

J. R. PERRY.

Improvement in Reed-Boards for Organs.

No. 130,239.

Patented Aug. 6, 1872.

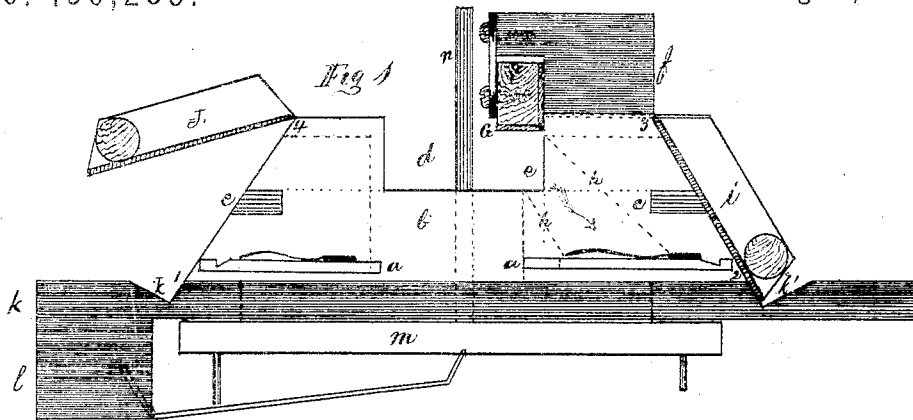


Fig 2

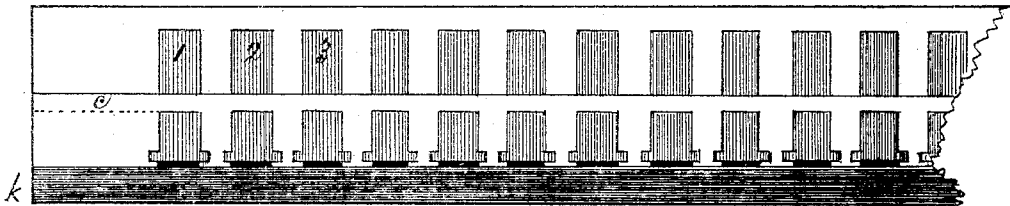
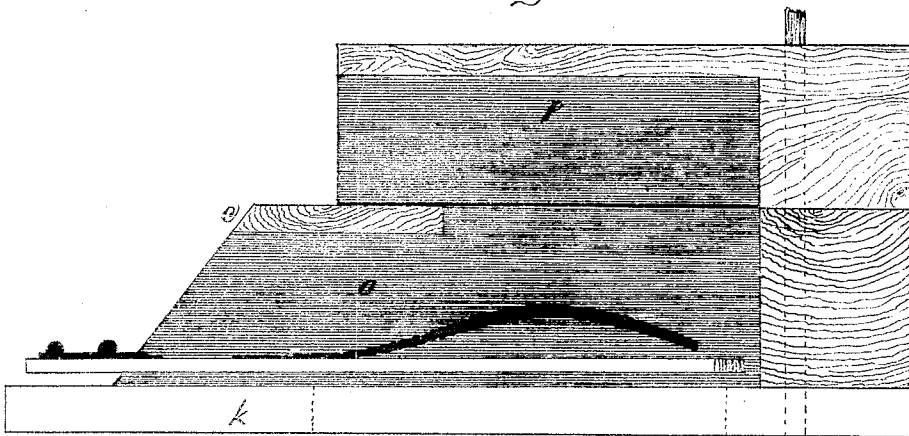


Fig 3.



Witnesses:  
W. Brown  
S. Lewis

Inventor:  
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# UNITED STATES PATENT OFFICE.

JOSEPH R. PERRY, OF WILKESBARRE, PENNSYLVANIA.

## IMPROVEMENT IN REED-BOARDS FOR ORGANS.

Specification forming part of Letters Patent No. 130,239, dated August 6, 1872.

### SPECIFICATION.

I, JOSEPH R. PERRY, of Wilkesbarre, in the county of Luzerne and State of Pennsylvania, have invented certain Improvements in the Construction of Reed-Boards for Organs, of which the following is a specification:

This invention consists, first, in a reed-board constructed with a longitudinal recess in its upper part, exposing the ends of the chambers, and combined with a stop which opens or closes the chambers thus exposed; second, in a reed-chamber provided with a longitudinal strip dividing it so as to produce two currents of air; third, in a cross-board constructed with recesses which allow the stops to close upon the ends of the reeds.

Figure 1 is an end elevation, showing the reeds *a a*, placed into the board *b*, which board includes all within the figures 1, 2, 3, 4. The dotted lines indicate the interior shape of the chambers, the portion of the chamber above the solid strips *c c* forming a compound chamber with the one in which the reeds are seen. This compound chamber may be formed either by adding the upper part to the board from *c c*, or it may be made from a solid board, and the strips *c c* inserted so as to cut off and divide the air as it passes into the cell. It will be noticed that the reeds are placed so that their vibrating ends are in the same direction; the smaller reeds on the front of the board and the larger set on the back side of the board. This is done by reversing the front set, for the purpose of letting the air strike the vibrating end of the reed immediately, and thus increase its sensitiveness, and also to expose it to the outside of the chamber, instead of having it hidden so far within. When the board is made of a solid plank it is cut out at the middle portion, leaving the recess *d*, letting the front portion remain solid, but cutting the back set at *e*, so as to open the ends of the cells. On the top of this opening is a plowed strip, *f*, secured to the top of the reed-board *b*. On this strip are fastened rule-joints, attached to a stop, *G*, which is operated in the usual way to close or open the cells thus exposed, and taking the air into them so as to strike the vibrating ends of the reeds, the air thus drawn in rushing in the direction of the arrow be-

tween the dotted lines *h h*. The object in taking in the air thus is to avoid that hissing noise and nasal quality of tone apt to be heard in reed organs, and which is caused by the air rushing over the solid or riveted end of a reed, which is held almost still for one-third of its length. When the stop *G* is opened it will be necessary to close the back stop *i*, if the purest tone is wanted, and a variety of effects may be made by partly opening the stop *G*, admitting any desired quantity of air to the reeds. *J* shows the front stop open. It will be noticed also that the added chamber increases the space over it, containing a much larger quantity of air for the reed to beat in. The whole reed may be inclosed within the board. This is done by cutting away the cross-board *k*, so as to let the stop close against a rim thus formed, which renders the chambers perfectly air-tight when closed, and prevents the small reeds from singing, which is a difficult thing to do when the stops are closed on the top of the reed-blocks in the usual way. The portion *l* of frame holds the springs which keep the pallets or valves *m* in place. *n* shows the pin used in operating the valve by the keys, in the usual way. The valve, springs, and pin have been omitted in the model, as unnecessary to show.

Fig. 2 shows a front of the reed-board, with the dividing-strip *c*, as above described, and 1, 2, 3, &c., are the reed-chambers. *k* is the cross-board. The deep lines under the reeds at the bottom of each chamber are to show the leather upon which the reeds slide tightly, so as to exclude air from passing into the bellows beneath them.

Fig. 3 shows cross-section, exposing the lower chamber *o* and the sub-chamber *p* over it, with the reed running into them, in the usual manner. This is similar to those in Fig. 1, but is designed for very heavy reeds, used for sub-base and pedal-base. By cutting the board, as above described, at *c*, so as to throw more air and give more space over the ends of the reeds, they acquire a much stronger tone, and are much more sensitive to the draft of air upon them. The cross-board *k* is seen as in Fig. 1.

It will be observed that, in forming the

boards as in Fig. 1, a stop similar to the one described, letter G, may readily be placed on the front set of reeds.

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

1. The board *b*, constructed with the recess *d*, exposing the ends of the chambers, which are cut to form a straight line, and combined with the stop G in the manner described, and for the purpose specified.
2. The chambered board *b*, divided inter-

nally by the strip *c*, as and for the purpose described.

3. The cross-board *k*, constructed with recesses *k*, the inner faces of which are in line with the outer sides of the reed-chambers, so as to allow the stops to close upon the ends of the reeds, as and for the purpose explained.

J. R. PERRY.

Witnesses:

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