J. C. Briggs,

Reed for Musical Instruments.

No. 15921. Patented Oct. 21, 1856.

Fig. 1.

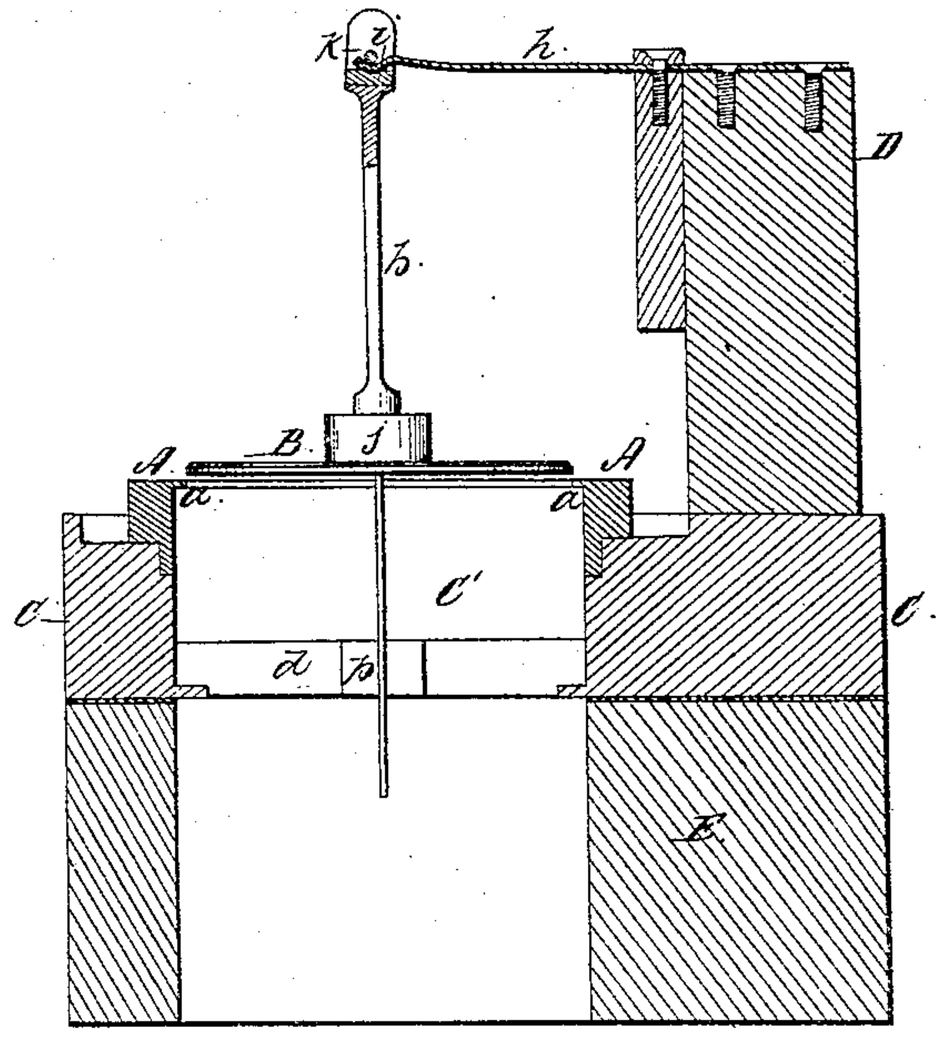


Fig. 2.

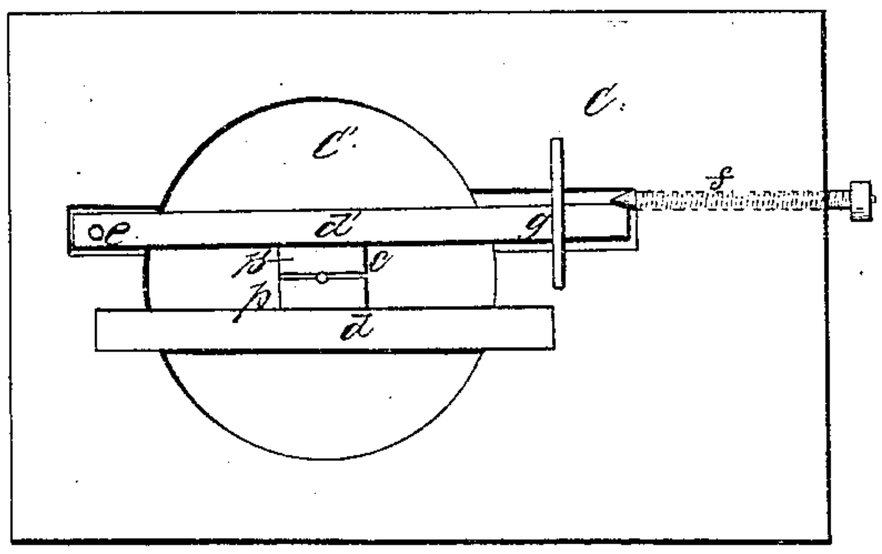
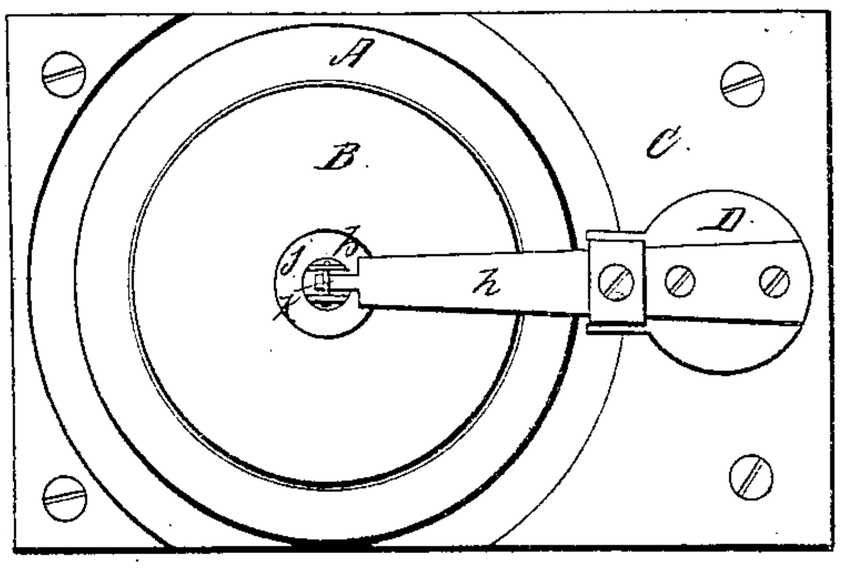


Fig. 3



UNITED STATES PATENT OFFICE.

J. C. BRIGGS, OF WOODBURY, CONNECTICUT.

REED FOR MUSICAL INSTRUMENTS.

Specification of Letters Patent No. 15,921, dated October 21, 1856.

To all whom it may concern:

Be it known that I, J. C. BRIGGS, of Woodbury, in the county of Litchfield and State of Connecticut, have invented a new and Improved Reed for Wind Musical Instruments; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, is a vertical central section of the reed, reed-board and top of the wind chest, wind receiver or passage over which the reed board is placed. Fig. 2, is an inverted plan of the reed as seen from below the reed board. Fig. 3, is a plan of reed and part of the reed board.

Similar letters of reference indicate corresponding parts in the several figures.

This reed is intended to be used principally for the subbass of melodeons and harmoniums as it is capable of producing a deeper and more powerful tone than the common reed.

It consists of a ring of wood, ivory or metal with a vibrator consisting of a thin disk of similar material suspended by a central stem from a spring to vibrate within the aforesaid ring in or nearly in right lines perpendicular to the plane of the disk, thereby admitting between the ring and the vibrator a column of air of uniform thickness or volume in every part and producing a uniform degree of vibration all around the reed which gives greater purity of tone than when the column of air is of varying thickness or volume and the vibration is greater or less in different parts, as in the common reed.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A, is the external ring of the reed which is made with a thin narrow flanch *a*, all around its interior at the end in which the vibrator plays.

B, is the vibrator, consisting of a thin disk, having a small boss *j*, at its center to give strength to the connection of the stem *b*, by which it is suspended. The vibrator is made of a size to play freely through the interior of the flanch *a*, with an equal space between their edges all around.

c, is a small metal rod, which may consist of the continuation of a portion of the stem *b*, downward through the reed, to work in a guide placed across the bottom of the reed board *c*, to keep the vibrator exactly in the center of the ring A, and prevent it touching the same. The guide for the rod *c*, is made of two pads of leather *p*, *p*, attached to two strips of wood *d*, *d'*, arranged side by side to grip the rod like a pair of pliers, one, *d*, of the said strips of wood being fixed firmly to the reed board and the other *d'*, being attached to a pin *e*, at one end, see Fig. 2, and having a little play allowed it at the other end, where a taper-pointed screw *f*, is applied to work through the back of the reed board, so that the tapered portion may bear upon the outer side of the strip, and when the screw is screwed farther in may act as a wedge to cause the pad *p'*, to be forced toward *p*, to press tighter on the guide rod. By this construction of the guide, the vibrator may be guided with the least possible degree of friction and the guide, when worn loose, may be tightened up easily.

g, is a small bar placed below the strip *d'*, to support the adjustable end.

h, is the spring from the end of which the vibrator is suspended by the stem *b*, consisting of a curved or straight strip of steel and being attached to a standard D, on the top of the reed board. This spring may be furnished with movable clamping pieces above and below to vary its effective length to give the requisite degree of vibration to the reed. The connection of the stem *b* with the spring *h*, is effected by making the end of the spring enter within a fork at the top of the stem and placing an india rubber cushion *i*, below the spring and inserting a pin *k*, transversely through the fork above the spring in such manner as to keep the spring tight upon the cushion by which means all rattling or unsteady action is prevented. The reed board C, is made with an opening C', through it of the same size as the interior of the ring A, outside of the flanch *a*, and the board E forming the top of the wind receiver, chamber or passage over which the reeds are placed, has an opening of similar size. At the bottom of the reed board there is a small thin inner flanch to produce a further vibration of the column of air passing through the reed. The ring A may be fitted to the reed board in a countersink around the opening C'.

The ring and vibrator of the reed will generally be made of hard wood, ivory,

though perhaps metal might in some cases be used. Instead of a ring A and vibrator B, of circular form, a square frame may be substituted for the ring A, and a square vibrator for the circular disk B. It is not my intention to depart from the circular form of the reed board but the above modification is mentioned to explain that the circular form might be departed from.

What I claim as my invention and desire to secure by Letters Patent, is—

The reed constructed substantially as described, of a ring or frame A with a vibrator B, consisting of a disk or plate suspended by a central stem from a spring to vibrate within the said ring or frame in right lines perpendicular to the plane of the disk thereby enabling a column of air of uniform thickness in all parts to be admitted through the reed and enabling a uniform vibration to be produced all around the reed.

J. C. BRIGGS.

Witnesses:
J. F. BUCKLEY,
W. TUSCH.