

(No Model.)

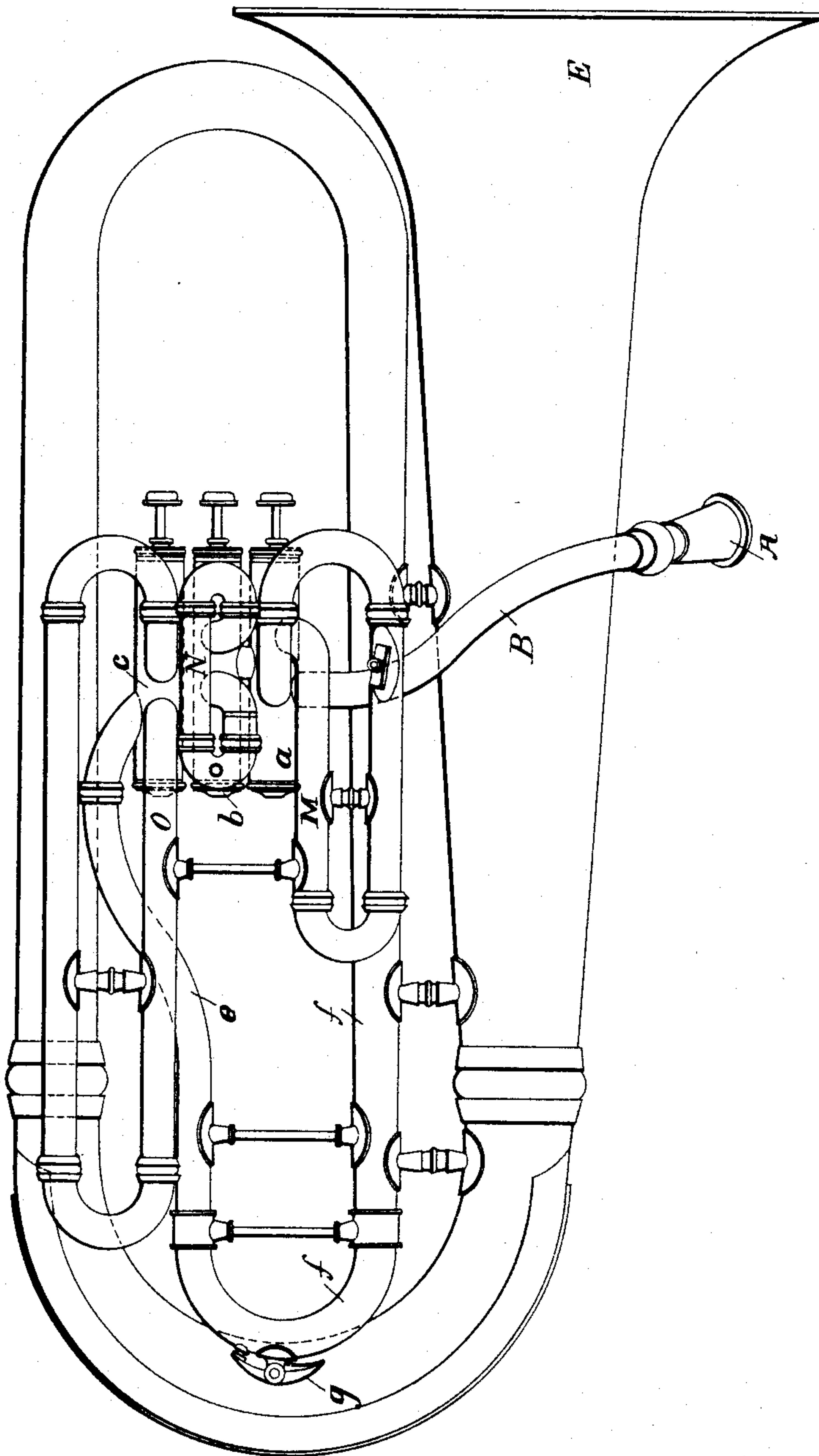
2 Sheets—Sheet 1.

C. G. CONN.
MUSICAL WIND INSTRUMENT.

No. 436,696.

Patented Sept. 16, 1890.

Fig. 1.



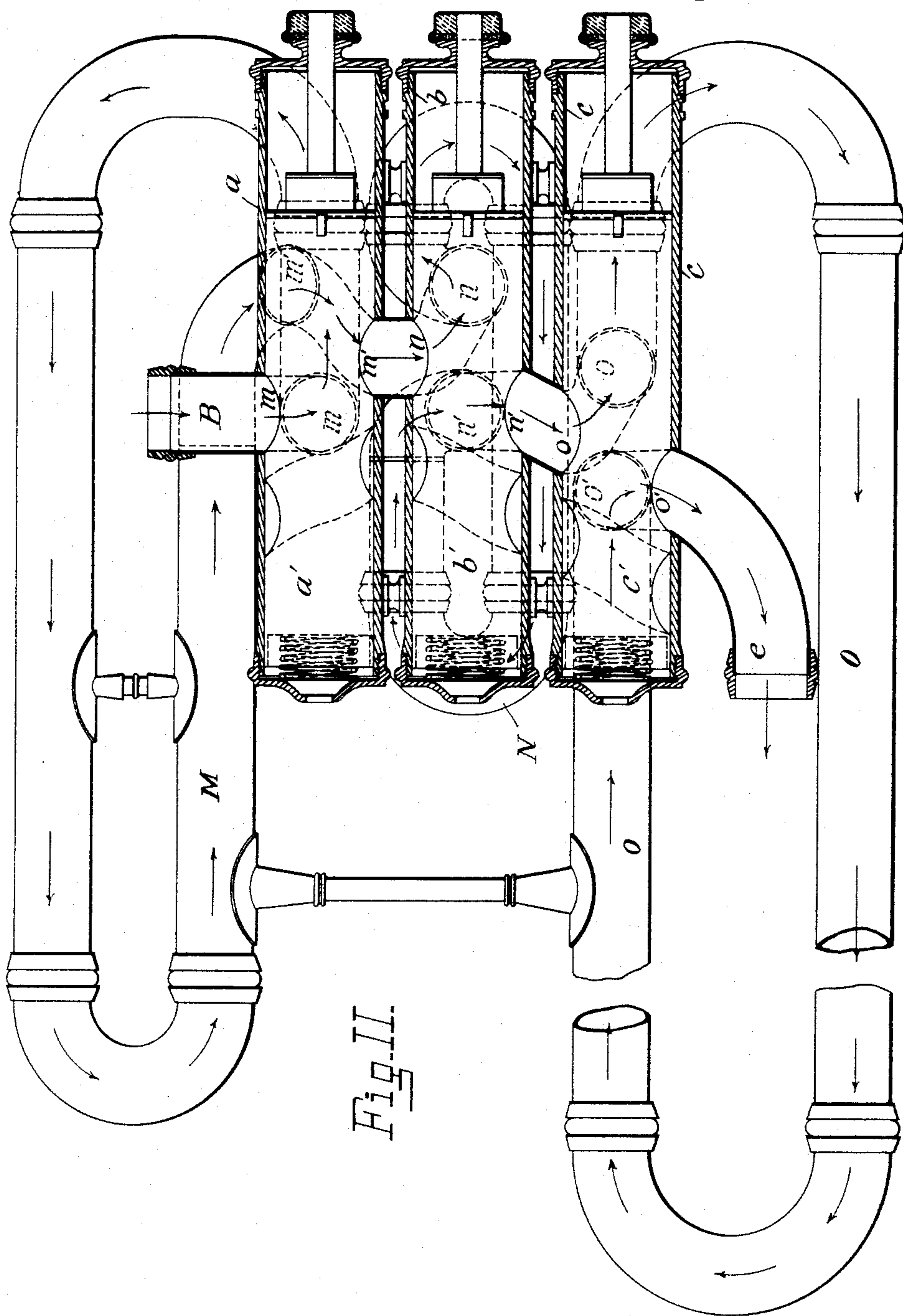
Witnesses:
John G. Lepper.
William C. Knight.

Inventor:
Chas G. Conn.
By Attorneys:
Knight Bros

C. G. CONN.
MUSICAL WIND INSTRUMENT.

No. 436,696.

Patented Sept. 16, 1890.



Witnesses:
John G. Leffer,
William E. Knight

Inventor:
Chas. G. Conn.
By Attorneys
Knight Bros.

UNITED STATES PATENT OFFICE.

CHARLES G. CONN, OF ELKHART, INDIANA.

MUSICAL WIND-INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 436,696, dated September 16, 1890.

Application filed February 6, 1890. Serial No. 339,449. (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 Musical Wind-Instruments; and I do hereby declare that the following, taken in connection with the drawings which accompany and form a part of the specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

In Letters Patent of the United States No. 405,395, granted to me June 18, 1889, for improvements in musical wind-instruments, I have shown and described an instrument having a direct air-passage from the mouth-piece through the valves to the water-key in the tuning-slide, whereby the greater part of the water accumulating in the instrument is led directly to said water-key. This arrangement has produced very satisfactory results, but does not obviate one of the greatest objections performers make to the use of the instrument—that is, the accumulation of water in the valve-slides.

The object of my present invention, which is an improvement on my patent above referred to, is to remedy this great defect in wind-instruments of the larger class by excluding all the water from the valve-slides, which will thereby more effectively accumulate in the tuning-slide. To accomplish this result I so construct the valve-slides that when the valves are depressed the air is made to enter said slides in an upward direction, so that it is impossible for any water which may be in the valves to run into the slides.

I have represented my improvement applied to the common form of piston-valve instrument, in which the valves are arranged parallel with the length of the piece; but the improvement can be applied to other forms of instruments equally as well—such, for example, as illustrated in my patent above referred to.

In order that my invention may be fully understood, I will describe the same more particularly, with reference to the accompanying drawings, in which—

Figure I represents a front view of an instrument embodying my improvement. Fig.

II represents a detached portion of the piece, part being in section, showing the passage through the valve-slides when the valves are depressed.

Like letters of reference indicate the same parts in both figures.

a b c are the valve-cases, having the ordinary valve-pistons *a' b' c'* working in them to throw the valve-slides into and out of play.

A is the mouth-piece, and *B* the tube leading from *A* to the first valve-case *a*.

f is the tuning-slide, having situated at its lowest point the customary water-key *g*, and *e* is the tube leading from valve-case *c* to the tuning-slide.

Thus far the instrument is the same as described in my former patent, there being (when the valves are in their normal or outer position) a direct air-passage from the mouth-piece through the valves to the tuning-slide.

Referring now to Fig. II of the drawings, which relates more particularly to the present improvement, *M, N, and O* are the valve-slides attached, respectively, to the valve-cases *a, b, and c*. When the valve-pistons are depressed, air enters the valve-slides *M, N, and O* through inlet-ports *m, n, and o*, respectively, and passes out of said slides through exit-ports *m', n', and o'*, respectively. In each case the valve-slide is formed with an upward crook or turn at its inlet end, so as to avoid the possibility of water passing from the valves to the valve-slides.

The direction of the air through the valve-slides when the valves are depressed is indicated by arrows in Fig. II.

Instruments formed according to my improvement have a better wind-passage and shorter valve-action than ordinarily, for the reason that the tuning-slide is placed in the body or main tube of the instrument, thereby affording the opportunity of using a smaller bore through the valves, and consequently a shorter action.

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

1. A musical wind-instrument having an upwardly-extending connection between the valve and valve-slide, as herein set forth.

2. A musical wind-instrument having the valve-slides so arranged relatively to the

valves that the air passing from the valves to the valve-slides is made to flow in an upward direction, whereby water is excluded from the valve-slides, as herein set forth.

5 3. The combination of a musical wind-instrument having a direct air-passage from the mouth-piece to the water-key in the tuning-slide with valve-slides having upwardly-extending entry-connections between the valves

and valve-slides, whereby all water is excluded 10 from the valve-slides and led directly to the water-key in the tuning-slide, as herein set forth.

CHARLES G. CONN.

Witnesses:

GEO. T. BARNEY,
ROYAL MORRIS.