

G. BLATCHFORD.

REED-ORGAN.

No. 169,945.

Patented Nov. 16, 1875.

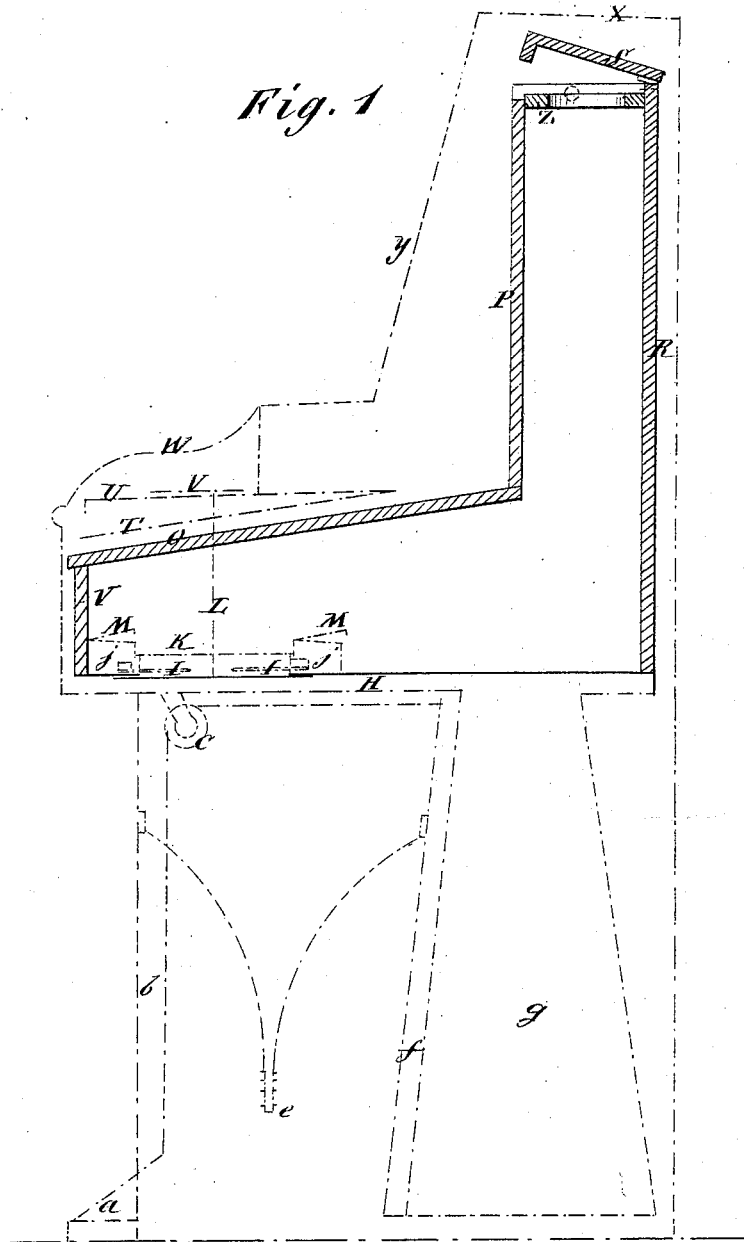


Fig. 1

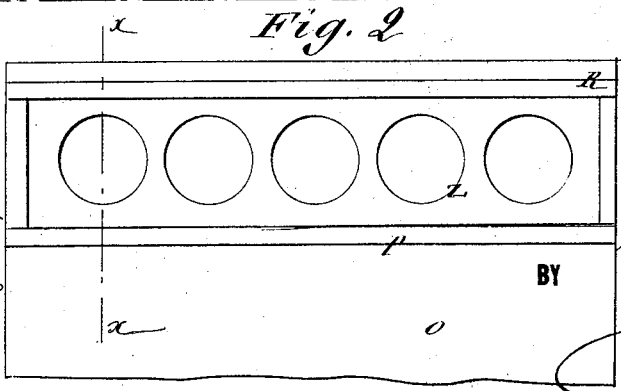


Fig. 2

WITNESSES:
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UNITED STATES PATENT OFFICE.

GEORGE BLATCHFORD, OF MITCHELL, CANADA.

IMPROVEMENT IN REED-ORGANS.

Specification forming part of Letters Patent No. **169,945**, dated November 16, 1875; application filed August 14, 1875.

To all whom it may concern:

Be it known that I, GEORGE BLATCHFORD, of Mitchell, in the county of Perth, Province of Ontario and Dominion of Canada, have invented a new and useful Improvement in Organs, of which the following is a specification:

My invention consists of a "resonant chamber," in combination with an organ. The seat of the chamber commences at the front of the instrument immediately under the key-board and key-frame, extending backward in proportion to the width of the instrument, with a back elevation proportionate to the elevation of the organ, as represented in the drawing.

The drawing represents a sectional elevation and a partial top view of an organ with the resonant chamber in its position.

a represents the treadles; *b*, the bellows-straps; *C*, the pulleys over which the bellows-straps pass to operate the bellows-valve; *e*, the springs controlling the bellows-valves; *f*, the space between the valves and the bellows-reservoir; *g*, the bellows-reservoir; *H*, the air-chamber leading to the reeds; *I*, the reed-valves. *j j* represent the position of the reeds; *K*, the position of the reed-board; *L*, the piston or pin operating the reed-valve; *M M*, the swells over the reeds, and represent the same both closed and open; *N*, the front of the resonant chamber; *O*, the top of the resonant chamber under the key-board; *P*, front of the upward extension of the resonant chamber; *R*, the back of resonant chamber; *S*, the grand swell over the perforated top of resonant chamber, which is to be operated in connection with the reed-swells. *T* represents the key-board frame, which is placed so as to leave a space of not less than one-sixteenth of an inch, or as may be required, be-

tween it and the resonant chamber, except one bearing in the center connecting the chamber with the key-frame, the chamber to be also supported from the reed-board, so as to meet the above-mentioned bearing horizontally. The chamber is also supported from the air-chamber, parts *N* and *P* all to be so constructed as to open for the removal of dust or other obstructions from the reeds. *U* represents the natural keys; *V*, the black or sharp keys. *W* represents the part of the case which is opened in ordinary performances; *X*, the top of the case, which may be constructed so as to open, if desirable. *Y* represents the front of the case supporting the frame from the key-board when opened. *Z* represents the perforated top of the resonant chamber. The chamber may be perforated where required for the insertion of register and other stops.

By the application of my invention to organs the following results are obtained: First, improved quality of tone; secondly, the tone is more easily harmonized with the human voice; thirdly, greatly increased volume of sound; fourthly, it removes or prevents that surfaceness of tone which so often characterizes reed-organs.

Having thus described my invention, I claim as new in reed-organs and desire to secure by Letters Patent—

The resonant chamber having inclined and perforated top *O*, in combination with top-perforated vertical chamber having grand swell *S*, as and for the purpose specified.

GEORGE BLATCHFORD.

Witnesses:

DANIEL MCPHAIL,
JOHN MAY.