(No Model.) 2 Sheets—Sheet 1.

H. SCHWESINGER.

REED ORGAN.

No. 351,803. Patented Nov. 2, 1886.

Fig. 1.

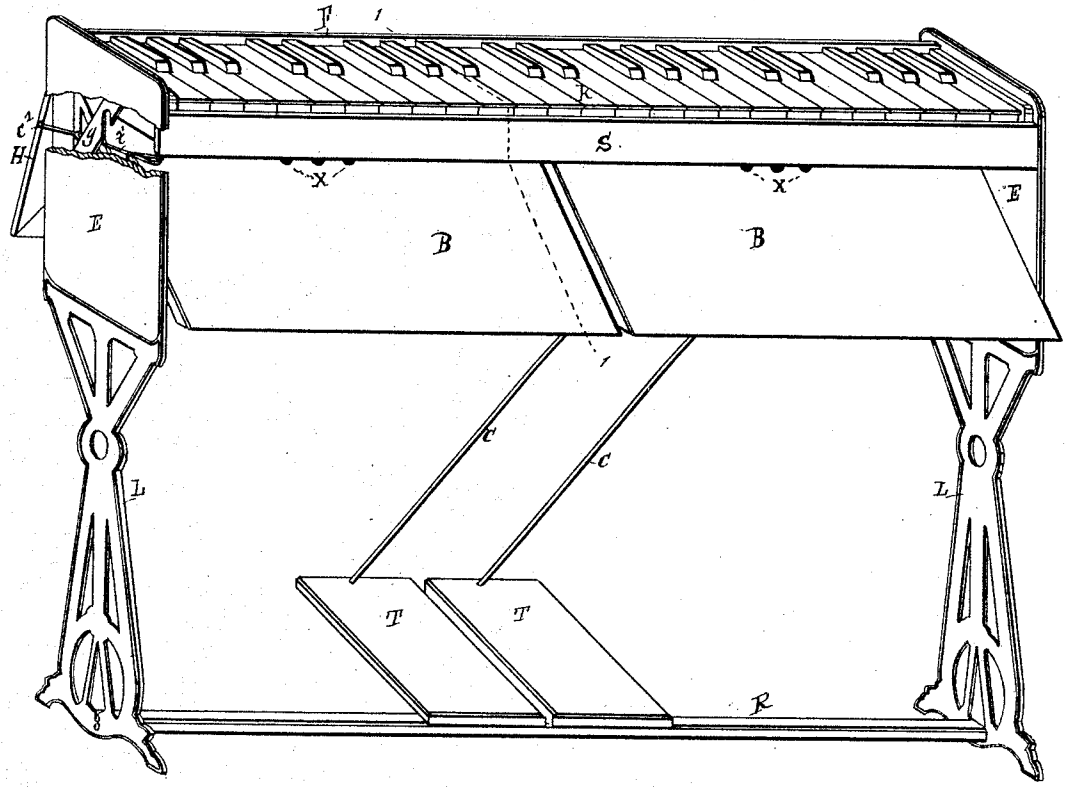
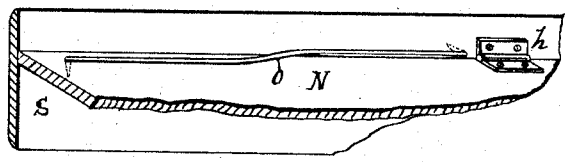


Fig. 6.



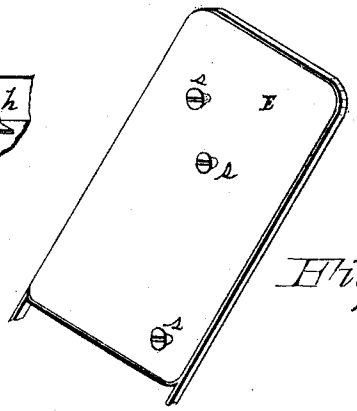


Fig. 7.

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Fig. 2.

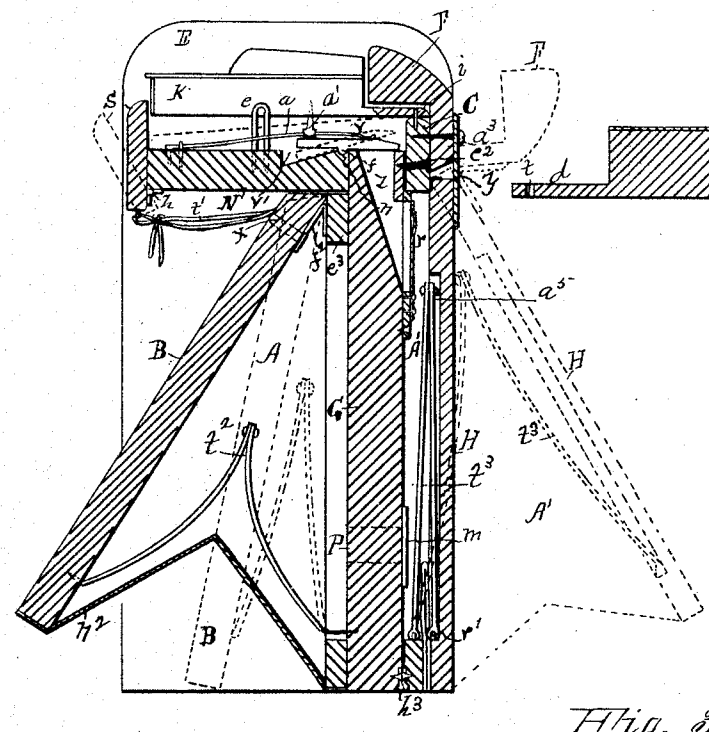


Fig. 4.

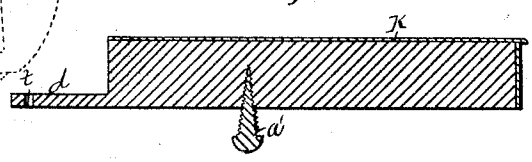


Fig. 5.

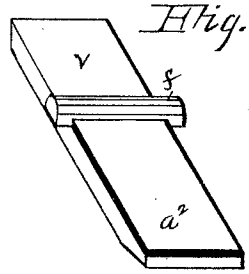
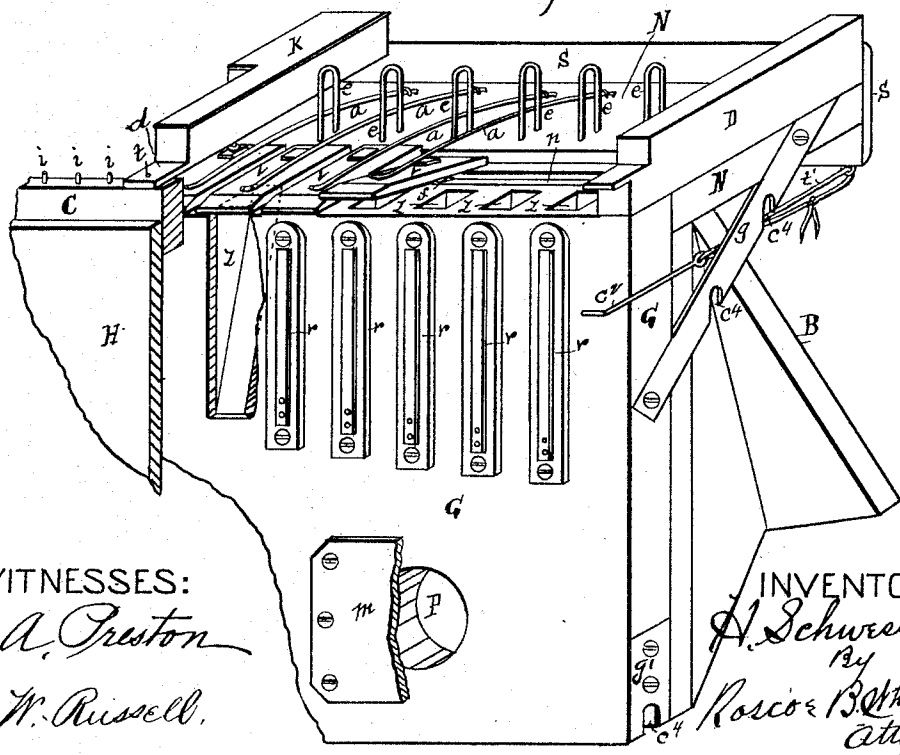


Fig. 3.



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UNITED STATES PATENT OFFICE.

HENRY SCHWESINGER, OF DETROIT, MICHIGAN.

REED-ORGAN.

SPECIFICATION forming part of Letters Patent No. 351,803, dated November 2, 1886.

Application filed March 30, 1886. Serial No. 197,207. (No model.)

To all whom it may concern:

Be it known that I, HENRY SCHWESINGER, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Portable Reed-Organs; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My present invention in organs relates to that class known as "reed-organs."

The object of my invention is to simplify and make compact the parts, so as to construct a portable organ having full power and tone of a large organ, one that may be readily taken apart and carried by a single person; and my invention consists in the grouping together of parts, and in certain new and useful features, as hereinafter set forth, and pointed out in the claims.

In the drawings, forming a part of this specification, Figure 1 is a perspective of my invention in elevation. Fig. 2 is a cross-section on dotted line 1 1 of Fig. 1. Fig. 3 is an enlarged isometrical view of the valves, reeds, and connecting parts. Figs. 4, 5, 6, and 7 are enlarged details, all of which will be fully set forth.

L L are the legs, which I form of metal; E E, panel ends, which I provide with a plush or like covering. All the outer surface of the woodwork of the instrument I cover with plush, giving it a soft and handsome appearance. The cross-bar R is made detachable from the legs. The treadles T T are detachable from the cross-rail.

c c are wires or cords connecting the treadles with the bellows B B.

I locate on the back face of the panels of the legs the screws *s*, which engage in notches c^4 of the metal plates *g g'* at each end of the instrument, (see Fig. 3,) whereby on the raising of the body of the instrument the legs become detached, when they may be folded with the body of the organ into a small compass.

K are the keys of the instrument, along the front edge of which I locate the automatic swell S, being hinged at *h* to the front edge of the top or crown-board, N, as shown in Figs. 2 and 6.

O is a torsion-spring, one end of which is attached to the swell, the other to the under face of the crown-board N, as shown in Fig. 6. The spring holds the swell closed or in a vertical position, as shown in Figs. 1 and 2.

G represents the center-board of the bellows.

P is a port-hole through the center-board. I employ two port-holes, one leading from each section B of the bellows. Over each port, on the back side of the center-board, is a valve, *m*, which allows the air to be forced by the action of the treadles on the bellows into the storage-chamber A', preventing its return.

H is the back of the storage-chamber, and h^3 is a hinged parting-rail attached to the bottom of the center-board, to which I attach one of the leaves of the spring t^3, the other leaf being hinged at *r'* to the back of the storage-chamber. (See Fig. 2.) The leaves of said spring are straight, and are placed one against the other, being attached together at the upper ends, as shown at a^5 of Fig. 2. Said spring is located in the center of the storage-chamber, and causes said chamber when not expanded to close up, as shown in Fig. 2, and offers a resistance to the air forced into the chamber when expanding, as shown in dotted lines of Fig. 2. I locate in each of the bellows B B a like spring, t^2, but bend the lower ends outward in the shape of the letter V inverted. One end of each spring is anchored to the front face of the center-board, the other to the front board of the bellows, as shown in Fig. 2, which causes the bellows to stand out or swell, the springs closing up when forcing down upon the treadles, as shown by dotted lines of Fig. 2. As the bellows B B are thrown open by the springs t^2 t^2, the air rushes in through the series of port-holes or inducts *x x*. A valve prevents the air from escaping through said ports when closing up the bellows.

n^2 represents the usual leather covering for the bellows and storage-chamber, which need not be described.

The upper edges of the bellows-fronts are

hinged at f^2. (See Fig. 2.) Upon the back upper face of the center-board I mount the series of reeds *r*. I form in the upper edge of the center-board, leading to each reed, a valve-chamber, Z. I mount over each valve-chamber a tilting valve, *v*. (See Figs. 2, 3, and 5.) Crossing each valve at midway of its length is a rounded rocking bar, *f*, its ends projecting slightly, so as to prevent the edges of said valves from meeting each other, and to properly locate said valves over the ports Z, as shown in Fig. 3. I form along the rear upper edge of the crown-board N a longitudinal channel, *n*, in which the rocking bars *f* are located. I attach to the upper face of the crown-board a series of wire springs, *a*, their free ends pressing upon the valves directly over the ports, as clearly shown in Fig. 3, thus keeping said valves closed. The crown-board is cut away at *v'*, to allow the valves to rock down at the front end, as shown by dotted lines of Fig. 2, and clearly shown in Fig. 3, by the pressing down of the keys.

C is a crown-strip attached to the back H of the storage-chamber. Hinged to the upper edge of said back is an elbow-shaped fly, F, extending the full length of the back, and, by screws at a^3, is attached to the crown-strip C. Along the upper edge of the crown-strip C, I locate a series of pins, *i*. Each key is provided with a reduced or arm portion, *d*, through which passes a hole, *t*, (see Figs. 3 and 4,) and to said pins the rear ends of the keys are anchored. I screw into the under face of each key a pressure and adjusting screw, *a'*, having a round head. Said screw bears upon the pad at the front end of the valve *v*.

I locate over each valve a key, as shown in Figs. 1, 2, and 3. When the keys have been placed in position, the fly F is swung from the dotted position of Fig. 2 to its normal position, and fastened to the back of the crown-strip C by means of screws a^3, thereby holding the rear ends of the keys down upon the pins; and to repair or remove the keys from the organ the screws a^3 are withdrawn, and the fly F turned back to dotted position of Fig. 2, when any or all of the keys may be readily taken out.

e represents a series of wire staples anchored in the upper face of the crown-board N, below the dropping-point of the upper face or cap of the keys, and between said keys, acting as spacers, preventing the keys from coming in contact with each other.

D is the end block.

t' is a cord attached to the lower edge of the automatic swell *s* and to the hook-rod e^2, which engages with the upper edge of the back H of the storage-chamber. By this arrangement, as the volume of air is increased in the chamber, A', the back H is forced out, and reaching the dotted position of Fig. 2 it draws upon the cord *t'*, thus throwing out the upper edge of the automatic swell *s*, as shown by dotted lines of Fig. 2, and as the volume of air in the storage-chamber A' diminishes the back H is drawn to the vertical position of Fig. 1, when the torsion-spring O will force the automatic swell to a vertical position. (Shown in Figs. 1, 2, and 3.)

The crown-board N is attached to the upper front face of the center-board G, at right angles to said board, being supported upon the rail e^3, attached to the center-board, as clearly shown in Fig. 2. The crown-strip C is attached by screws e^2 to the center-board G; and *y* represents a section of the plush covering, which also acts as a hinge for the fly F over the back H of the storage-chamber, as shown in Fig. 2.

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

1. In combination with the center-board of the bellows of an organ, a series of valve-ports, Z, formed in said center-board, and a series of reeds mounted on said center-board over said valve-ports, and having the bellows and storage-chamber hinged to said center-board, with ports P and valves *m*, as and for the purposes specified.

2. In combination with the storage-chamber, the automatic swell hinged to the front of the crown-board and projecting over the front ends of the key K, and the mechanism connecting the said swell with the back of said chamber, with spring O attached, as specified.

3. In combination with the center-board of the bellows of an organ, the valve-ports formed therein, the reeds mounted on said board over said ports, the crown-board attached to said center-board at right angles, having the longitudinal channel *n* formed therein, the series of valves *v*, having the arms *f* located in said channel, said valves located over the upper ends of the valve-ports, and the series of springs anchored to the crown-board, their free ends pressing upon the rear ends of said valves, substantially as specified.

4. The combination of the center-board, the valve-ports Z, formed therein, the reeds mounted over said ports, the crown-board attached to the center-board, having the longitudinal channel and cut-out portion *v'*, the series of valves, the springs actuating said valves, the series of staples *e*, anchored to the crown-board, the series of keys located over said valves, and adjusting-screws engaging with said valves, substantially as set forth.

5. In combination with the center-board, the storage-chamber attached thereto, the crown-strip C, attached to the back H of said chamber, carrying a series of pins, *i*, the series of keys anchored to said pins, and the elbow-shaped fly hinged to the back of said chamber and adapted to fold over the reduced portion of the keys, as and for the purposes specified.

6. The valve *v*, having transverse arms *f* attached thereto, in combination with the crown-board having longitudinal channel and reduced portion *n*, the center-board G, having ports Z, and the series of springs *a*, mounted

on said crown-board, their free ends pressing upon said valves, as and for the purposes described.

7. In combination with the crown-board, the series of guards *e*, anchored to said board, their upper ends located between the keys of the instrument, as and for the purposes specified.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY SCHWESINGER.

Witnesses:
R. B. WHEELER,
JNO. G. DOYLE.