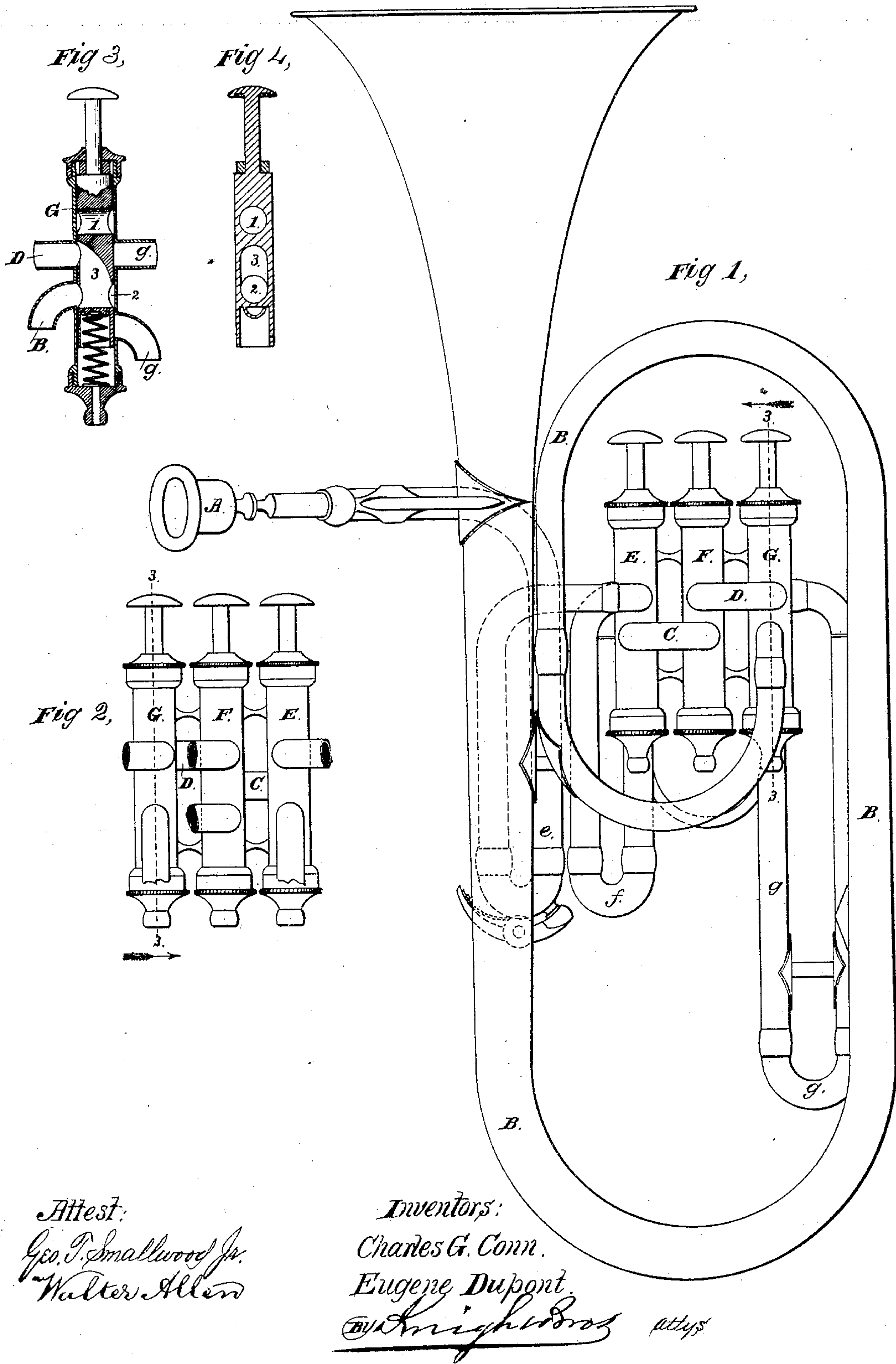


C. G. CONN & E. DUPONT.  
Cornet.

**No. 222,248.**

Patented Dec. 2, 1879.



# UNITED STATES PATENT OFFICE.

CHARLES G. CONN AND EUGENE DUPONT, OF ELKHART, INDIANA.

## IMPROVEMENT IN CORNETS.

Specification forming part of Letters Patent No. **222,248**, dated December 2, 1879; application filed September 17, 1879.

*To all whom it may concern:*

Be it known that we, CHARLES G. CONN and EUGENE DUPONT, both of Elkhart, in the county of Elkhart, State of Indiana, have invented certain new and useful Improvements in Cornets and other Piston-Valve Instruments, of which the following is a specification.

The object of our invention is to provide piston-valves for cornets or other analogous instruments with two through-passages at different heights and an intermediate opening on one side connected with a through-passage in the valve, for the purpose of connecting pipes or bends on the same or on opposite sides of the valve, thereby adapting them to pass the wind through the direct pipes or through the valve-tone bend, as the case may be, accordingly as the valve is elevated or depressed, giving to the valve a perfectly free and clear bore and an unrestricted wind-passage in each case without lumps or inequalities.

Our invention further relates to a novel combination of connecting-bends with our improved piston-valves.

In order that our invention may be fully understood, we will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a side view of a cornet, illustrating our invention. Fig. 2 is an elevation of the valves and their accessories, taken from the other side. Fig. 3 is a vertical transverse section on the line 3 3, Figs. 1 and 2. Fig. 4 is a vertical section of one of the valves detached.

A represents the mouth-piece, and B the discharge-pipe connected with the bell in the customary manner.

E F G are the valves interposed between the induction and discharge pipes of the instrument, and connected by bends C D. *e f g* represent the valve-tone bends of the respective valves.

As seen in Figs. 3 and 4, the valves, which are of similar construction, are each provided with an upper and independent through-passage, 1, also with a lower through-passage, 2,

and with an intermediate opening, 3, which communicates without reduction of diameter with the lower passage, 2, no sheet of metal being interposed between them, but both the openings 2 and 3 and the passage by which they are connected having the full internal diameter of the piston.

From the above description it will be apparent that while the valves are at rest, elevated and in their normal position, the wind will pass freely from 3 to 2, following the shortest course through the direct bends C D, avoiding the bend *e, f, or g*, and thus producing an open tone, whereas when the valve is depressed the passage of the wind is through the upper valve-opening, 1, into the valve-tone bend *e, f, or g*, and thence from the other end of said bend through the lower passage, 2, and intermediate opening, 3, to the connecting-bend C or D, or the discharge-pipe B, as the case may be.

The following advantages result from our improvement: first, short action combined with clear-bore wind-passage; second, lightness of valve-action, the weight of the piston being much less than the piston of the ordinary system; third, by the use of the clear-bore valve we are enabled to manufacture instruments with a fuller and more satisfactory tone.

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

1. A piston-valve for musical instruments constructed with two through-passages at different heights and an intermediate opening on one side connected with one of the said through-passages, for the purpose of connecting pipes or bends on the same or on opposite sides of the valves, accordingly as it is elevated or depressed.

2. The combination of the valves 1 2 3 and the bends C D connecting the same, substantially as and for the purposes set forth.

CHARLES G. CONN.  
EUGENE DUPONT.

Witnesses:

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C. I. CONN.