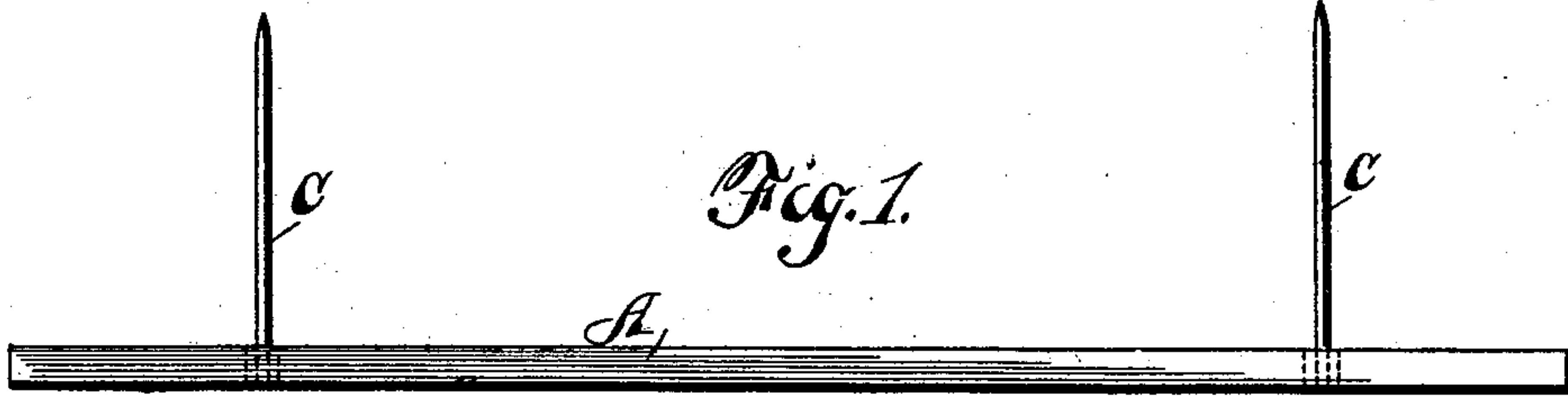
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3 Sheets—Sheet 1.

W. C. BOWRY.
PAPER CLAMP.

No. 507,478.

Patented Oct. 24, 1893.



Witnesses:
H. G. Dieterich
B. W. Sommers

Inventor:
Walter C. Bowry.
By Henry M. B. Atty:

(No Model.)

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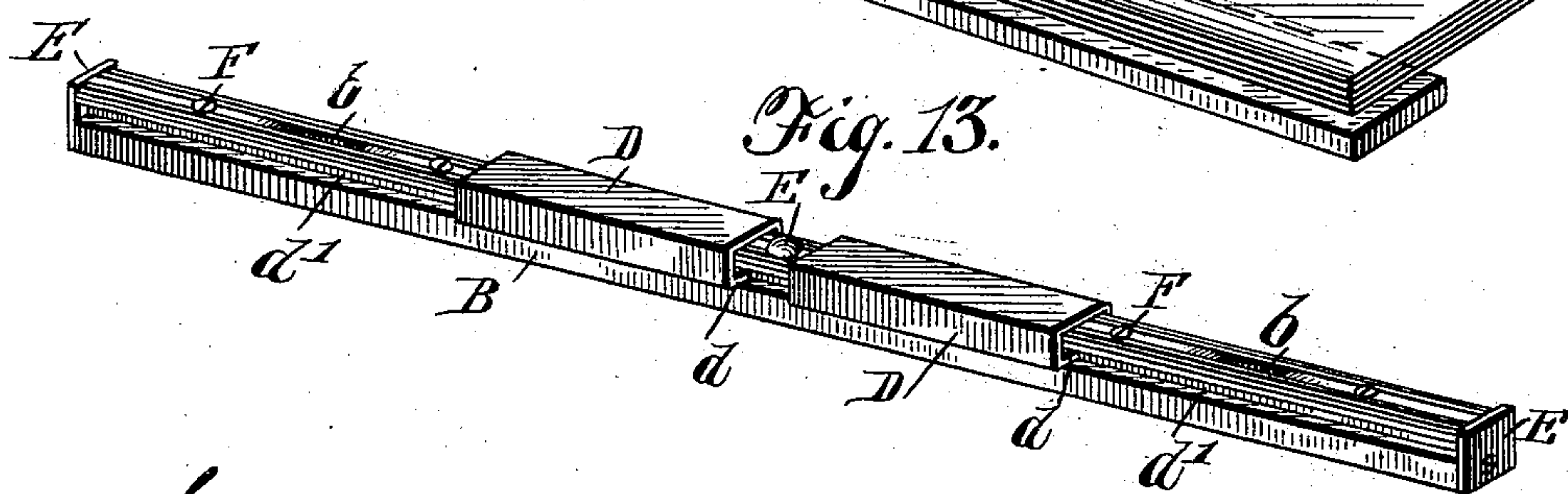
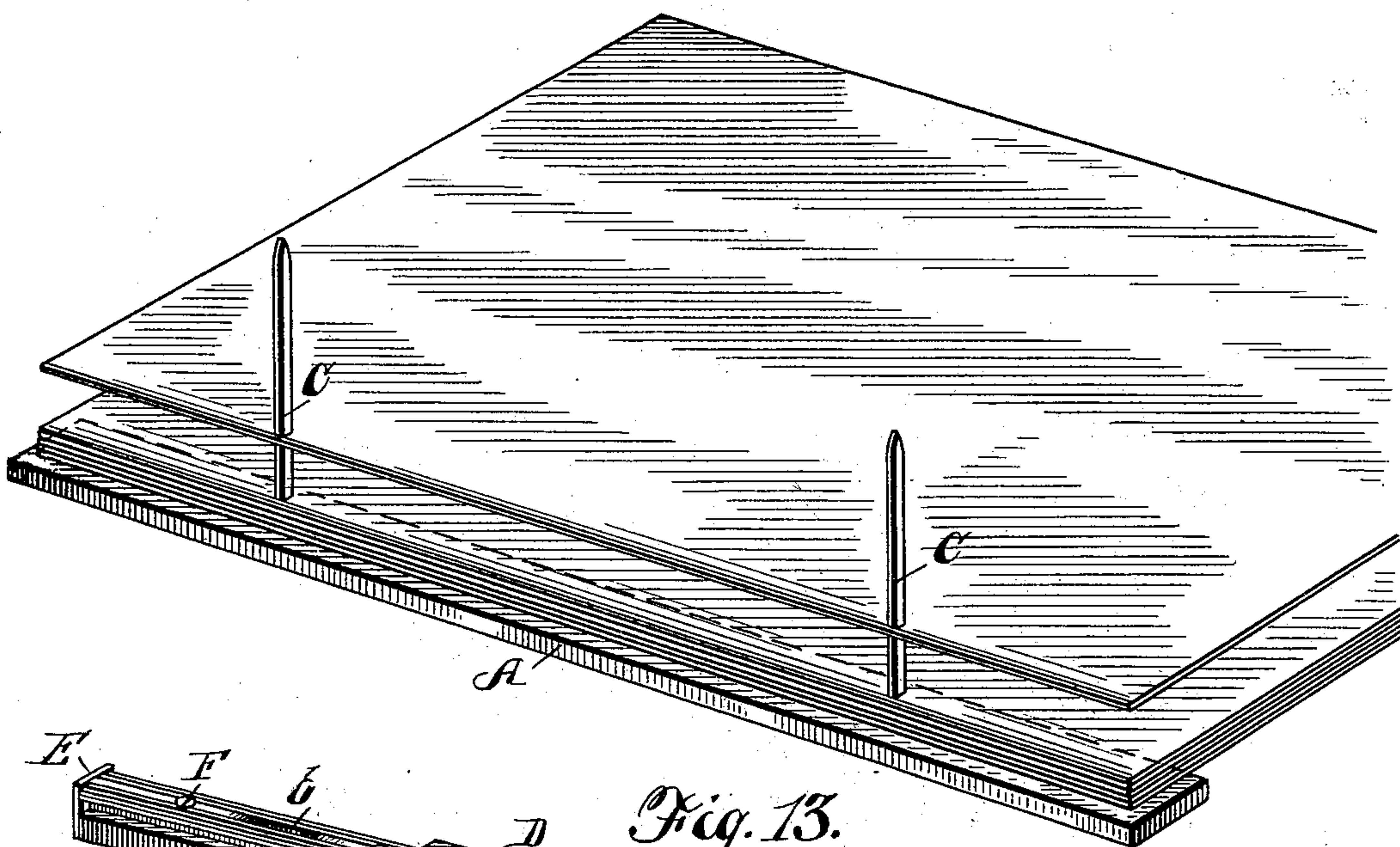
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Fig. 12.



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Fig. 14.

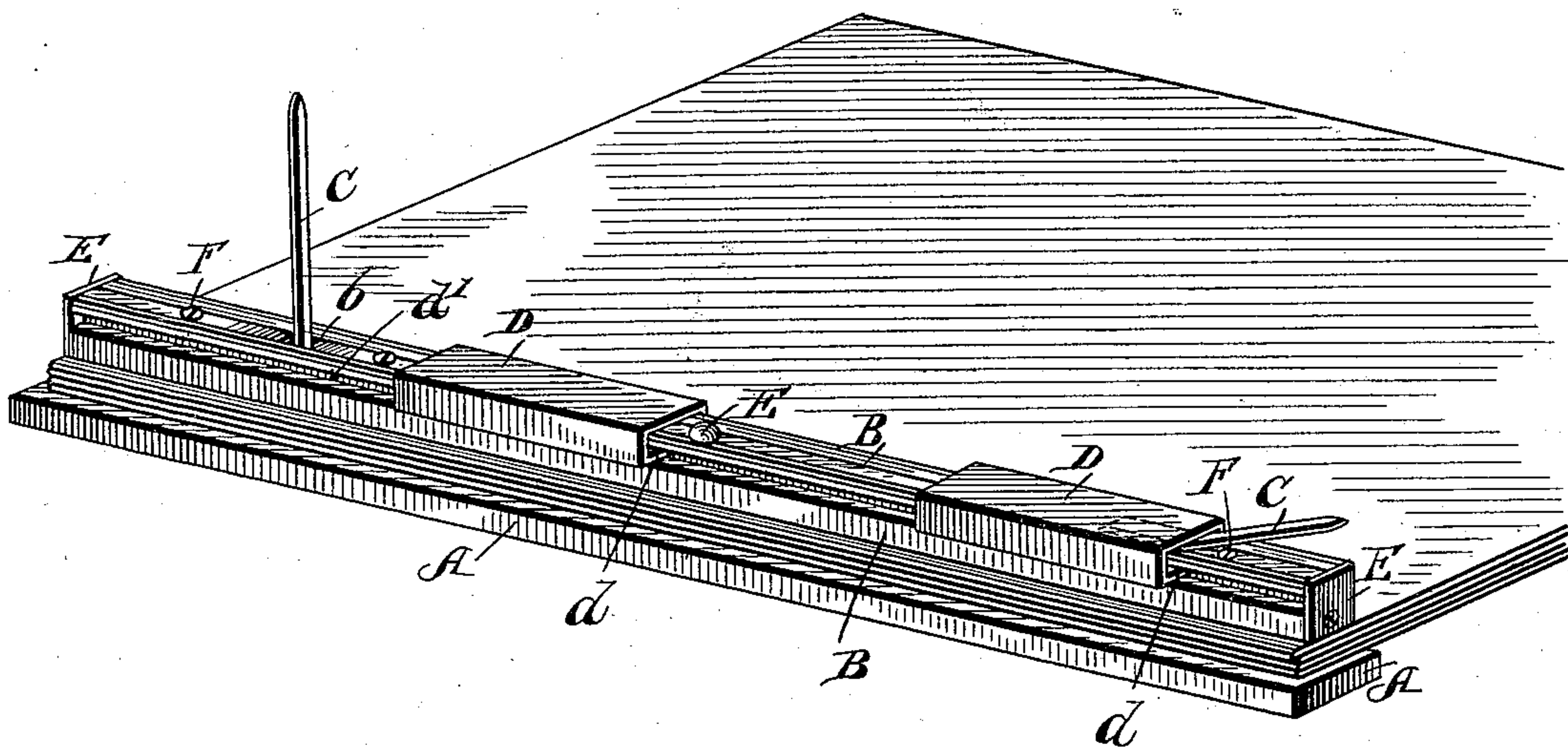
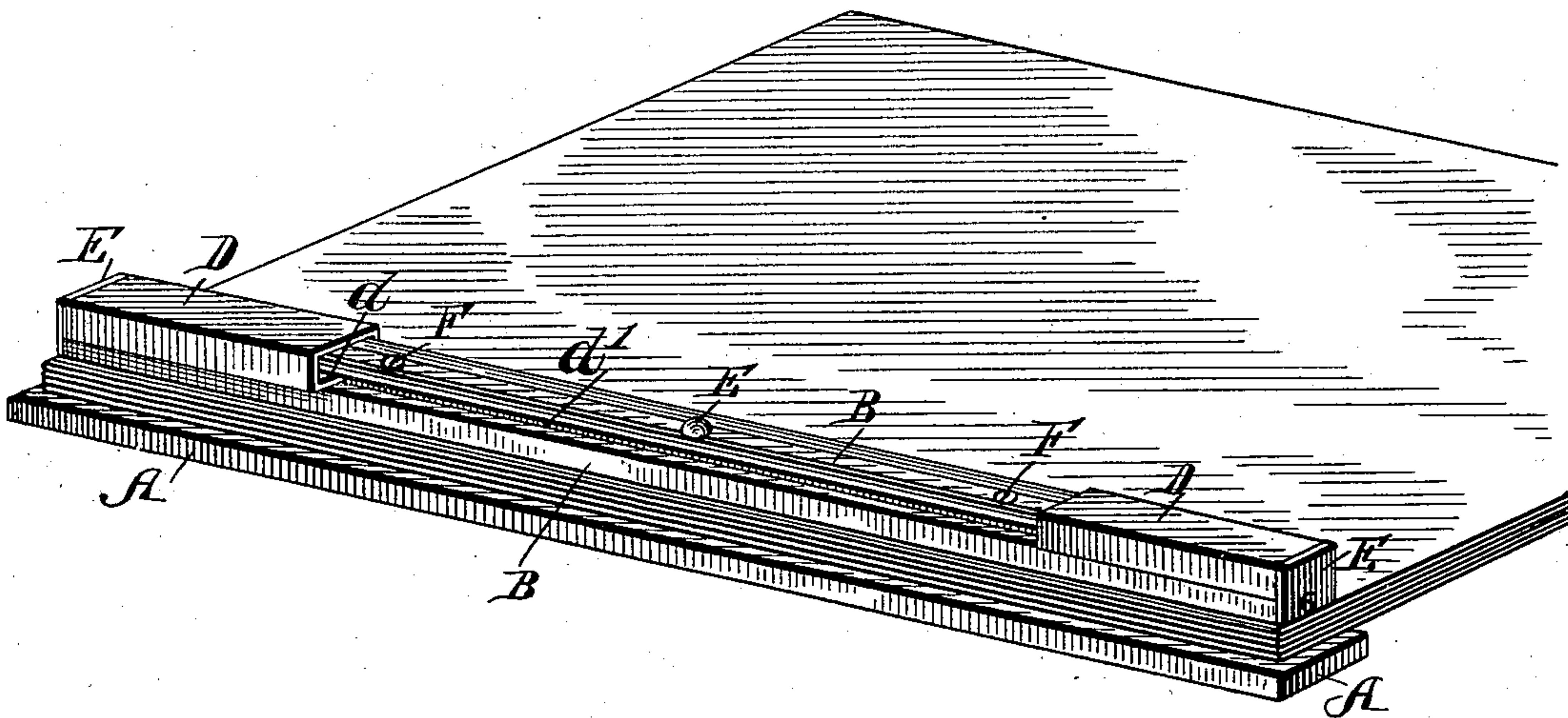


Fig. 15.



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UNITED STATES PATENT OFFICE.

WALTER COBHAM BOWRY, OF CHARTERS TOWERS, QUEENSLAND.

PAPER-CLAMP.

SPECIFICATION forming part of Letters Patent No. 507,478, dated October 24, 1893.

Application filed December 6, 1892. Serial No. 454,246. (No model.)

To all whom it may concern:

Be it known that I, WALTER COBHAM BOWRY, journalist, a subject of the Queen of Great Britain, residing at Plant Street, Charters Towers, in the British Colony of Queensland, have invented an Improved Paper-Clamp, of which the following is a specification.

This invention relates to that class of paper clamps or files in which the papers are held at their edges by spikes passing through them the said spikes being fixed in and projecting from a lower bar and adapted to be passed through holes in an upper bar and to be thereafter bent down and secured by a suitable fastening for the purpose of retaining the upper bar in place. Heretofore the said spikes have been made of brass or other soft metal or alloy so that they may be bent down upon the face of the upper bar and thus retain the position so given to them while the fastenings applied to them have been to prevent accidental bending back of the points or injury therefrom to the users of the file. Prior to removing the upper bar the spikes must be bent up again by hand and straightened as far as possible. Such bending backward and forward each time the papers on the file are to be changed, added to, or removed, very soon results in the breaking of the spike and the file is rendered unserviceable. The present invention is designed to remedy this inconvenience and to afford a durable spike and consequently a durable file and it consists mainly in substituting for the simply pliant spike, a spike not only pliant but resilient or elastic so that it will always automatically resume its upright and straight position when its retaining fastener is removed. Such a spike is made of steel and the holes through which it passes in the upper bar are flared outwardly in such a way that the spring filing spike when pressed down upon the upper bar does not take a sharp bend but an easy curve suitable to its material.

A construction of file or clamp embodying this invention is shown in the annexed drawings in which—

Figure 1 is a side elevation, and Fig. 2 a plan of the lower bar having the spring filing

spikes secured to it. Fig. 3 is a cross section on line 3. 3. Fig. 2. Fig. 4 is a side elevation and Fig. 5 is a plan of the upper bar. Figs. 6, 7 and 8 are sections on lines 6. 6., 7. 7., and 8. 8., respectively of Fig. 5. Fig. 9 is an end elevation of the upper bar. Fig. 10 is a plan and Fig. 11 an end elevation of one of the sliding caps which are fitted on the upper bar. Fig. 12 is a perspective view illustrating the way in which papers are filed on the spike. Fig. 13 is a perspective view of the upper bar removed. Fig. 14 is a similar view to Fig. 12 showing the upper bar in position and one of the sliding caps just after it has commenced to press down one of the filing spikes so as to bend it over and secure it. Fig. 15 is another similar view to Fig. 12 but showing the parts in the positions they occupy when the operation of securing the parts has been completed. Fig. 16 is a view illustrating a modified form of filing spike.

The same letters of reference illustrate the same parts in all the figures.

A represents the lower bar. B the upper bar. C are the filing spikes which according to this invention are resilient as well as pliant and tend to occupy a position vertical throughout their length to the bar A. If bent from such position they will return to it on the release of the pressure restraining them. *b* are the holes in the bar B which are flared toward the upper side of the bar either toward one or both ends of the bar.

I do not confine myself to any particular method of holding the spring spikes C down upon the face of the upper bar, but have adopted as convenient for the purpose the sliding caps D having inwardly turned flanges *d* engaging in grooves *d'* in the upper bar B. Stops E are provided upon the upper bar B one at each end and one at the center to restrict the travel of the caps D. The end stops may be small plates which can be turned down out of the way as illustrated in Fig. 9 when it is required to slide the caps D off or onto the bar B.

If the outer ends of the filing spikes are thickened as shown in Fig. 16 the stops E may be omitted as these ends form shoulders which act as stops to the caps D.

The set screws F act as adjustable abutments for the spring spikes C and enable the caps D to hold them more securely.

Having now described my invention, I claim
5 as new—

1. In a clamp for securing papers and the like, the combination of a lower bar A spring filing spikes C fixed to said lower bar and adapted to assume a position perpendicular
10 to said bar throughout their length automatically after deflection, an upper bar B, holes b therein, and means adapted to secure said spring spikes upon the upper bar against the tension exerted by their resiliency.

15 2. The combination of a lower bar A, resilient and pliant filing spikes C fixed to said

lower bar and adapted to automatically assume a position perpendicular throughout their length to said bar, an upper bar B, slots b in said upper bar flared toward the outside
20 thereof in the direction of the length of the bar and adapted for passage of said spring spikes, and means adapted to temporarily secure the projecting portions of said spring spikes down upon the face of the upper bar. 25

In witness whereof I have hereunto set my hand in presence of two witnesses.

WALTER COBHAM BOWRY.

Witnesses:

EDWARD WATERS,

EDWARD NEEDHAM WATERS.