No. 755,463. PATENTED MAR. 22, 1904.

C. D'ESTES & J. B. KRAM.

CELL BOARD FOR REED ORGANS.

APPLICATION FILED AUG. 28, 1903.

NO MODEL.

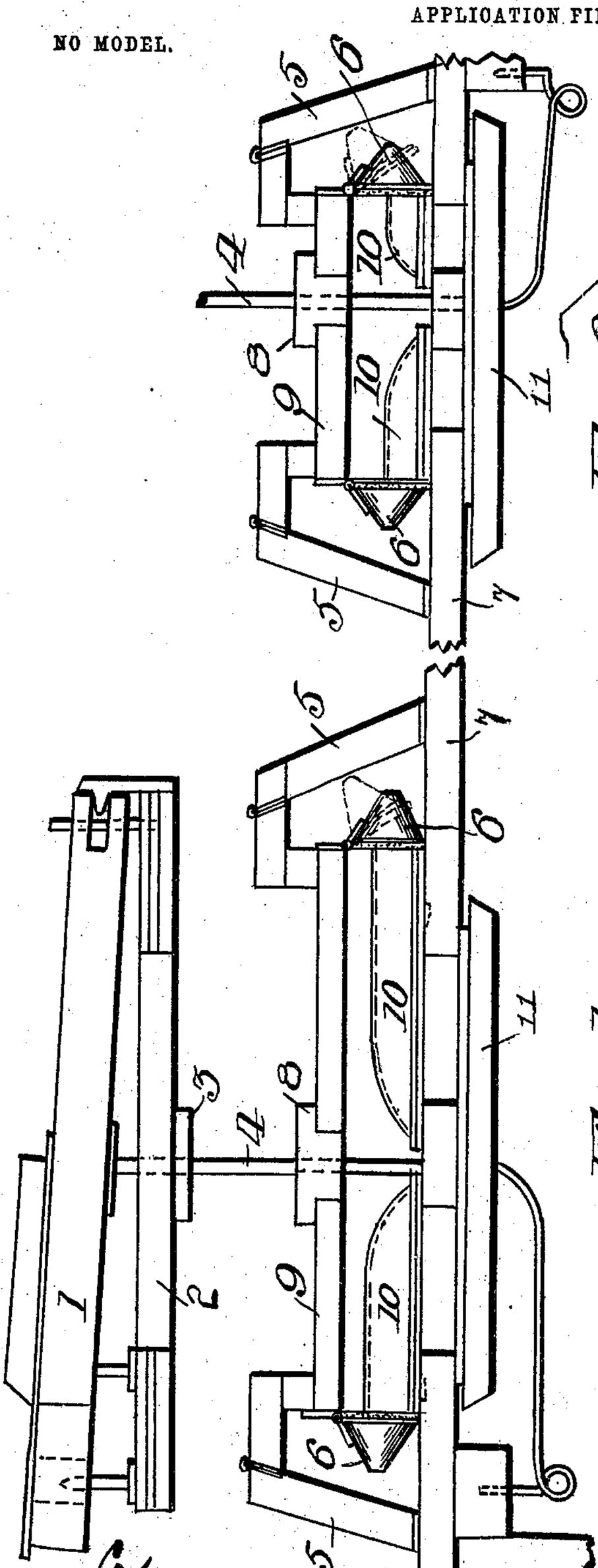

Fig. 1.

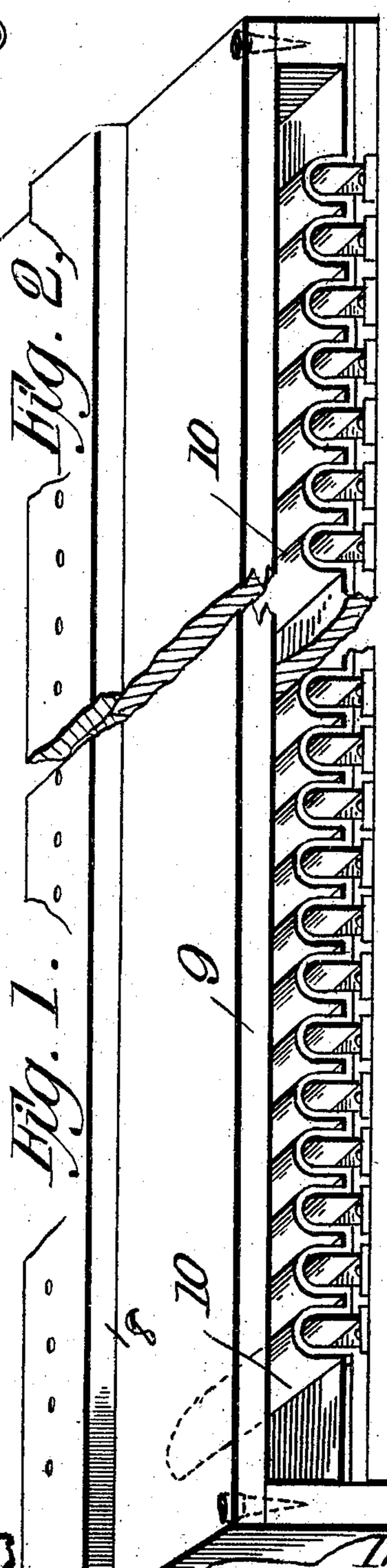

Fig. 2.

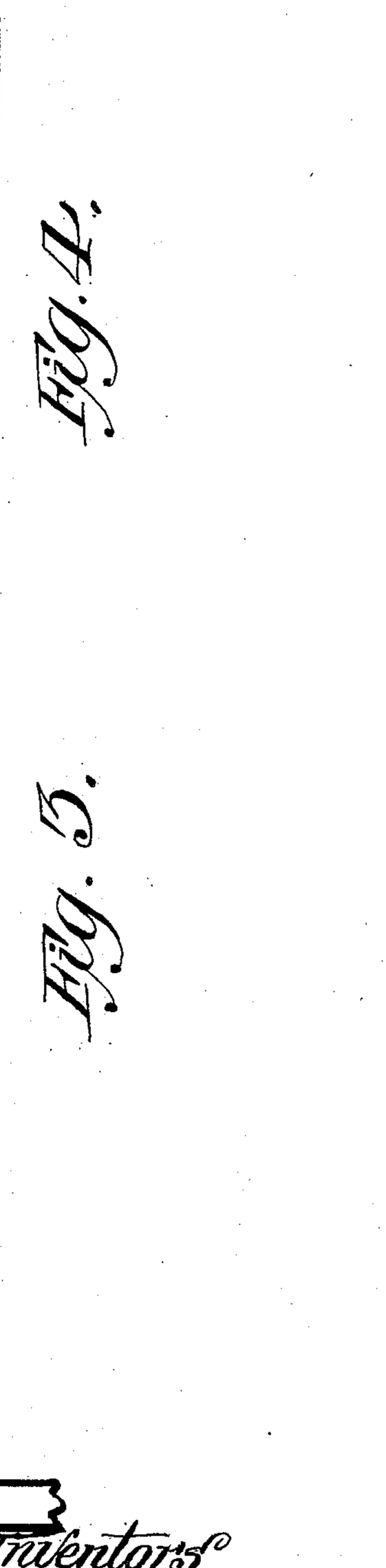

Fig. 3.

Fig. 4.

Witnesses:
F. H. Durkin,
A. Giard.

Inventors,
Carlo D'Estes
J. B. Kram
By McGrath & Co.
Attorneys.

No. 755,463. Patented March 22, 1904.

UNITED STATES PATENT OFFICE.

CARLO D'ESTES, OF HOMESTEAD, AND JOHN B. KRAM, OF ALLEGHENY, PENNSYLVANIA.

CELL-BOARD FOR REED-ORGANS.

SPECIFICATION forming part of Letters Patent No. 755,463, dated March 22, 1904.

Application filed August 28, 1903. Serial No. 171,072. (No model.)

To all whom it may concern:

Be it known that we, CARLO D'ESTES, residing at Homestead, and JOHN B. KRAM, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, citizens of the United States of America, have invented certain new and useful Improvements in Cell-Boards for Reed-Organs, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in cell-boards for reed-organs; and the invention has for its primary object the improving of the quality and volume of the tone produced.

It is a further object of the present invention to so mount the mutes as to permit of their accurate and absolute closing against the cells.

In describing the invention in detail reference will be had to the accompanying drawings, forming a part of this application, and wherein like numerals of reference will be employed for indicating like parts throughout the different views, in which—

Figure 1 is an end view, partly broken away, of the bass end of the keyboard with the improved cell-board in position. Fig. 2 is a like view of the treble end, the keys and key-frame being removed and pitman-rod broken away. Fig. 3 is a detached detail perspective view of a part of the cell-board for bass end; and Fig. 4 is a like view of cell-board for treble end, the mutes being removed in both views.

To put our invention into practice, no alteration is made in the organ-keys 1, key-frame 2, pitman-rod guide 3, or pitman-rod 4. Likewise the swell-shutter 5, mutes 6, top 7 of air-chest, and valve 11 are of the usual form of construction. The mutes 6 are hinged to the improved cover 9 of the cell-board, and we preferably place in this board or cover 9 a pitman-rod guide 8. 10 indicates the cells, and 11 the reeds. These cells are made arch shape and are rounded off or inclined at their rear ends. Although the cells are all connected together, yet each cell is separate, there being a space between each two adjacent cells, resulting in each cell giving an independent vibration.

As a further aid in producing independent vibrations, cells may be composed of any of the musical metals—such as brass, copper, or steel—or they may be made of wood, as is ordinarily the case, and in practice we may construct the cells in series of an octave in each series or a continuous one-piece cell-board.

The individualizing of the sound by each cell has been found to materially improve the quality of the sound, eliminating all the harshness that is found in cell-boards in which the cells are in a solid piece.

We also call particular attention to the mounting of the mutes. In the usual form these mutes when closed lie at an angle to the vertical, and consequently when warping occurs the mutes do not close properly, and hence fail to effectually perform their function. In our improved construction each mute when closed is in a perfectly-vertical position, and consequently absolutely closes in its proper position irrespective of any warping of the parts that may possibly occur.

While we have herein shown and described the invention in detail as it has been practiced by us, yet it will be evident that various slight changes may be made in the details of construction without departing from the general spirit of the invention.

Having fully described the invention, what we claim, and desire to secure by Letters Patent, is—

1. A cell-board for reed-organs comprising a plurality of cells formed from a single piece of metal, the side walls thereof lying in parallel planes and merging at their upper ends in a curved top wall, said side and top walls at the inner end of the cells being curved downwardly to the point adjacent the lower edge of said side walls, substantially as and for the purpose specified.

2. In combination with the cells, a cover therefor having its opposite edges flush with the outer ends of said cells, and mutes hinged to the opposite edges of said cover and closing the ends of said cells, said mutes being normally disposed at right angles to the adjacent ends of said cells.

In testimony whereof we affix our signatures in the presence of two witnesses.

CARLO D'ESTES.
JOHN B. KRAM.

Witnesses:
A. M. WILSON,
A. GIRARD.