W. C. FIETZ.

Cornet.

No. 105,059. Patented July 5, 1870.

Fig. 1.

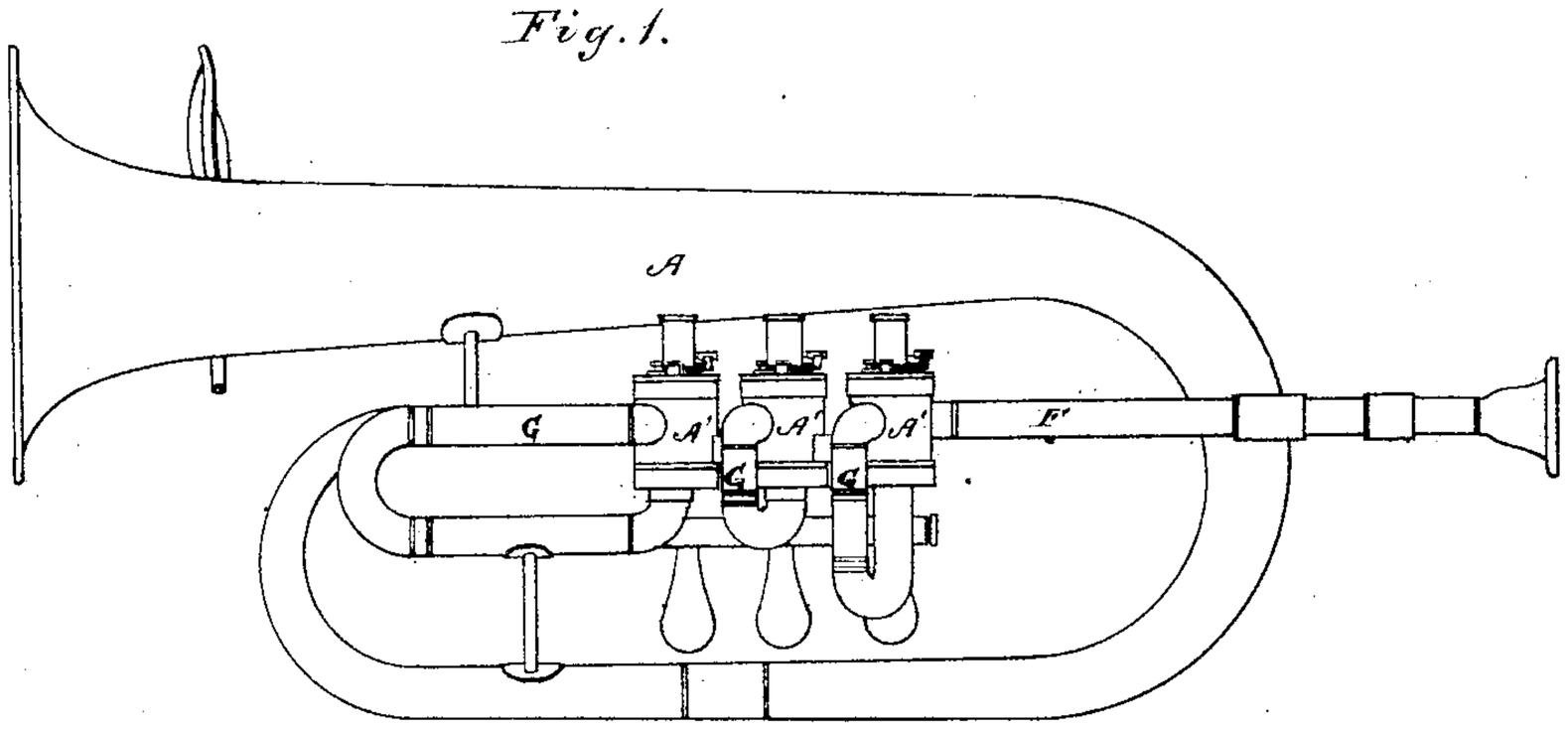

Fig. 6.

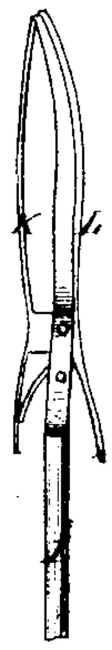

Fig. 2.

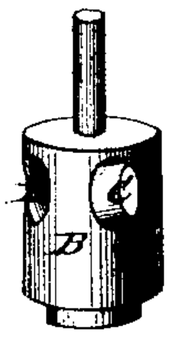

Fig. 3.

Fig. 4.

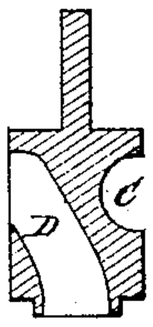

Fig. 7.

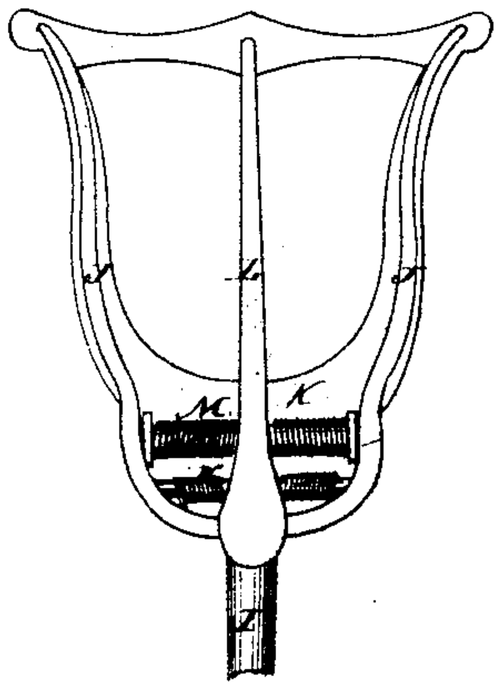

Fig. 5.

Witnesses.

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WILHELM CHARLES FIETZ, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 105,059, *dated July* 5, 1870.

IMPROVEMENT IN CORNETS AND OTHER WIND INSTRUMENTS.

The Schedule referred to in these Letters Patent and making part of the same

I, WILHELM CHARLES FIETZ, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Cornets, of which the following is a specification.

Figure 1 is an elevation of the lower side of a cornet, showing the arrangement of valves;

Figure 2 is a perspective view of one of the valves;

Figure 3 is a side elevation of the same;

Figure 4, a section through line *x x*, fig. 3;

Figure 5 is a plan view of the bottom of the valve; and

Figures 6 and 7 are views of the music-holder.

This invention consists in an improved form of valves in a cornet, and also of an improved music-holder. The details will be more fully described hereinafter.

In the drawing—

A represents the cornet, which is provided with horizontal valve-cases, A′.

B represents one of the valves, which is provided with two orifices, C D, the former of which runs transversely through the same on one side, and the latter from one side obliquely to the end, as shown in fig. 4.

E represents a circular groove in the end of valve B, which groove plays over a stationary projection on the interior of the case. Said projection restricts the play of the valve by contact with the ends of the groove E.

When the valves are in their natural position, the transverse channels C are in line with the air-tube F, and offer a continuous passage through; but, when one of the valves is turned, the oblique channel D is brought into connection with tube F, and causes the blast to pass through one of the tubes G, thereby varying the length of tube the air has to traverse, and varying the note accordingly.

By this arrangement, the air has no right-angled channels to pass through, as in the ordinary instrument, and is more easily blown. This form of valves may be readily adapted to other wind instruments.

I represents a standard, provided at the top with the bifurcated arms J J, the pivoted lyre-shaped piece K, and the pivoted thumb-piece L.

The pieces K and L are on opposite sides of arms J, and are caused to bear against each other at their upper ends, and the piece K to bear against arms J by means of the springs M and N, which are wound spirally on the rods on which pieces K L are pivoted, and exert an outward pressure on said pieces below said shafts, thereby pressing their upper ends together, the whole constituting an efficient music-holder, which is inserted in a socket on the instrument.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The valves B, provided with the transverse channels C and the oblique channels D, substantially as described.

2. The music-holder described, consisting substantially of the arms J, pivoted pieces K L, and springs M N, as and for the purpose set forth.

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

WILHELM C. FIETZ.

Witnesses:

CARROLL D. WRIGHT,

CHARLES F. BROWN.