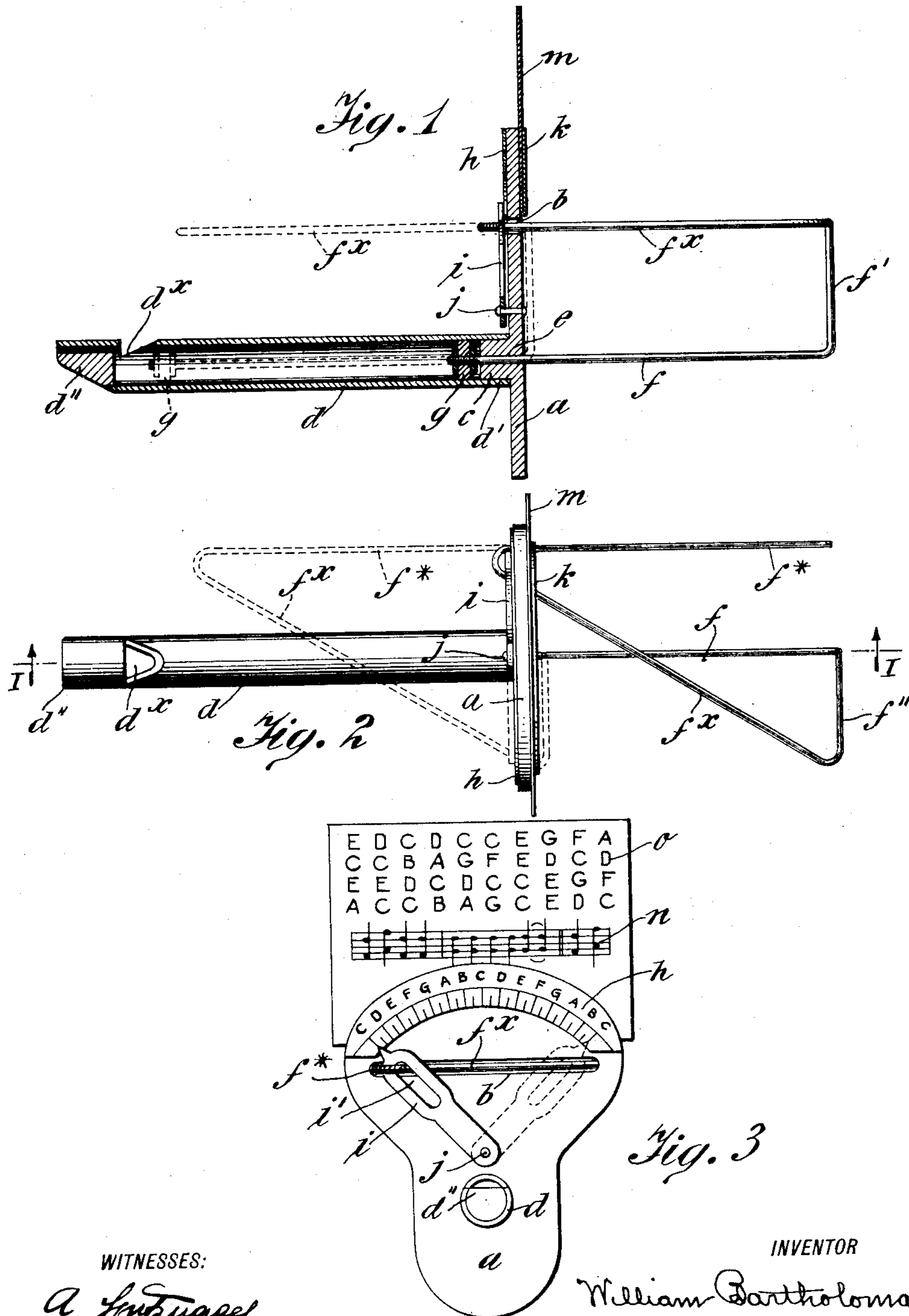


W. BARTHOLOMAE,
MUSICAL INSTRUMENT.
APPLICATION FILED FEB. 2, 1915.

1,166,425.

Patented Jan. 4, 1916.



WITNESSES:

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WILLIAM BARTHOLOMAE, OF NEW YORK, N. Y.

MUSICAL INSTRUMENT.

1,166,425.

Specification of Letters Patent.

Patented Jan. 4, 1916.

Application filed February 2, 1915. Serial No. 5,626.

To all whom it may concern:

Be it known that I, WILLIAM BARTHOLOMAE, a citizen of the United States of America, residing at the borough of Manhattan, in the city, county, and State of New York, have invented certain new and useful Improvements in Musical Instruments, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in musical instruments and particularly to improvements in wind instruments; and an object of this invention is to provide a wind instrument with mechanism which varies the length of the column of air and actuates an indicator that shows the player the note which the instrument will give forth for any particular position of the mechanism.

Another object of this invention is to provide a wind instrument which will be simple in construction, comparatively cheap in manufacture, efficient and handy in use and adapted to the teaching of beginners who are learning to play a wind instrument.

In the drawings illustrating the principle of this invention and the best mode now known to me of applying that principle, Figure 1 is a vertical central longitudinal section on the line I—I of Fig. 2; Fig. 2 is a plan of the wind instrument; and Fig. 3 is an elevation of the same.

The scale-board or baseboard *a* is formed with a horizontally-extending slot *b* and, below the latter, with a horizontally-extending projection *c* upon which is fitted the base *d'* of the whistle *d*, the other end of which is formed with the usual mouth-piece *d''* and opening *d^x*. In the support *c* there is formed a central hole *e* in which is fitted to slide a wire *f* that carries at one end a piston *g* fitted to slide in the tubular body portion of the whistle *d*. It is obvious that, by moving the wire *f* back and forth, the position of the piston *g* will be so changed as to vary the length of the column of air within the whistle *d* and thereby to vary the note given forth by the latter, when it is blown. On that face of the baseboard *a* which is nearest the player, there is marked an indicator-scale *h* over which swings the end of a pointer *i* pivoted at *j* on the baseboard *a*. At its end opposite the piston *g*, the wire *f* is bent upwardly to form a handhold *f'* and is then bent horizontally at *f''*, from which part the wire extends obliquely

above the lower part *f* and through the slot *b* and a slot *i'* in the pointer *i*. From the front end of the oblique portion *f*, the wire is bent rearwardly to form the part *f^x*, which gives steadiness to the wire in its reciprocating movement. At the top and in rear of the baseboard *a*, there is formed a music-holder *k* in which may be placed a sheet or card *m* having printed thereon notes, as at *n* or letters *o* indicating notes. These letters *o* may be used for practice purposes by the player, while the written music will be used to play a tune. The divisions on the scale or indicator *h* are marked with the letters C, D, E, etc.; and, when the indicator *i* points, for example, to that division of the scale marked C, the note given forth by the whistle, when blown, will be the note known as C.

The player grasps the wire by the vertical portion *f'* and moves the wire back and forth; and the inclined part *f^x* of this wire bears against the walls of the slot *i'* in the pointer *i* so that, as the piston *g* moves back and forth within the whistle *d*, the pointer *i* will move back and forth over the scale *h*; and the position of the piston *g* will determine the note given forth by the whistle, when the same is blown, and that note will be indicated by the pointer *i* on the scale *h*.

In accordance with the provisions of the patent statutes, I have described hereinbefore the best mode in which I have contemplated applying the principle of this invention; but I desire it to be distinctly understood that I am fully aware that changes may, without departing from the spirit of the invention, be made in the specific structure herein described and illustrated and that I regard such changes as falling within the scope of the invention as the same is hereinafter claimed. Thus, for example, the pointer *i* is not an essential element of the invention, generically considered, although the pointer is a convenient device for indicating, in conjunction with the scale *h*, the note corresponding to any particular position of the piston *g*. If the pointer *i* be omitted, the wire-member *f^x* will indicate on the scale *h* the note sounded as appears from Figs. 1 and 3 but, of course, is a less convenient device for the purpose than the pointer *i*.

I claim:

1. A mouth wind instrument having mounted therein a piston for varying the

- mass of the vibrating air; a piston-rod fastened to said piston; a scale-board mounted on the instrument; a scale on said scale-board and an indicating device arranged to
5 move relatively to said scale and thereby to indicate thereon the note corresponding to the position of said piston, said device being connected to and driven by said piston-rod.
- 10 2. A mouth wind instrument having mounted therein a piston for varying the mass of the vibrating air; a piston-rod fastened to said piston; a scale-board mounted on the instrument; a scale on said scale-
- board and a pointer arranged to move rela- 15
tively to said scale and thereby to indicate thereon the note corresponding to the position of said piston; said pointer being connected to and driven by said piston-rod.
- Signed at the borough of Manhattan, city 20
of New York, this thirtieth day of January, 1915, in the presence of the two undersigned witnesses.
- WILLIAM BARTHOLOMAE.
- Witnesses:
ROBERT LAX,
JAMES HAMILTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."