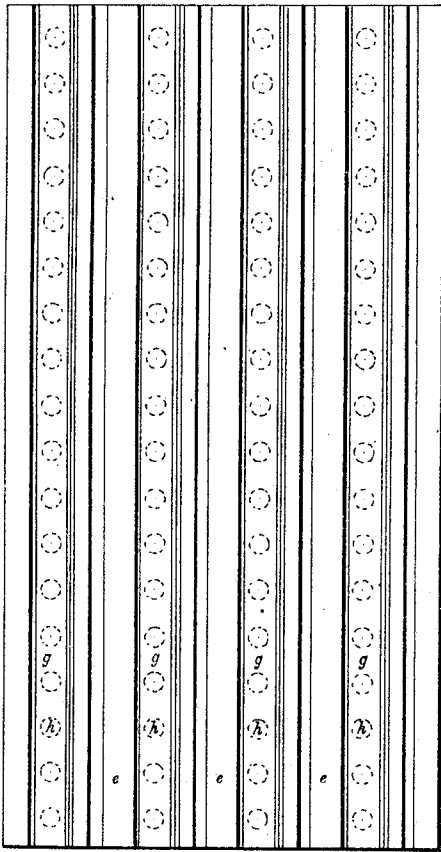


F. G. ROMEY.
Organ-Reed Boards.

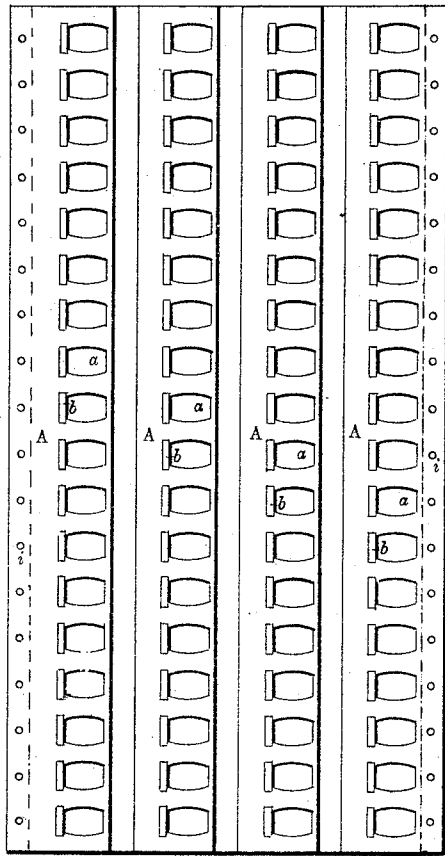
No. 153,614.

Patented July 28, 1874.

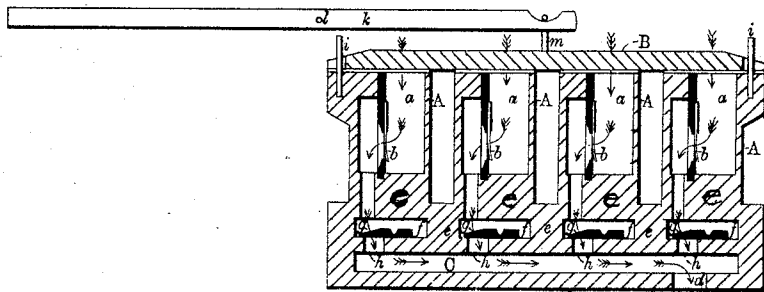
— FIG. III —



— FIG. II —



— FIG. I —



— WITNESSES —

Edw. H. Howard
W. W. Wharton

— INVENTOR —

Francis G. Romey
by *E. H. Howard*
attor.

UNITED STATES PATENT OFFICE.

FRANCIS G. ROMNEY, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN ORGAN REED-BOARDS.

Specification forming part of Letters Patent No. **153,614**, dated July 28, 1874; application filed May 23, 1874.

To all whom it may concern:

Be it known that I, FRANCIS G. ROMNEY, of the city of Baltimore and State of Maryland, have invented certain Improvements in Reed-Organs, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

My invention relates to certain improvements in the reed-boards, air-chambers, and connecting valves and channels, as adapted to and used in the ordinary reed-organ, and consists in the construction and arrangement of the various parts, substantially as hereinafter described.

In the further description of my invention which follows, due reference must be had to the accompanying drawing, forming a part of this specification, and in which—

Figure 1 is a cross-section of the air-chambers and reed-boards; Fig. 2, a plan of the same, with the reed-valves, key-boards, and attachments removed; and Fig. 3, a plan of the upper air-chamber, with the sounding-board or top of said chamber removed.

Similar letters of reference indicate similar parts in all the figures.

A A are vertical reed-boards, in which are situated the air-channels *a* and reeds *b*. B B are the reed-valves arranged to extend across the series of reed-boards and cover the ends of the air-channels *a*. C is the lower air-chamber, which is in direct and uninterrupted communication by means of the slot *d* with the bellows of the organ. The upper air-chamber is divided by the dividing-strips *e*, into the compartments *f*, corresponding in number with the reed-boards, each compartment being provided with a stop-valve, *g*, covering one of the air-passages *a*, leading to the lower air-chamber C. The reed-valves B are guided to their seats by means of the pins *i*, and connected to the key-boards *k* (which are pivoted at *l*) by the staples *m*. The stop-valves *g* are connected by wires to the organ-stops, by which the volume of sound is governed. The direction taken by the air in passing to the lower air-chamber is shown by the arrows, and it will be seen that the pressure of the air tends to keep the reed-valves closed,

they requiring no weights or springs other than those necessary to properly counterbalance the key-boards and other attachments, and to equalize the pressure upon them.

In an organ of ordinary construction, the reed-board consists of a strip in which are horizontal air-channels, each channel fitted with a reed and an opening below the reed provided with a reed-valve opening downward to the air-chamber, which is in a single compartment. As the air is exhausted below the reed-valves, it is found necessary, in order to prevent the said valves from opening by reason of the pressure of air, and the producing of a continuous sound as the air passes through the reeds, to load or otherwise influence the valves to their seats, and as sufficient load has to be used to overcome the air-pressure, this arrangement of valves necessarily makes the opening of the reed-valves by means of the fingers and key-boards a laborious operation, which increases as the counterbalancing pressure of air is reduced by the said opening. In organs embodying my invention, the reduction of pressure consequent upon the opening of the reed-valves operates in such manner as to lessen the force necessary to keep the keys down. In addition to the advantages above cited, organs constructed in accordance with my invention can have the volume of sound increased to an almost unlimited extent, as the increase is commensurate with the number of reed-boards used.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

The lower air-chamber C and upper air-chamber, divided by the strips *e* into compartments *f*, provided with the stop-valves *g* and air-passages *h*, in combination with a series of vertical reed-boards, all said parts being constructed and arranged to operate substantially as and for the purpose specified.

In testimony whereof I have hereto subscribed my name this 20th day of May, in the year of our Lord 1874.

FRANCIS G. ROMNEY.

Witnesses:

WM. T. HOWARD,
JNO. S. MADDOX.