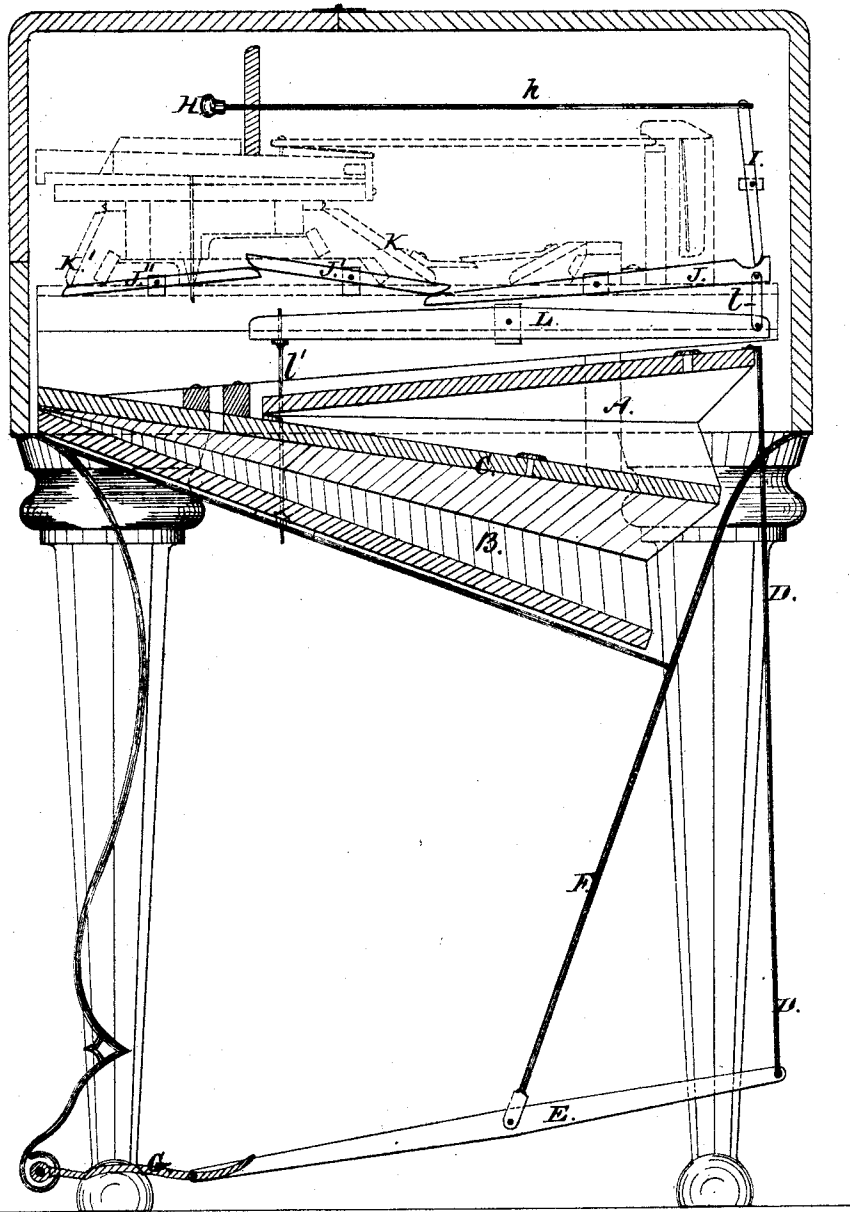


**A. F. YARWOOD.**  
**Reed-Organs.**

No. 147,732.

Patented Feb. 17, 1874.



WITNESSES.

*J. Herbert Bartlett.*

*Wm. Sheppard*

INVENTOR.

*Alexander, Frederick N. Yarwood,*  
*per*  
*Donald C. Bidout & Co.,*  
*his attorneys.*

# UNITED STATES PATENT OFFICE.

ALEXANDER F. YARWOOD, OF GUELPH, CANADA.

## IMPROVEMENT IN REED-ORGANS.

Specification forming part of Letters Patent No. **147,732**, dated February 17, 1874; application filed February 10, 1873.

*To all whom it may concern:*

Be it known that I, ALEXANDER FREDERICK YARWOOD, of the town of Guelph, in the county of Wellington, in the Province of Ontario, Canada, melodeon-maker, have invented certain Improvements in Melodeons, of which the following is a specification:

My invention relates to certain improvements in the construction of melodeons, consisting in the peculiar construction of the bellows, as shown in drawing, the pumper being placed underneath the reed-board, thus enabling the application of a sub-bass in the position formerly occupied by the bellows, while the large unoccupied space beneath the instrument permits a corresponding increase in the size of the bellows, securing thereby for my instrument great power, and, while retaining all the sweetness of a melodeon, the power and tone of an organ are added, producing, in their combination, an instrument unsurpassed for fullness of tone and sweetness of expression.

Certain improvements in the construction and arrangement of parts, forming what is commonly called the "automatic swell," are also herein shown and described, consisting in a system of levers, in connection with hand-stops, by which the swells can be worked independently of the bellows, or in conjunction with the same, according to the wish of the performer. Such parts are, however, not claimed herein as a part of my present invention, but may form the subject of a separate application for Letters Patent.

The figure is a sectional elevation of a melodeon, showing a peculiar arrangement of the levers and hand-stops for operating the automatic swell, the position of and the manner in which the bellows are worked, and the general arrangement of other parts in accordance with my invention, as hereafter described.

As I do not claim the simple application of a sub-bass to a melodeon, nor any peculiarity in the other parts not specified hereafter, I have merely shown, by dotted lines, an approximate position for the same, leaving their definite arrangement to the manufacturer, who may alter and arrange them in accordance with his judgment or taste without departing from the principle of my invention.

A very short description of the drawing will be sufficient to enable any melodeon-maker to construct an instrument in accordance with my invention.

In the position before specified will be found the bellows, formed by the pumper A and air-chamber B, the former above and the latter below the center board C. This center board is stationary, the upper board of the pumper being worked by the rod D, connected to the lever E, which is supported by F, and derives its motion from the treadle G.

It will be readily understood that, in the position they are shown, the bellows can be made much larger than they could be when placed as formerly, while the arrangement of levers enables them to be worked with but little exertion on the part of the performer.

In the ordinary melodeon the automatic swell is actuated by the motion of the bellows, and by them alone, thus, unless the performer is an accomplished one, the automatic swell is rather a detriment than otherwise to the music produced.

In my melodeon, I apply a hand-stop, H, connected, by the rod *h*, to lever I, operating the levers J, J', and J'', which actuate the swells K K'. It will be readily seen that, by this combination, the swells may be opened or closed quickly or slowly, as desired, while, in order that the same may be worked automatically, I attach them to the bellows, through the link *l*, lever L, and bolt *l'*, as may be understood by reference to drawing.

As the drawing is merely a sectional side view, only one set of the parts referred to can be seen; but any melodeon-maker will understand how to carry out my invention without further illustration.

What I claim as my invention is—

The bellows formed by the pumper A, chamber B, and center board C, placed beneath the reed-board, in combination with the treadle G, lever E, rod D, and the several supports or fulcrums of the said treadle and lever, substantially as set forth.

February 1, 1873.

A. F. YARWOOD.

Witnesses:

FRED. MUDGE,  
R. J. YARWOOD.