TRIPLE-TONGUE ATTACHMENT FOR CORNETS.

To all whom it may concern:

Be it known that I, JOHN G. SCHLENTER, of Toledo, county of Lucas, and State of Ohio, have invented certain new and useful Improvements in a Triple-Tongue Attachment for Cornets; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

My invention has reference to a device for attachment to cornets and similar instruments by means of which the effect known as "triple-tonguing" may be produced mechanically without special skill on the part of the player. To this end my invention consists of a valve device having a plurality of passages therethrough adapted to successively open and close the main passage-way through the instrument.

In carrying out my invention I employ the novel combination, arrangement, and details of construction hereinafter shown, described, and claimed.

In the accompanying drawings, Figure 1 shows the application of my invention to a cornet. Fig. 2 is a longitudinal section through the cylinder of the valve device, the piston-valve and spring for maintaining the same in normal operative position being removed. Fig. 3 is a side view showing the piston-valve and spring in position in the cylinder. Fig. 4 is a transverse section on line \(x = \) Fig. 3. Fig. 5 is a perspective view of the piston-valve detached.

Referring to the details of construction, 1 indicates the tapered shell or tube of a cornet, the end 2 of which is adapted under ordinary circumstances to receive the shank or short section of tubing holding the mouthpiece of the instrument.

3 indicates the cylinder of my attachment, closed at one end and having a screw-threaded cap at the other, and 4 is a piston-valve arranged to slide within the cylinder, being actuated by means of a key or button 5 upon the outer end of a stem 6 secured thereto.

7 and 8 are tubes connecting with the interior of the cylinder, the same taking a fixed position alongside thereof and parallel to its longitudinal axis. In order to dispose the tubes 7 and 8 in this relation to the cylinder, the ends connecting with the cylinder are bent at right angles, as at 9 and 10. These bent portions are preferably flattened, the passage therethrough being rectangular in cross-section, and the ports in the cylinder-walls, indicated by the numerals 11 and 12 and connecting, respectively, with the tubes 7 and 8, are in line manner of elongated rectangular-shape, being arranged transversely of the cylinder-walls in line with each other. It is to be observed that the short dimension of the rectangular ports is in the direction of the movement of the piston-valve. The piston-valve 4 is provided with a plurality of passages 13, 14, and 15, adapted when the valve is in proper position to register with the ports 11 and 12.

The passages are preferably in the form of deep recesses in the cylinrical piston-body, spaced evenly apart, with intermediate portions 16 preventing communication between them.

17 and 18 indicate the piston ends, the end 18 having the operating-stem secured thereto.

19 is a projection on the piston end adapted to operate along a slot 20 in the cylinder-wall to prevent the rotation of the piston-valve and to insure the alignment of the passages therein with the ports 11 and 12.

21 is a coiled spring interposed between the piston-valve and the screw-cap of the cylinder and adapted to normally maintain the piston-valve in outward position, as shown in Figs. 1 and 3.

In the application of my invention the same is placed in position upon a cornet, as shown in Fig. 1, the tube 8 connecting with the tube 90 of the instrument and the mouthpiece connecting with the tube 7. A shank 22 may be interposed between the mouthpiece and the tube 7 to regulate the pitch of the instrument. When in the position indicated, the valve of the attachment may be conveniently operated by means of either the index or the second finger of the left hand. When the valve-piston is in normal outward position, the passage 13 therein will register with the...
ports 11 and 12, and the cornet may therefore be performed upon in the usual manner, since the connection from the mouthpiece into the instrument will be continuous. However, when the valve-stem of the attachment is pressed to cause the passages 14 and 15 to successively register with the ports 11 and 12, the air column confined by the tube of the instrument will be vibrated at regular intervals to produce the well-known "triple-tongue" effect. The rapidity with which the individual impulses follow each other will depend upon the rapidity of the movement of the valve-piston, the same being under the absolute control of the player.

It will be seen from the foregoing description that my invention is simple, inexpensive, and effective for the purpose intended and that the same is conveniently operated and capable of attachment to any instrument of the trumpet class.

Although I have specifically described a preferred embodiment of my invention, I do not intend to limit the scope thereof to the exact construction shown, since it is apparent that modifications and changes in detail may be made and appropriated in such a way as not to constitute a substantial departure.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a triple-tongue attachment for cornets, a valve device comprising a cylinder having inlet and discharge ports, connections between said ports and the mouthpiece and tubing of the instrument, said connections occupying positions parallel to the cylinder, and a piston movable in the cylinder having a plurality of passages there through, one of which is adapted to normally register with said ports, the other passages being adapted to successively register with said ports when the piston is actuated, substantially as described.

2. In a triple-tongue attachment for cornets, a valve device comprising a cylinder having inlet and discharge ports aligned in a transverse direction and having a longitudinal slot at one end, connections from the mouthpiece and the tubing of the instrument leading to said ports, a piston movable in the cylinder having a plurality of passages adapted to register with the ports and having a projection at one end adapted to operate along the slot in the cylinder, a spring interposed between one end of the cylinder and the piston, and an operating-stem connected with the piston and extending through the cylinder end, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN G. SCHLENTER.

Witnesses:

CARL H. KELLER,
O. S. POTTER.