

(No Model.)

C. PIETZ.

TUNING SLIDE FOR BRASS MUSICAL INSTRUMENTS.

No. 461,131.

Patented Oct. 13, 1891.

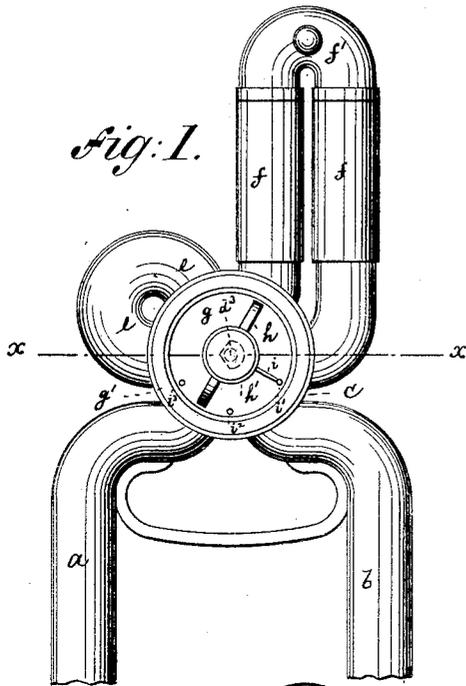


Fig. 1.

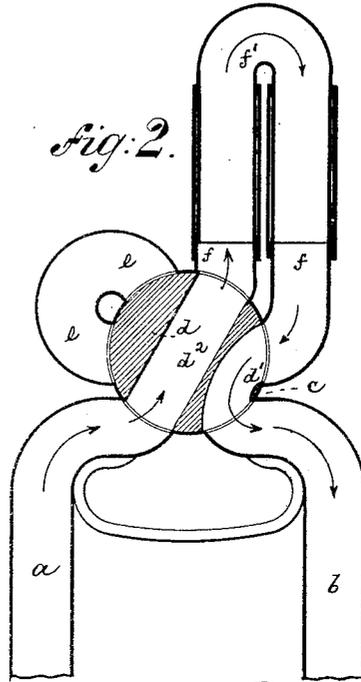


Fig. 2.

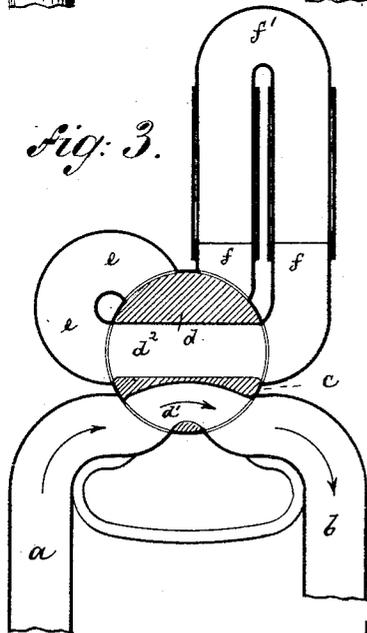


Fig. 3.

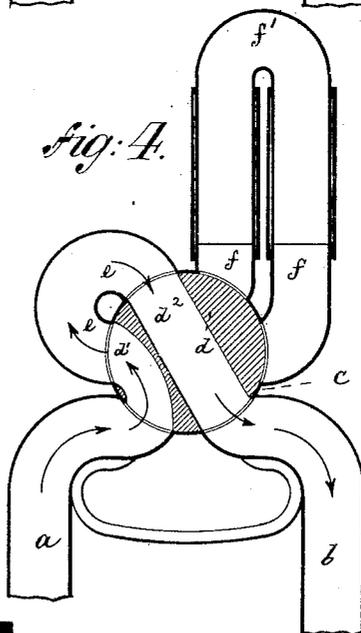


Fig. 4.

WITNESSES:
Cl. Schehl.
Wm. Schultz.

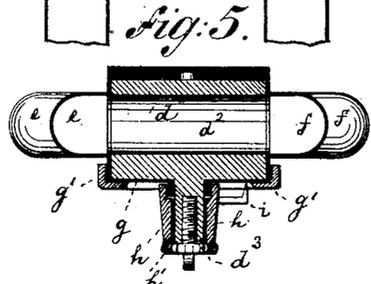


Fig. 5.

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TUNING-SLIDE FOR BRASS MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 461,131, dated October 13, 1891.

Application filed May 22, 1891. Serial No. 393,697. (No model.)

To all whom it may concern:

Be it known that I, CHARLES PIETZ, of New York city, New York, have invented an Improved Tuning-Slide for Brass Musical Instruments, of which the following is a specification.

This invention relates to a tuning-slide for cornets and other musical brass instruments, by means of which the instrument may be tuned to two additional pitches aside from its natural pitch.

The invention consists in the various features of improvements more fully pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of my improved tuning-slide. Figs. 2, 3, and 4 are longitudinal sections thereof, showing the valve in different positions; and Fig. 5 is a cross-section taken on line *x x*, Fig. 1, but with the valve in the position shown in Fig. 3.

The letters *a b* represent the air inlet and outlet tubes that are connected in the usual manner to the tubes of a cornet or similar musical brass instrument. These tubes enter a circular chamber or valve-seat *c*, in which there is placed a circular rotary valve *d*. Into the chamber *c* there enter furthermore both ends of two knuckles or tubes *e f*. The tube *e* is quite short and preferably circular, or nearly so, while the tube *f* is considerably longer. The tube *f* is shown to be made in two sections connected by a U-shaped slide *f'* that may be pushed in and out in the usual manner.

The valve *d* is provided with two ways or ports *d'* *d''*, that do not intersect, but are independent and run side by side. The valve is confined within its chamber by means of a plate *g* and an annular threaded ring *g'*. The plate *g* is perforated for the passage of the squared valve-stem *d''*. This stem is embraced by the winged nut *h* by means of which the valve may be readily revolved or set. The nut *h* is held to the stem by a screw *h'*. In order to indicate the position of the valve I provide the valve-stem *d''* with a

pointer *i* that operates in conjunction with three marks *i'* *i''* *i'''* on the plate *g*, as will be readily understood. If the valve is in the position shown in Fig. 3, the port *d'* connects the tubes *a b*, while the port *d''* and knuckles *e f* are entirely out of action, and thus the instrument is set to its own natural pitch. If the valve is in the position shown in Fig. 4, the port *d'* connects the tube *a* with one arm of knuckle *e*, while the port *d''* connects the second arm of such knuckle with tube *b*. Thus the air passes through the knuckle *e* and the instrument is set to a pitch corresponding to such knuckle—say to B-flat. If the valve is in the position shown in Fig. 2, the port *d''* connects tube *a* with one arm of knuckle *f*, while the port *d'* connects the second arm of such knuckle with tube *b*. Thus the air passes through the knuckle *f* and the instrument is set to a pitch corresponding to such knuckle—say A-flat.

It will be seen that in this way the instrument may be readily tuned to either one of two additional independent pitches.

What I claim is—

1. The combination, in a tuning-slide for musical brass instruments, of an air-inlet and an air-exit tube with a valve-chamber, two knuckles entering the valve-chamber, and a rotary valve within the chamber, substantially as specified.

2. The combination of tubes *a b* with valve-chamber *c*, a valve *d*, having two independent ports *d'* *d''*, and two knuckles *e f*, of unequal length, that enter the valve-chamber, substantially as specified.

4. The combination of tubes *a b* with a valve-chamber *c*, a valve *d*, having two independent ports *d'* *d''* and a stem *d''*, and with two knuckles *e f*, of unequal length, that enter the valve-chamber, and a pointer *i* on the valve-stem, substantially as specified.

CHARLES PIETZ:

Witnesses:

F. V. BRIESEN,
WM. SCHULZ.