

No. 679,644.

Patented July 30, 1901.

C. SPRINGER & G. DAVIS.  
CORNET ATTACHMENT.

(Application filed Jan. 18, 1901.)

(No Model.)

Fig. 1.

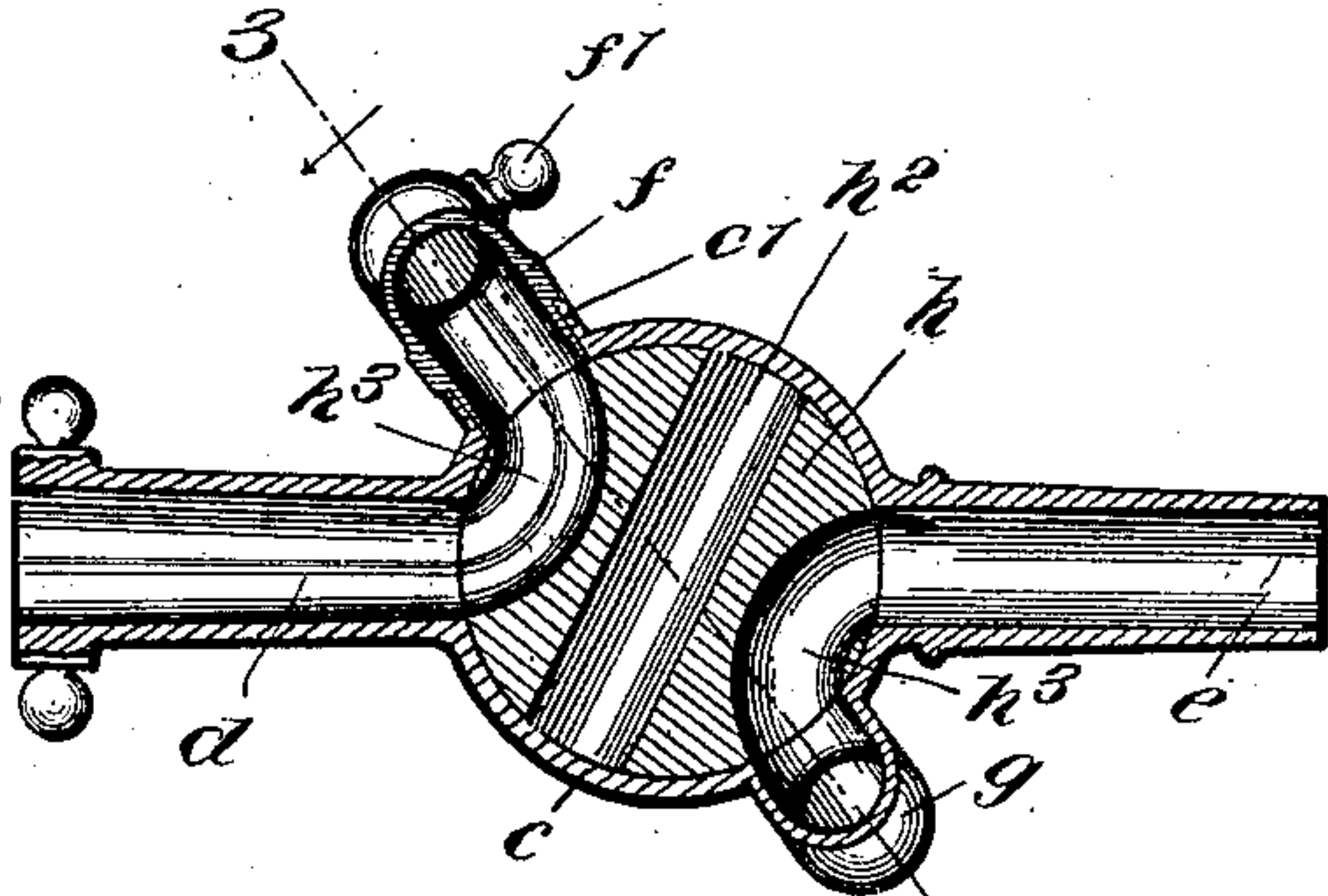
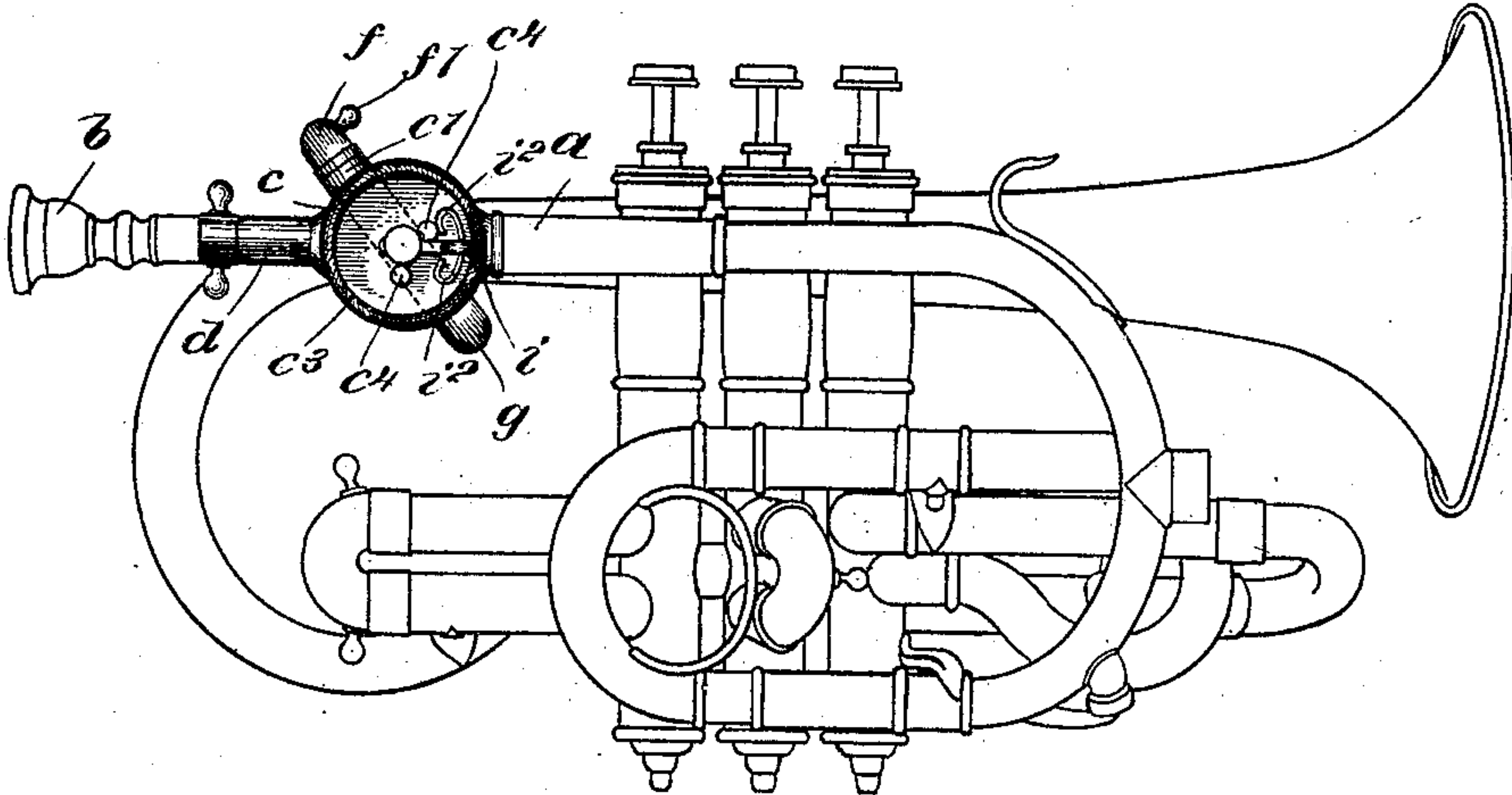


Fig. 2.

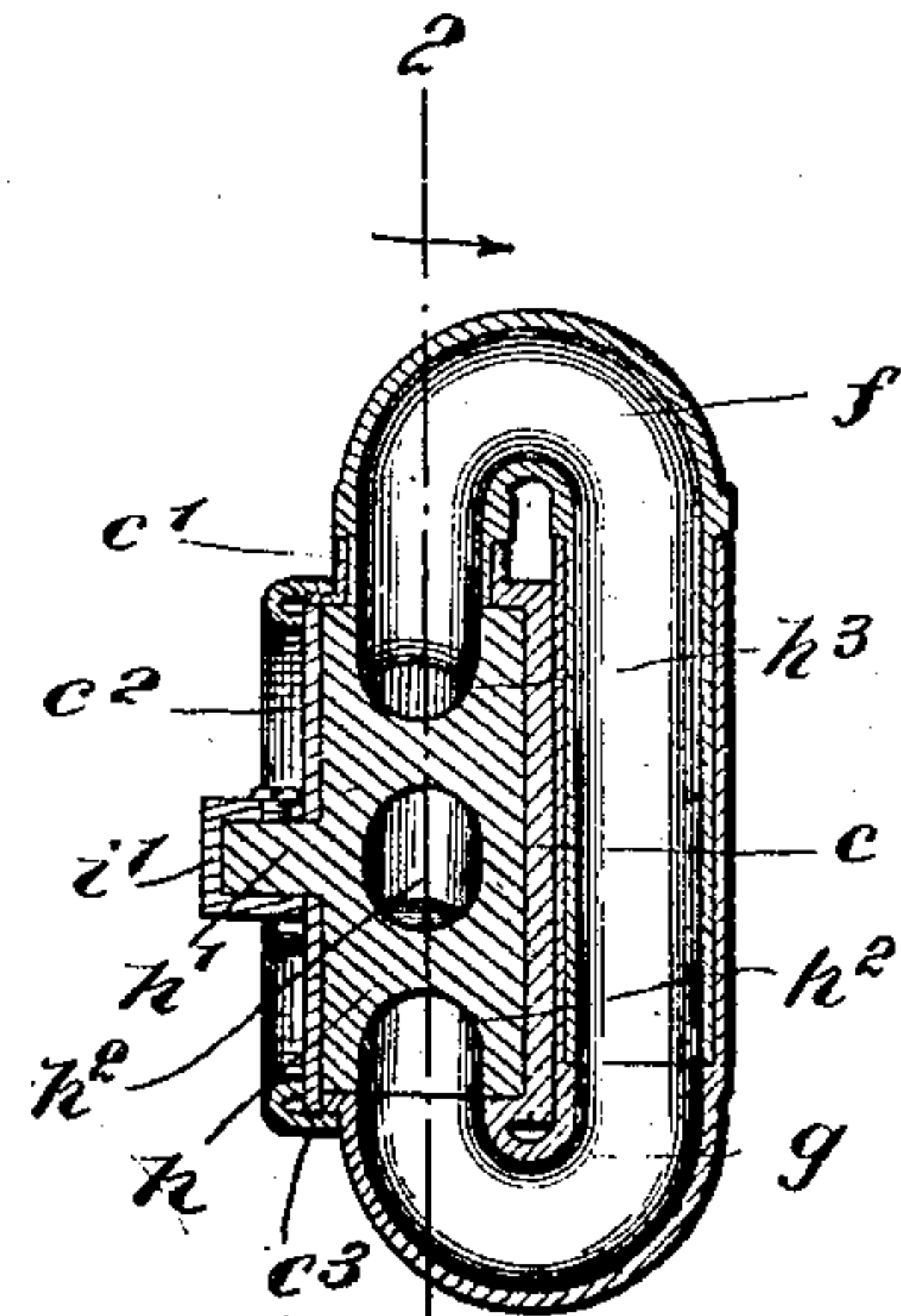


Fig. 3.

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## CORNET ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 679,644, dated July 30, 1901.

Application filed January 18, 1901. Serial No. 43,726. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES SPRINGER and GEORGE DAVIS, citizens of the United States, and residents of Newark, in the county of Essex and State of New Jersey, have invented a new and improved Cornet Attachment, of which the following is a full, clear, and exact description.

This invention relates to a cornet attachment for enabling us to change the pitch from A-natural to B-flat, and vice versa, without interrupting the use of the instrument.

Our invention seeks to provide an attachment of the character indicated which is very simple and cheap and can be readily applied to a cornet.

This specification is a specific description of one form of the invention, while the claims are definitions of the actual scope thereof.

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

Figure 1 is a view of a cornet with our attachment applied thereto. Fig. 2 is a section on the line 2 2 of Fig. 3, and Fig. 3 is a section on the line 3 3 of Fig. 2.

$a$  indicates the cornet-tube, and  $b$  the mouthpiece. Between these parts, as indicated best in Fig. 1, is placed our attachment, which comprises a circular casing  $c$ , provided with a tubular extension  $d$ , into which the mouthpiece fits, and a similar and oppositely-disposed extension  $e$ , fitting in the tube  $a$ . Attached to the casing  $c$  and communicating with the same at diametrically opposite points is a tube composed of two U-shaped sections, respectively designated  $f$  and  $g$  and each having one of its members longer than the other. The section  $g$  is formed integral with or rigidly attached to the casing  $c$ , and the section  $f$  has one arm fitting slidably within the corresponding arm of the section  $g$  and the other arm fitting slidably within a boss  $c'$ , formed on the casing  $c$ . This tube (formed of the sections  $f$  and  $g$ ) furnishes a passage around the casing  $c$  from one side to the other thereof, and the length of such passage may be regulated by moving the section  $f$  inward or outward, as desired. By moving the section  $f$  outward from the position shown in Figs. 2 and 3 the

length of the passage referred to may be increased, and by moving the section  $f$  oppositely the length will be decreased. For facilitating this manipulation of the section  $f$  a knob  $f'$  is formed on the section, as shown.

Mounted within the casing  $c$  is a valve  $h$ , which has a centrally-disposed projection  $h'$ , forming a pivot or stem. This stem is projected through a central opening in the top  $c^2$  of the casing  $c$ , such top being held firmly in place by an annulus  $c^3$ , screwed on the casing and bearing against the top. The valve  $h$  is provided with a straight diametrically-disposed passage  $h^2$  and is capable of movement from the position shown in Fig. 2 to a position which will place the passage  $h^2$  in registry with the tubes  $d$  and  $e$ . Then a straight uninterrupted passage will be afforded through the attachment from the mouthpiece  $b$  to the tube  $a$ , and the instrument in this adjustment will give the pitch B-flat. The valve  $h$  is also formed with two arc-shaped passages  $h^3$ , located one at each side of the passage  $h^2$  and capable of registering the one passage  $h^3$  with the tube  $d$ , and the section  $f$  of the tube forming the passage around the casing  $c$ , and the other passage  $h^3$  with the tube  $e$  and the section  $g$  of the said tube which forms a passage around the casing. When the valve is in this adjustment, (see Figs. 2 and 3,) the blast blown into the mouthpiece will be caused to travel through the tube  $d$  and through the parts  $f$  and  $g$  of the by-pass tube and thence through the tube  $e$  into the cornet-tube. This makes a longer passage for the air and puts the instrument in the pitch A-natural.

For adjusting the valve  $h$  we provide a thumb-piece  $i$ , which is attached to the pivot or stem  $h'$  of the valve by means of a socket  $i'$ , fastened on the stem  $h'$ . This thumb-piece has two springs  $i^2$  attached thereto, and these springs are adapted to work with studs  $c^4$ , fastened to the top  $c^2$  of the casing  $c$ , the parts  $i^2$  and  $c^4$  acting together serving to hold the thumb-piece  $i$  in the desired position. When the thumb-piece is in one position, the valve  $h$  is adjusted for one of the pitches referred to, and when the thumb-piece is thrown to the other position the valve is adjusted for the other pitch.

Now it will be clear that by means of this attachment the instrument may be readily



changed from A-natural to B-flat, and vice versa, and this change being brought about by the manipulation of the thumb-piece *i* will not require that the instrument be taken  
 5 from the mouth or that the music be in any way interrupted. Further, the device for changing the pitch is placed in the theoretically-correct position, and all of the parts being in practically the same temperature there  
 10 will be no effect on the pitch when the change is made from one to another. In the old arrangement of two separate tubes when a new tube is placed in position this tube being colder than the other parts of the cornet will  
 15 effect the purity of the tone and pitch of the instrument; but such objection will not be found with our invention. The adjustable section *f* of the by-pass tube enables us to so adjust the length of the passage formed by  
 20 this tube as to produce the pitch desired and to correct any inaccuracy that may exist in the pitch. This arrangement also avoids another disadvantage previously existing in cornets — namely, that the pitch may be  
 25 changed at will without lengthening or shortening the shank or hub of the instrument. Previously much inconvenience was occasioned by the substitution of the long and short tubes; but by our invention the change  
 30 can be made without changing the position of the mouthpiece.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

35 1. A cornet attachment, comprising a casing with oppositely-disposed tubular extensions communicating with the interior thereof, one extension serving to connect the mouth-  
 40 piece with the casing and the other the casing with cornet-tube, a tube passing around the casing and across the longitudinal line of said extensions, said tube having its ends turned inward toward and communicating with the  
 45 interior of the casing at opposite sides, and being formed of two slidably-connected U-shaped sections adjustable to increase or diminish the length of the tube, and a three-  
 50 passage rotary valve working in the casing and commanding the said tubular extension and the tube, for the purpose specified.

2. An attachment for cornets, comprising a casing having oppositely-disposed tubular extensions, one for connection with the cornet tube or shank and the other for connec-

tion with the mouthpiece of the cornet, a tube 55 passing around the casing and across the longitudinal line of the said tubular extensions, the tube having its ends turned inward and communicating with the interior of the casing at opposite points, and a three-passage 60 rotary valve working in the casing commanding the said tubular extensions and the tube, and means whereby the valve will be held in the position to which it had been moved for the purpose specified. 65

3. A cornet attachment, comprising a casing with oppositely-disposed tubular extensions communicating with the interior thereof, one extension being adapted to receive the mouthpiece of the cornet and the other 70 to enter the cornet-tube, a tube in two slidably-connected sections, said tube passing around the casing across the longitudinal line of the said tubular extensions and having its ends turned inward toward and communicating 75 with the interior of the casing at opposite sides, one section of the said tube being fixedly connected with the casing and the other section being slidable on the first section and slidable also on the casing, for the purpose 80 specified, and a rotary valve working in the casing and provided with a straight passage and two arc-shaped passages, said passages commanding the said tubular extensions, and the tube. 85

4. A cornet attachment, consisting of a casing provided with oppositely-arranged tubular extensions, one to receive the mouthpiece of the cornet and the other to enter the cornet-tube, a tube formed of two U-shaped sections 90 slidable one upon the other, one section being fixedly secured to the casing and the other slidably connected therewith, a rotary valve in the casing having a stem projecting through the top of the casing and provided with a straight 95 passage and two arc-shaped passages, studs on the top of the casing, and a thumb-piece secured to the stem of the valve and provided with oppositely-projecting springs adapted to engage the said studs, as set forth. 100

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

CHARLES SPRINGER.  
 GEORGE DAVIS.

Witnesses:

I. B. OWENS,  
 JNO. M. RITTER.