P. PRESTON.

REED ORGAN.

APPLICATION FILED SEPT. 29, 1914.

1,204,064.

Patented Nov. 7, 1916.

2 SHEETS—SHEET 1.

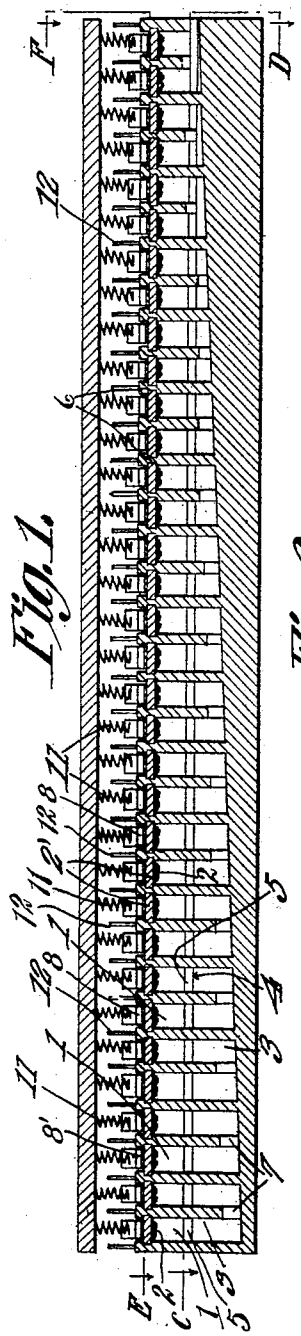


Fig. 1.

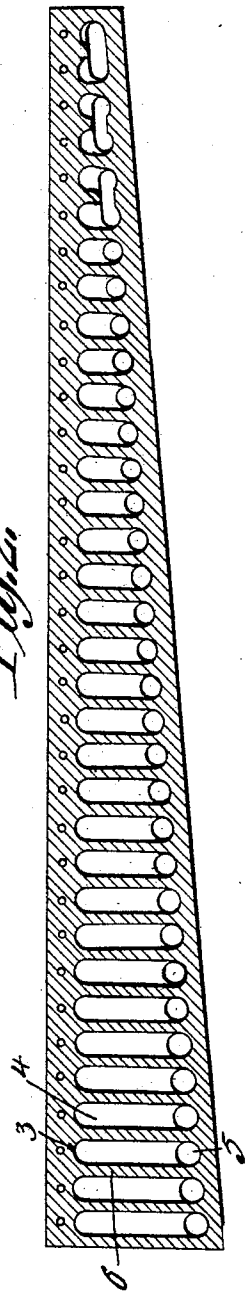


Fig. 2.

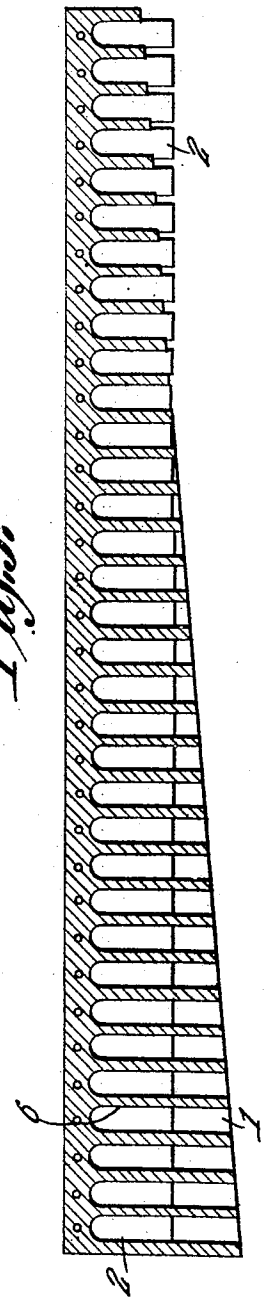


Fig. 3.

Witnesses

J. P. Tomlin

Dr. E. McCarthy

P. Preston, Inventor

by C. A. Snow & Co.

Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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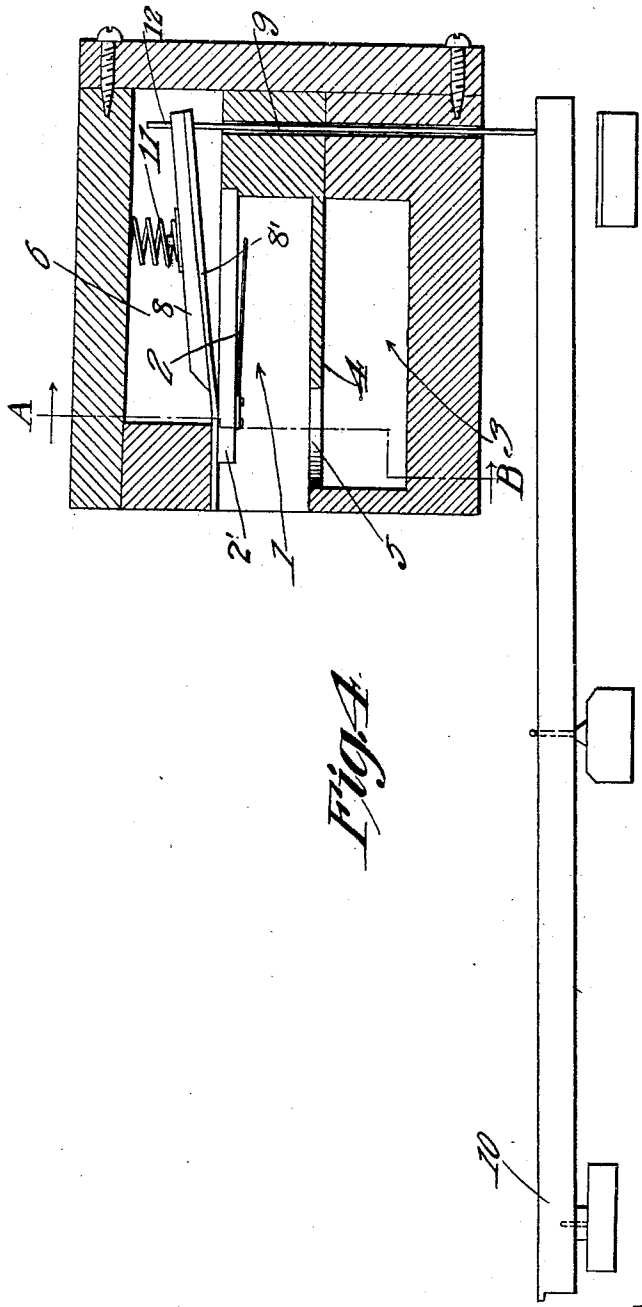


Fig 4.

Witnesses

J. R. Somers

M. E. McCarthy

P. Preston,

Inventor

by C. A. Snow & Co.

Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

PERCY PRESTON, OF DENISON, TEXAS.

REED-ORGAN.

1,204,064. Specification of Letters Patent. Patented Nov. 7, 1916.

Application filed September 29, 1914. Serial No. 864,104.

To all whom it may concern:

Be it known that I, PERCY PRESTON, a citizen of the United States, residing at Denison, in the county of Grayson and State of Texas, have invented a new and useful Reed-Organ, of which the following is a specification.

This invention relates to reed organs and more particularly to reed boards for use in connection therewith.

One object of the invention is to provide means whereby dust is prevented from lodging in the reeds.

A further object is to provide an improved construction of reed board having the reeds and pipe cells connected in a novel manner.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a longitudinal section elevation of a reed board embodying the present improvements said section being taken on line A—B, Fig. 4, the valves being shown closed. Fig. 2 is a section on line C—D Fig. 1. Fig. 3 is a section on line E—F Fig. 1. Fig. 4 is an enlarged transverse section through the reed board and showing the connection between the key and the valve, the valve being shown in its open position.

Referring to the figures by characters of reference 1 designates reed cells which can be of the same width or, if preferred, of different widths. The front and rear faces of the reed board converge gradually toward the treble end and, consequently, the reed cells formed in the board gradually increase in depth toward the bass end of the register. Reeds may be supported within the cells in any manner desired. In the structure illustrated, the reed blocks protrude slight distances from the cells at the treble end of the board but this protrusion gradually lessens toward the center of the board after which the reed blocks are contained wholly in the cells, as shown in Fig. 3, the corresponding ends of the reed blocks being disposed along a straight line. The reeds have been illustrated at 2 and the reed blocks at 2′.

Below the reed cells 1 are arranged pipe cells 3 forming resonance chambers or cells which, as shown in Fig. 1, gradually increase in height from the treble toward the bass end of the register. These resonance chambers are separated from the reed cells by horizontal partitions 4. These partitions are provided at their front ends with openings 5 affording free communication between the front ends of the reed and pipe cells. As shown particularly in Fig. 2, these openings gradually increase in size from the treble toward the bass end of the register.

The resonance cells 3 are separated from each other by vertical partitions 6 which are in vertical alinement with or form continuations of the corresponding vertical partitions located between the reed cells 1.

In the construction illustrated, every other one of the partitions 6 is extended down to the bottom of the resonance chamber while the remaining partitions 6 are cut away at the bottom to form spaces shown at 7 whereby the resonance cells are divided into groups of two each, the cells of each group communicating. As the partitions between the groups of resonance cells extend completely to the bottom, a considerable volume of air is inclosed which will be set into vibration when the reed is sounded.

The size of the spaces 7 formed below certain of the partitions 6 depends on the positions of the cells in the register.

It will be noted by referring particularly to Fig. 4 that the reeds 2 which are within the upper portions of the reed cells 1 will not accumulate dust.

The valve for use in connection with the reed has been indicated at 8, and includes a flexible strip 8′ constituting a hinge. The valve is connected by a tracker 9 to the key lever 10. A spring 11 is arranged above the valve. Pins 12 can be arranged in the upper portion of the reed board to guide the valves.

What is claimed is:—

1. In a reed board, resonance cells, reed cells arranged thereabove and separated therefrom by partitions, there being openings within said partitions for maintaining communication between the reed cells and the resonance cells, and reeds attached to the

tops of the reed cells, said resonance cells being grouped, the cells of each group communicating through openings adjacent the bottoms of the resonance cells.

2. In a reed organ, a reed board having resonance cells, reed cells arranged thereabove and separated therefrom by partitions, there being openings within said partitions for maintaining communication between the reed cells and the resonance cells, reeds attached to the tops of the reed cells, said resonance cells being grouped, the cells of each group communicating through openings adjacent the bottoms of the resonance cells, a valve above each reed, a key lever, a tracker interposed between the key lever and its valve, and a spring bearing upon the valve for directing it to its seat.

3. In a reed board, resonance cells, reed cells arranged thereabove and separated therefrom by partitions, there being circular openings within said partitions for maintaining communication between the reed cells and the resonance cells, said openings gradually diminishing in diameter from the bass to the treble end of the board, and reeds attached to the tops of the reed cells, said resonance cells being grouped, the cells of each group communicating through openings in the side walls thereof adjacent the bottoms of the resonance cells.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

PERCY PRESTON.

Witnesses:

ADELAIDE HICKS,

H. L. LANE.

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