

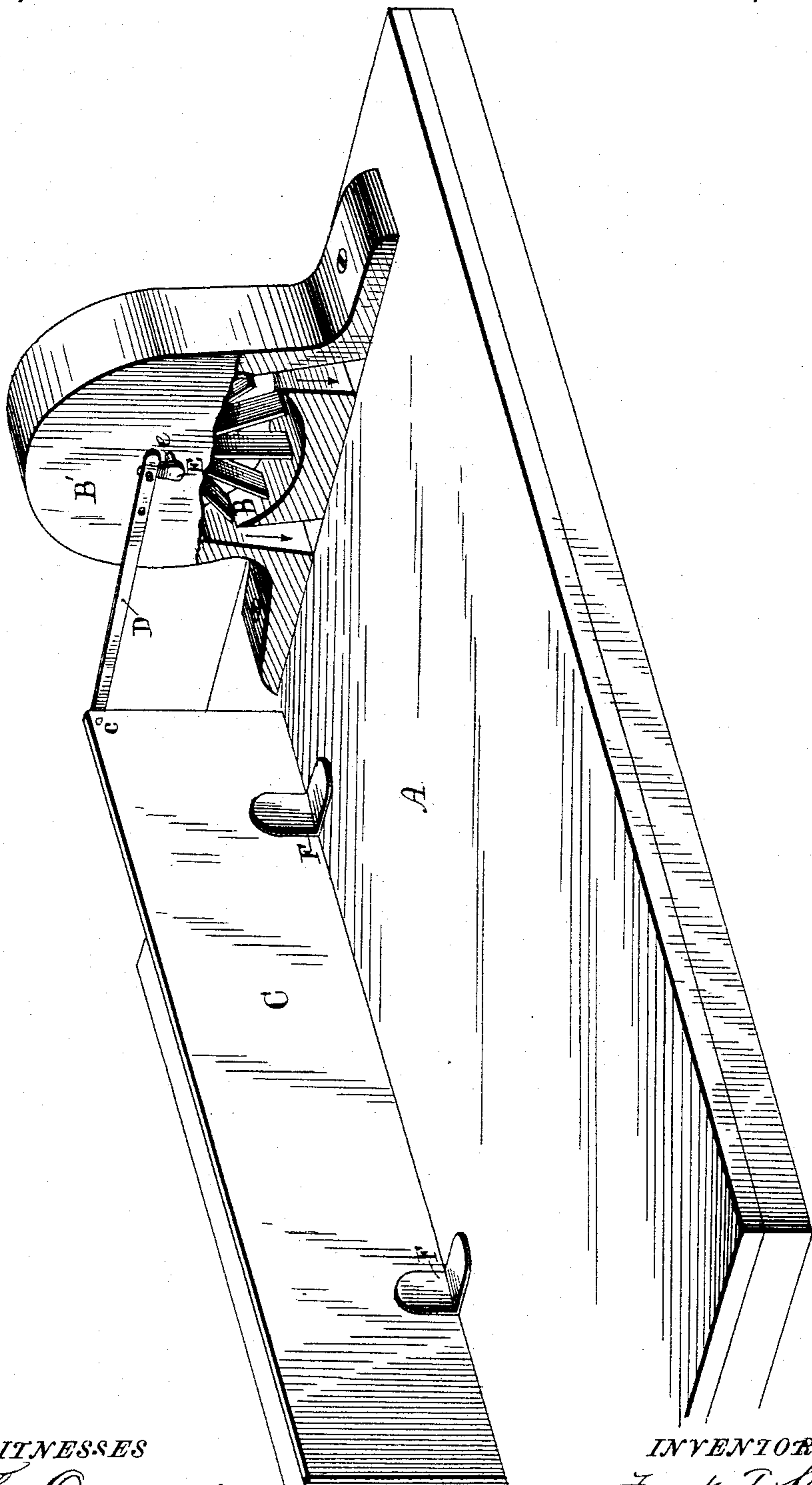
(No Model.)

F. T. SHEARER.

VOCAL WAVE TREMOLO FOR REED ORGANS.

No. 414,086.

Patented Oct. 29, 1889.



WITNESSES

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UNITED STATES PATENT OFFICE.

FRANK THOMAS SHEARER, OF CLINTON, ONTARIO, CANADA.

VOCAL-WAVE TREMOLO FOR REED-ORGANS.

SPECIFICATION forming part of Letters Patent No. 414,086, dated October 29, 1889.

Application filed July 17, 1889. Serial No. 317,775. (No model.)

To all whom it may concern:

Be it known that I, FRANK THOMAS SHEARER, a citizen of Ontario, Canada, residing at Clinton, in the county of Huron and Province of Ontario, have invented certain new and useful Improvements in Vocal-Wave Tremolos for Reed-Organs; and I do hereby 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.

This invention relates to improvements in tremolos for reed-organs, which will be hereinafter more particularly described, and pointed out in the claim.

In the accompanying drawing, forming part of this specification, the figure is a perspective view of a reed-board of an organ with the various parts represented thereon.

A is the reed-board; B, the fan; B', the case covering the fan; C, the vocal-wave tremolo; D, a connecting-rod attached at one end to the crank E of the axle *e* of the fan B.

F F are cloth hinges by which the tremolo is fastened to the reed-board A. The fan B is of the same construction as in general use. The crank E is attached to the end of the axle of the fan on the outside of the case B'. The connecting-rod D is attached to the crank E at one end, and the other end is connected to

the tremolo C, near the upper edge *c*, at one end thereof. The tremolo C is attached to the reed-board A by cloth hinges back of the swells, so as not to interfere therewith, and can be made in size to correspond with the organ, and has a vibratory motion on the hinges.

One great advantage of this improvement is that the velocity of the tremolo is controlled by the degree to which the bellows of the organ is inflated, and, as the reed-organ can be greatly governed as to power by more or less pumping, the vocal wave will adjust its own speed to compare with the high or low pressure, so that a strain of music can be worked up from "tranquillo" to "agitato" to perfection, without any unusual effort on the part of the performer.

I claim—

In reed-organs, the vocal-wave tremolo attached to the reed-board by flexible hinges and to the crank of the fan by a connecting-rod, all substantially as and for the purpose described.

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

FRANK THOMAS SHEARER.

Witnesses:

JOHN RANSFORD,
CHARLES A. HARTT.