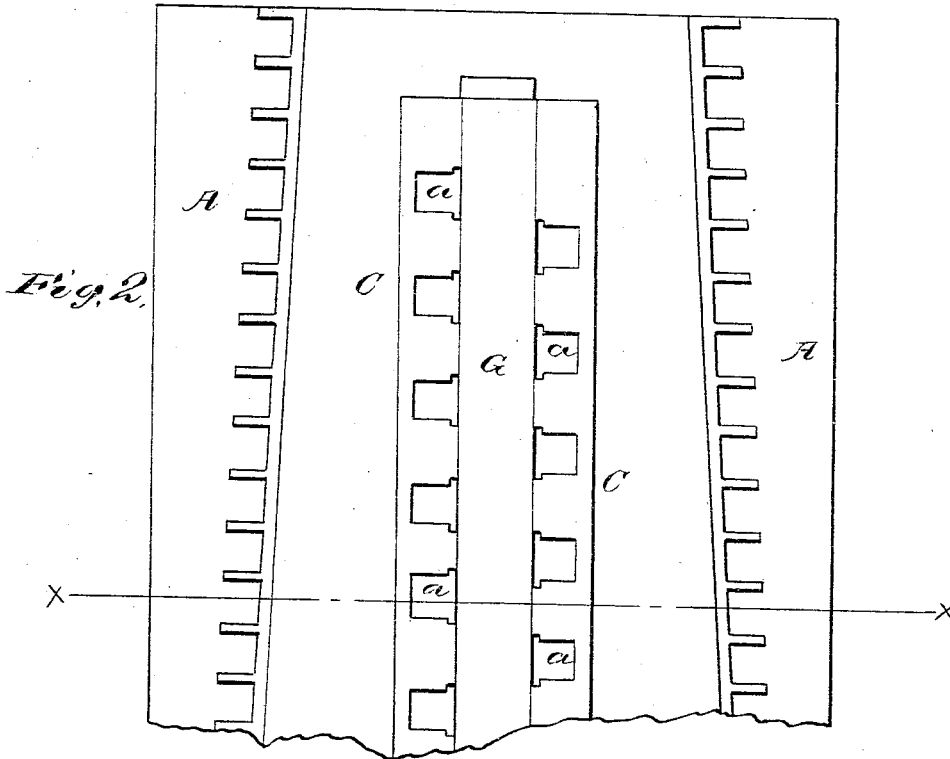
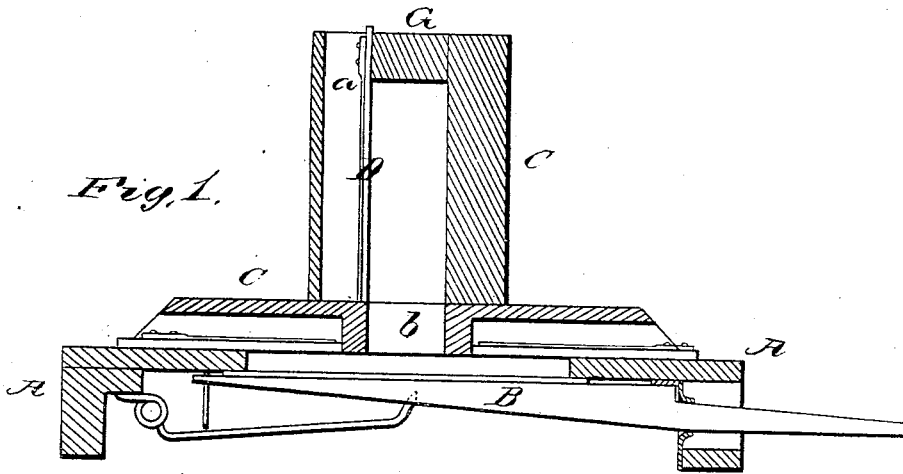


J. A. SMITH.

SUB-BASS ORGAN REED-BOARDS.

No. 183,718.

Patented Oct. 24, 1876.



WITNESSES  
*E. H. Bates*  
*George E. Upham.*

INVENTOR.  
*John A. Smith.*  
*Gilman Smith & Co.*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JOHN A. SMITH, OF NORTH EAST, PENNSYLVANIA.

## IMPROVEMENT IN SUB-BASS ORGAN REED-BOARDS.

Specification forming part of Letters Patent No. **183,718**, dated October 24, 1876; application filed April 8, 1876.

*To all whom it may concern:*

Be it known that I, JOHN A. SMITH, of North East, in the county of Erie and State of Pennsylvania, have invented a new and valuable Improvement in Sub-Bass for Organs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a transverse vertical section of my sub-bass for organs, and Fig. 2 is a plan view of the same.

My invention relates to reed-organs; and it consists in the construction of a manual sub-bass reed-board, and its arrangement directly over the ordinary valves of the common reed-board, thereby doing away with the necessity of special sub-bass valves, levers, and tracker-pins, as will be hereinafter more fully set forth.

In the annexed drawing, A represents the ordinary reed-board, with valves B.

To accomplish the object designed I construct my sub-bass reed-board of two separate boards, C C, containing alternate reeds D D of the sub-bass set, and these are arranged one on each side of a board or plank, G, containing a series of cells, *a a*, cut to exactly correspond with and fit over openings *b b*, cut from the valve-slots of the reed-board A up through the same. The cells *a* are made just wide enough to admit of the free vibration of the reed-tongues into them, and serve as resonant sound-chambers, adding to the volume and purity of the tones.

The reeds D are so arranged as to alternate back and front—that is, the first reed of the series or set empties its air into the resonant cell from the back side, and the second one from the front side, and so on, by which arrangement I am enabled to get the large and wide reeds of the sub-bass within the space (lengthwise of the instrument) allotted to the ordinary reeds of the organ, and, consequently, directly over the ordinary reed-valves. This arrangement, while it is accomplished at a very large saving of expense in construction, gives a sub-bass quicker of speed and better in tone, and almost entirely does away with the liability of the sub-bass to get out of order.

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

1. In a reed-organ, the manual sub-bass reed-board, combined with and arranged directly over the reed-valves of the ordinary reed-board, substantially as and for the purpose herein set forth.

2. In a sub-bass reed-board for organs, combined with and arranged directly over the reed-valves of the ordinary reed-board, the cells or resonant sound-chambers *a*, arranged to alternate front and back, as shown and described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN A. SMITH.

Witnesses:

R. S. PIERCE,  
A. M. FLETCHER.