

(No Model.)

J. VIVIEN.  
CONVERTIBLE CORNET.

No. 478,666.

Patented July 12, 1892.

FIG. 1.

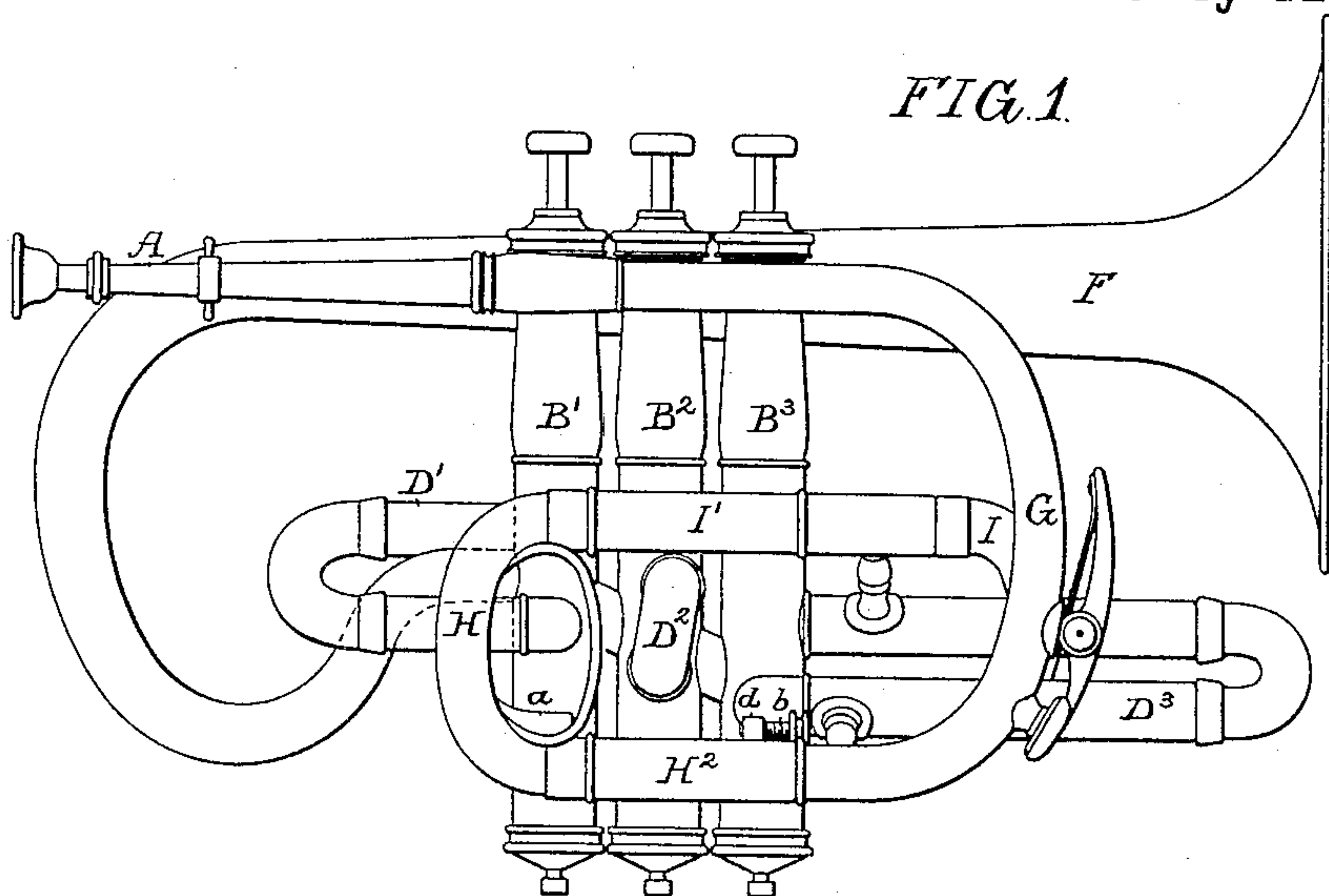


FIG. 2.

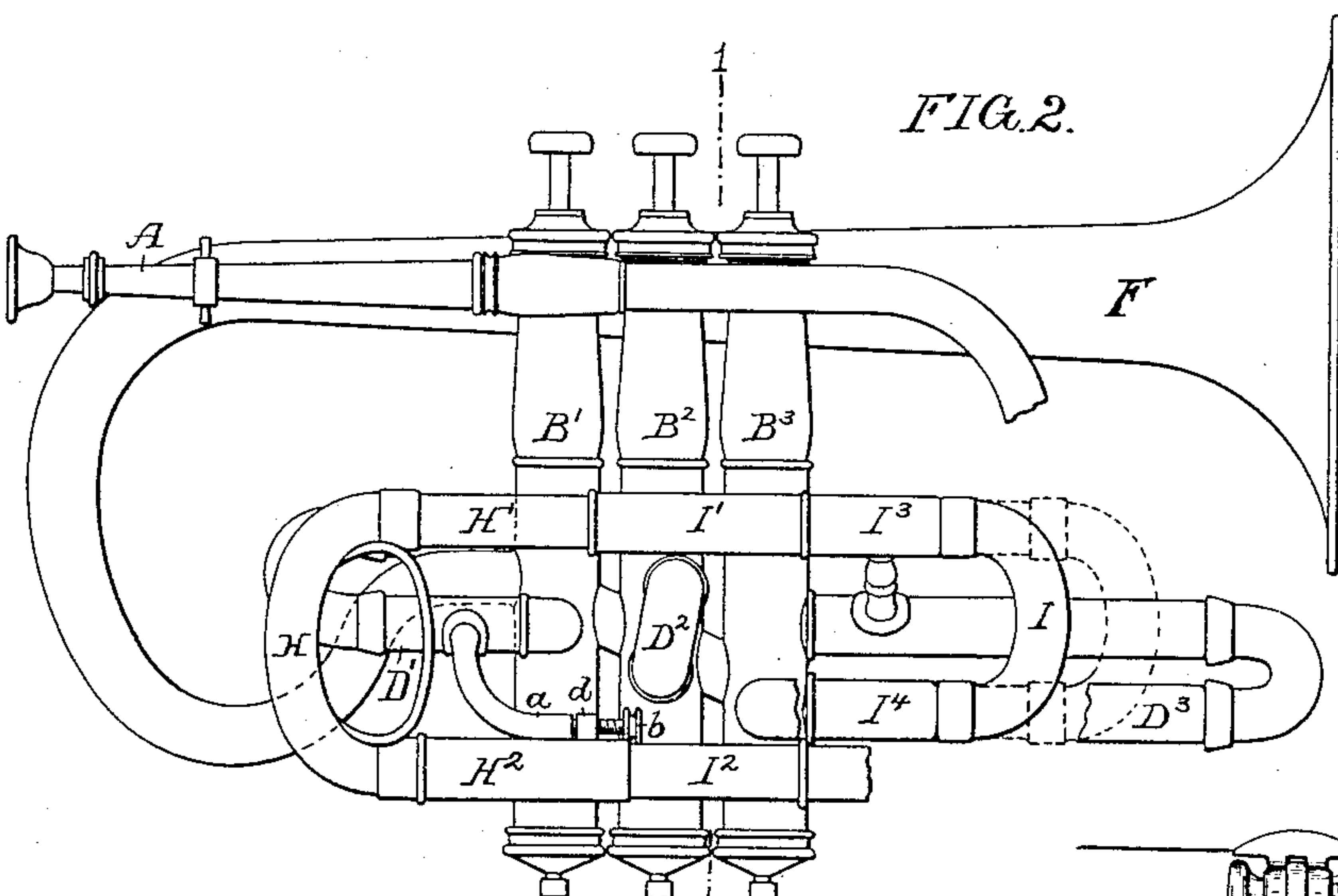


FIG. 3.

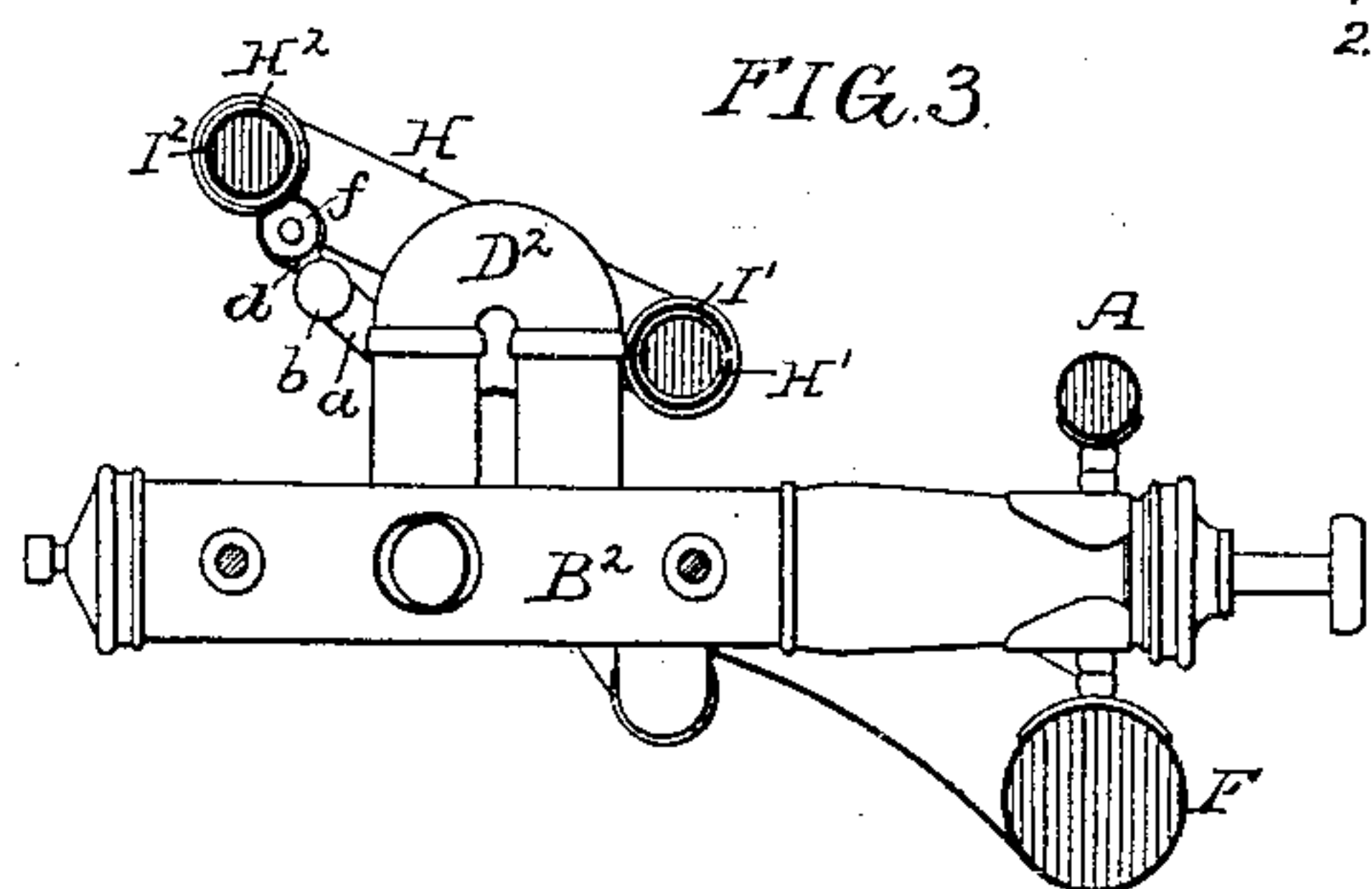


FIG. 4.

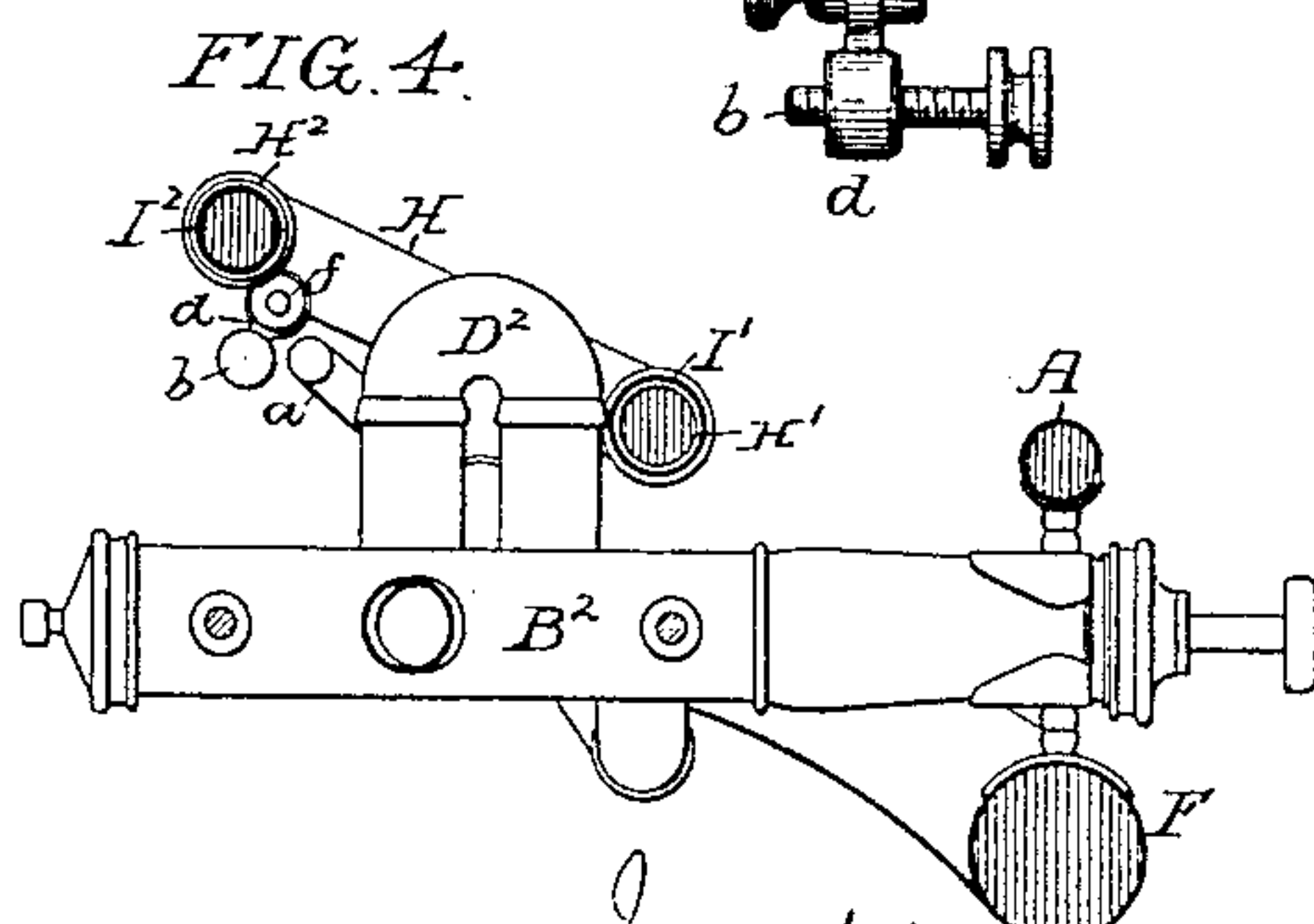
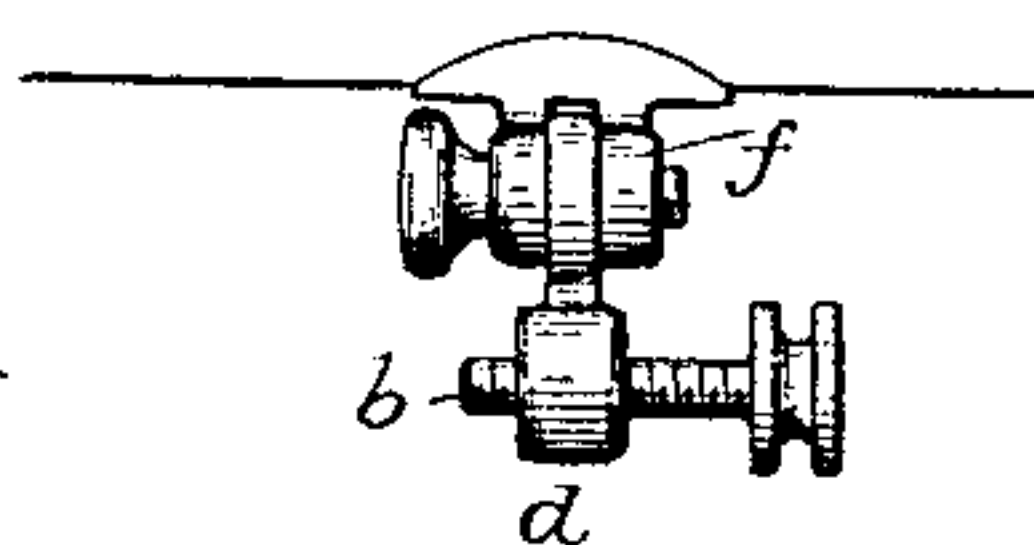


FIG. 5.



Witnesses { Hamilton A. Turner  
William D. Bonner

Inventor  
Jean Vivien  
by his Attorneys  
Howson & Howson



# UNITED STATES PATENT OFFICE.

JEAN VIVIEN, OF PHILADELPHIA, PENNSYLVANIA.

## CONVERTIBLE CORNET.

SPECIFICATION forming part of Letters Patent No. 478,666, dated July 12, 1892.

Application filed October 15, 1891. Serial No. 408,799. (No model.)

*To all whom it may concern:*

Be it known that I, JEAN VIVIEN, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain

5 Improvements in Convertible Cornets, of which the following is a specification.

My invention consists of an improvement in convertible cornets—that is to say, cornets in which the key can be readily changed from

10 B-flat to A, and vice versa, by the movement of a sliding section of the instrument—the object of my invention being to provide a simpler and more effective construction for the purpose than any of those heretofore devised

15 with which I am familiar.

In the accompanying drawings, Figure 1 is a side view of a cornet constructed in accordance with my invention, illustrating the same as adjusted for the key of B-flat. Fig. 2 is a

20 like view of the instrument with part broken away and illustrating the adjustment for the key of A. Figs. 3 and 4 are transverse sections on the line 1 2, Fig. 2, illustrating one of the features of my invention; and Fig. 5 is an enlarged view showing a detail of construction.

In Figs. 1 and 2, A represents the mouthpiece of the instrument; B', B<sup>2</sup>, and B<sup>3</sup>, respectively, the three valve-casings; D', D<sup>2</sup>, and D<sup>3</sup>, respectively, the loops of the first, second, and third valve-casings; F, the trumpet, and G, H, and I, respectively, the three elbows formed in the pipe-coil which is interposed between the mouthpiece and the casing of the third valve. The elbow H has opposite legs H' H<sup>2</sup>, the former sliding in a straight portion I' of the pipe-coil and the leg H<sup>2</sup> sliding on a similar straight portion I<sup>2</sup> of the coil, as usual, this sliding section in an ordinary cornet constituting the tuning-

40 slide and being adjusted to vary the pitch of the instrument. In my improved instrument, however, I employ this slide II for the purpose of changing the key of the instrument, this being done by moving it from one of its extreme positions to the other. For instance, when the slide is pushed in to its full extent, as shown in Fig. 1, the instrument is in the key of B-flat; but when the slide is pulled out to its full extent, as shown in Fig.

50 2, the instrument is in the key of A. In order that this adjustment may be instantly ef-

fectured by the player, it is necessary that a stop shall be provided to arrest the outward movement of the slide at the proper point, and such stop is formed by a curved arm *a*, projecting from the loop D', the end of this curved arm when the slide H is pulled out to its proper extent forming a stop for a set-screw *b*, carried by an arm *d*, which is hung to a bracket *f* on the leg H<sup>2</sup> of the slide. When it is desired to remove the slide, this arm is swung around, as shown in Fig. 4, so as to carry the set-screw out of line with the arm *a*, whereupon the legs H' H<sup>2</sup> of the slide can be entirely withdrawn from engagement with the tubes I' I<sup>2</sup>. When the slide H is thus used as a key-slide, it becomes necessary to provide another slide for tuning purposes. Hence I use for the latter purpose the elbow I, which has legs adapted to slide in the fixed tubes I<sup>3</sup> I<sup>4</sup>, forming part of the pipe-coil, there being no necessity for providing this slide with stops, for a quick adjustment of the same is not required, as in the case of a key-slide.

In instruments heretofore devised attempts have been made to vary the key by the adjustment of the first bend or elbow G of the pipe-coil; but such adjustment for the purpose is not advisable, because it destroys that mathematically-progressive taper which should be preserved from the mouthpiece to the tube I<sup>2</sup> in order to attain the desired purity of tone in the instrument. The bend or elbow I has also been used as a key-slide; but such use is also undesirable, because this slide is more or less difficult of access, and hence cannot be manipulated with that facility which is desirable in effecting a rapid change of key. By the use of the slide II as the key-slide the same is under perfect and instant control of the performer and can be shifted from one position to the other with great facility.

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

1. A cornet having the ordinary tuning-slide combined with a stop for limiting its outward movement, whereby it serves as a key-slide, substantially as specified.

2. A cornet having the ordinary tuning-slide combined with a stop for limiting its outward movement and having the third bend

or elbow of the pipe-coil adjacent to the third valve-casing adjustable for the purpose of a tuning-slide, substantially as specified.

3. The combination of the adjustable key-  
5 slide of a cornet with a stop for limiting the outward movement of said key-slide, said stop consisting of a fixed projecting arm and a swinging arm carrying a set-screw for engagement with said fixed arm, one of said arms  
10 being carried by the slide and the other by a fixed portion of the instrument, and the swing-

ing arm being adjustable out of line with the fixed arm, so as to permit of the removal of the slide, substantially as specified.

In testimony whereof I have signed my 15  
name to this specification in the presence of two subscribing witnesses.

JEAN VIVIEN.

Witnesses:

EUGENE ELTERICH,  
HARRY SMITH.