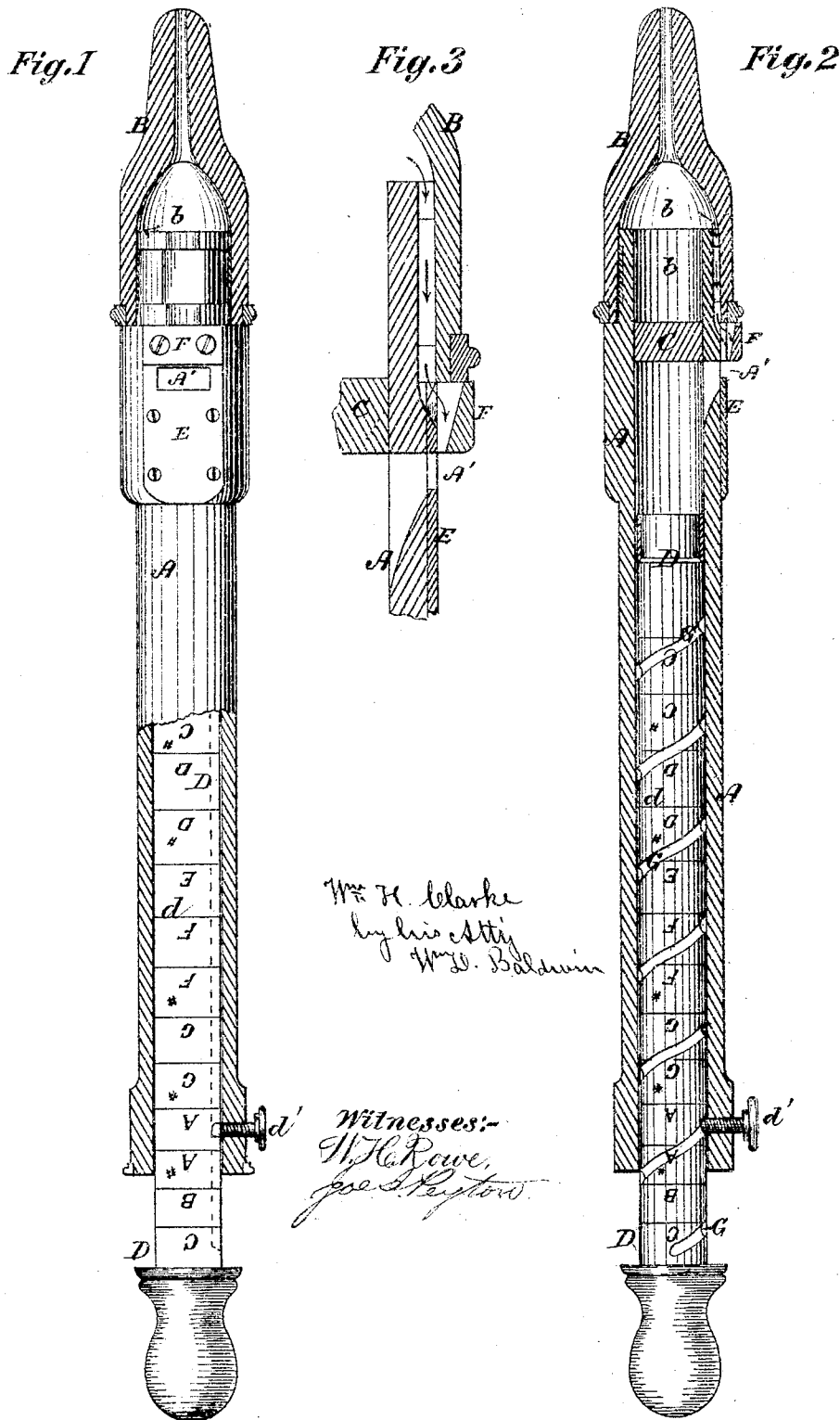


Improvement in Musical Pitch Pipes.

No. 122,879.

Patented Jan. 23, 1872.



UNITED STATES PATENT OFFICE.

WILLIAM H. CLARKE, OF DAYTON, OHIO.

IMPROVEMENT IN MUSICAL PITCH-PIPES.

Specification forming part of Letters Patent No. 122,879, dated January 23, 1872.

To all whom it may concern:

Be it known that I, WILLIAM H. CLARKE, of Dayton, in the county of Montgomery and State of Ohio, have invented a new and useful Improvement in the art of constructing Musical Pitch-Pipes, of which the following is a specification, referring to the accompanying drawing.

Figure 1 is a view of my improved pipe, partly in elevation and partly in section. Fig. 2 is a longitudinal section, showing a modification of the same; Fig. 3, a similar section on an enlarged scale of a part of the instrument.

My invention relates to that class of musical instruments or pitch-pipes into which air is blown, and in which the tone is varied by increasing or diminishing the depth of the column of air contained in the pipe by means of a plunger or tampion working air-tight in the pipe; and the improvement consists in a novel combination and construction of the parts of the instrument hereinafter set forth.

In order to carry out my invention I construct a pitch-pipe, A, of wood or other suitable material, and of round or polygonal form. The length may be varied under certain circumstances well known to musicians. Ordinarily I prefer one about fourteen and a-half inches long and of one inch bore. One end of this tube is fitted with a mouth-piece, B, so constructed as to leave an air-space or cell, *b*, between the inner end of the mouth-piece and the end of the tube, and is made removable, so that the air-space or cell can be readily cleaned of any moisture that might accumulate from the breath. The tube has an opening, A', in its side, as usual, for the escape of air. Between this opening and the end of the mouth-piece

is a block, C. From the cell *b* is a passage between the mouth-piece B and tube A, leading under the lip F and over the lip or languid E to the opening A'. The cap or block F forming the under lip, and the plate E forming the upper lip or languid, are made of either metal or wood. A plunger or tampion, D, fits the tube air-tight, but moves freely therein. The rod *d* of this plunger is slotted longitudinally, as shown in Fig. 1, or has a spiral groove, G G, as seen in Fig. 2. A pin or screw, *d'*, passing through the pipe and through this slot or into the spiral groove, prevents the plunger from being drawn out while allowing it to move freely therein. This plunger or tampion is marked with a musical scale, consisting of symbols of the various tones of the diatonic scale and all the chromatic intervals (flats and sharps) included in one octave from middle "C" to the octave above. By moving the plunger or tampion in or out the column of air in the tube is varied, and by blowing in the mouth-piece the exact tone desired can be given with mathematical precision, the scale indicating the adjustment of the instrument to the note desired, as the plunger is moved in or out until the symbol of that note appears at the end of the tube.

I do not, broadly, claim a sliding plunger in a pitch-pipe, that being old.

I claim as my invention—

The combination of the tube, mouth-piece block, languid, plunger, and stop-rod, substantially as set forth.

WILLIAM H. CLARKE.

Witnesses:

L. H. INGERSOLL,
GEO. M. YOUNG.