

J. R. Lomas,

Organ Tremolo.

No. 100,048.

Patented Feb. 22, 1870.

Fig. 1.

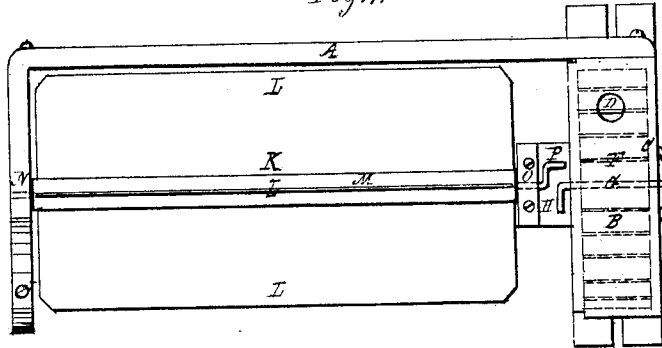


Fig. 2.

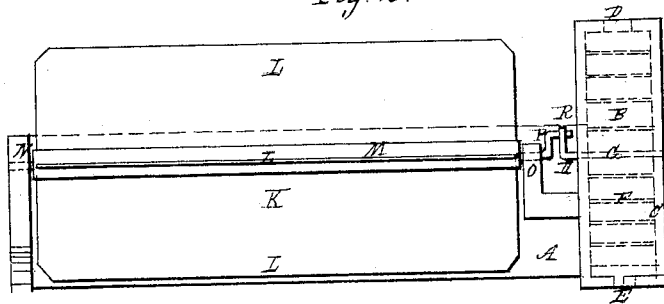


Fig. 3.

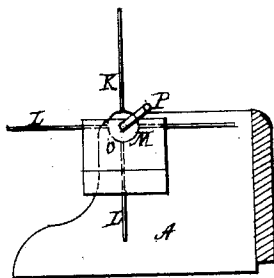
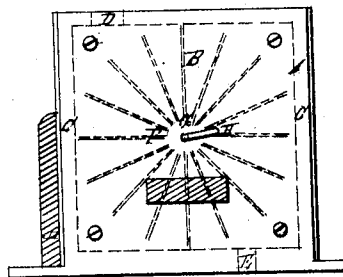


Fig. 4.



Witnesses

*Geo. Cook*  
*Chas. M. Nott.*

Inventor

*John R. Lomas*

# United States Patent Office.

JOHN R. LOMAS, OF NEW HAVEN, CONNECTICUT.

Letters Patent No. 100,048, dated February 22, 1870.

## IMPROVEMENT IN TREMOLOS FOR ORGANS.

The Schedule referred to in these Letters Patent and making part of the same

I, JOHN R. LOMAS, of New Haven, in the county New Haven, and State of Connecticut, have invented an Improvement in the Tremolo-Attachment of Reed-Organs, of which the following is a specification.

The tremolo-attachment of a reed organ generally consists of a winged shaft or fan placed within the frame of the instrument, in rear of the key-board, or in a wind-chamber in front of the reeds, and rotated by a string wound around the shaft of the fan, one end of said string being attached to a spring and the other end attached to a pedal, and on other occasions by a fan connected with a wind-motor by a continuous shaft, the wind being drawn through the motor for rotating the fan, the object of these arrangements being to agitate or cut off the air as it enters the reeds of the organ for the purpose of creating a tremulous sound of the notes, at required intervals, while performing a piece of music.

But these arrangements I have found from experience as a manufacturer to be inoperative, inasmuch as the string connection, while it reciprocally rotated the fan back and forth, broke up the required even agitation of the air, and the string, on becoming damp, shrank and kinked, rendering the same worse than useless. And the shaft-connection between fan and wind-motor, because of the shrinkage of the surrounding wood-work, as well as of the shaft itself, so deranged the tremolo as to render it incapable of performing its office.

These defects suggested to me the disjointed connection between fan and wind-motor, (forming the subject of this application,) which compensates for the shrinkage of the surrounding wood-work, dispenses with use of the string, and simply consists of a crank projecting from the end of the shaft of the wind-motor, which, coming in contact with a similar crank projecting from the end of the fan-shaft, carries the fan around with it as the motor is rotated by drawing the air through the same, whereby the fan is

rotated in one direction and the air evenly agitated on entering the reeds, as I will further explain by reference to the accompanying drawings, of which—

Figure 1 is a top view of fan and wind-motor, showing disjointed connection out of action;

Figure 2, a front elevation, showing disjointed connection in action;

Figure 3, a transverse section, showing fan and crank; and

Figure 4, a transverse section, showing wind-motor and its crank.

In the said drawings—

A indicates the stand of the tremolo.

B is the wind-motor, composed of a hollow box, C, into which the wind is drawn or forced through the aperture D, and discharged through the aperture E, rotating in its passage the wind-wheel F, placed within and sustained by the box C.

The shaft G of the wind-wheel protrudes through the box and is provided with a crank, H, which forms part of the disconnected joint. (See fig. 1.)

K is the fan, of which L L, &c., are the vanes.

M is the shaft of the fan, supported in bearings N O, said shaft, at its bearing end O, carrying the crank P, which, with the crank H on the shaft of the wind-wheel, forms the disjointed connection R between the fan and the wind-motor, as shown in the drawings.

I claim, as my invention—

The disjointed connection R, composed of the cranks H and P, when used in combination with the wind-motor B and fan K of a tremolo for organs, substantially as and for the purpose described and set forth.

In testimony whereof I have hereunto set my signature this 15th day of January, 1870.

JOHN R. LOMAS.

Witnesses:

MASSENA CLARK,  
SIEGWART SPIER.