

(No Model.)

M. CLARK.
CABINET ORGAN.

No. 484,929.

Patented Oct. 25, 1892.

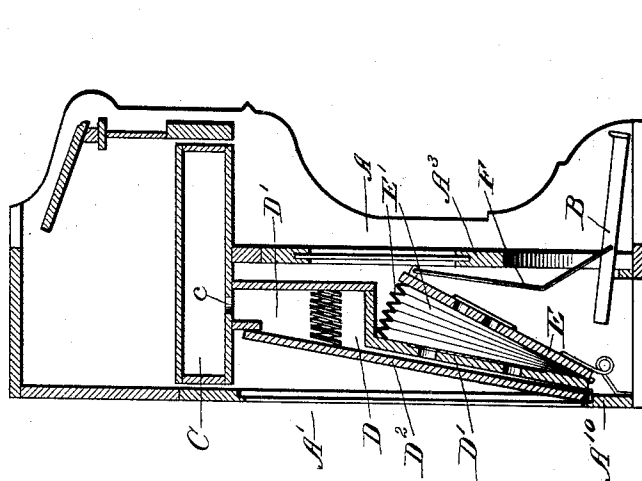


Fig. 2.

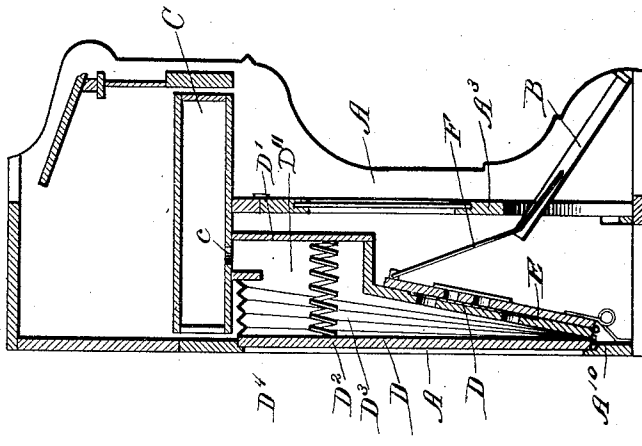


Fig. 1.

Witnesses:
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Inventor:
Melville Clark
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his attys

UNITED STATES PATENT OFFICE.

MELVILLE CLARK, OF CHICAGO, ILLINOIS.

CABINET-ORGAN.

SPECIFICATION forming part of Letters Patent No. 484,929, dated October 25, 1892.

Application filed February 23, 1892. Serial No. 422,465. (No model.)

To all whom it may concern:

Be it known that I, MELVILLE CLARK, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Cabinet-Organs, which are fully set forth in the following specification, reference being had to the accompanying drawings, forming a part thereof.

10 This invention relates to improvements in the construction and arrangement of the bellows of cabinet-organs.

In the drawings, Figure 1 is a vertical section through the organ-case and bellows, showing the bellows collapsed. Fig. 2 is a similar section showing the bellows expanded.

A represents one end standard of the organ-case.

15 B represents one of the pedals by which the bellows are operated.

C represents the exhaust-chamber of the organ.

D represents the exhaust-bellows or bellows which draw the air from the exhaust-chamber, the forward side D' of said bellows being fixed with respect to the case and the rear side D² being the movable side, and D³ being one of the folding or collapsing ends of the bellows, and D⁴ the upper similarly-collapsing side of the same.

E is the front side of the pumper or pumping-bellows by means of which the air is drawn from the exhaust-bellows D.

35 E' E' are the folding or collapsing edges of the pumper.

F is one of the links which connect the pedals to the forward side of the pumper for the purpose of operating it. It will be understood that only one of the pedals and pumpers is represented and that the other is precisely similar; also, that a link F may be connected to each edge of each of the pedals, in order to operate the pumper more effectively by means of the pedals. The back D² of the exhaust-bellows is hinged at the lower edge in a familiar manner to the lower sill or frame-bar A¹⁰ of the cabinet-frame, and rocks over that edge backward and forward as the bellows is exhausted and filled. The back A' of the organ-case is a mere outline frame open over the area covered by the back D² of the exhaust-bellows, except to the extent of a

rabbet formed in the marginal bars A¹⁰ of the back, and the bellows-back D² is adapted to seat in said rabbets, so that space is gained for the bellows to the extent of the depth of the rabbet. As compared with the construction having the back side of the case entirely closed up and the bellows entirely within it, the gain effected amounts to nearly an inch in the actual construction of the organ and narrows the case from front to rear to that extent without sacrificing any advantage.

D' is an alcove formed in the forward side of the exhaust-bellows, at the upper end, from which the communication of the bellows with the exhaust-chamber is made through the aperture c in the bottom below the alcove D'. The forward side of the pumping-bellows is hinged to the forward side of the exhaust-bellows, at the lower edge, and its upper edge is adapted to oscillate backward and forward, the fixed forward side of the exhaust-bellows serving as the back side of the pumper. The links F are connected to the forward oscillating side of the pumper or pumping-bellows, near the upper edge of the latter, so that the downward movement of the pedal operates the pumper to exhaust air from the exhaust-bellows. A³ is the forward paneled side of the organ-case below the exhaust-chamber C, the entire bellows-action therefore being concealed by said paneled side, as is customary. This paneled side is located in the usual position at the customary and convenient distance back from the vertical plane of the forward edge of the case and manual. The position of this front paneled side being, therefore, substantially fixed by considerations of convenience, the space necessary to be occupied by the bellows-action behind that paneled side determines the depth of the organ from front to rear, since the valve-action and other mechanism connecting the manual with the reed-valves, &c., occupying the upper part of the organ-case, does not require so much space, or, at all events, can be accommodated within the minimum space requisite for the bellows-action. By the management of the bellows as described and the operation of the links from pedals, as shown, and the dispensing with a panel in the rear side of the organ and adapting the rear side of the

exhaust-bellows to occupy the space of such panel I am able to diminish the depth of the organ from one to two inches below what is required in the more usual form of construction, in which the pumper is operated by a strap running over a pulley to the pedal and down by a pedal, and, in addition to thus gaining space and permitting, therefore, bellows of greater capacity within the same-sized cabinet, I avoid the use of the objectionable straps and pulleys. In order to get the best action of the pedal as a lever upon the oscillating forward side of the pumper, the links F are connected to the pedal at a point forward of the plane of the forward paneled side A³, and in order to avoid the necessity of cutting out that side for the link the link is bent at the point *f* behind the forward side A³.

I claim—

1. In a cabinet-organ, in combination with the cabinet-framework and the exhaust-chamber supported thereon, the exhaust-bellows below the exhaust-chamber, having the oscillating side at the rear, the back of the organ cabinet-case being open substantially over the area of the said oscillating side of the bellows to permit the latter to play thereinto, substantially as and for the purpose set forth.

2. In a cabinet-organ, in combination with a horizontally-extending exhaust-chamber, the exhaust-bellows extending vertically beneath the same and communicating at its upper edge therewith, the forward side of said bellows being fixed and the rear side oscillating over its lower horizontal edge, and the pumper or pumping-bellows having its oscillating side at the front and hinged at its lower edge to the forward side of the exhaust-bel-

lows, said forward side constituting the rear side of the pumping-bellows, the pedals, and links therefrom connected to the oscillating side of the pumpers toward the upper edge of the latter, substantially as set forth.

3. In a cabinet-organ, in combination with the exhaust-bellows and the receiving-bellows, each having their oscillating sides hinged at the lower horizontal edge and oscillating backward and forward at the upper edge, a rigid partition between them constituting the forward side of the exhaust-bellows and the rear side of the pumping-bellows, both said oscillating sides being hinged to the lower edge of said rigid side, substantially as set forth.

4. In a cabinet-organ, the back D, the front A³, and the pedals fulcrumed forward of said front, in combination with the exhaust-bellows between said front and back, having its rigid side extending from the back of the organ-case in inclined direction upward and forward and its oscillating side hinged at its lower horizontal edge to said rigid side, the links which connect the pedals to the upper part of the oscillating side of the pumping-bellows being pivotally connected to the pedals at a point which is forward of the front A³ when the pedals are at their highest position and bent to pass back of said front, substantially as set forth.

In testimony whereof I have hereunto set my hand, in the presence of two witnesses, at Chicago, Illinois, this 20th day of February, 1892.

MELVILLE CLARK.

Witnesses:

CHAS. S. BURTON,
JEAN ELLIOTT.