(No Model.)

W. BOOTH.

CORNET OR OTHER MUSICAL INSTRUMENT.

No. 316,519. Patented Apr. 28, 1885.

FIG. 3.

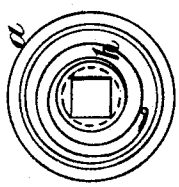


FIG. 2.

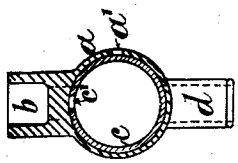


FIG. 5.

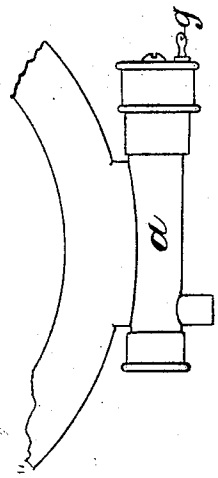


FIG. 1.

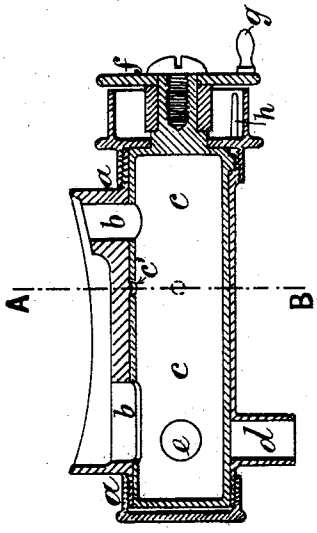
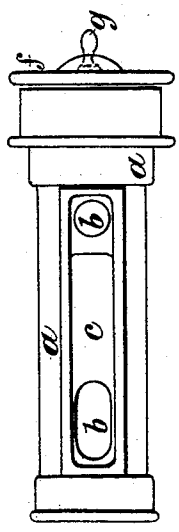


FIG. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM BOOTH, OF ROCHDALE, COUNTY OF LANCASTER, ENGLAND.

CORNET OR OTHER MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 316,519, dated April 28, 1885.

Application filed December 26, 1884. (No model.) Patented in England November 14, 1882, No. 5,432, and in France December 4, 1882, No. 152,432.

To all whom it may concern:

Be it known that I, WILLIAM BOOTH, a subject of the Queen of Great Britain, residing at Rochdale, in the county of Lancaster, England, have invented a certain new and useful Improvement in Musical Instruments, (for which I have obtained Letters Patent in Great Britain, No. 5,432, bearing date the 14th day of November, 1882, and in France, No. 152,432, bearing date the 4th day of December, 1882,) of which the following is a specification.

My invention relates to improvements in brass and other wind-instruments; and the object of my improvements is to prevent the accumulation of moisture (caused by the breath of the performer) in the slides or tubes of the instrument.

In applying my invention to a cornet or other instrument I fit on the mouth-pipe or other tube a case or water-chamber in which the moisture collects. In the upper side of this case or chamber I make an opening or openings communicating with the instrument to admit moisture, and in the lower side I make an opening for the escape of moisture. In this case I fit a tubular or other shaped valve in which I form an opening or openings corresponding with the openings in the top of the case to admit the water, and I make an opening or openings in the valve which correspond with the opening in the lower side of the case when the valve is moved to allow the water to escape. The holes in the upper part of the valve remain open except when the valve is moved by the performer to allow the water to escape. The valve thus formed will allowed the moisture to escape while the instrument is being played.

By the use of my invention long solos may be played without inconvenience from the accumulation of moisture; and in order that my invention may be fully understood and readily carried into effect, I will proceed to describe the accompanying sheet of drawings, reference being had to the figures and letters marked thereon.

Figure 1 represents a longitudinal section, on an enlarged scale, of an apparatus made according to my improvements. Fig. 2 is a section across the middle; Fig. 3, an end view, and Fig. 4 a plan, of the same; and Fig. 5 illustrates the mode of applying the apparatus to one of the tubes of a wind-instrument.

a is the outer casing, which is secured to the mouth-pipe of the cornet or other instrument, and *b b* are the openings to admit moisture, which correspond with similar openings in the valve *c*.

d is the opening in the case *a* through which the moisture escapes when the valve *c* is moved, so as to cause the opening *e* in the valve to correspond with the opening *d*.

To the valve *c* is connected a disk, *f*, to which is fixed a projection, *g*, which, when pressed by the finger, turns the valve partly round, closes the openings *b b*, brings the opening *e* over the opening *d*, and allows the moisture to escape.

A spring, *h*, causes the valve to move back when it is released and closes the lower and opens the upper openings.

A small vent-hole, *a'*, is make in the case and one *c'* in the valve, which admit air when the moisture escapes through *d*.

Instead of employing a valve movable in a rotary direction I may use a valve movable longitudinally or otherwise.

What I claim as my invention and desire to secure by Letters Patent of the United States, is—

1. In apparatus for preventing the accumulation of moisture in wind-instruments, the combination of an outer casing secured to the instrument, and provided with an opening or openings communicating with the said instrument, and an opening communicating with the atmosphere, with a movable valve provided with openings corresponding with the said openings in the outer casing, substantially as herein set forth, for the purposes specified.

2. The combination, in apparatus for pre-

venting the accumulation of moisture in wind-instruments, of the outer casing, *a*, provided with openings *b*, *d*, and *a'*, with a movable valve, *c*, provided with openings *b*, *e*, and *c'*, and actuated by means of the projection *g*, fixed on a disk, *f*, secured to the said valve, substantially as and for the purposes herein shown and described.

The foregoing specification of my improvement in musical instruments signed by me this 13th day of December, 1884.

WILLIAM BOOTH.

Witnesses:

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Patent Agent, 17 *St. Ann's Square, Manchester.*

HERBERT R. ABBEY,

17 *St. Ann's Square, Manchester, clerk to the above-named H. B. Barlow.*