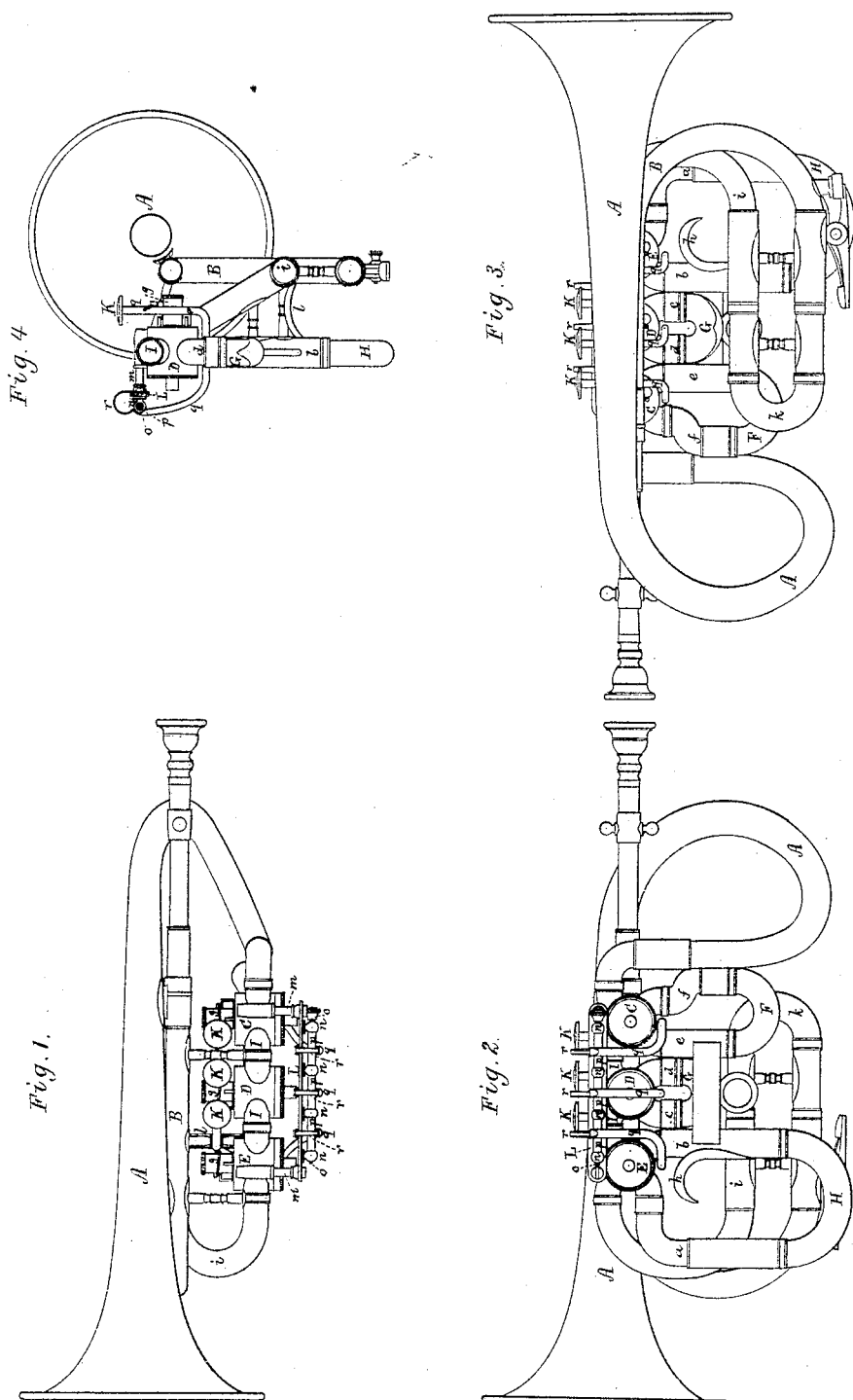


H. ESBACH.  
Cornet.

No. 214,498.

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Witnesses  
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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN CORNETS.

Specification forming part of Letters Patent No. **214,498**, dated April 22, 1879; application filed February 17, 1879.

*To all whom it may concern:*

Be it known that I, HENRY ESBACH, of Boston, of the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Cornets or musical instruments of like character; and do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Figs. 2 and 3 opposite side elevations, and Fig. 4 a transverse section, of a cornet provided with my invention, whose purpose is to enable the instrument to be firmly grasped by and well balanced in one hand of a player, and its keys to be manipulated with ease and to advantage by his other hand, without contact of it with the trumpet.

The nature of my invention is duly defined in and by the claims hereinafter made.

In the drawings, A denotes the trumpet part, provided with a mouth-piece-receiving tube, B, arranged alongside of it and between it, and the series of valve-cases C D E. The trumpet or its smaller end opens into the valve-case C.

From each valve-case two branch pipes extend downward, as shown at *a, b, c, d, e, and f*, there being to each pair of such pipes a connection slide-pipe, as shown at F, G, and H. Furthermore, the valve-cases are connected by the two intervening conduits I I, and are provided with four-way valves, in the usual manner, whose barrels or journals, with which the keys K K K are connected by catgut strings, are shown at *g g g* as projecting from the inner ends of the valve-cases.

The pair of tubes *a b* are arranged so that a player can insert the second, third, and fourth fingers of his left hand between them, the pair of tubes *e f* being also arranged so that the player at the same time may insert the thumb of such hand between them, so as to grasp with his hand the two tubes *b* and *e*.

There is fixed to the tube *b* a finger-rest, *h*, to bear on the forefinger of the player's hand, and below such rest, and connecting the tube *b* with the tube *i*, leading from the valve-case E, and with the mouth-piece-receiving tube B, having a slide-connection tube, *k*, is another finger-rest, *l*, which, when the instrument is

held in the hand, bears on the third or fourth finger thereof.

A cross-bar, L, arranged somewhat above and parallel to the series of valve-cases, and supported by two arms, *m m*, extended therefrom, as shown, has a series of knobs, *n*, extending from it, and serving to support the pivotal rod *o*, upon which the pivotal tubes *p p* of the keys are arranged and turned.

The valve-keys K have their shanks *q* fastened to such tubes *p*, and arched and extended underneath the valve-cases, and through the spaces between the pipes that lead out of the lower parts of such cases. Thence the said shanks rise upward alongside of the valve barrels or journals, and are connected thereto by catgut strings, so arranged and applied as to cause each valve to be turned one way during a depression of the key, and in the opposite way when the key may be moved upward.

To each key, to affect its upward movement, there is a bow-spring, *r*, which is fastened to the bar L, and bears against the upper part of the key-shank, all being as represented.

I would observe that while playing the cornet the thumb of the right hand of the performer rests against the mouth-piece-receiving tube, the hand being extended around the trumpet to the keys without contact with the trumpet to affect its vibrations. An instrument constructed as described can be firmly grasped and supported with ease, and played on to great advantage.

My improved arrangement of the trumpet, the series of valve-cases, and the mouth-piece-receiving tube is such as to cause the latter not only to be between the trumpet and valve-cases, but to open in close proximity to the commencement and end of the turn or bow of the trumpet, whereby the mouth-piece, when inserted in its receiving-tube, projects across and beyond the said turn or bow in manner as shown, which is not the case in horns or instruments of the kind shown in the United States Patent No. 158,594, the bow or first turn in such instruments when they are being played on extending around the neck and resting on the shoulder of the performer.

With my improved cornet the head and neck

of the player are wholly outside of the bow of the trumpet while such trumpet may be in the act of being played.

In the above-described cornet, I claim as my invention as follows:

1. The mouth-piece-receiving tube, arranged between the trumpet and the series of valve-cases, and having its mouth in close proximity with the commencement of the bow of the trumpet, so as to cause the mouth-piece, when in place in the tube, to extend across and beyond the bow, all being substantially as set forth.

2. The key-journals of the valves, arranged between the trumpet and the valve-cases, in combination with the key, so arranged, and

also extended under the said cases and upward, and pivoted to a support-bar, L, arranged outside of them, and provided with bow-springs to operate the keys, all being substantially as set forth.

3. The combination of the two finger-rests *h l*, arranged as described, with the two outer valve-case pairs of receiving branch pipes, extended from their valve-cases, so as to enable the fingers of the hand of a player to be passed through the openings of the said pairs, and to grasp the inner pipes of such pairs, as set forth.

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Witnesses:

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