G. B. KELLY & O. H. ARNO.

REED-ORGAN COUPLER.

No. 186,846. Patented Jan. 30, 1877.

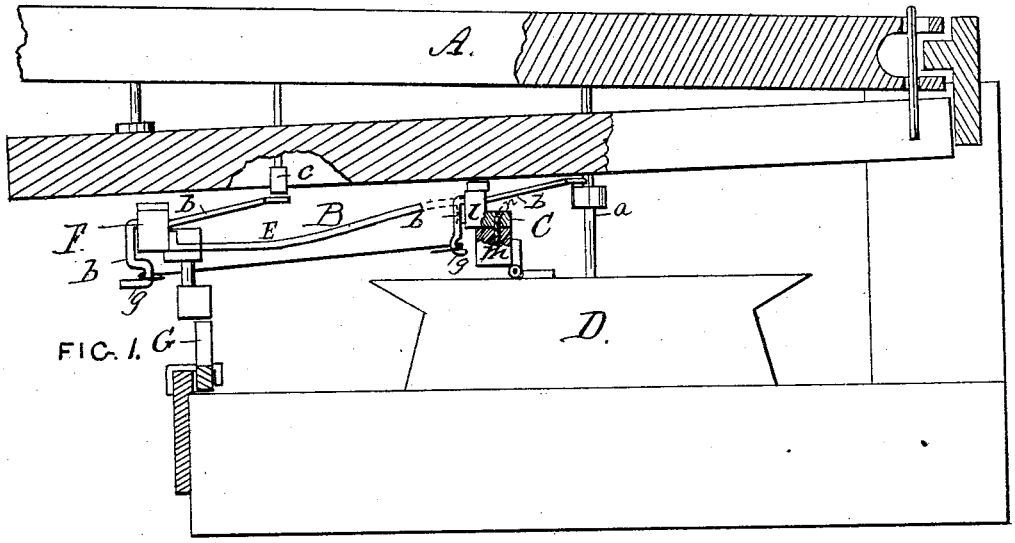

FIG. 1.

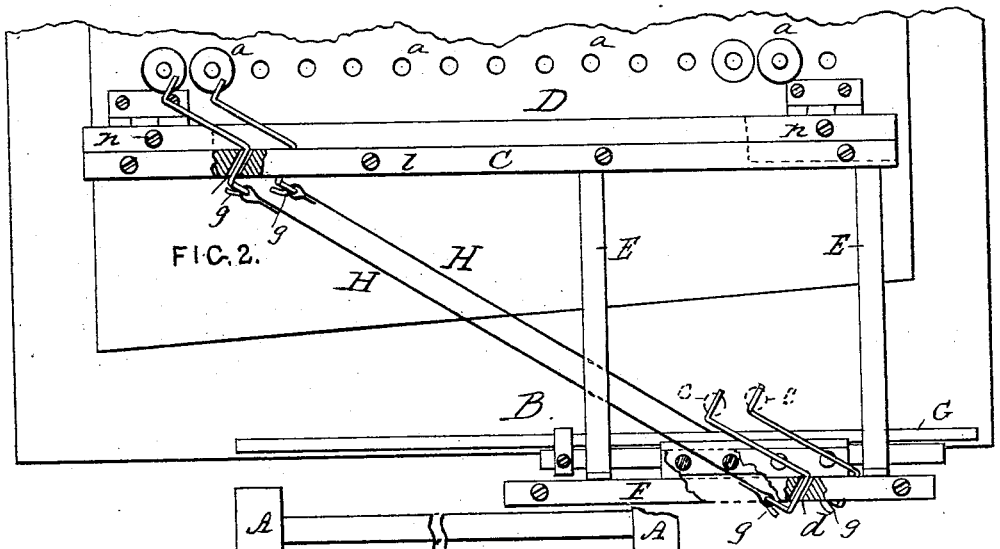

FIG. 2.

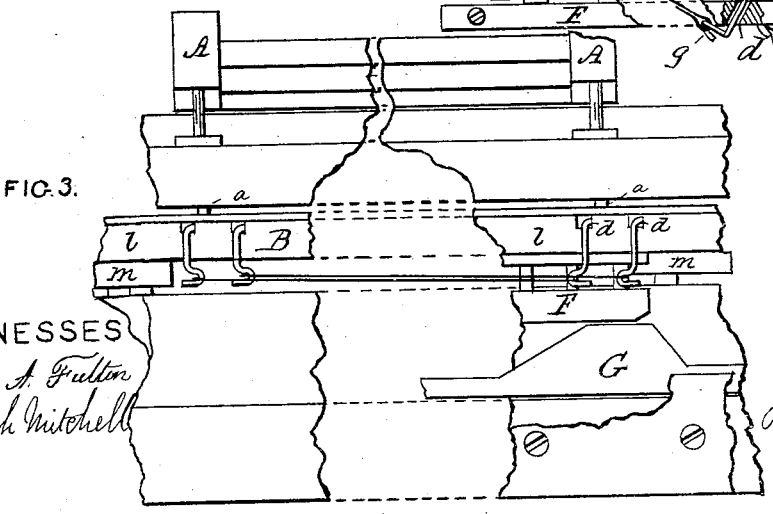

FIG. 3.

WITNESSES

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UNITED STATES PATENT OFFICE

GEORGE B. KELLY, OF BOSTON, AND OLIVER H. ARNO, OF CAMBRIDGE, MASSACHUSETTS.

IMPROVEMENT IN REED-ORGAN COUPLERS.

Specification forming part of Letters Patent No. **186,846**, dated January 30, 1877; application filed July 1, 1876.

To all whom it may concern:

Be it known that we, GEORGE B. KELLY, of Boston, in the county of Suffolk, and OLIVER H. ARNO, of Cambridge, in the county of Middlesex, and both in the State of Massachusetts, have invented Improvements in Couplers for Reed-Organs, of which the following is a specification:

This invention relates to mechanical means for coupling the keys of organs, so as to sound two reeds or tones by striking a single key; and these means mainly consist in the combination and arrangement of angular levers and connecting-rods, all as hereinafter described.

In the accompanying plate of drawings, Figure 1 is a partial elevation and section from front to rear of key-frame with reed and wind chest, and our improved arrangement of coupling devices; Fig. 2, a plan view with the key-frame removed, and Fig. 3 a view in elevation at front of key-board and reed and wind chest.

In the drawings, A represents a key, of which there are to be a series, each key being hung on a frame, and otherwise arranged as ordinary, to open a valve to a reed when pressed down; B, a frame which carries our improved arrangement of coupling devices. This frame B is hinged, by its rail C, to the upper side of the reed box or chest D, which rail C runs alongside of the stems *a*, through which the keys work, to open the valves to the reeds, and is connected, by arms E, to another and parallel rail, F, which is arranged to be acted upon by a slide-bar, G, and thus the frame lifted or allowed to fall or drop, swinging in either or both movements on the hinges by which the rail C is hung to the reed-box D. In the rails C and F are hung a series of angular levers, *b b*. Each angular lever of the rail F is in position for the stud-heads *c* of a key to press upon it when the frame is lifted by moving the slide, so that if then the key be depressed, the said angular lever will be swung on its fulcrum *d* in the rail F. Each angular lever *b* of the rail C is in position to bear on a valve-stem, *a*, to a reed, and these two series of levers are connected, the lever of each reed to the lever of the key to another reed suitable in tone for it, by a rod or wire, H, which is hung to a hook or eye, *g*, of each angular lever.

The swinging of angular lever from the depression of a key, as above described, acts through the connecting wire or rod H, and turns the angular lever in connection with it, and thus, through it, opens the reed-valve on the stem of which the said last angular lever rests, all as evident without further description.

The rail C is in two parts, *l* and *m*, secured together by screws *n*. One part, *l*, carries the angular levers, and the other part is hinged, as described.

Simply removing the screws and separating the two parts *l* and *m* secures the removal of the coupling mechanism from the organ.

The angular levers are made of one piece of metal; but they may be in two parts, connected to and hung on a common pintle, which is properly situated in the rails C F; but it is preferable to make them of one piece bent to the proper shape.

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

1. In an organ-coupler, the combination of the angular levers *b b'* and connecting-rods H, for operating the reed-valve, all constructed substantially as described.

2. In combination with the levers *b b'* and connecting-rods H, the rail C, constructed in two parts, *l m*, secured together as described, for the purpose set forth.

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Witnesses:
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