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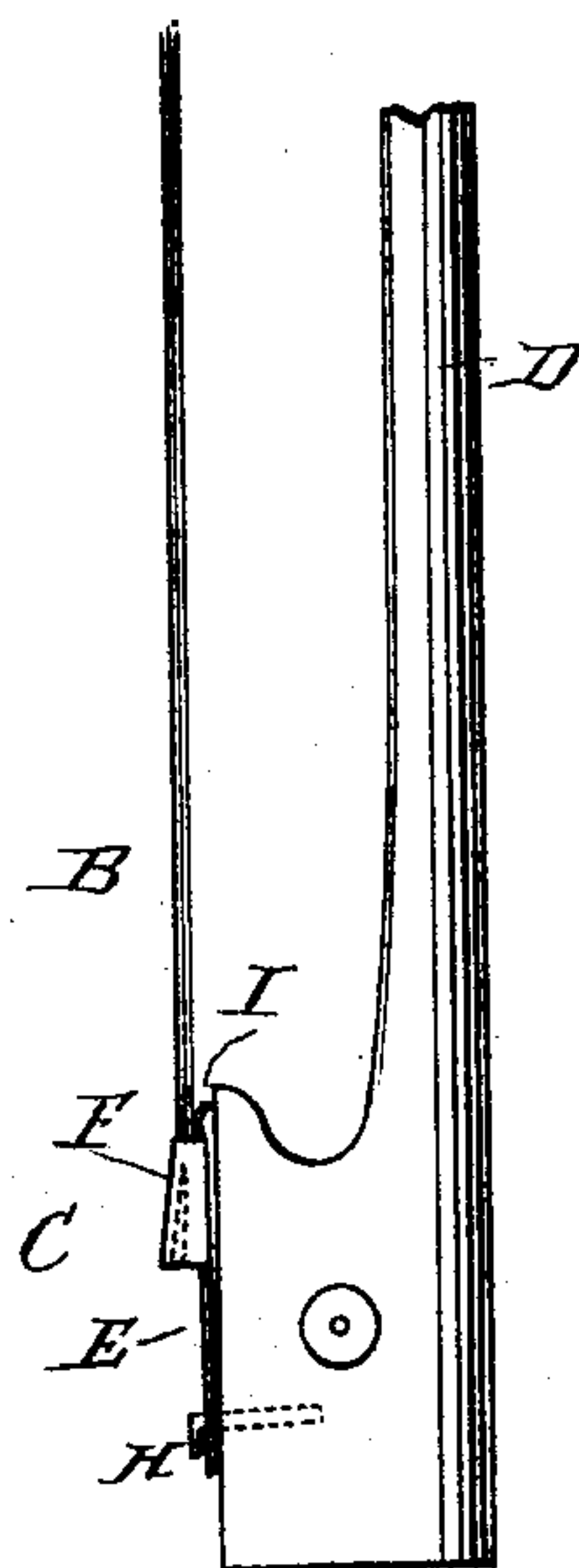
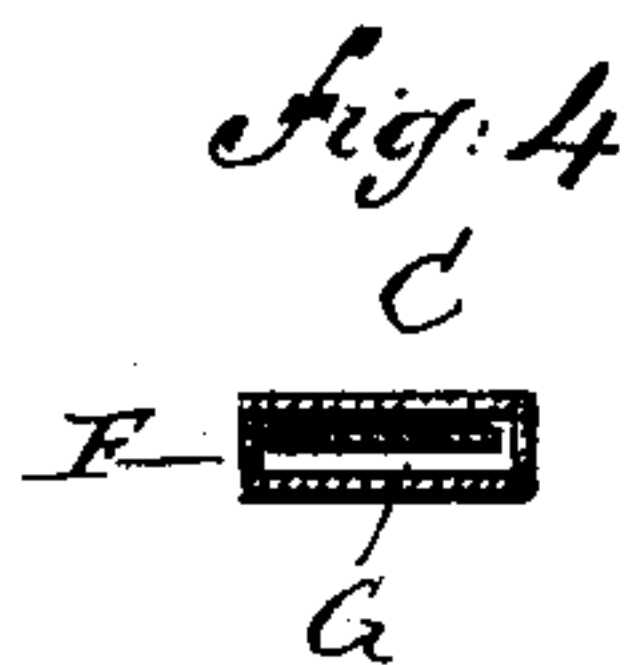
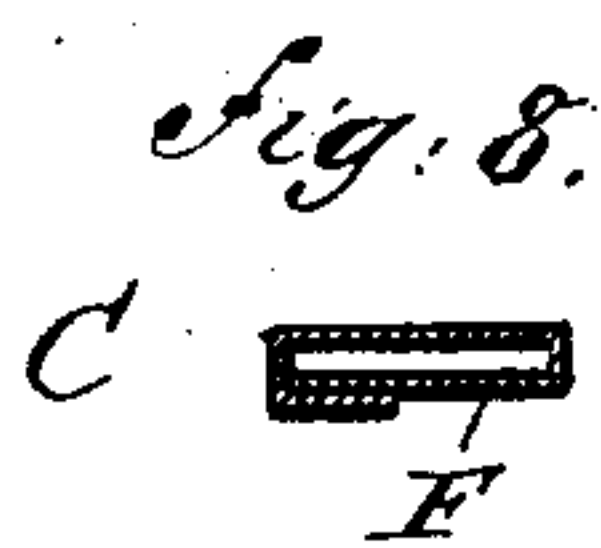
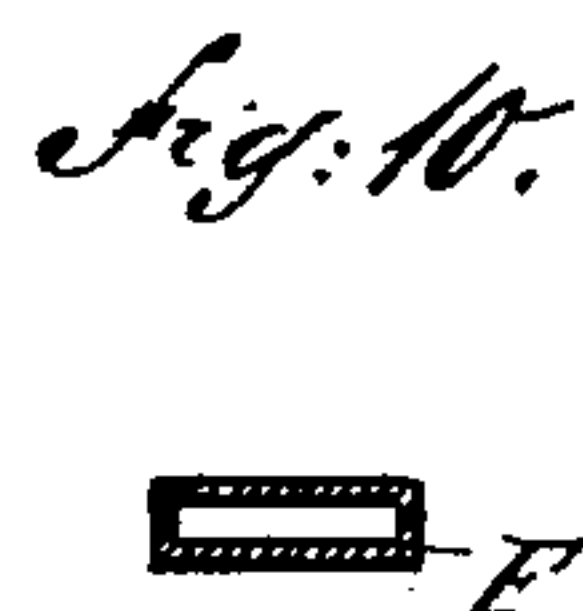
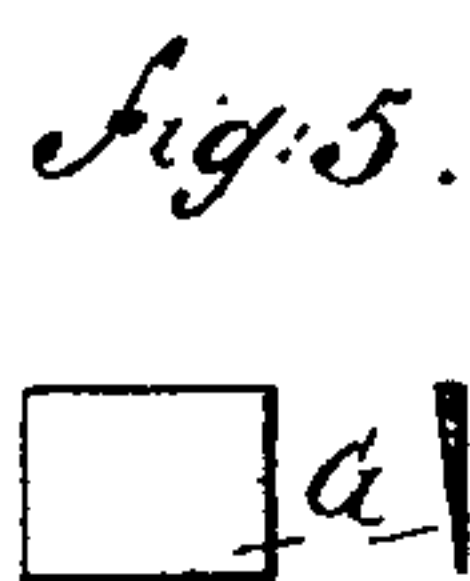
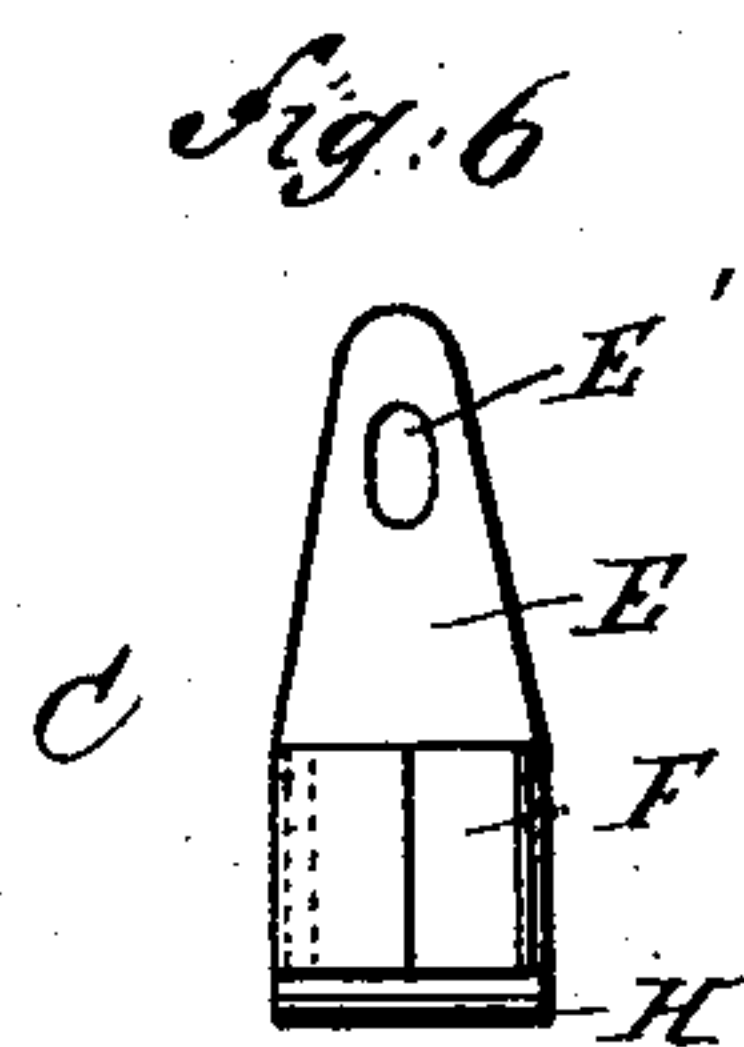
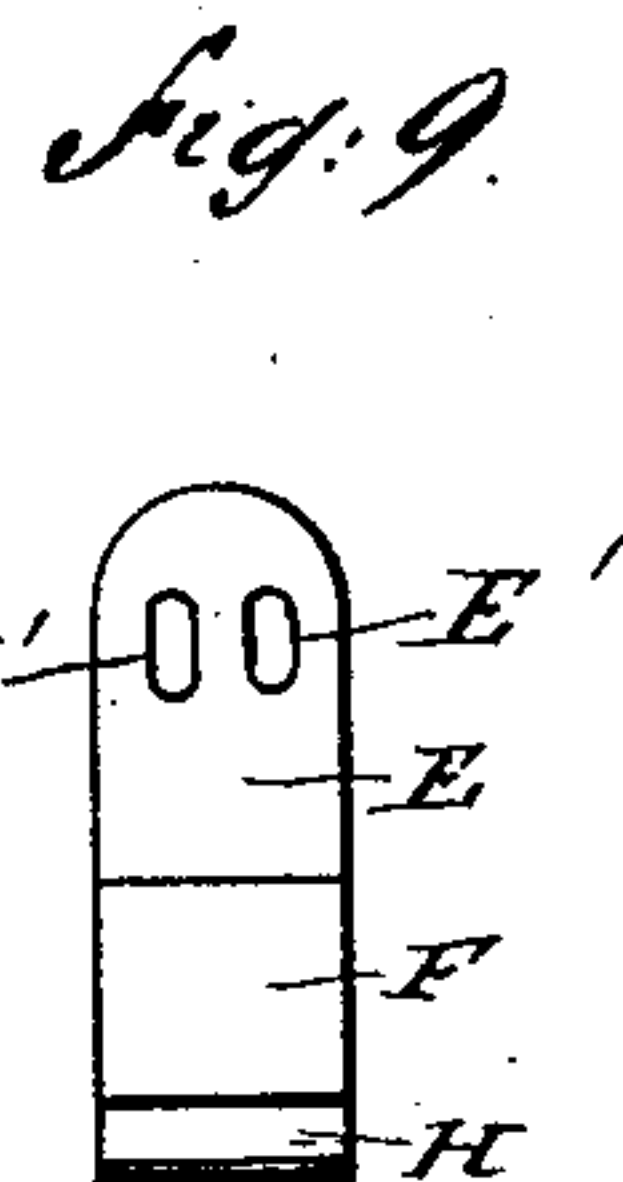
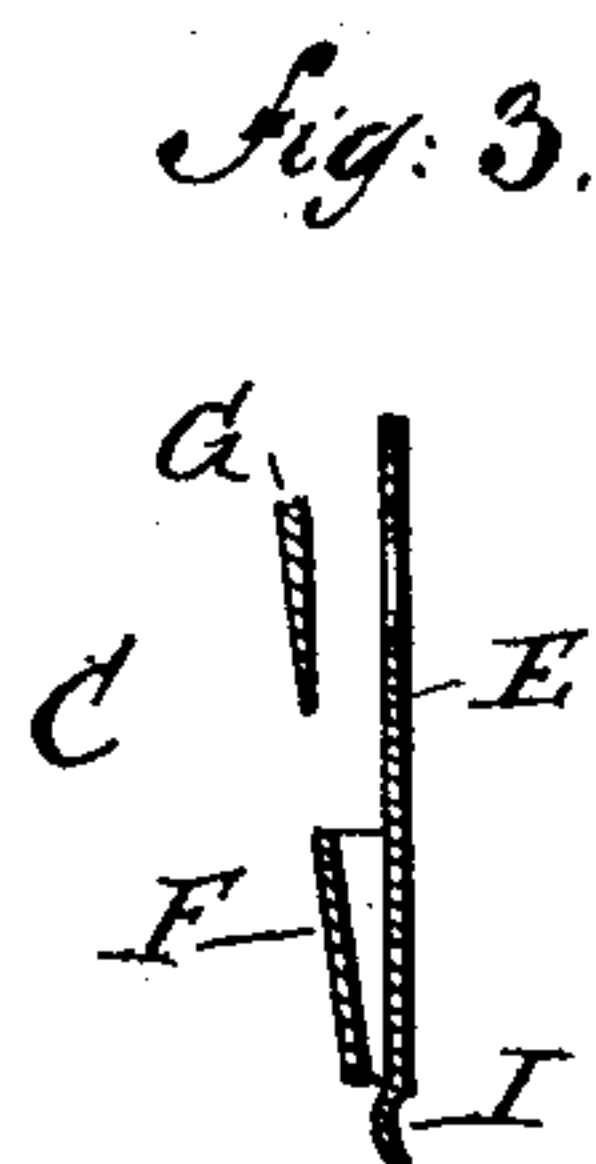
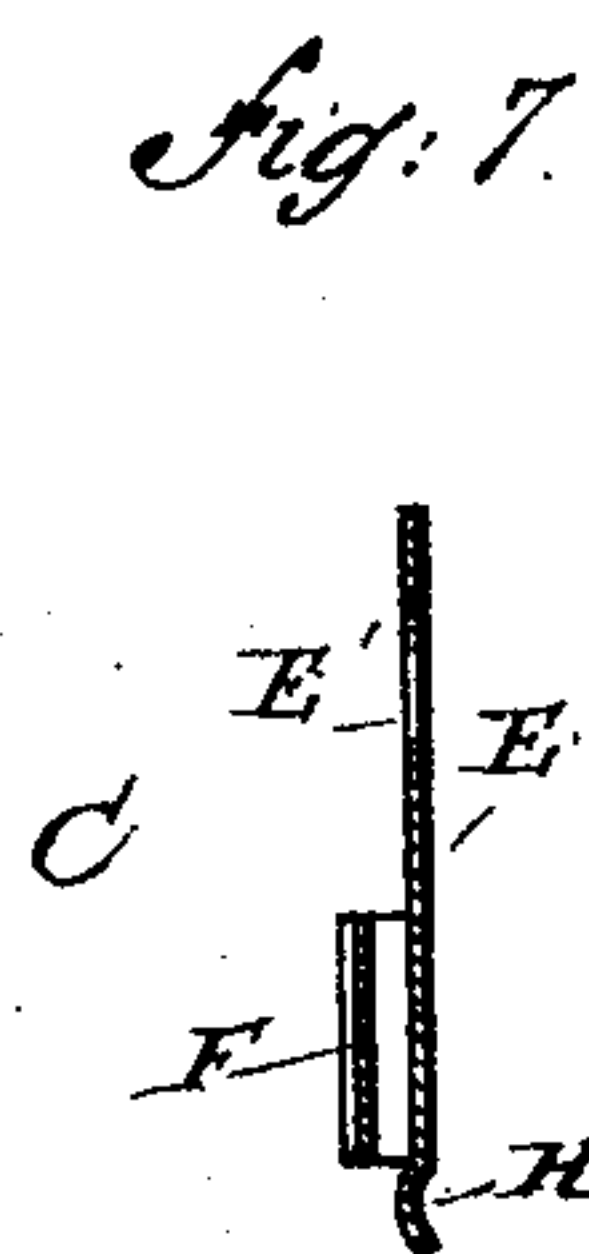
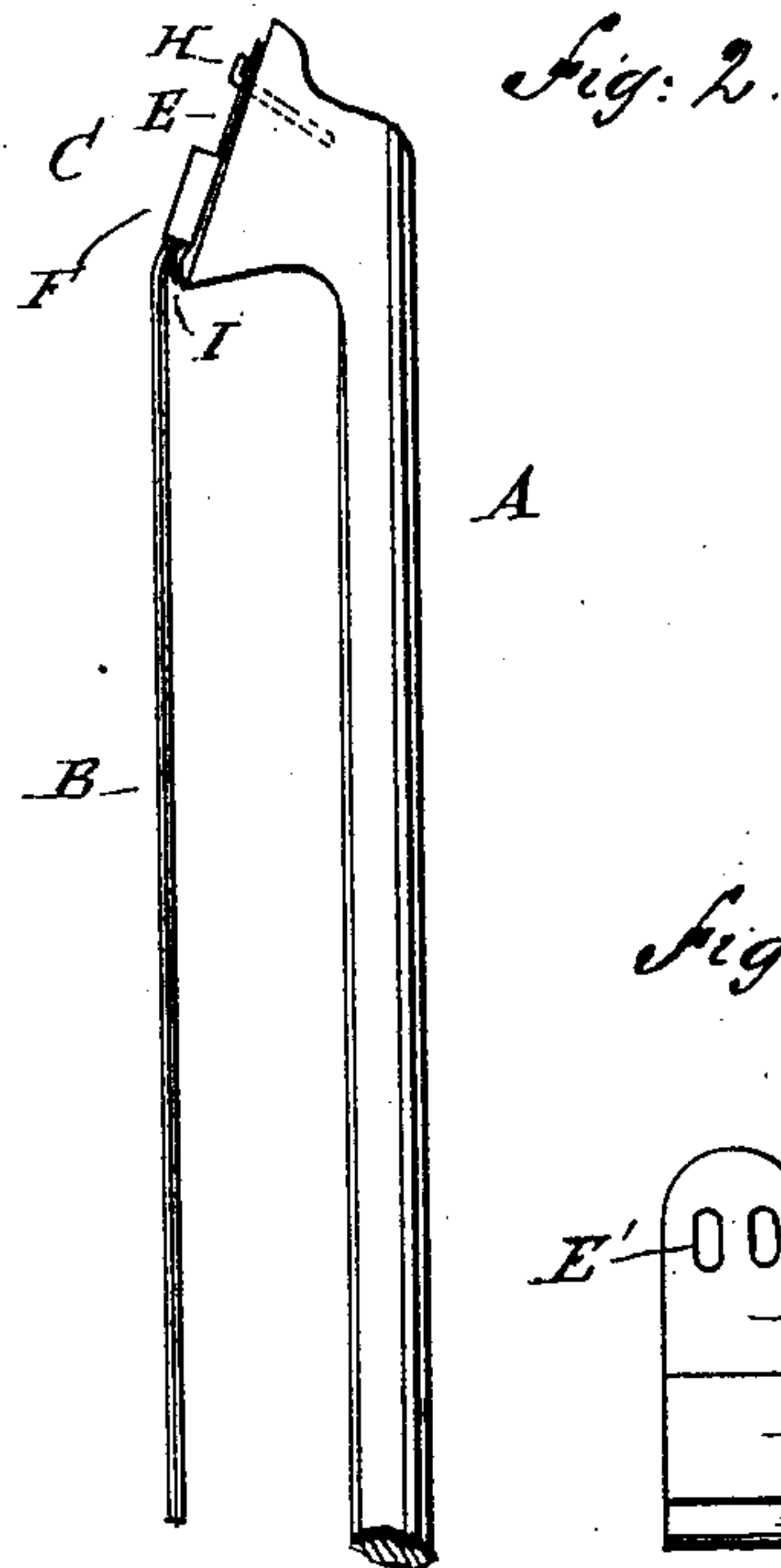
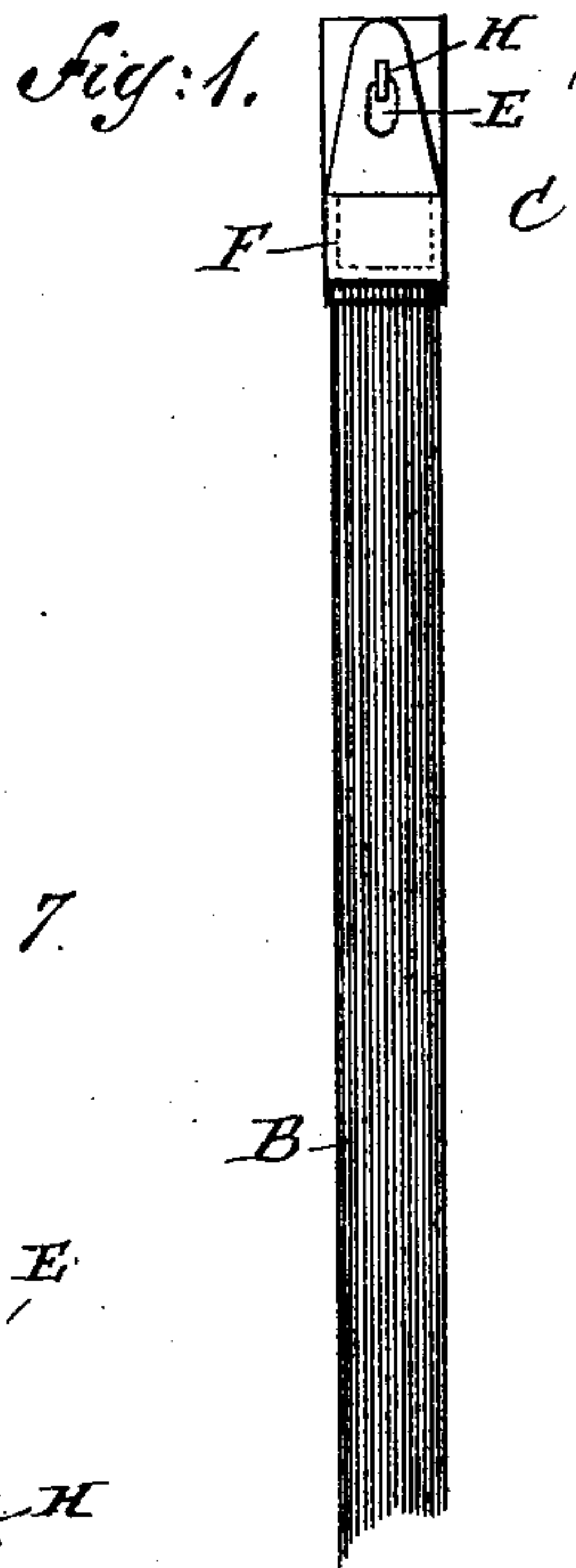
2 Sheets—Sheet 1.

D. NETTEKOVEN.

BOW FOR MUSICAL INSTRUMENTS.

No. 361,441.

Patented Apr. 19, 1887.



WITNESSES:

Chas. Nida
& Sedgwick

INVENTOR:

D. Nettekoven

BY *Munn & Co*

ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

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Fig: 11.

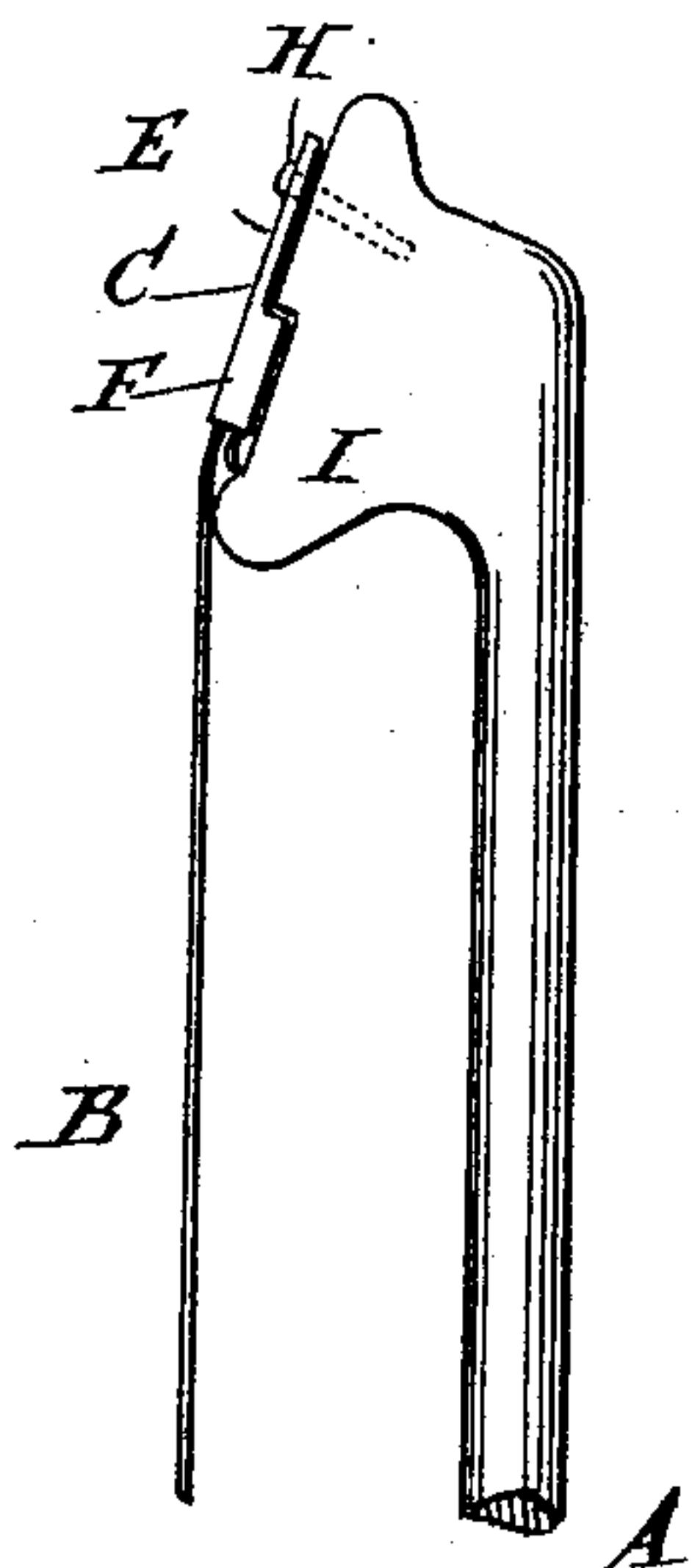


Fig: 12.

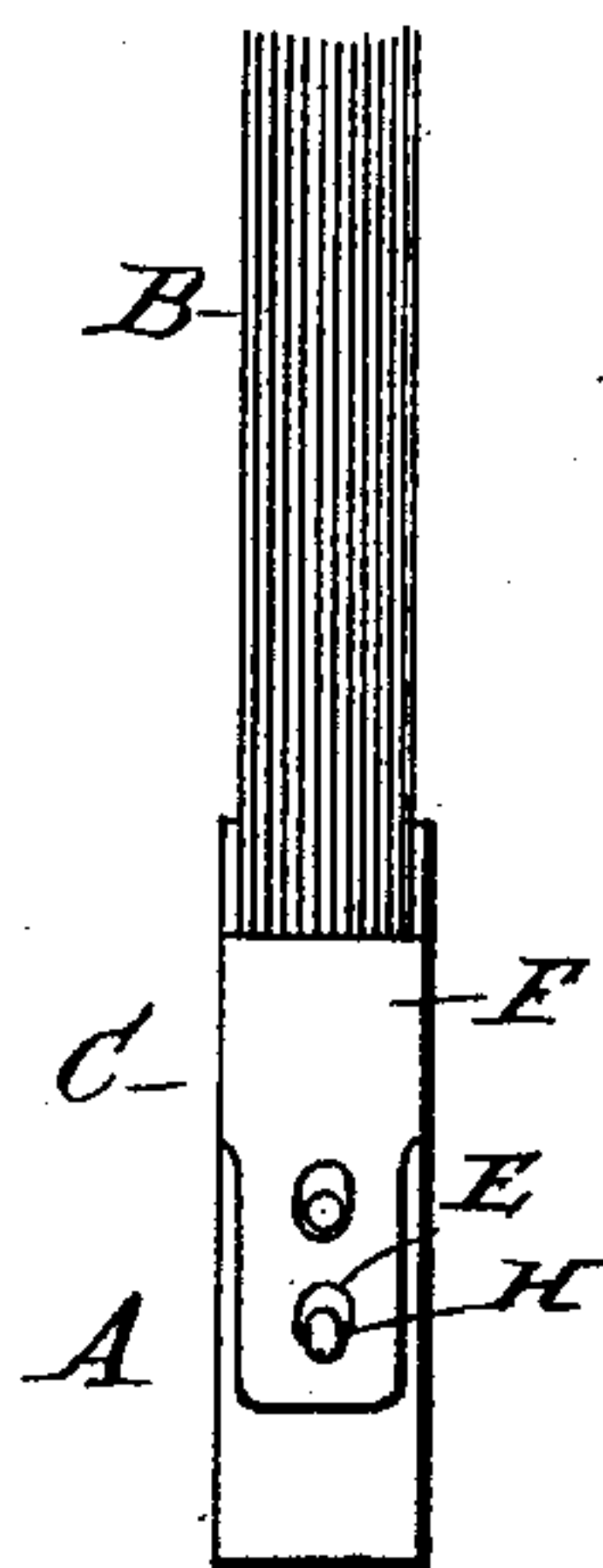
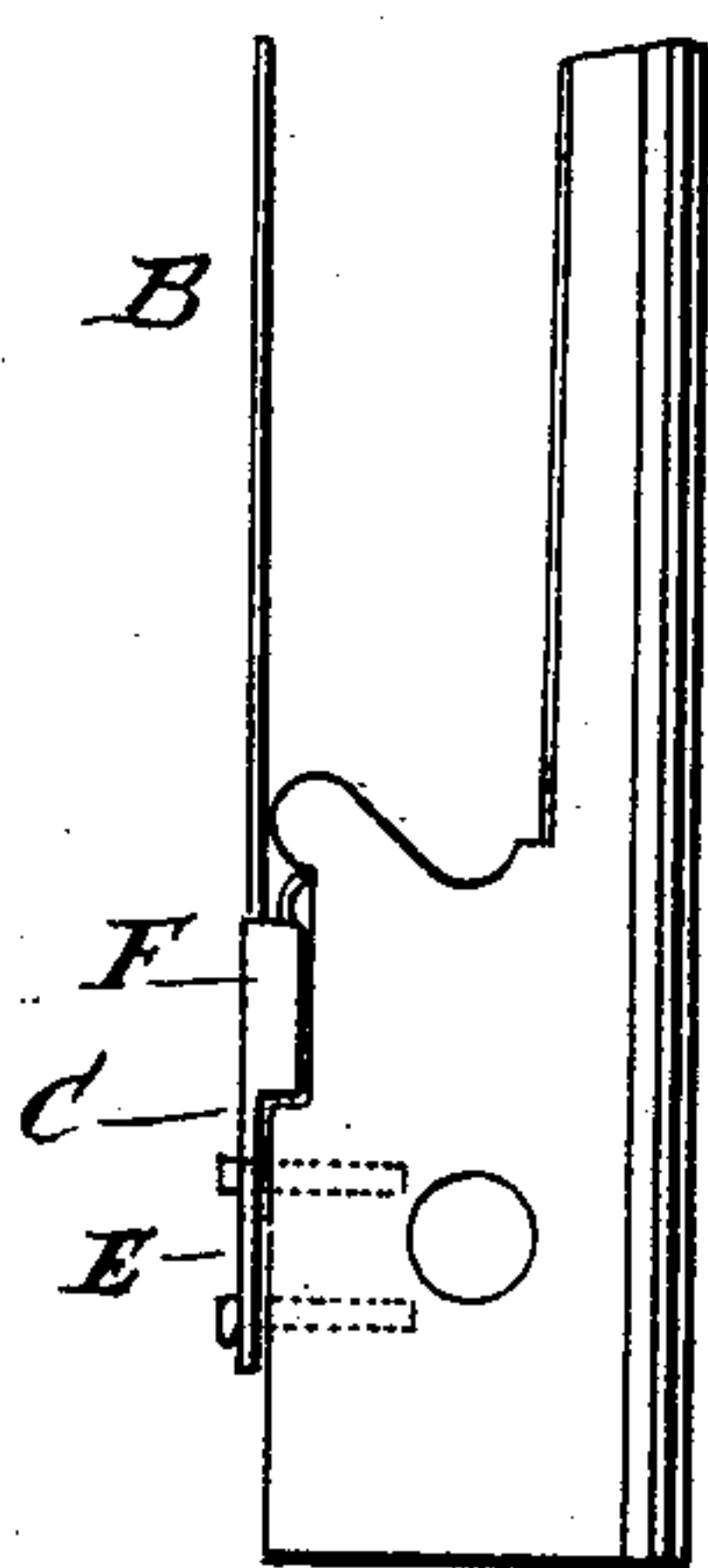
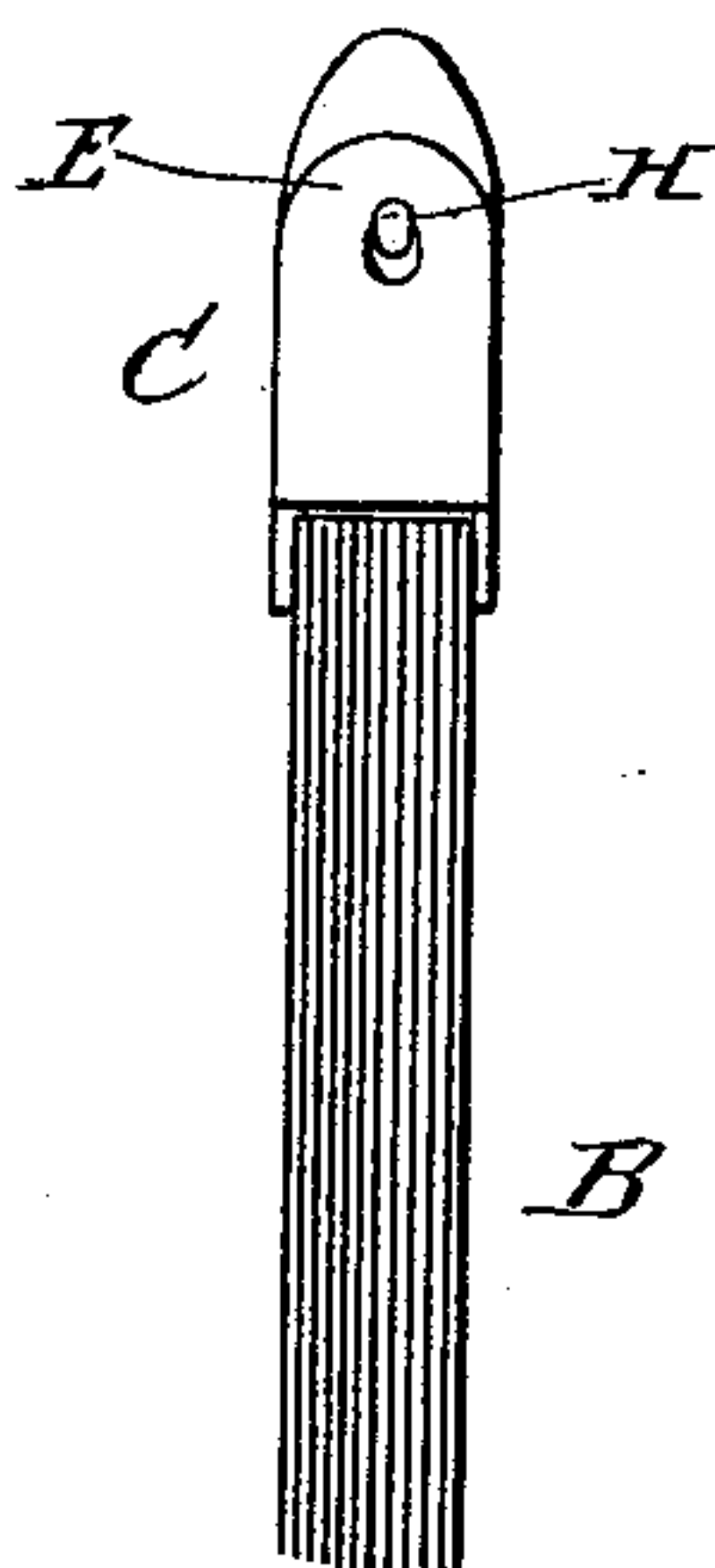
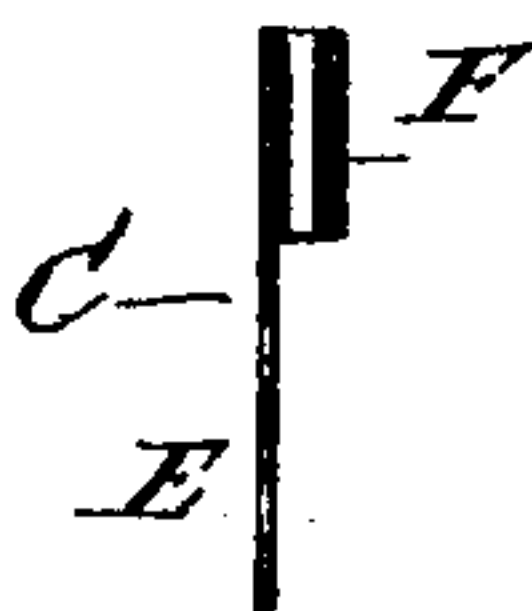


Fig: 13.

WITNESSES:

Chas. Nida
W. Sedgwick



INVENTOR:

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

DANIEL NETTEKOVEN, OF FORT SHAW, MONTANA TERRITORY.

BOW FOR MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 361,441, dated April 19, 1887.

Application filed January 26, 1887. Serial No. 225,550. (No model.)

To all whom it may concern:

Be it known that I, DANIEL NETTEKOVEN, of Fort Shaw, in the county of Lewis and Clarke and Territory of Montana, have invented a new and Improved Bow for Musical Instruments, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved bow for musical instruments, in which the hair can be quickly removed and replaced and is not liable to become loose in its fastenings.

The invention consists of various parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of my improvement. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional elevation of one of the fastenings. Fig. 4 is a sectional plan view of the same. Fig. 5 represents the wedge used in connection with the fastening. Fig. 6 is a front elevation of a modified form of the fastening. Fig. 7 is a sectional side elevation of the same. Fig. 8 is a sectional plan view of the same. Fig. 9 is a front elevation of a modified form of the fastening. Fig. 10 is a sectional plan view of the same. Fig. 11 is a side elevation of a modified form of my improvement. Fig. 12 is a front view of the same, and Fig. 13 is a sectional elevation of the pocket.

The bow A consists, principally, of the hair B, held at each end in a fastening, C, secured, respectively, to the head and hand-piece of the staff D, of the usual construction. Each fastening C consists of a back plate, E, provided in front with a wedge-shaped pocket, F, into which are passed the ends of the hair, which are soldered together by rosin, and additionally held in the pocket F by a wedge, G, fitting into the said pocket, as shown in detail in Figs. 3, 4, and 5. The ends of the hair project slightly at the inner end of the pocket F, and are singed so as to make them thicker, and are thereby prevented from being pulled through the pocket F.

The back plate, E, of the fastening C is pro-

vided on its outer end with one or more elongated apertures, E', by which the fastening is held on a hook or hooks, H, secured to the head and the hand-piece, respectively, of the staff D. This may also be reversed, and the back-plate, E, provided with the hook, and a corresponding aperture formed in the staff by which the fastening is held to the same. Each fastening C may also be secured to the staff by means of screws.

The inner end, I, of the back plate, E, projects slightly beyond the pocket F, and is corrugated or curved so as to raise the hair B from the head or hand-piece of the staff, thus preventing the hair from coming in contact with the staff. Instead of forming the pocket F wedge-shaped, I may also make the same as shown in the modification represented by Figs. 6, 7, and 8, or as shown in the modification represented by Figs. 9 and 10.

In the former modification the front ends of the pocket F overlap and are pressed inward upon the hair, which is thus held in position without the use of the wedge G. In the modification shown in Figs. 9 and 10 the pocket F is formed solid and the front pressed inward upon the hair.

It will be seen that by providing the hair B with the fastening C at its ends the said hair can be easily and quickly attached to the staff, thus avoiding painful delays for musicians in case the hair should break while executing music.

Instead of arranging the fastening C as shown and described, I may also place the same as shown in Figs. 11 and 12, in which the pocket F is turned inward and rests with the curved end I in a notch formed on the head and hand-piece of the staff A, thus holding the said fastening securely in place. The inside walls of the pockets F may be lined, as shown in Fig. 13.

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

1. In a bow for musical instruments, the combination, with the hair, of a fastening provided with a tapering pocket in which are placed the ends of the said hair and a wedge fitting into the said pocket, substantially as shown and described.

2. In a bow for musical instruments, the staff

having the usual head and hand-pieces, in combination with the hair and the fastenings, each provided with a pocket in which the ends of the said hair are held, and also provided
5 with a curved end resting on the said head and hand-piece of the staff, so as to prevent the hair from coming in contact with the staff, substantially as shown and described.

3. In a bow for musical instruments, the
10 hair B, the fastenings C, each provided with

a pocket, F, and the curved end I, in combination with the staff D, provided with the head and hand-piece, in which the said fastenings C are secured, substantially as shown and described.

DANIEL NETTEKOVEN.

Witnesses:

F. GEO. HELDT,
JOHN H. SHEPHERD.