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J. S. BARLOW.

MUSICAL WIND INSTRUMENT.

APPLICATION FILED DEC. 23, 1905.

FIG. 1.

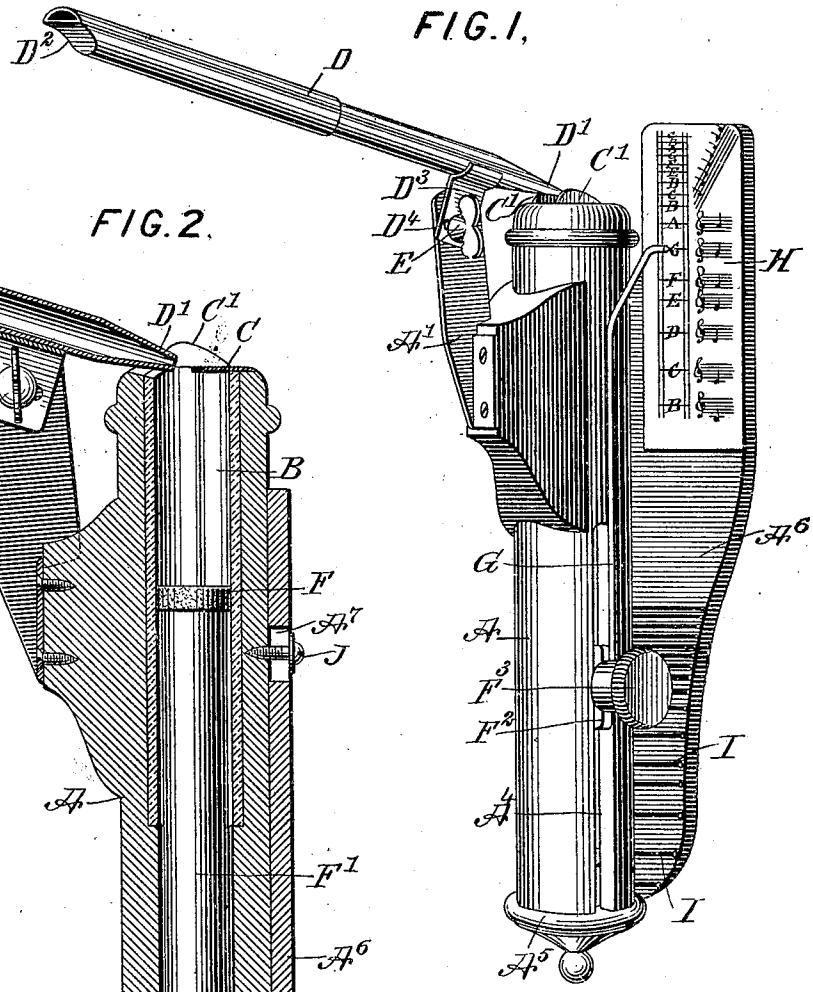
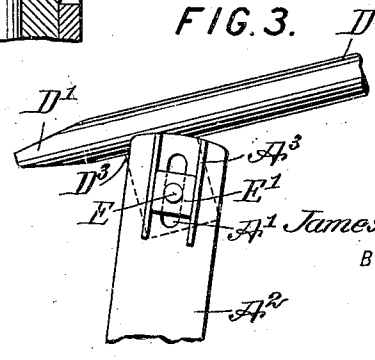


FIG. 2.

FIG. 3.



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MUSICAL WIND INSTRUMENT.

No. 838,484. Specification of Letters Patent. Patented Dec. 11, 1906.

Application filed December 23, 1905. Serial No. 293,093.

To all whom it may concern:

Be it known that I, JAMES SMITH BARLOW, a subject of the King of Great Britain, and a resident of Johnson City, in the county of Washington and State of Tennessee, have invented a new and Improved Musical Wind Instrument, of which the following is a full, clear, and exact description.

The invention relates to musical wind instruments; and its object is to provide a new and improved musical wind instrument having a range of approximately two octaves and permitting a beginner to readily learn to play the instrument and allowing the production of powerful yet soft tones without requiring undue physical exertion on the part of the performer.

The invention consists of novel features and parts and combinations of the same, which will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improvement. Fig. 2 is a sectional side elevation of the same, and Fig. 3 is a rear side elevation of the mounting of the blow-tube on a bracket on the casing.

In a suitably-constructed casing A is held a sound tube or barrel B, preferably made of glass, and across the outer upper end of the said tube B extends a plate or lip C, against which the air is discharged from the contracted delivery end D′ of a blow-tube D, provided with a suitable mouthpiece D^2 to allow the performer to blow air through the blow-tube D onto the edge of the plate or lip C and into the sound tube or barrel B to produce musical sounds. The delivery end D′ of the blow-tube D extends between two flanges C′, disposed vertically and arranged on opposite sides of the plate or lip C to prevent the escape of air in a sidewise direction, thus concentrating the full force of the air on the edge of the plate or lip C, which edge extends approximately diametrically across the sound-tube B.

In order to bring the delivery end D′ of the blow-tube D into the proper position relative to the plate or lip C, it is necessary to adjust the blow-tube D to bring this delivery end D′ nearer to or farther from the edge of the plate or lip C and also to swing the blow-tube D into the proper angular position relative to the plate or lip C. For this purpose the blow-tube D is provided with a flange D^3, having an elongated slot D^4 engaged by a clamping-bolt E, also engaging an elongated slot A′, formed in a bracket A^2, attached to or forming part of the casing A. The rear nut E′ of the clamping-bolt E extends between guideways E^3 to allow up-and-down movement of the clamping-bolt E in the slot A′ to prevent the nut E′ from turning. By having the slot A′ arranged in an up-and-down direction and the slot D^4 in a sidewise direction it is evident that when the clamping-bolt E is loosened the blow-tube D can be swung on the bolt E and can also be moved higher up or lower down and moved lengthwise to bring the delivery end D′ into the proper position relative to the edge of the plate or lip C.

Within the sound-tube B is arranged a plunger or piston F, adapted to be raised or lowered to increase or decrease the upper or sound portion of the sound-tube B. The plunger F is under the control of the operator, and for this purpose its downwardly-extending plunger-rod F′ is provided with an arm F^2, extending in a vertically-disposed slot A^4, formed in the lower portion of the casing A. On the arm F^2 is secured a knob F^3, adapted to be taken hold of by the operator to move the plunger F up or down in the sound-tube B, according to the sound to be produced at the time. The downward-sliding motion of the plunger-rod F′ is limited by a cap A^5, held on the lower end of the casing A.

In order to enable a beginner to quickly learn to play the instrument and to produce the correct tones of a piece of music, the following arrangement is made: On the knob F^3 is secured an upwardly-extending pointer G, indicating on a scale H, containing the musical notation embracing approximately two octaves, the scale being held on a bracket A^6, attached to the casing A. Now by the operator moving the knob F^3 up or down the pointer G indicates the proper note on the scale H, and consequently when the operator blows into the mouthpiece D^2 the corresponding note is sounded. On the lower portion of the bracket A^6 are arranged frets I, so that a player can readily feel by the thumb what position the knob F^3 has at the time, the frets I corresponding to the notes of the octaves the same as the scale H.

In order to insure a correct relation of the frets I and the scale H relative to the piston F, it is necessary to adjust the bracket A^6 vertically in the casing A, and for this purpose the bracket A^6 is provided with vertically-elongated slots A^7, (see Fig. 2,) through which extend screws J, screwing in the casing A, so that when the screws J are loosened the bracket A^6 may be moved up or down to bring the frets I in proper relation to the knob F^3 and to bring the pointer G in proper relation to the scale H in accord with the position of the plunger F in the sound-tube B.

The instrument shown and described is very simple and durable in construction, is not liable to get easily out of order, and is arranged to permit proper adjustment of the several parts to procure accurate tones.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A musical wind instrument, comprising a sound-tube, a plunger movable therein, a lip at one end of the sound-tube, and a blow-tube having a mouthpiece and discharging the air against the said lip.

2. A musical wind instrument comprising a sound-tube, a plunger movable therein, a lip at one end of the sound-tube, and a blow-tube having a mouthpiece and a contracted air-delivery end and discharging the air against the said lip.

3. A musical wind instrument comprising a sound-tube, a plunger movable therein, a lip at one end of the sound-tube, a blow-tube having a mouthpiece and a contracted air-delivery end and discharging the air against the said lip, and means for adjusting the said blow-tube with respect to the lip.

4. A musical wind instument, comprising a sound-tube, a plunger movable therein, a lip at one end of the sound-tube, a blow-tube having a mouthpiece and a contracted air-delivery end and discharging the air against the said lip, and means for adjusting the said blow-tube relative to the said lip, to bring the said delivery end nearer to or farther from the said lip and to swing the blow-tube into an angular position relative to the axis of the sound-tube.

5. A musical wind instrument comprising a sound-tube, a plunger movable therein, a lip at one end of the sound-tube, a blow-tube having a mouthpiece and discharging the air against the said lip, a fixed scale, and a pointer moving with the said plunger and indicating on the said scale.

6. A musical wind instrument comprising a sound-tube, a plunger movable therein, a lip at one end of the sound-tube, a blow-tube having a mouthpiece and discharging the air against the said lip, a handle for the said plunger, to move the latter up and down in the said sound-tube, and fixed frets adjacent to the said handle.

7. A musical wind instrument, comprising a sound-tube, a plunger movable therein, a lip at one end of the sound-tube, a blow-tube having a mouthpiece and discharging the air against the said lip, a casing carrying the said sound-tube and provided with an adjustable bracket, and an indicator on the said bracket for indicating the position of the said plunger in the sound-tube.

8. A musical wind instrument comprising a sound-tube, closed at one end, a lip extending partly across one end of the said sound-tube, side flanges on the lip, and a blow-tube having a mouthpiece and a delivery end extending between the flanges opposite the said lip.

9. A musical wind instrument comprising a sound-tube closed at one end, a lip extending partly across one end of the said sound-tube, side flanges on the reed, and a blow-tube having a mouthpiece and a delivery end extending between the flanges opposite the said lip, the edge of which extends approximately diametrically across the open end of the sound-tube.

10. In a musical instrument of the character described, a sound-tube, a plunger in the sound-tube, a slotted casing carrying the sound-tube and out through the slot of which an operating member of the plunger projects, a fixed scale, and a pointer carried by the operating member of the plunger and indicating on the scale.

11. In a musical instrument of the character described, a sound-tube, a slotted casing carrying the sound-tube, a plunger in the sound-tube and having a handle projecting out through the slot of the casing, a bracket adjustable on the casing and having a scale at its upper end and frets at its lower end, and a pointer on the handle of the plunger and indicating on the scale.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES SMITH BARLOW.

Witnesses:

CHAS. CULMORE,

W. RUSSI.