

No. 745,788.

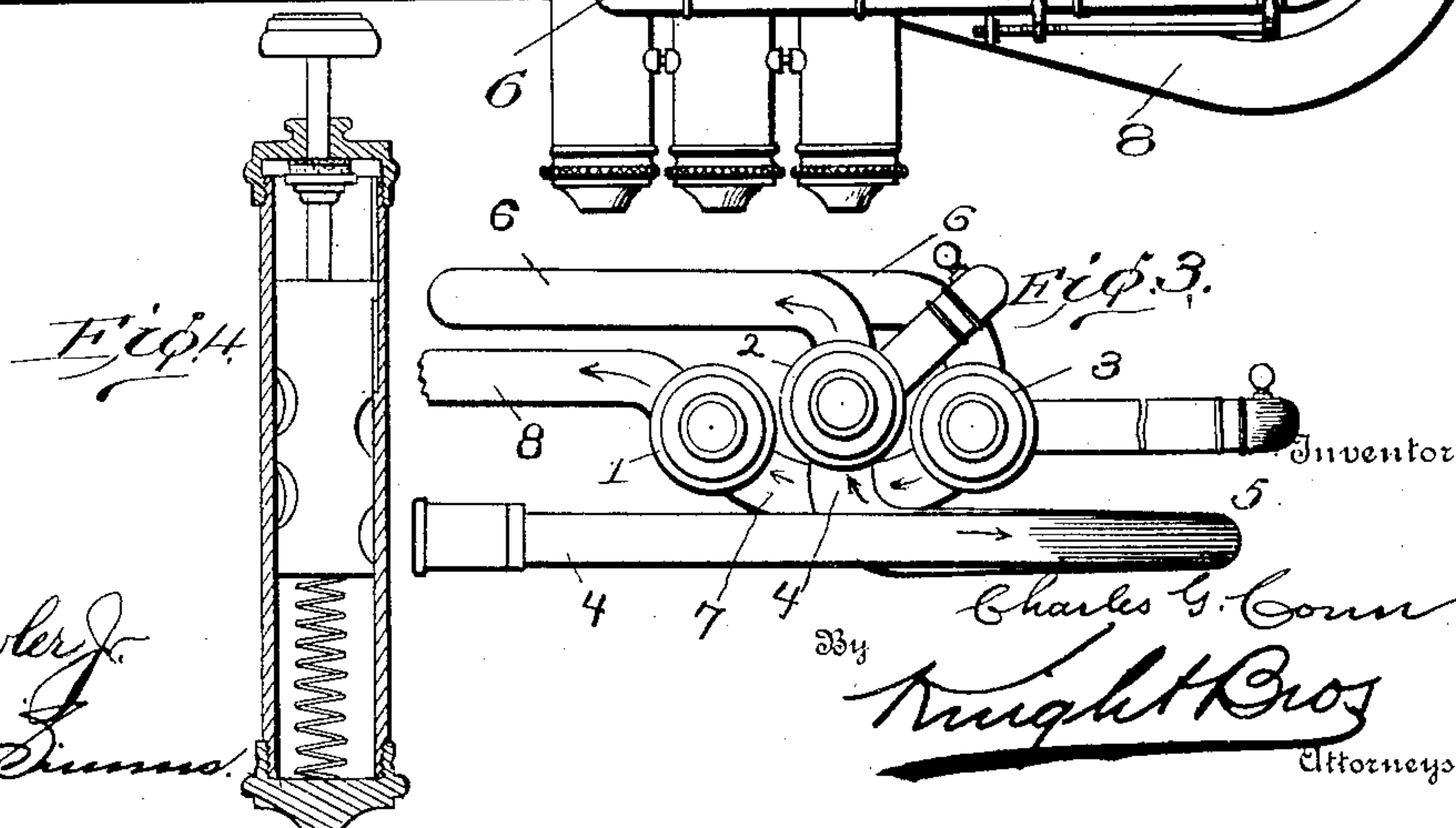
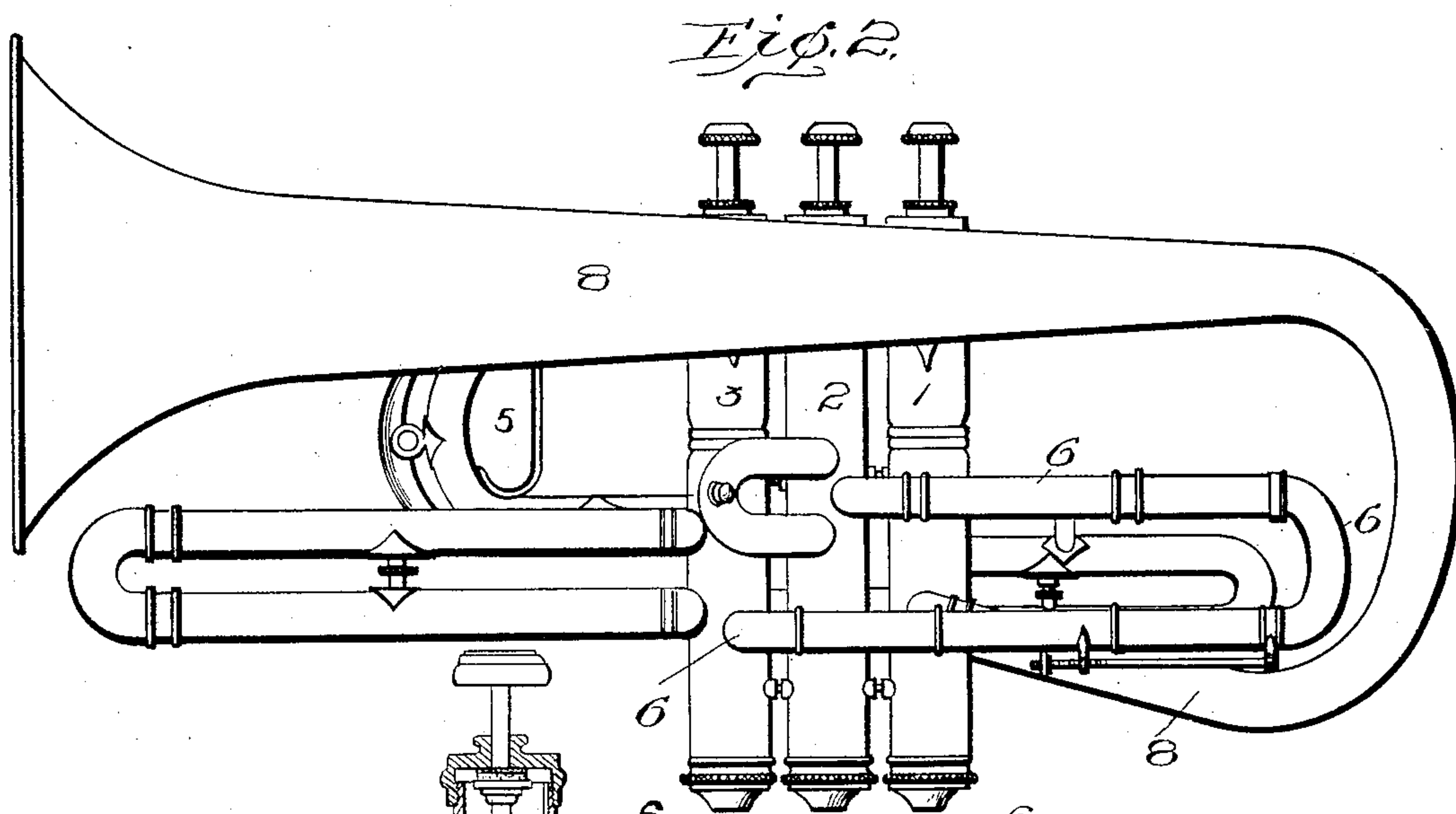
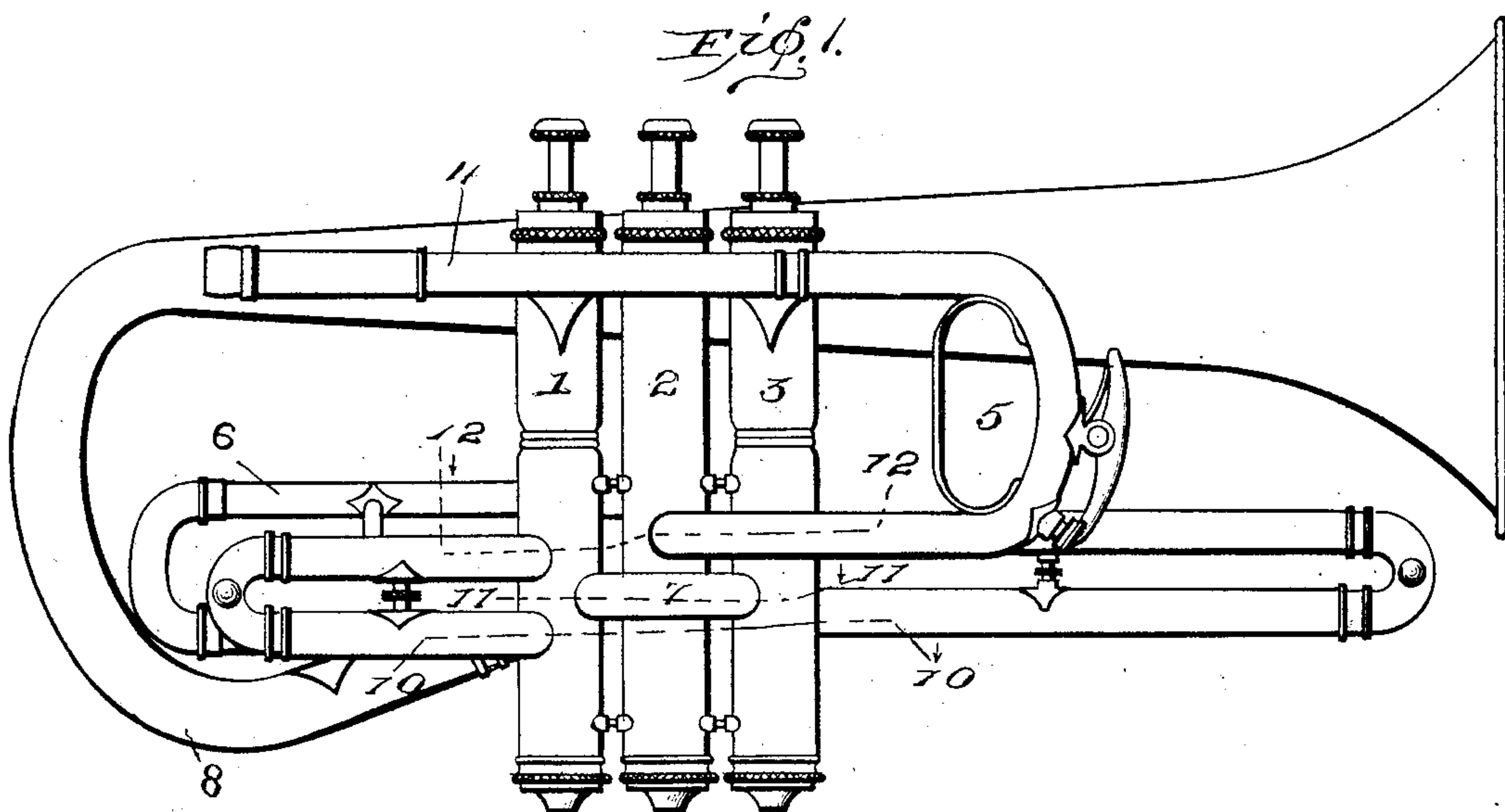
PATENTED DEC. 1, 1903.

C. G. CONN.
CORNET.

APPLICATION FILED APR. 5, 1902.

NO MODEL.

3 SHEETS—SHEET 1.



Witnesses

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Inventor

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34
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Attorneys

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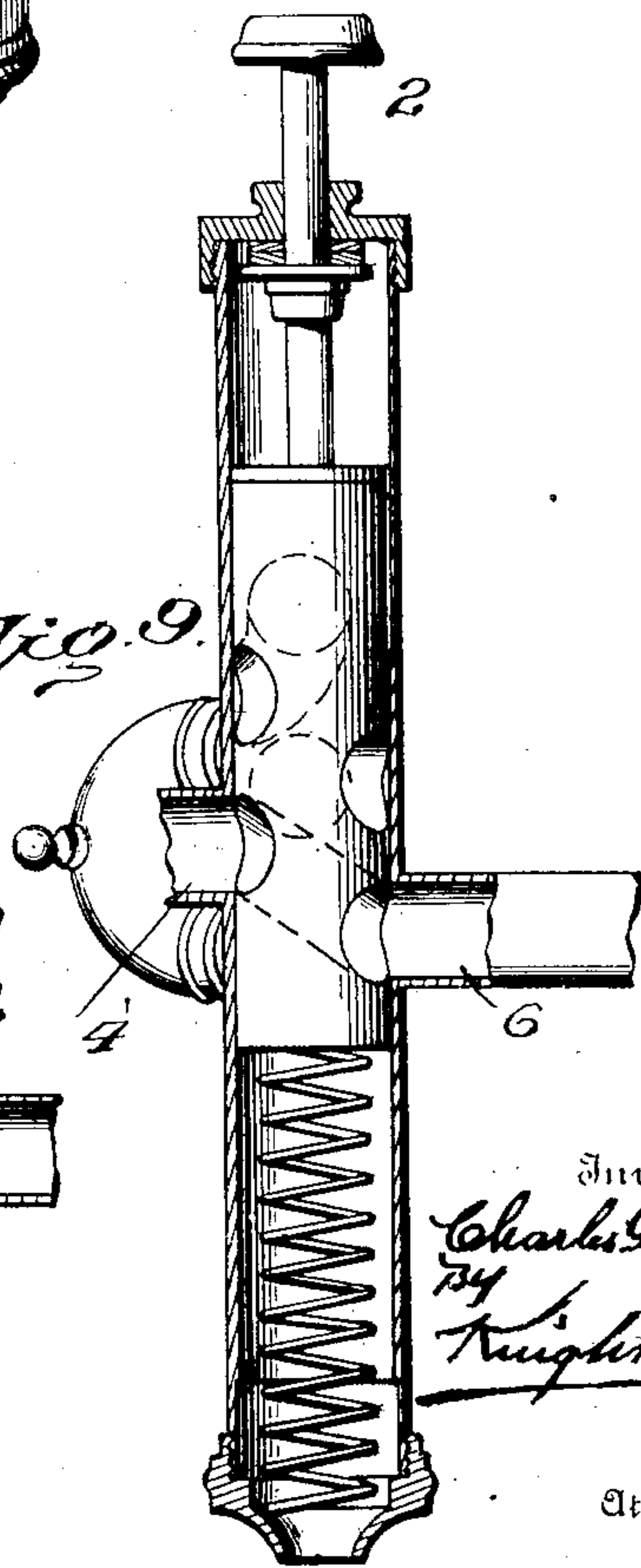
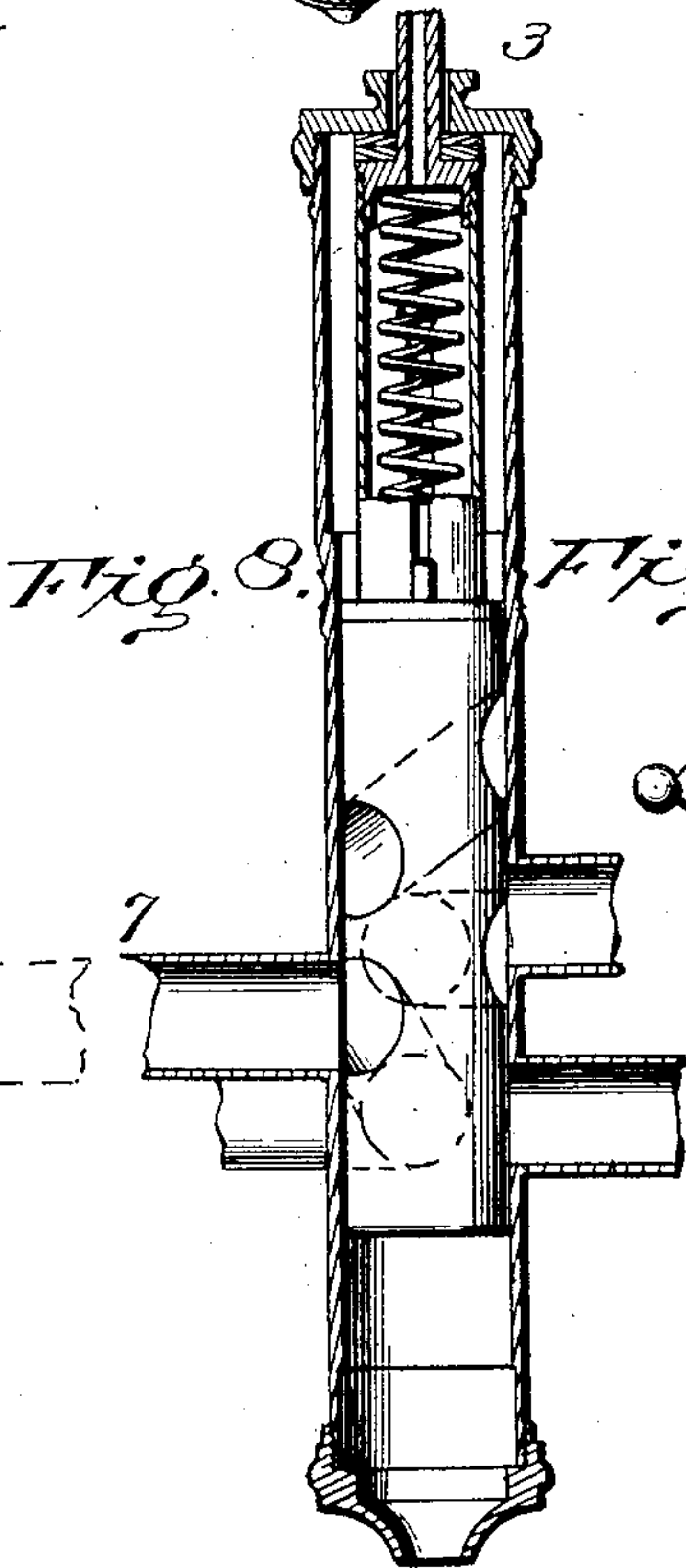
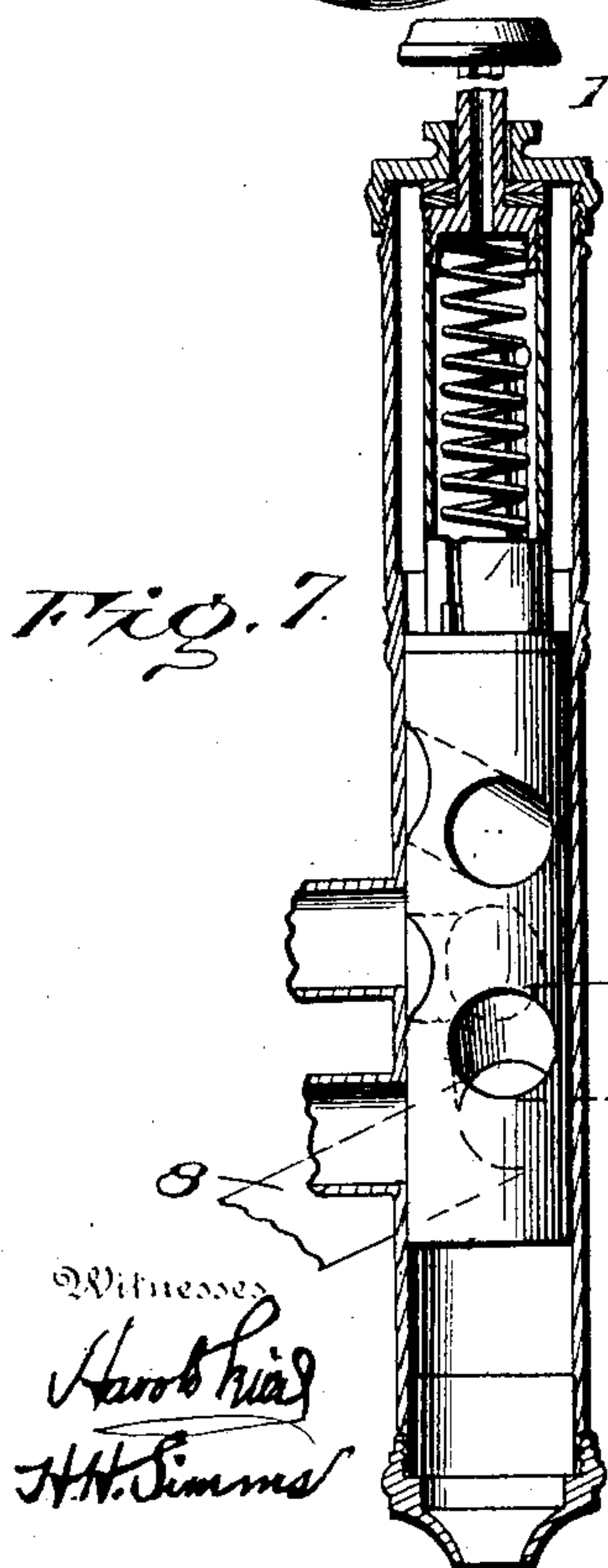
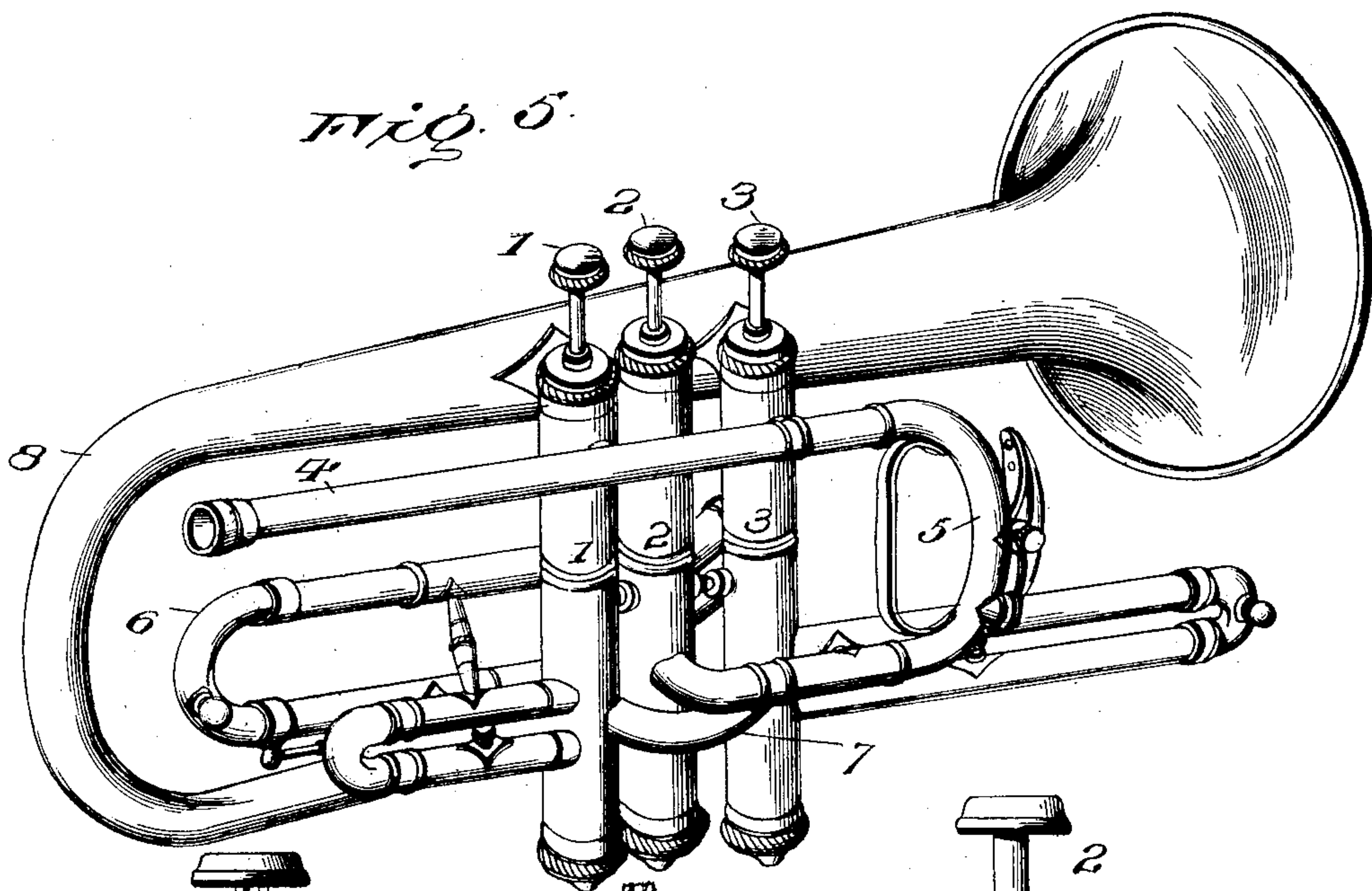
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3 SHEETS—SHEET 3.

Fig. 6.

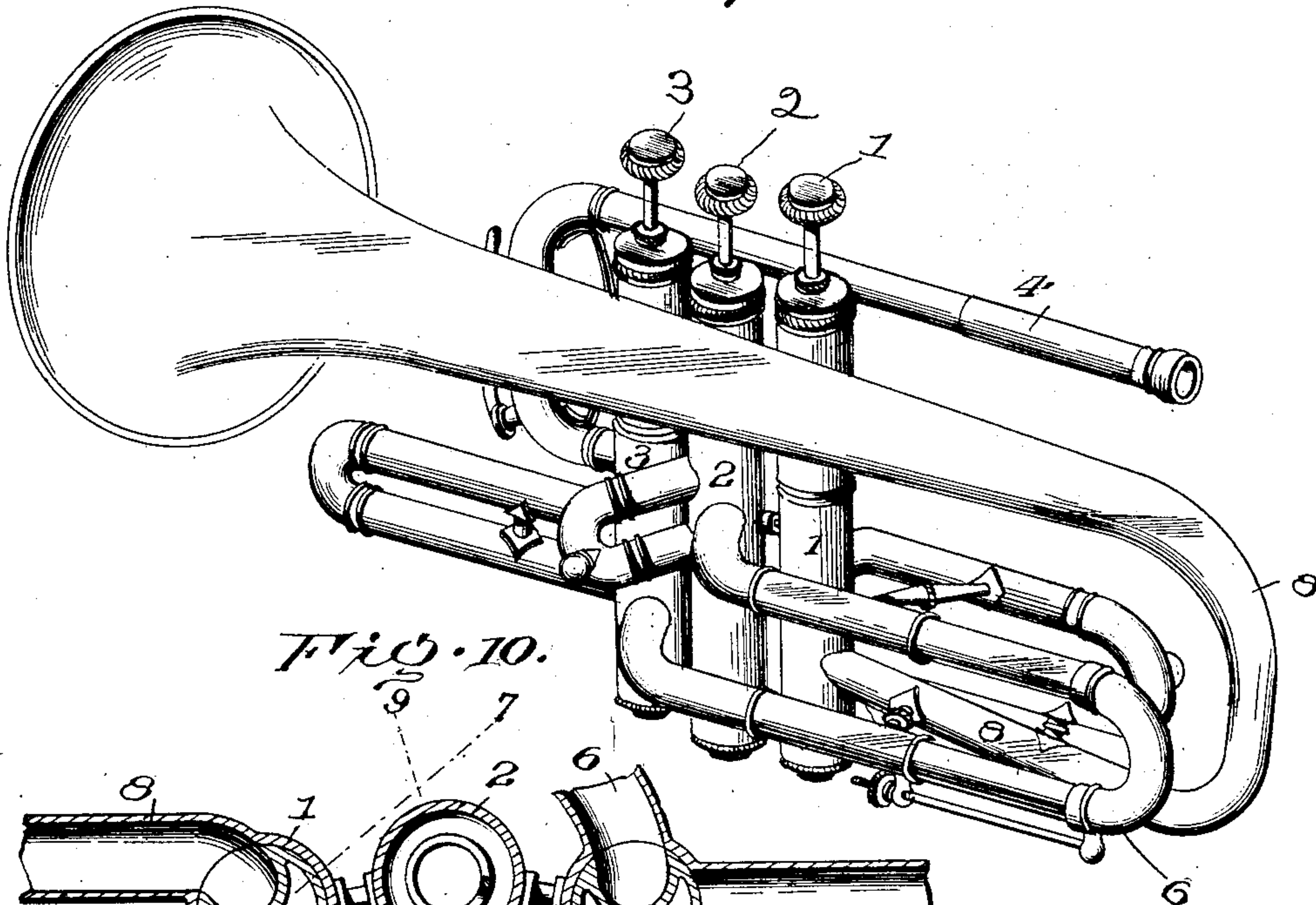


Fig. 10.

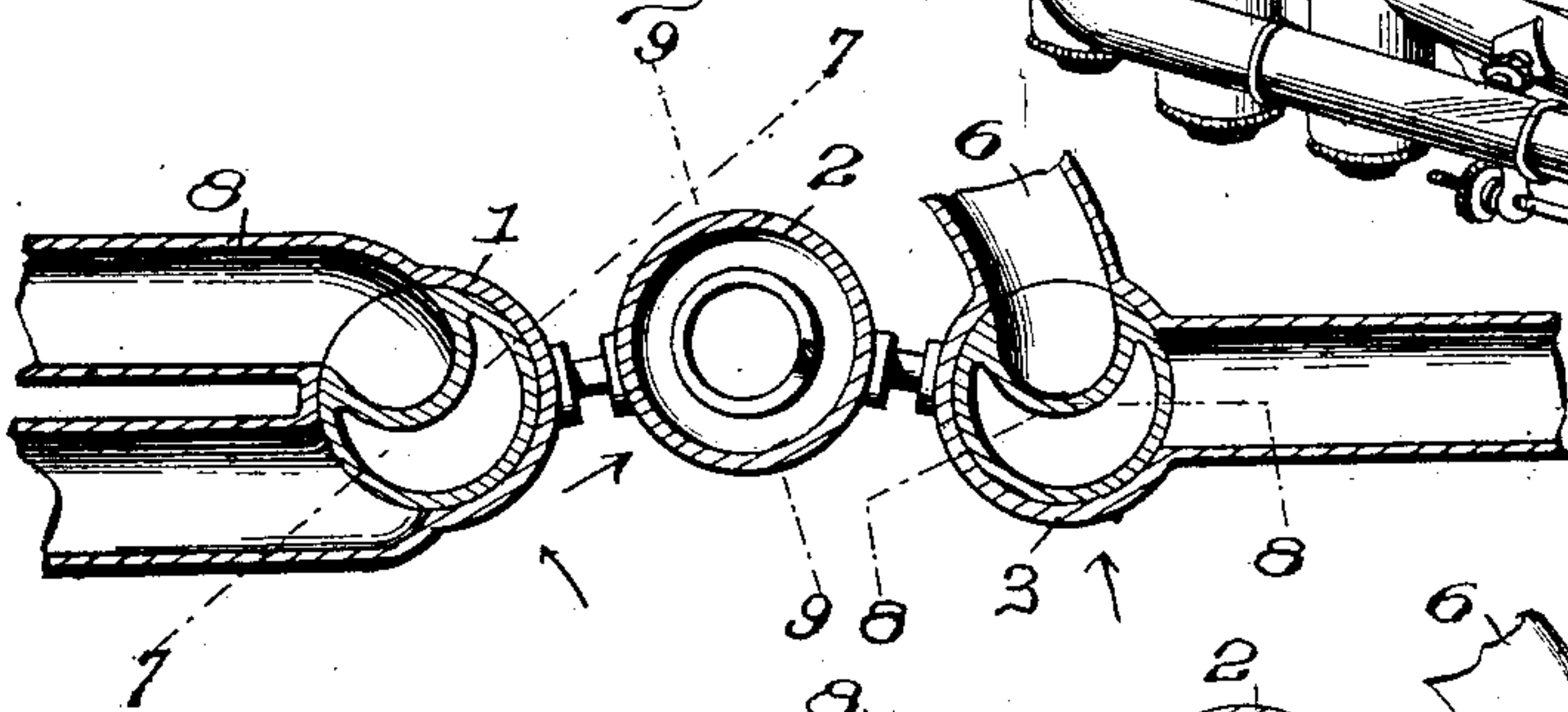


Fig. 11.

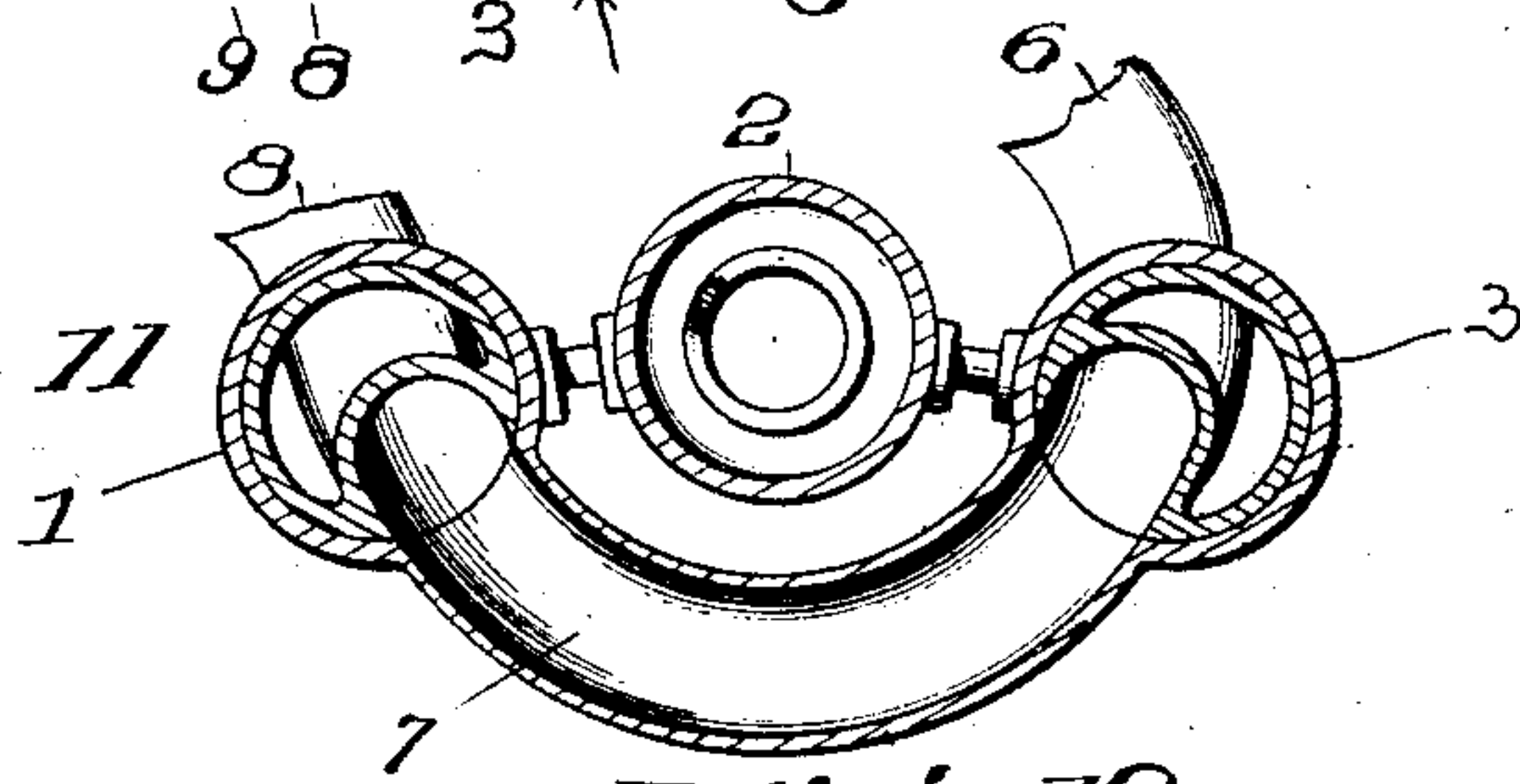
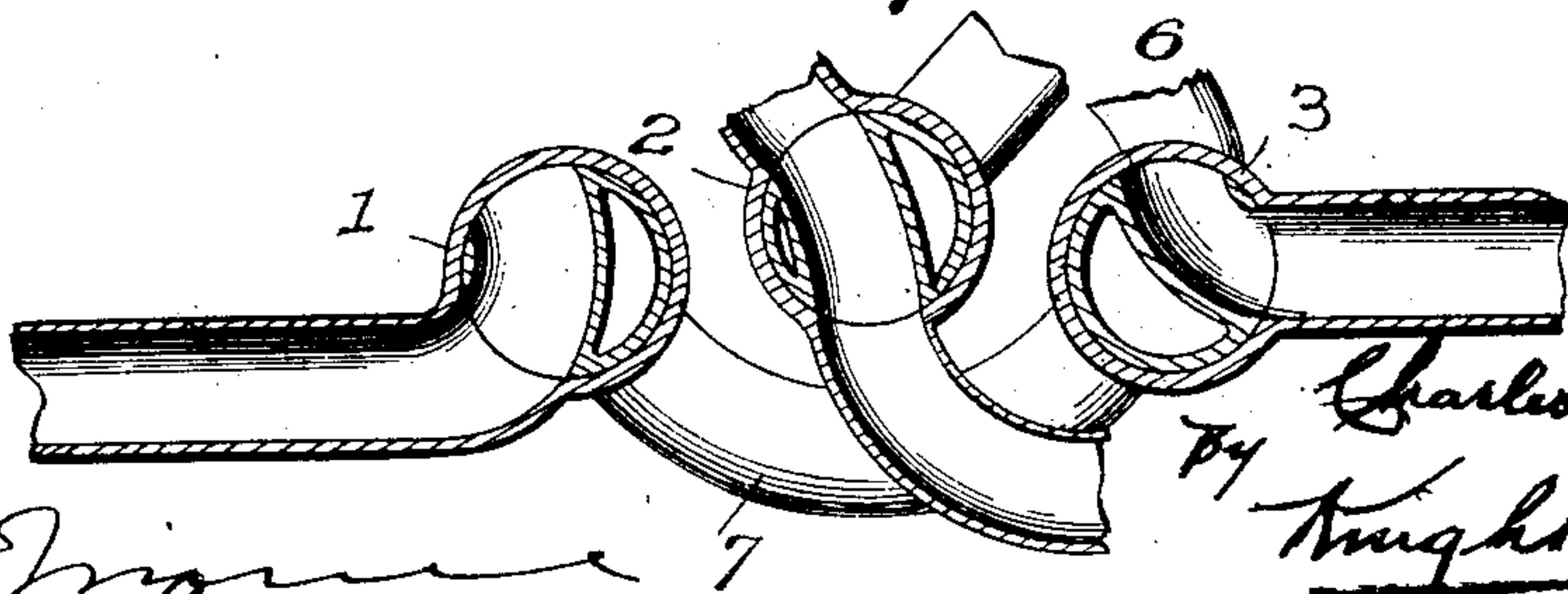


Fig. 12.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES G. CONN, OF ELKHART, INDIANA.

CORNET.

SPECIFICATION forming part of Letters Patent No. 745,788, dated December 1, 1903.

Application filed April 5, 1902. Serial No. 101,541. (No model.)

To all whom it may concern:

Be it known that I, CHARLES G. CONN, a citizen of the United States, residing at Elkhart, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Cornets, of which the following is a specification.

The object of this invention is to construct a cornet or similar instrument so that the air vibrations set in use by the performer when the instrument is in use shall be conducted through the valve system without increasing the number of turns or crooks and without changing the general direction of the wind-passage.

Musical-instrument makers have long attempted to manufacture a cornet with an equalized scale, so that both valve and open tones shall have the same freedom, volume, and quality. Heretofore they have been unable to do so because there were more turns or crooks in the wind-passage when the valves were depressed than there were when the valves were not in use. As a result of this faulty wind-passage through the valve system the valve tones were more or less muffled, while the open tones were comparatively free and sonorous.

Figure I is a side elevation of a cornet embodying my invention. Fig. II is a side elevation of a cornet opposite to that shown in Fig. I. Fig. III is a detail top plan view of the instrument, of which the slide 6 is shown to one side of the mouth-pipe 8 for sake of clearness, some of the tubes being broken away. Fig. IV is a central vertical section of one of the valve-chambers, the valve being in elevation. Figs. V and VI are perspective views of my improved cornet, taken from opposite sides. Fig. VII is a section on the line 7 7, Fig. X. Fig. VIII is a section on the line 8 8, Fig. X. Fig. IX is a section on the line 9 9, Fig. X. Fig. X is a sectional view on the line 10 10, Fig. I. Fig. XI is a sectional view on the line 11 11, Fig. I. Fig. XII is a sectional view on the line 12 12, Fig. I. 1, 2, and 3 are the valve-chambers of approved construction. These are conventionally designated among musicians as the "first valve," the "second valve," and the "third valve," and when I employ these terms in this specification and in the appended claims

I desire them to convey their conventional meaning and to be understood as referring, respectively, to the valve nearest the front or mouthpiece end of the instrument, the valve occupying the intermediate position or position next nearest the front of the instrument, and the valve farthest from the front end or nearest the bell of the instrument.

4 is the mouth-pipe, connected as shown in Fig. I and leading directly to the second valve, said mouth-pipe having the usual high and low pitch slides 5.

6 is an adjustable tuning-slide extending from the side of the second valve opposite the entrance of the mouth-pipe into the second valve and leading to the third valve, as clearly shown in the several figures.

7 is a connection or by-pass extending from the third valve into the first valve.

8 is the bell connected directly to the first valve.

As stated, the mouth-pipe leads to the second valve, and the air column is carried directly through that valve into the tuning-slide 6, which connects the second and third valves unless the valve is depressed. When the second valve is depressed, the air column is conducted into the second-valve slide and then into the tuning-slide 6 without any sharp or reverse turns, thereby preserving the same quality of tone. After leaving the second valve the air column is conducted to the third valve by the tuning-slide 6, thence through the valve into connection 7 when the third valve is not depressed; but when the third valve is depressed the air column passes through the third-valve slide and then into connection 7 without any additional abrupt turns, thus preserving the free open quality of tone. Connection 7 between the third and first valves leads the air column to the first valve, through which it passes into the bell 8 of the instrument when the valve is not depressed; but when the first valve is depressed the air column is conducted into the first-valve slide and then into the bell 8 without any abrupt curves or bends, thus assuring a free open quality of tone. The result of manufacturing an instrument with this peculiar and unique system of wind-passage is to develop an equalized scale, whether or not all the valves or any part of them are used.

The quality of tone with all the valves or any part of them depressed is precisely as resonant and free as it is when all the valves are open. The same general direction of the air is maintained both for the open and the valve tones. There are curves or slight bends in the air-passage; but there are no reverse turns or abrupt bends, as are found in my cornet patented June 11, 1901. In this patent the valves have a reverse turn when the third valve is depressed before the air can be again conducted into the body of the instrument. There is no additional turn of any kind in the air-passage of the present invention within the valve-chamber when the third valve is depressed. In fact, there are no additional turns in any of the valve-tones in this cornet within the valve-chamber. The advantages gained by the use of an instrument with this improved passage is the same quality and timbre of tone for both open and valve notes, a free and easier blowing instrument, and a more perfect control of all the tones in the entire scale of the instrument.

Having thus described my invention, the following is what I claim as new therein:

1. In a cornet, the combination with the herein-described second valve, a mouth-pipe leading directly to the same, of a connection between said second valve and the herein-described third valve, and a connection between said third valve and the herein-described first valve, all for the purpose set forth.

2. In a cornet, the combination with the herein-described second valve, a mouth-pipe leading directly into the same, of a slide connection between the said second and the herein-described third valve, and a connecting-bend between the said third and first valves, for the purpose set forth.

3. In a cornet, the combination with the herein-described second and third valves, and a mouth-pipe leading directly to the said second valve, of a tuning-slide connecting the said second and third valves, a connection between the third and the herein-described first valves, and a bell attached to the said first valve, for the purpose set forth.

4. In a cornet, the combination with the herein-described second and third valves, of a tuning-slide connecting said valves and a connection between the third and the herein-described first valves, and of a bell attached to the first valve, for the purpose set forth.

5. In a cornet, the combination with the herein-described second and third valves, and a mouth-pipe connected directly to the said second valve, of a tuning-slide connecting the second and third valves, a connection between the third and first valves, and a bell attached to the first valve.

The foregoing specification signed this 2d day of April, 1902.

CHARLES G. CONN.

In presence of—

W. J. GRONERT,
MAY S. LONGACRE.