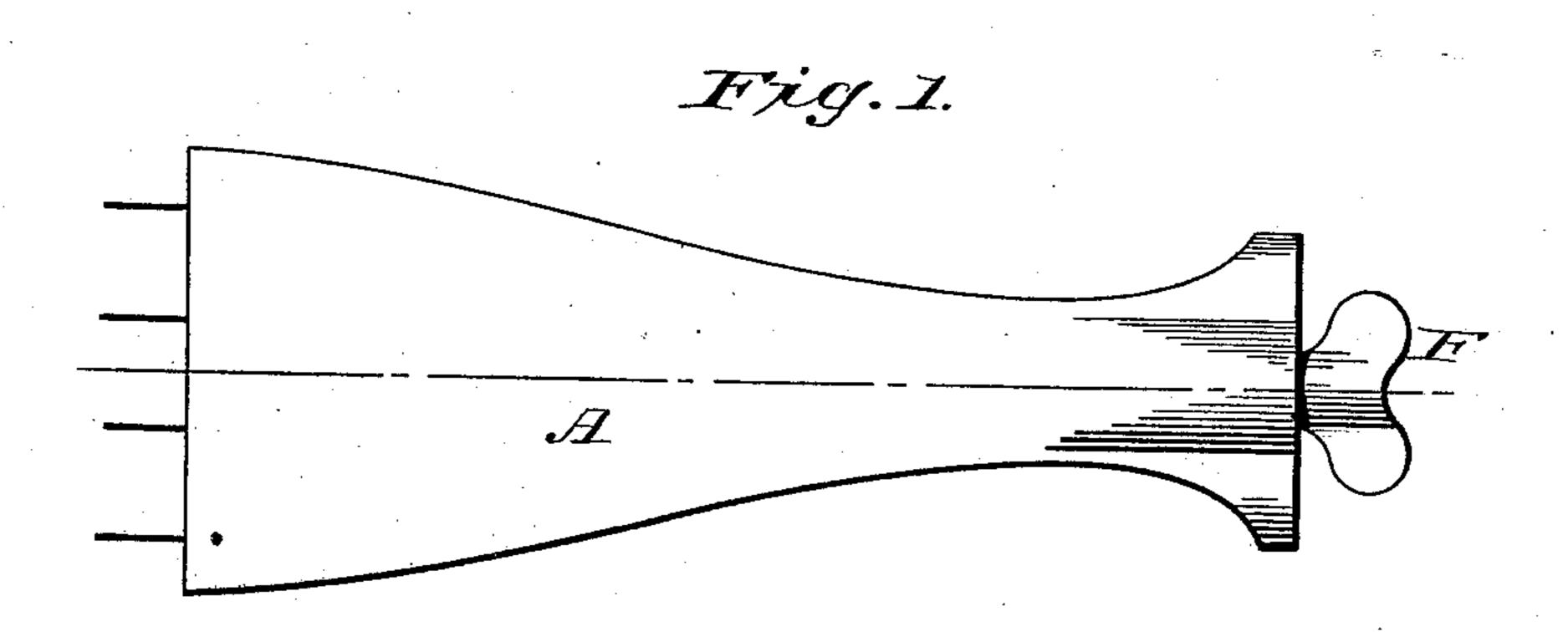
(No Model.)

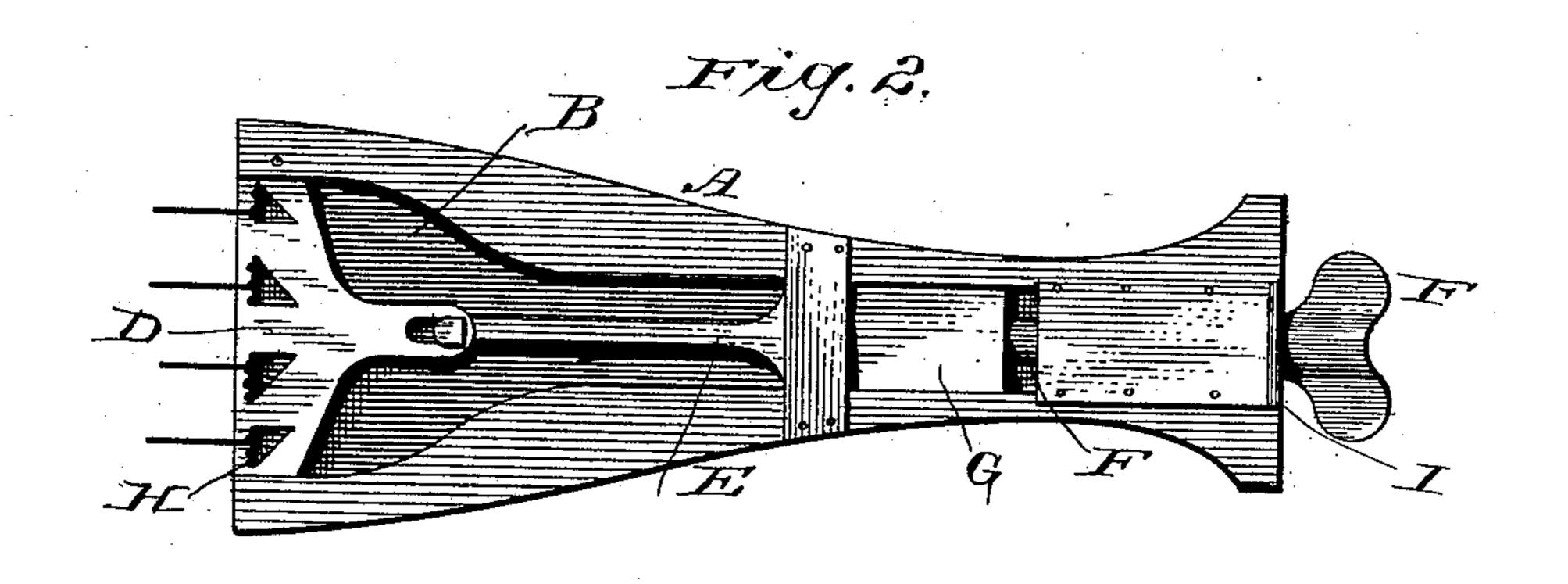
## J. J. SMITH.

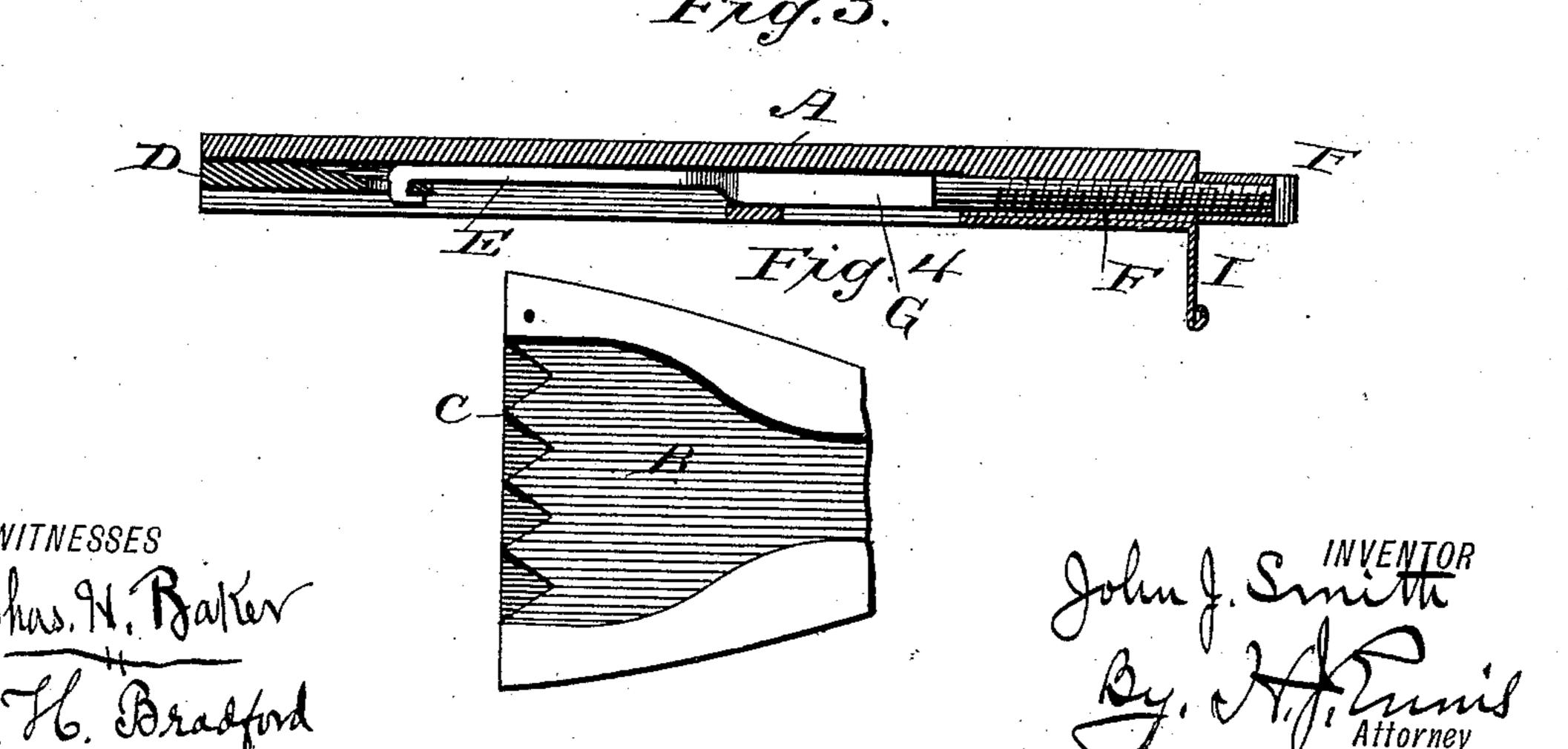
VIOLIN TAIL PIECE.

No. 300,149.

Patented June 10, 1884.







## United States Patent Office.

JOHN J. SMITH, OF KAUFMAN, TEXAS.

## VIOLIN TAIL-PIECE.

SPECIFICATION forming part of Letters Patent No. 300,149, dated June 10, 1884.

Application filed July 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, J. J. SMITH, a citizen of the United States, residing at Kaufman, in the county of Kaufman and State of Texas, have invented certain new and useful Improvements in Violin Tail-Pieces, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain improvements in violins; and it has for its objects to raise or lower the pitch of the strings simultaneously, when required, as more fully hereinafter specified. These objects I attain by the means illustrated in the accompanying drawings, in which—

Figure 1 illustrates the tail-piece or apron of a violin, looking down upon the same, showing my invention applied thereto. Fig. 2 represents a bottom view of said apron or tail-piece, showing my invention applied. Fig. 3 represents a longitudinal sectional view of my device, and Fig. 4 a detached bottom view

of the tail-piece or apron. The letter A indicates the tail-piece or apron, 25 which is approximately of the ordinary configuration. It is recessed, however, on its under side, as indicated by the letter B, the forward edge of the recessed portion being provided with angular serrations C, as shown 30 clearly in Fig. 4 of the drawings. These serrations form recesses, in which the ends of the strings secured to the slide D travel, in order that they may not be abraded when the slide is moved. The forward end of the apron or 35 tail-piece at each side of the recess is grooved, as indicated, and at one side, in one of said grooves, is pivoted one end of a movable plate, D, which has connected to it, in any suitable manner, the end of a movable slide, E, which 40 is operated longitudinally by a screw, F, passing through a threaded aperture in the rear end of the apron or tail-piece. The rear portion of the slide is rectangular and travels in

the rectangular portion of the recess in the

G, so that it will not turn. The plate D, near

45 tail-piece or apron, and is held by a cross-piece,

its forward end, is provided with angular apertures H, which have recesses at their forward edge for the strings of the instrument.

I indicates the abutment at the end of the 50 tail-piece or apron, by means of which it is secured to the violin.

The operation of my invention is as follows: The tail-piece or apron being properly secured to the violin, after the strings are tuned in the 55 ordinary manner, if it is desired to raise or lower their pitch, it is only necessary to turn the thumb-screw at the end of the tail-piece or apron, which tightens or relaxes the strings, as required, the movement, owing to the piv- 60 otal connection at the side of the plate, being such as to bring the strain in proper proportion upon the strings of the higher and lower notes.

In order to provide for strings of similar 65 character, but which may not be actually alike, the serrations in the apertures in the movable plate are provided, so that a slight change in position to either side may be made, if required.

I am aware that devices have been used for simultaneously increasing the tension of the strings, and such I do not desire to claim, broadly.

Having thus described my invention, what I 75 claim, and desire to secure by Letters Patent,

An apron or tail-piece for violins, recessed on the under side, and provided with a movable plate pivoted at one side, in combination 80 with a slide and actuating-screw, the plate being provided near its forward edge with apertures, the front walls of which are recessed for the strings, substantially as and for the purposes specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN J. SMITH.

Witnesses:

W. J. BEEK, V. W. GRUBBS.