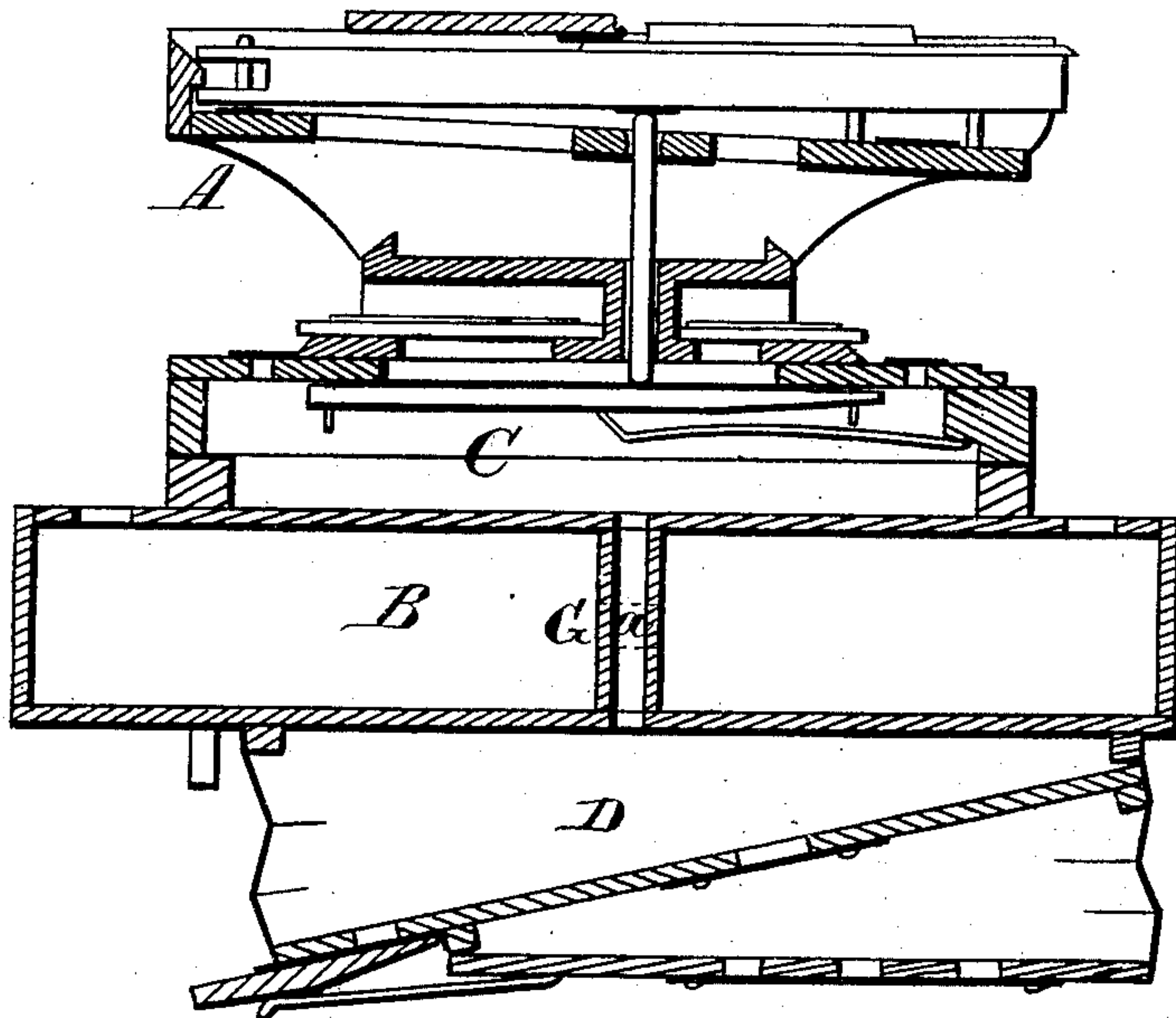


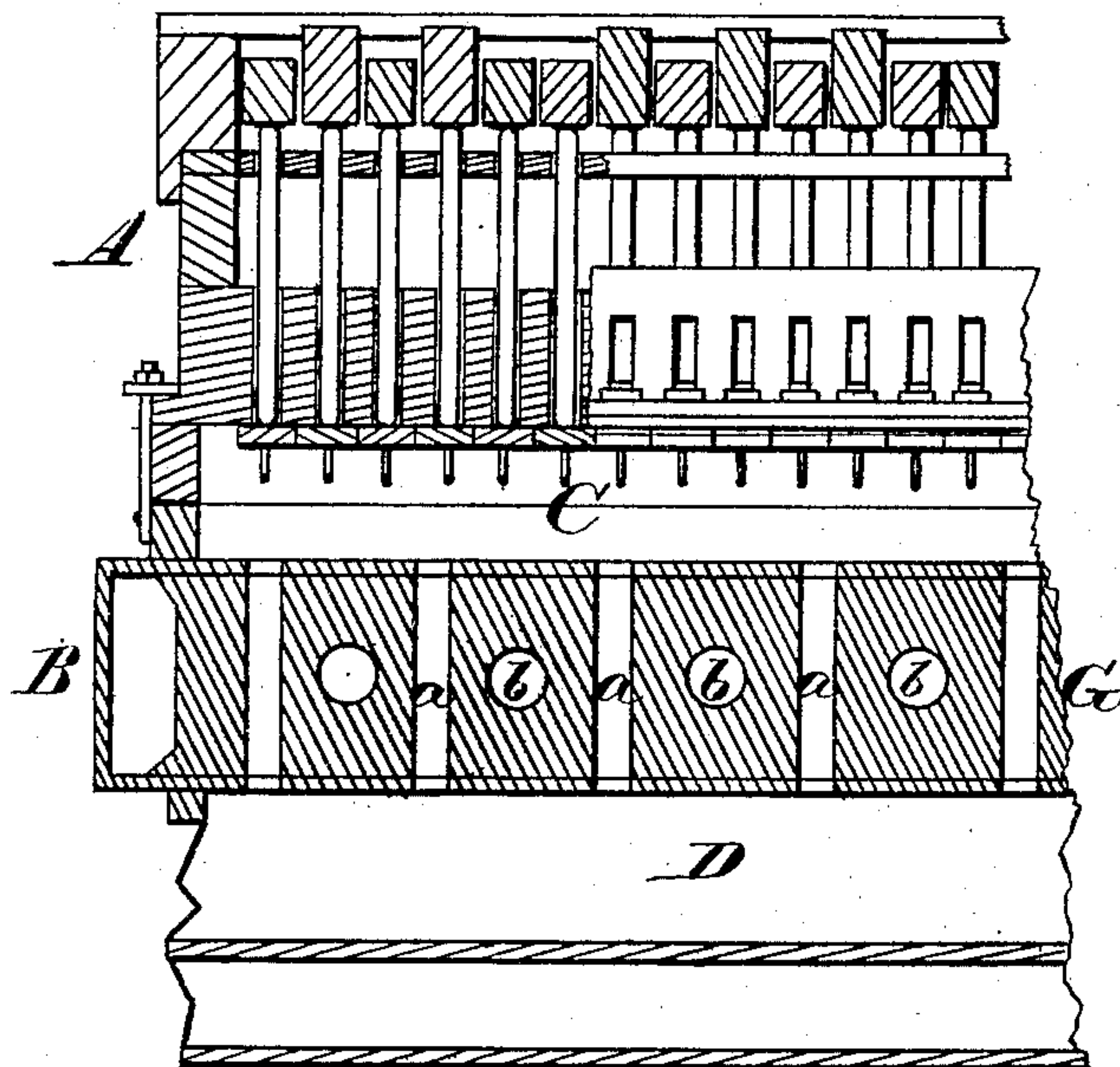
S. HALE.  
 REED-ORGAN.

No. 176,301.

Patented April 18, 1876.



*Fig. 1.*



*Fig. 2.*

WITNESSES  
*E. H. Bates*  
*Geo. H. Lamer & Co.*

INVENTOR,  
*Samuel Hale.*  
*Gilmore Smith & Co.*  
 ATTORNEYS,

# UNITED STATES PATENT OFFICE.

SAMUEL HALE, OF BLOOMFIELD, NEW JERSEY.

## IMPROVEMENT IN REED-ORGANS.

Specification forming part of Letters Patent No. **176,301**, dated April 18, 1876; application filed February 5, 1876.

*To all whom it may concern:*

Be it known that I, SAMUEL HALE, of Bloomfield, in the county of Essex and State of New Jersey, have invented a new and valuable Improvement in Reed-Instruments; 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 drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

Figures 1 and 2 of the drawing are representations of vertical sections of my improvement in reed-instruments.

My invention relates particularly to reed-instruments; and it consists in placing the "action" of such instrument upon a box or viol for the purpose of increasing the volume of sound and giving it a better quality, as will be hereinafter more fully set forth.

In the annexed drawing, A represents that part of a reed-instrument known by the name of "the action," and which includes the key-board, reeds, valves, and operating mechanism. As generally constructed this action is placed upon a board; but I place said action on top of a box or viol, B, forming the wind-chest C, between the box and the action. Under the box B is the ordinary exhaust-bellows D. Across the interior of the box B is a partition, G, through which are a number of vertical holes, *a a*, extending through the top and bottom of the box. Through these holes

or passages the air is drawn by the exhaust-bellows through the air-chamber C, and from the reeds. In the sounding-partition G are also horizontal openings *b*, which are simply to take out spare wood, and make the partition light and vibratory.

The vertical air-passages *a* may be formed by means of separate pipes, so arranged as to brace the top and bottom of the box, instead of the partition G.

By the introduction of the box or viol, and locating the action thereon, the vibration of the reeds and of the entire instrument is increased, and the sounds made much better.

This invention may also be applied to pianos.

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

1. The sound-box or viol B, provided with the sounding-partition G, having the vertical perforations *a* and the horizontal perforations *b*, constructed and arranged to operate substantially as described.

2. In combination with the action A, wind-chest C, and the bellows D, the viol B, constructed as described, all substantially as set forth.

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

SAMUEL HALE.

Witnesses:

F. M. TICHENOR,  
FREDK. ASHLEY.