

(No Model.)

R. ORSI.
CLARINET.

No. 403,065.

Patented May 7, 1889.

Fig. 2.

Fig. 1.

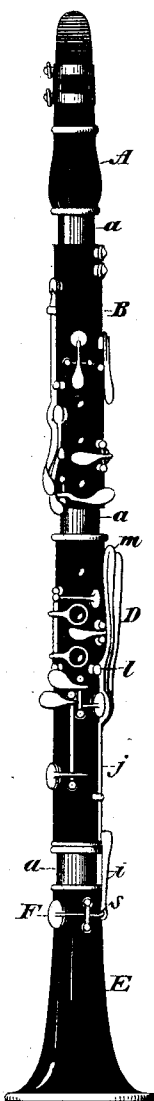
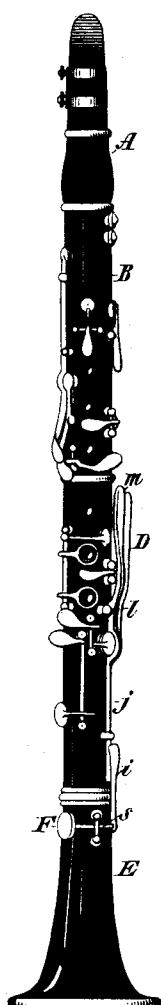


Fig. 3.

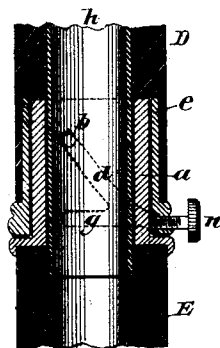


Fig. 4.

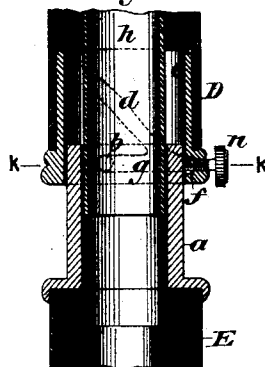


Fig. 5.

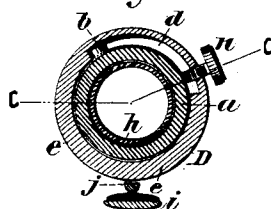
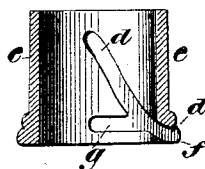


Fig. 6.



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CLARIONET.

SPECIFICATION forming part of Letters Patent No. 403,065, dated May 7, 1889.

Application filed May 17, 1888. Serial No. 274,135. (No model.) Patented in Italy November 10, 1881, XXV, 69, and in Belgium November 10, 1882, No. 59,533.

To all whom it may concern:

Be it known that I, ROMEO ORSI, residing in Milan, Italy, have invented certain new and useful Improvements in Clarionets and like Instruments (for which I have obtained Letters Patent in Italy, dated November 10, 1881, Vol. 25, No. 69, and in Belgium, dated November 10, 1882, No. 59,533,) of which the following is a specification.

Heretofore in instruments of this class each instrument was pitched for a certain key. If a player desired to play in a different key he was obliged to use another instrument to enable him to do so.

It is the object of my invention to provide an instrument upon which tunes can be played in more than one key by a simple adjustment of the sections of the instrument upon each other.

The invention consists in the novel arrangement and combinations of parts, that will be more fully hereinafter set forth.

Reference is to be had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of a clarionet constructed according to my invention. Fig. 2 is a side view of the instrument shown extended, by which means the key has been changed from that in Fig. 1. Fig. 3 is a central vertical section through one of the joints, showing my improved means for holding the sections together. Fig. 4 is a similar section, showing the joint extended. Fig. 5 is a cross-section on the line K K, Fig. 4; and Fig. 6 is a vertical central section through the outer sleeve of one of the joints.

In the accompanying drawings is represented a clarionet composed of four separate sections lettered, respectively, A, B, D, and E. The instrument is provided with suitable keys and holes for producing notes in the well-known manner. One end of each section is provided with a projecting tube, *a*, which is adapted to enter a sleeve at the end of the adjacent section, as shown. The tube *a* carries near its end an outwardly-extending pin, *b*, which is adapted to enter a groove, *d*, in the sleeve *e* of the next section. This groove *d* is on the inner wall of a sleeve, *e*, that ex-

tends from said adjoining section. The groove *d* is a two-way groove, (see Fig. 6.)—that is to say, it commences at the end *f* of the sleeve *e* and passes in a curved or sinuous manner inwardly along the inner wall of said sleeve. At a short distance from the end *f* the groove *d* has a substantially horizontal branch, *g*, (see Fig. 6,) which runs part-circumferentially around the inner wall of said sleeve *e*. A tube, *h*, may be provided, which passes through the sleeve *e*, as in Figs. 3 and 4, to carry the wind from one section to the other without interruption.

In joining the sections, the end of the tube *a* is placed into the sleeve *e*, the pin *b* entering the end *f* of the groove *d*. The two sections are then pushed together, and at the same time a twist is given to the sections to carry the pin *b* in the sinuous part of the groove *d* until the two sections abut, as in Figs. 1 and 3. In this position the instrument will play in a certain key—say the key of “A.” When it is desired to play in another key—say, for instance, the key of “B”—the sections are given an outward twisting pull, which causes the pin *b* to ride along the groove *d* toward the end *f* of the groove. When the pin *b* comes opposite the branch *g* of the groove *d*, the sections are turned to carry the pin into the branch groove *g* and into the position shown by dotted lines in Fig. 4. The sections are now extended, as shown, whereby the key has been changed.

A set-screw, *n*, carried by the sleeve *e*, is adapted to bear against the tube *a* to hold the sections firmly together. If the sections are separated and it is desired to play with the instrument extended, as in Figs. 2 and 4, the tube *a* is placed against the end of the adjacent section, the pin *b* entering the end of the groove *d*. By now giving the tube *a* a slight inward push to bring the pin *b* in line with the branch *g*, and then turning the sections, the pin *b* will pass along the branch groove *g* till it strikes the end of said groove, when the sections will be in the extended position, as in Figs. 2 and 4. By now turning up the set-screw *n* the parts will be held firmly.

In the drawings the inner ends of the groove *d* and its branch *g* are shown in line verti-

cally with each other. By this means when the sections are either extended or contracted the note-holes and keys will always be brought in line, or in their relative vertical proper positions.

The above construction will be found very effective, simple in manipulation, and not liable to get out of order.

I have also provided a key, F, upon the end section, E. This key, being at a considerable distance from the hands of the operator which play upon the next section, can be operated by bringing its arm *i* outside of a lever, *j*, pivoted at *l* to the section D. By pressing on the free end *m* of this lever *j* the key F will be operated. The outer side of the lever *j* is rounded, as in Fig. 5, so that in turning the sections it will easily enter beneath the arm *i* of the key F. With this construction, whether the sections be extended or contracted, the key F can be operated by the lever *j*. (See Figs. 1 and 2.) If separate tubes *a* are not used, the pin *b* can be on the end of a section of the instrument.

Although I have mentioned the music-keys A and B to illustrate this invention, I wish it understood that the instrument is adapted to be changed from one key to any other desired key by moving the parts, as described.

It is evident that the groove *d g* could be on the entering end *a* of a section, and the pin *b* on the inner wall of the next section with the same results.

Having now described my invention, what I claim is—

1. In a wind-instrument composed of separate sections, the combination of one section having a two-way groove, *d g*, near its end, with another section having a pin, *b*, near its end adapted to enter the groove *d g* and to contact the closed ends of the groove, whereby the sections may be held extended or contracted in the same alignment, substantially as herein shown and described.

2. In a wind-instrument composed of separate sections, the sleeve *e*, adapted to be carried by one of the sections and having the two-way groove *d g*, combined with the adjoining section, having a pin, *b*, near its end adapted to enter the groove *d g* and to contact the closed ends of the groove, the ends of said groove portions *d g* being aligned, substantially as herein shown and described.

3. In a wind-instrument composed of separate but longitudinally-extensible sections, the key F, carried on one section, in combination with the lever *j*, having rounded outer side carried on another section, the lever *j* being arranged to pass under and operate the key F, substantially as described.

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Witnesses:

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