

(No Model.)

2 Sheets—Sheet 1.

W. SEYBOLD.
REED ORGAN.

No. 545,100.

Patented Aug. 27, 1895.

Fig. 1.

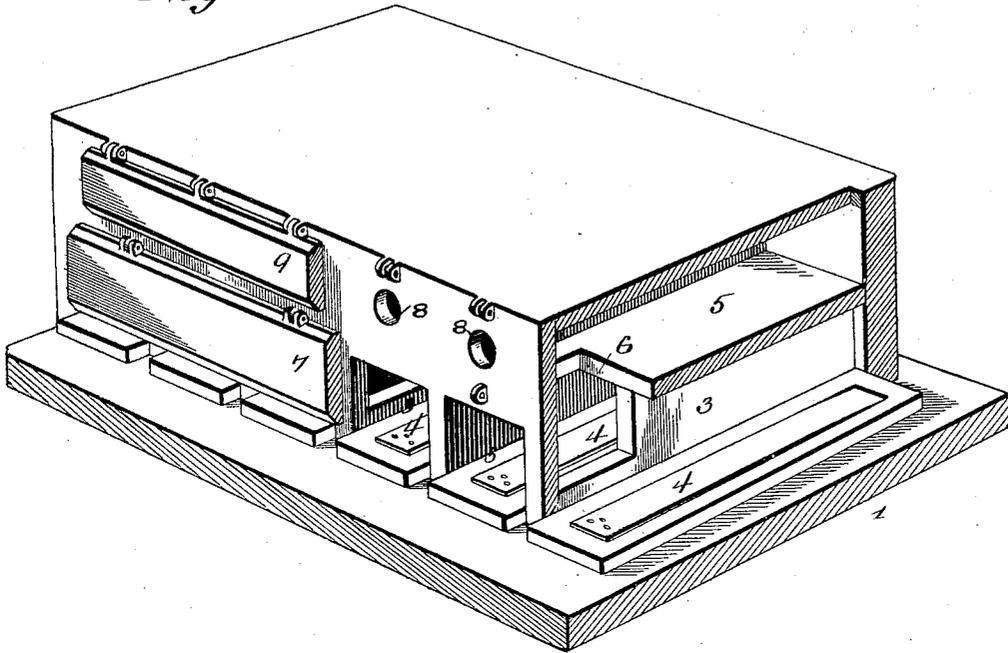


Fig. 2.

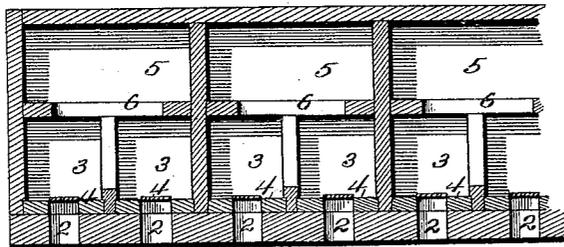
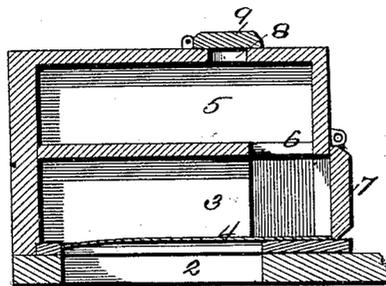


Fig. 3.



Inventor

Witnesses

Joseph Stack
[Signature]

By his Attorneys. *William Seybold.*

Chas. H. Snow & Co.

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2 Sheets—Sheet 2.

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Fig. 4.

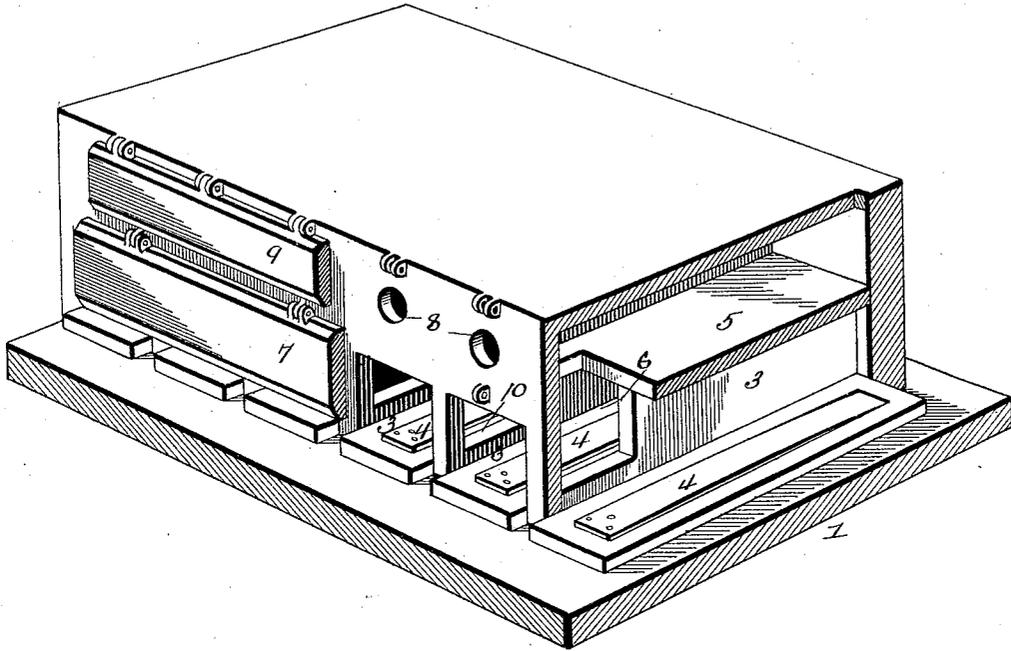
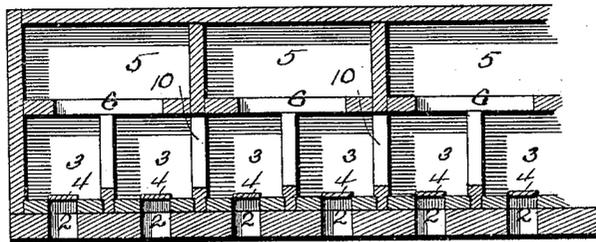


Fig. 5.



Inventor

Witnesses

W. H. Stack
[Signature]

William Seybold
 By his Attorneys,

C. Snow & Co.

UNITED STATES PATENT OFFICE.

WILLIAM SEYBOLD, OF FORT WAYNE, INDIANA.

REED-ORGAN.

SPECIFICATION forming part of Letters Patent No. 545,100, dated August 27, 1895.

Application filed January 31, 1895. Serial No. 536,859. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SEYBOLD, a citizen of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented a new and useful Reed-Organ, of which the following is a specification.

My invention relates to reed-organs and similar musical instruments; and the object in view is to provide means whereby the tone of a reed may be readily changed by the performer to vary its force and character.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a portion of a sounding-board, reed-chambers, and connected parts of an organ constructed in accordance with my invention. Fig. 2 is a transverse vertical section of the same. Fig. 3 is a similar section of a slightly-modified form of the construction. Fig. 4 is a detail view of a portion of a sounding-board and connections in which all of the reed-chambers are connected. Fig. 5 is a longitudinal section of the same.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 represents the usual sounding-board provided with openings 2, through which air is drawn by the bellows to produce sound, and communicating with these openings are the main or reed cells 3, containing the reeds 4. Arranged in communication with these main or reed cells are the auxiliary or sounding cells 5, each auxiliary or sounding cell being equal in area to two main or reed cells and being in communication by means of passages 6 with the same. The open front ends of the main or reed cells are closed by means of a lower mute or valve 7, and the openings 8, which are formed in walls of the auxiliary or sounding cells, which in the construction illustrated are arranged above the plane of the main or reed cells, are closed by means of an upper mute or valve 9.

In Figs. 1 and 2 I have shown the inlet-openings of the auxiliary or sounding cells in the front walls thereof; but in Fig. 3 I have shown

said openings in the up walls of the same. Either construction may be adopted, as preferred, inasmuch as the result is the same, and the passage whereby an auxiliary or sounding cell communicates with the subjacent main or reed cells is located at the front ends of said cells, whereby the current of air which sounds a reed descends near the heel of the tongue of the reed, thereby diminishing the difference in pitch, which otherwise would be excessive, when the lower mute is closed.

The difference in force and character of tone is controlled by the mutes or valves in the following manner: When the lower mute is closed and the upper mute open, thereby utilizing the volume of air in the auxiliary cells, the result is a pure pipe-like character of tone. When the upper and lower mutes are open, the result is a bright sharp tone, whereas when the upper mute is closed and the lower one is open a medium or compromise between the pipe-like and sharp tone is produced.

The object in connecting the sounding-cell to the two subjacent reed-cells of contiguous half-tones is to minimize the number of sounding-cells, and as two contiguous half-tones are rarely used at the same time the maximum column of air affected by a reed is secured within the limited space of a small organ.

A further object in connecting the auxiliary or sounding cells to two of the subjacent main or reed cells is to enable parts of the walls between two contiguous reed-cells and the contiguous portions of the floors of the auxiliary cells to be cut away to let the air-current descend near the heels of the reed-tongues. This could not result if an auxiliary cell were provided for each reed-cell. Where only one set of reeds is employed or when it is not required to make them air-tight, it is an advantage, in order to give greater freedom to the reeds, to connect all of the reed-cells, as shown in Figs. 4 and 5, the lateral openings 10 in the side walls of the cells corresponding with the openings between the members of each pair of cells in the construction shown in Figs. 1 and 2.

In practice various changes in the form, proportion, and the minor details of construc-

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tion may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. An organ provided with main or reed cells having exterior openings, auxiliary or sounding-cells provided with exterior openings, each auxiliary or sounding-cell being permanently in communication with two contiguous main or reed cells, reeds arranged in the main or reed cells, and independent valves for controlling the exterior openings of the cells, substantially as specified.

2. An organ provided with parallel tiers of reed-cells and sounding-cells, each sounding-cell being in communication with a reed-cell at a point contiguous to one end of the latter, and each cell being provided with an exterior opening, reeds arranged in the reed cells with the heels of their tongues under the points of

communication of the sounding-cells with the reed cells, and independent mutes for closing the exterior openings of the sounding and reed cells, substantially as specified.

3. An organ provided with parallel tiers of reed cells and sounding-cells having exterior openings, each sounding-cell being equal in area to two contiguous subjacent reed cells and each sounding-cell being in communication with said two contiguous reed cells, reeds arranged in the reed cells, and independent mutes controlling the openings of said reed and sounding-cells, substantially as specified.

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

WILLIAM SEYBOLD.

Witnesses:

H. R. KUHNE,
PAUL F. KUHNE.