No. 676,029. Patented June 11, 1901.

C. G. CONN.

VALVE MUSICAL INSTRUMENT.

(Application filed Sept. 27, 1900.)

(No Model.) 3 Sheets—Sheet 1.

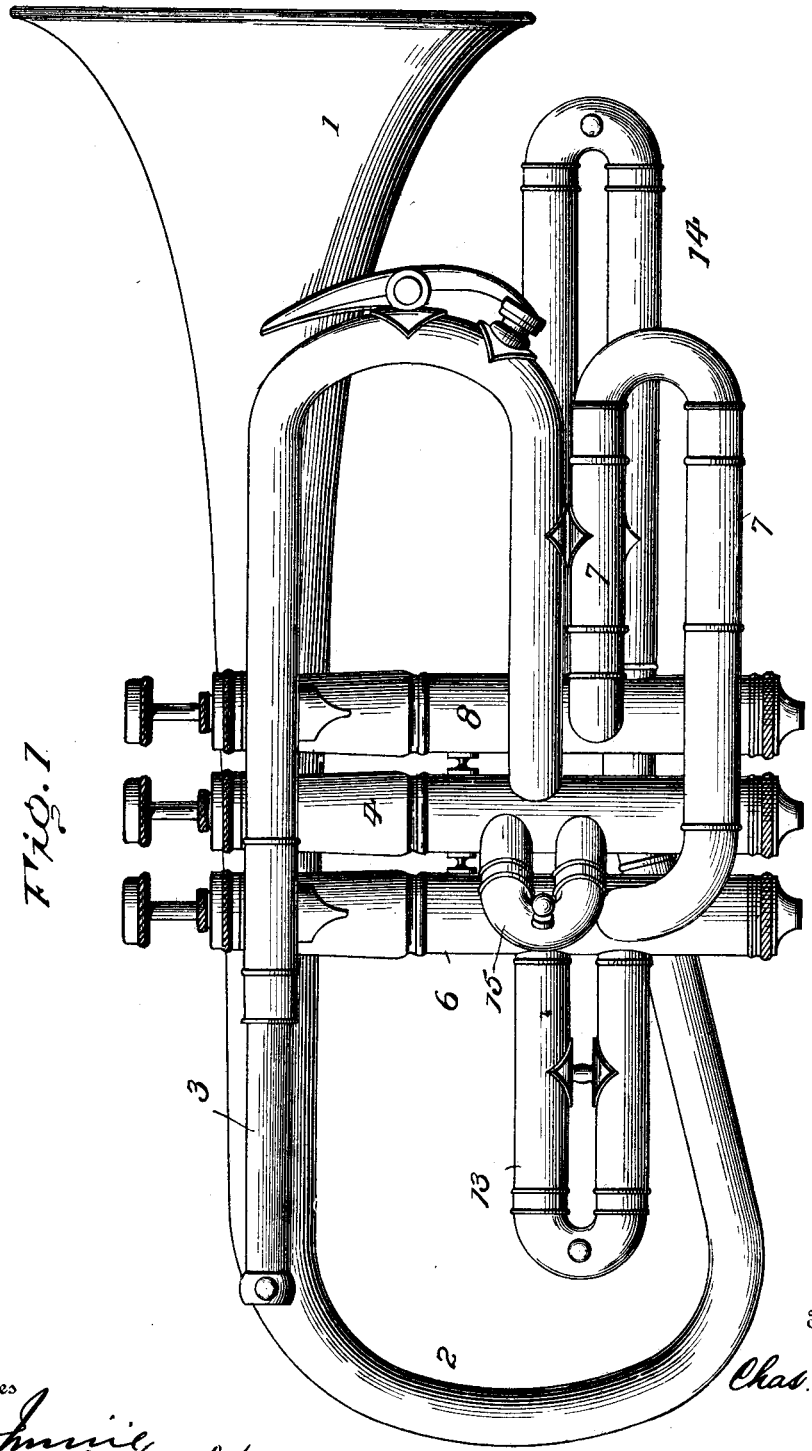

Fig. 1.

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3 Sheets—Sheet 2.

Fig. 2.

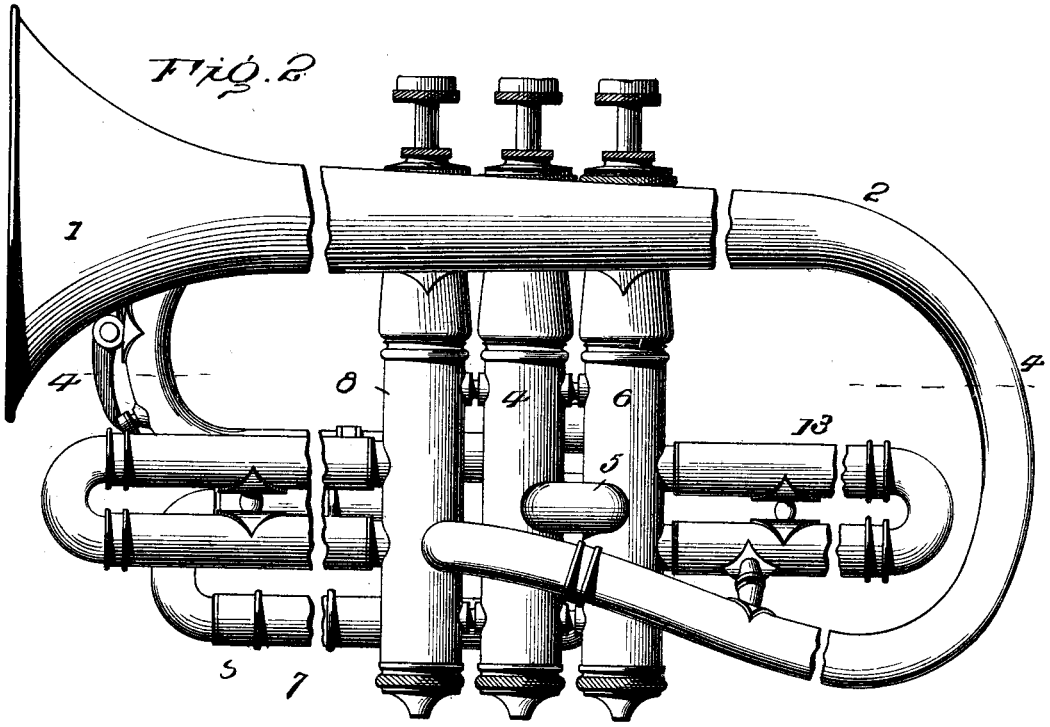

Fig. 3.

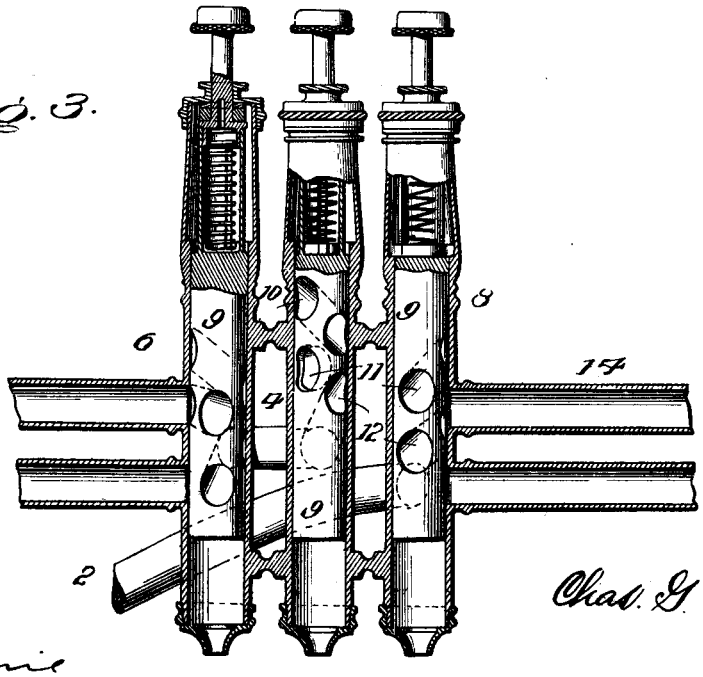

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Fig. 4.

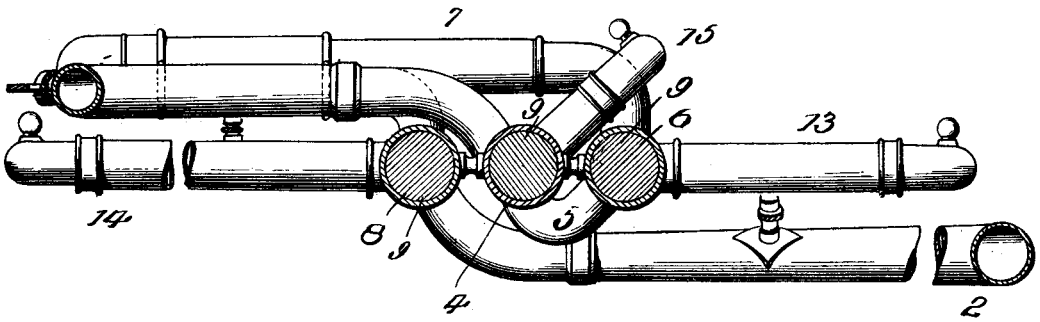
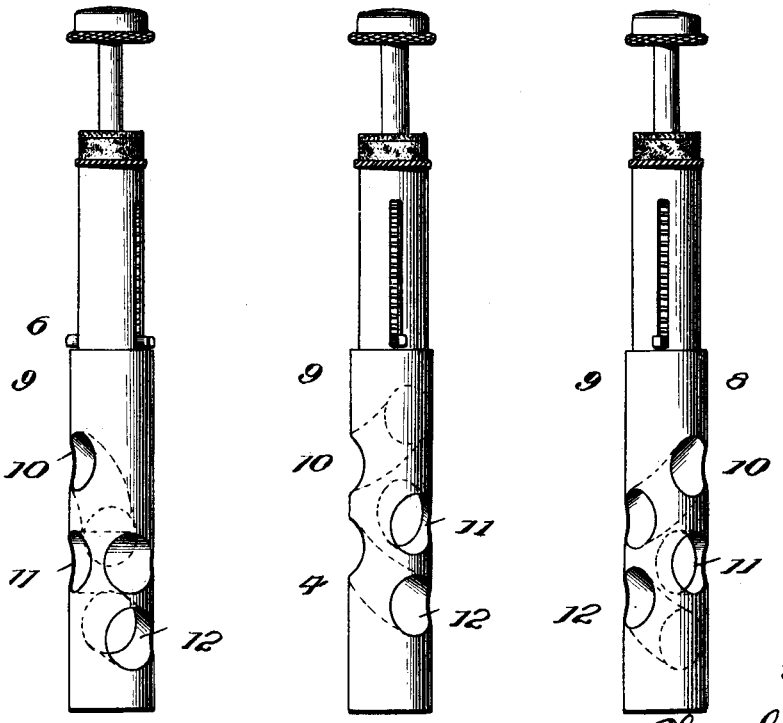


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES G. CONN, OF ELKHART, INDIANA.

VALVE MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 676,029, dated June 11, 1901.

Application filed September 27, 1900. Serial No. 31,280. (No model.)

To all whom it may concern:

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

While my invention is applicable to all valve musical instruments, I will describe the same in connection with a cornet.

My invention consists in certain constructions in instruments of this character whereby the mouth-pipe conducts the sound-vibrations into the second valve, thence by a connection to the first valve, from which they enter the tuning-slide, which is connected with the third valve. The vibrations pass from the third valve or piston into the bell. If desired by the manufacturer, the construction of the valves can be reversed and the mouth-pipe attached to the third valve. The advantages gained by this improved construction of a wind-passage for valve musical instruments are briefly as follows: By connecting the two ends of the tuning-slide to the first and third valves I am enabled to manufacture an instrument with more conic or taper tubing, thereby producing a sweeter and more pleasing quality of tone. Each entrance into the valve is also made between the two ports of the valve-slides instead of at the bottom port, as is unavoidable in the old system of wind-passages, and a better articulation is had and more difficult music can be played than with any other instrument.

In the drawings, Figure 1 is a side elevation of a cornet embodying my invention. Fig. 2 is a similar view of the opposite side of the cornet. Fig. 3 is a detail sectional view through the valves. Fig. 4 is a horizontal sectional view of Fig. 2 on the line 4 4; and Fig. 5 is a side view of the valve-pistons detached, indicating the course of wind through and around the same.

1 is the bell, from which extends the tubing 2, said tubing being more conic or tapering than usual in the construction of wind instruments.

3 is the mouth-pipe, of usual construction, which extends to and is connected with the second valve 4, as shown in Fig. 1.

5 is a connection from the second valve to the first valve 6, the first valve 6 being connected by means of a tuning-slide 7 to the third valve 8, to which the conic or tapered tubing 2 of the bell is connected. The pistons 9 are each provided with three ports 10, 11, and 12. Each entrance into the valve is made in the port 11 between the two ports 10 and 12. In this connection it is to be noted that in many instruments heretofore constructed the entrance into the valve is made at the bottom port. From experiments I have demonstrated that by forming the entrance to the valve between the ports of the slide-valves I am enabled to secure a better articulation and to play more difficult music.

13 and 14 are valve-slides, and 15 is a slide both ends of which are connected to the second valve, the mouthpiece or pipe entering said valve at another point midway between the two ends of the slide 15, as clearly shown in Fig. 1.

The mouth-pipe conducts the sound-vibrations into the second valve, from which they pass by the connection 5 into the first valve 6, from whence they pass through the slide connections 7 into the third valve 8, thence to the bell through the conic or tapered tubing 2.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination with a valve musical instrument of a mouth-pipe connected to the second valve thereof; substantially as described.

2. In a valve musical instrument the combination with the valves of a mouth-pipe connected to the second valve, a connection from the second to the first valve, a tuning-slide connecting the first and third valves, and a bell connected to the third valve.

3. In a valve musical instrument the combination with the valves of a mouth-pipe connected to the second valve, a connection from the second to the first valve, a tuning-slide

connecting the first and third valves, and a conic taper tube connecting the third valve with the bell of the instrument.

4. In a valve musical instrument the combination with the valves of a mouth-pipe connected to the second valve, a connection from the second to the first valve, a tuning-slide connecting the first and third valves, and a conic taper tube connecting the third valve with the bell of the instrument, of a wind-entrance in the valves between the two ports of the valve-slides.

CHARLES G. CONN.

Witnesses:
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W. J. GRONERT.