

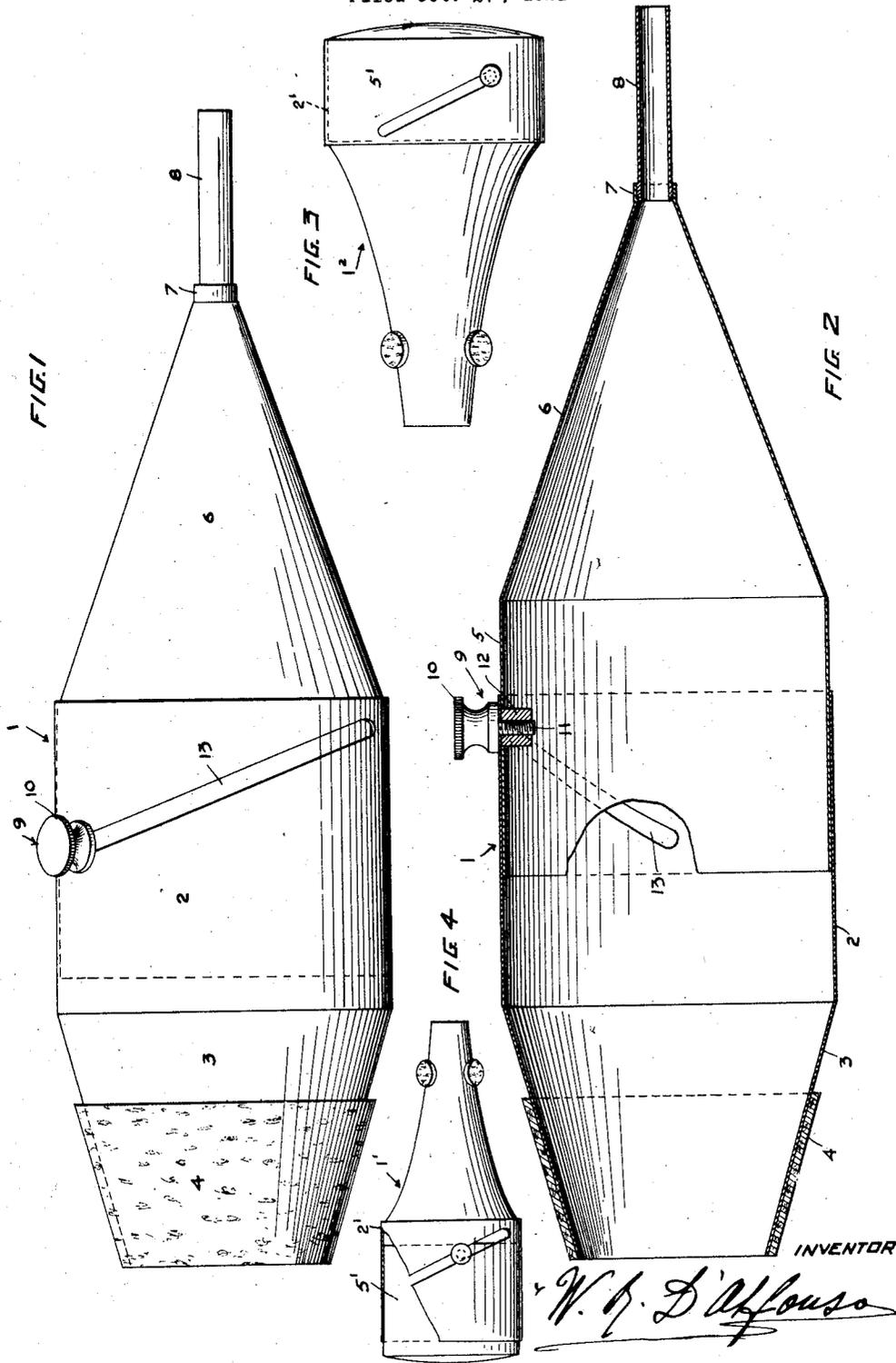
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W. R. D'ALFONSO

TELESCOPIC MUTE

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INVENTOR
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UNITED STATES PATENT OFFICE.

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TELESCOPIC MUTE.

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To all whom it may concern:

Be it known that I, WILLIAM ROMEO D'ALFONSO, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented new and useful Improvements in Telescopic Mutes, of which the following is a specification.

This invention relates to improvements in mutes for horns, cornets, etc., and consists of the provision of a device of such character as can be easily and quickly adjusted through novel means so as to effect the raising and the lowering of the diapason of the tone.

The main object of this present invention is to provide means whereby the tone or pitch of a note played on any cornet or brass instrument, with the mute in place, can be modified and brought into perfect accord or pitch with the same note or tone played or produced on said cornet or member of the brass instrument family including cornet, trumpet, alto, flute, horn, trombone, baritone, tuba, French-horn, ballad-horn, etc., when used open or without mute, which result can be obtained by the use of my improved mute.

In the accompanying drawing:

Figure 1 is a side elevation of my improved mute with its head at the innermost limit, and to be used in connection with a French horn.

Figure 2 is a longitudinal section with the head extended to its furthest limit.

Figure 3 is a side elevation of my improved mute to fit the bell of a trombone.

Figure 4 is a side elevation partly in section of my mute to fit the bell of a cornet.

In general appearance my mute looks like a cylindrical box with both ends tapering.

Referring to the drawing, 1 designates the mute, generally consisting of a metallic (preferably aluminum) cylinder or tube 2, terminating at one end in a frustro-conical portion 3, surrounded by and secured to a cork spacer 4 of similar shape, which holds said tube firmly within the bell of the horn.

Fitting closely into said tube 2, yet not so tightly as to prevent an easy back and forth movement, another cylinder or tube 5 of a length slightly less than the first terminates also, but at the opposite end, in a frustro-conical portion 6, of greater length than that

of portion 3 and ending in a small, short length 8, which is of a considerably less diameter than that of tube 5.

Modification or adjustment of the diapason of the tone emitted by the player results from the advancing or the receding movement of tube 5 within tube 2. This movement is obtained by means of a finger piece 9 with a milled head 10 and a threaded stem 11 screwing into a lug 12 soldered or otherwise secured to tube 5 and which is operated by the player, along the path of a slot 13 in the outer tube 2. Said slot is set obliquely relative to the axis of said tube and extends over about $\frac{1}{4}$ to $\frac{1}{2}$ of its circumference.

It is obvious that by moving the finger piece from one end of the slot to the other end, tube 5 will follow suit and advance or recede as the case may be, the capacity of the mute being increased or decreased accordingly, thus permitting the regulation of the tone produced.

The mute 1' for cornets, Fig. 4, or the mute 1² of Fig. 3 differ from the mute for French horns, in that the proportions and dimensions are altered so as to fit the bell of the respective instruments and also in that the telescoping member 5' is closed at its outer end, as shown in the drawing; cork lugs are used but may be replaced by rings; reversely the ring 4 may be replaced by cork lugs.

The tube 5' may be made to ride on the outside of the tube 2'; in this case tube 5' would be held in the hand and rotated to the desired position and the finger piece or guide would be secured to tube 2' while the slot would be cut in the tube 5', as shown in Figure 3.

The member 8 and the frustro-conical portion 6 are so designed and proportioned that they effect or modify the tone. It has been found that an arrangement of this kind will improve the mute from the standpoint of an improved tone and permit of the adaptability of the mute to various instruments.

I claim:

1. A mute adapted to be inserted in the mouth of a horn, or a brass instrument comprising a body portion made up of telescopically joined, relatively adjustable sections and means located adjacent to the outer end

and projecting from one side of the mute for holding said sections in adjusted position.

2. A mute adapted to be inserted in the
5 mouth of a horn, or a brass instrument, comprising a body portion made up of telescopically joined, relatively adjustable sections one of said sections having a slot extending
10 obliquely to the longitudinal axis of said section, a projection on the other section extending into the slot and a screw member adjustable on the projection for movement into and out of engagement with one
15 of the sections, one of said sections being tapered and adapted to extend into the mouth of the horn.

3. A mute adapted to be inserted in the
mouth of a horn, or a brass instrument, comprising a body portion made up of telescopically joined, relatively adjustable sections
20 and means for holding said sections in adjusted position, one of said sections being tapered and adapted to extend into the

mouth of the horn, the other section being tapered towards its outer end and a tubular
25 extension projecting from the outer end of said last named section.

4. A mute adapted to be inserted into the
mouth of a horn comprising hollow telescopic, relatively adjustable sections, one of
30 said sections having a slot therein extending obliquely to the longitudinal axis of the said section and a projection on the other section extending through and being movable
35 in said slot.

5. A mute adapted to be inserted into the
mouth of a horn comprising telescopically mounted, relatively adjustable sections, one
40 of which is adapted to extend into the mouth of a horn, one of said sections having a slot therein, a member on the other section extending through and slidable in said slot and a member adjustable on the extension providing for the holding of the sections in adjusted position.

WILLIAM ROMEO D'ALFONSO.