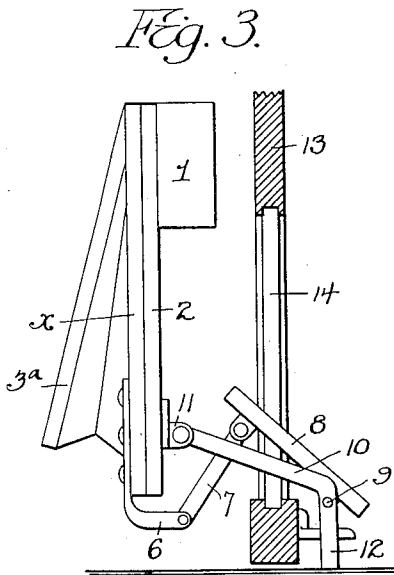
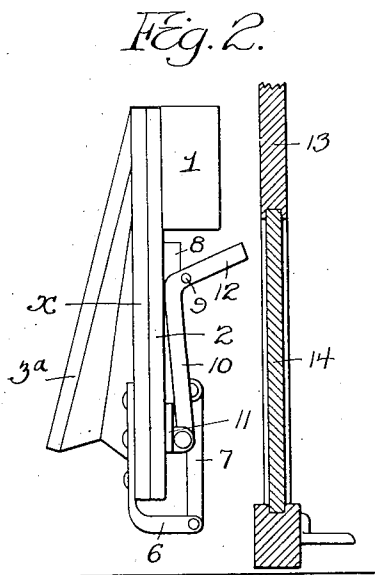
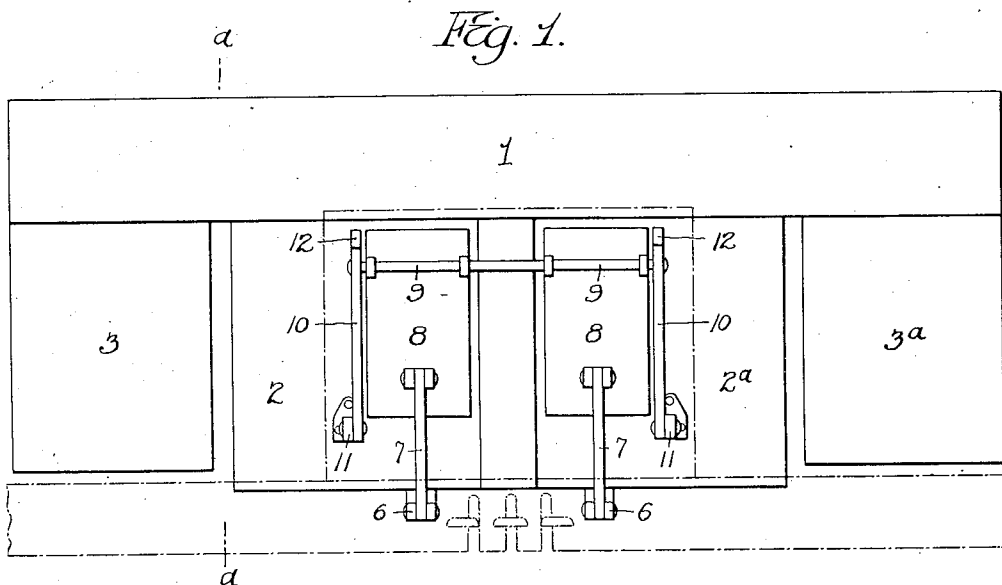


G. E. MARTIN.  
 BELLOWS OPERATING MECHANISM FOR MECHANICAL MUSICAL INSTRUMENTS.  
 APPLICATION FILED AUG. 17, 1912.

1,086,927.

Patented Feb. 10, 1914.



WITNESSES

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# UNITED STATES PATENT OFFICE.

GEORGE E. MARTIN, OF PHILADELPHIA, PENNSYLVANIA.

BELLOWS-OPERATING MECHANISM FOR MECHANICAL MUSICAL INSTRUMENTS.

1,086,927.

Specification of Letters Patent.

Patented Feb. 10, 1914.

Application filed August 17, 1912. Serial No. 715,672.

*To all whom it may concern:*

Be it known that I, GEORGE E. MARTIN, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Bellows-Operating Mechanism for Mechanical Musical Instruments, of which the following is a specification.

The object of my invention is to so construct the pedal mechanism for the bellows of a mechanical musical instrument as to provide for the compact disposal of the same out of sight within the casing of the instrument, when said pedal mechanism is not in use. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawing, in which—

Figure 1 is a front view of the air-exhausting mechanism and the parts employed in connection therewith, the pedals being shown in the raised or inoperative position, and part of the outer or main casing of the instrument being shown by dotted lines; Fig. 2 is a transverse section on the line *a—<sup>a</sup>*, Fig. 1, showing part of the main or inclosing casing in full lines, and Fig. 3 is a view similar to Fig. 2, but showing the doors of the inclosing casing opened and the pedals extended into position for use.

In the drawing, 1 represents the main wind chest of the vacuum apparatus, 2 and 2<sup>a</sup> the main suction bellows, communicating directly with said wind chest and serving to withdraw air therefrom and maintain a partial vacuum therein.

3, 3<sup>a</sup> are what are termed "storage bellows" which occupy a position at the ends of the wind chest flanking the main suction bellows 2, 2<sup>a</sup>, these storage bellows being in constant communication with the wind chest, and having a constant tendency to collapse because of the partial vacuum maintained in said chest, which tendency is constantly resisted by internal springs, the function of the storage bellows being, therefore, to render uniform the degree of vacuum maintained in the wind chest and to prevent pulsation therein due to the alternate action of the main exhaust bellows 2, 2<sup>a</sup>.

The movable member *w* of each of the main exhaust bellows 2, 2<sup>a</sup> is provided with a

projecting arm 6, which is pivotally connected to a link 7, having pivotal connection with a pedal 8, which is pivotally mounted upon a rod 9, the latter being of a length sufficient to carry both of the pedals 8 and being connected at its opposite ends to arms 10 which are pivotally mounted at their inner ends upon brackets 11 secured to the front or fixed members of the main exhaust bellows 2, 2<sup>a</sup>, each of said arms 10 having a depending foot 12 which rests upon the floor when the pedals are extended and in operative position, as shown in Fig. 3, the parts being so disposed that when the arms 10 are turned up against the fixed front members of the bellows 2, 2<sup>a</sup>, as shown in Fig. 2, the pedals will be likewise turned up into contact therewith, owing to the fact that the links 7 are connected to the pedals at their inner ends while the pivot rod 9 is located adjacent to the outer ends of the pedals. When the pedals are projected to operative position they extend through an opening in the front of the casing 13 of the instrument, but when they are turned up against the front members of the bellows 2 they are contained wholly within said casing and the opening in the front of the same can then be closed by means of sliding or other equivalent doors 14, as shown in Fig. 2, so as to conceal the pedal mechanism.

I claim:—

1. The combination, in vacuum producing apparatus for musical instruments, of the outer casing, the wind chest, suction bellows depending from the latter, pedals connected to said suction bellows and located directly in front of the same, and a swinging hanger for said pedals pivotally connected to the front of the bellows, whereby it, with its pedals, can be folded up in front of the suction bellows directly beneath the wind chest and inside the casing of the instrument.

2. The combination, in vacuum producing apparatus for musical instruments, of the outer casing, a wind chest, suction bellows depending from the latter, pedals connected to the movable members of the suction bellows and located directly in front of the same, and a pedal hanger pivotally mount-

ed upon the front members of the suction bellows so as to swing up against the same, carrying the pedals with it, whereby the entire pedal structure can be folded up in  
5 front of the suction bellows directly beneath the wind chest and inside the casing of the instrument.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

GEORGE E. MARTIN.

Witnesses:

GEO. W. DAVIS,  
JACOB SCHILLER.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

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