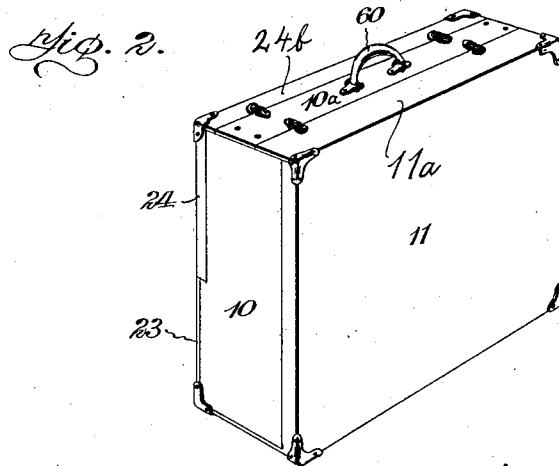
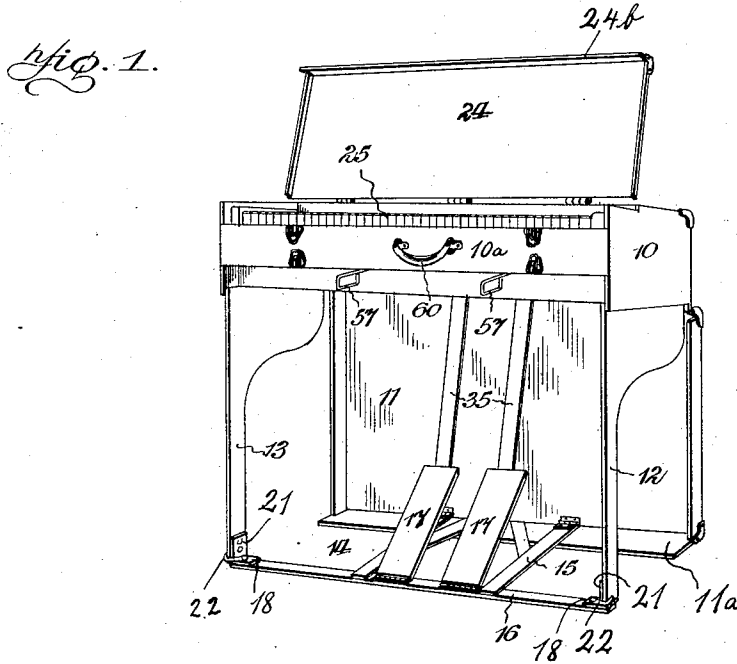


B. N. HANSON.
FOLDING ORGAN.
APPLICATION FILED MAY 29, 1911.

1,027,475.

Patented May 28, 1912.

3 SHEETS—SHEET 1.



WITNESSES:

M. Reichen.
A. R. Walton.

INVENTOR:

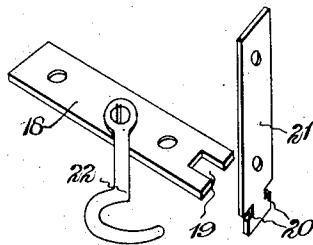
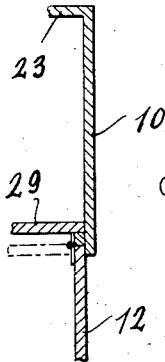
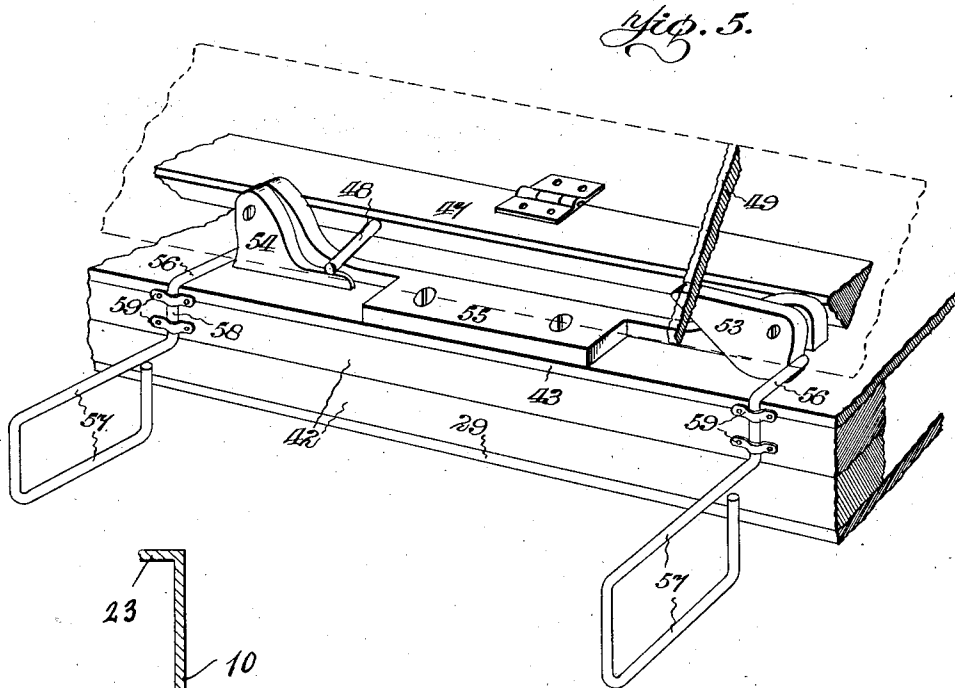
Barton N. Hanson,
By M. J. Stinson & Co.

ATTORNEYS.

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WITNESSES:

M. Reichen.
A. R. Dalton

INVENTOR:

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UNITED STATES PATENT OFFICE.

BARTIN N. HANSON, OF CHICAGO, ILLINOIS.

FOLDING ORGAN.

1,027,475.

Specification of Letters Patent.

Patented May 28, 1912.

Application filed May 29, 1911. Serial No. 630,226.

To all whom it may concern:

Be it known that I, BARTIN N. HANSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Organs, of which the following is a specification.

My present invention relates to organs, and more particularly to that character of organs which embody a folding construction including a suction chamber from which air is drawn by bellows and which operate to draw air through the reeds when the keys are depressed.

My first and most important object is to provide a novel arrangement of the organ part whereby to enable the use of a large and stronger suction chamber and a rearrangement of the swell and mute for a purpose to be made apparent.

A further object is to provide connections for operating the swell and mute from the knee levers, improved with respect to simplicity and economy.

A still further object is to provide a novel folding construction which may be quickly and easily operated and which will obviate the use of all folding braces and other parts complicated in themselves and difficult to fold and unfold.

With these and other objects in mind, my invention resides in the features to be hereinafter described with respect to the accompanying drawings, in which,

Figure 1 is a perspective view of my improved organ unfolded and open. Fig. 2 is a similar view thereof folded and closed. Fig. 3 is a transverse section. Fig. 4 is a horizontal section through the rear part containing the suction chamber, and, Figs. 5 and 6 are detail perspective views, on enlarged scales, illustrating parts to be hereinafter referred to. Fig. 7 is a cross-section illustrating the hinge connection between the legs and end walls of the case.

Referring specifically to the drawings, the case of the organ has two end walls 10, a side wall 11, an opposite side wall which is in two sections 23 and 24 connected by hinges 24^a, and top and bottom walls 10^a and 10^b, respectively. The wall 11 is hinged to the wall 10^b and is adapted to be swung downwardly to constitute one of the supporting legs of the organ when the same is unfolded, as shown in Fig. 1. The free end of the wall 11 has a lateral extension 11^a

which serves as a foot when said wall is swung downwardly as shown in Fig. 1. When the organ is folded, as shown in Fig. 2, this extension 11^a fits against an inwardly offset portion 10^c of the wall 10^a so as to be flush with said wall, and the parts 23 and 24 are placed in alinement so as to come opposite the wall 11. The free edge of the part 24 has a lateral extension 24^b which extends flush with and forms a portion of the wall 10^a when the organ is folded. When the organ is unfolded the part 24 serves as a lid for the key-board, as shown in Fig. 3, and when the organ is in use it may be swung upwardly, as shown in Fig. 1, to serve as a music rest.

Hingedly connected upon the inner surface of the end walls 10, along their widened inner ends is a pair of supporting legs 12 and 13 which, when opened, extend downwardly beneath and support the front portion of the case.

Hingedly connected at one of their ends to the inner surface of the part 11^a is a pair of transversely spaced strips 14 and 15, rigidly fastened at their opposite ends to a longitudinal strip 16 to which is hinged one of the ends of the pedals 17. At each outer end of the longitudinal strip 16 is secured a fastening plate 18 having an extending bifurcated end 19, as shown particularly in Fig. 6 to engage within the side slots or recesses 20 of a plate 21 secured upon the lower end of the corresponding legs 12—13. The plate 18 also carries a swinging hook 22 which may be moved to clasp the plate 21 when engaged, and lock the same in position.

The most important point with relation to the organ parts which are entirely located within the casing 10, is the arrangement of the reeds 26 and their cells in superposed series as shown in Fig. 3, instead of one forward and one rear set as usual. This arrangement is productive of several very beneficial results, among which is the relative arrangement of the swell and mute, of which there needs be only one each, in order to permit of their operation by the improved connections to be hereinafter described. This arrangement also provides an enlarged rear space which is entirely occupied by a suction chamber 27 of much greater capacity than usual, the sides of which are flexible and the top of which carries a safety valve 28. The foundation board 29, which forms

the base of the suction chamber 27, has a plurality of apertures 30 and a flexible strip 31 secured at its ends upon the lower surface thereof to form a valve which opens during
 5 the downward expanding movement of the bellows 32, the lower portions of which are similarly valved with openings 33 and a strip 34. These bellows, one of which is shown in section in Fig. 3, are connected by
 10 tapes 35 to the pedals 17, and are provided with rearward projections 36 from which rods 37 extend upwardly through the foundation board 29 at the rear of the suction chamber 27 and are connected to the up-
 15 wardly bent ends of spring rods 38, the angular portions 39 of which are anchored at their ends along the ends of the suction chamber.

The valve-chamber 40, below the reeds, 20 communicates with the suction chamber 27 through a bridge 41 below the rear portion of its wall 42. The communication between the wind chest 40 and the reeds 26, through the sounding board 43, is, as usual, con-
 25 trolled by valves 44 actuated by the key pins 45, the present valves having their rear ends held slightly above the shouldered portion 46 of the valve-chamber wall 42, so that when depressed against this shouldered por-
 30 tion the valves move as on a fulcrum, giving them a greater movement and opening up a greater space.

The mute 47 is hinged along and covers the lower series of reed cells and has a for-
 35 wardly projecting finger 48, while the swell 49 extends on a slight incline directly above both the sets of reed cells and is hinged along its rear edge to the forward edge of the key-supporting board 50 which carries
 40 the key guides 51 and binder 52. The swell and mute are thus in position for respective operation by the levers 53 and 54 mounted at opposite ends of a supporting block 55, to swing vertically, said frame being secured
 45 upon the sounding board forwardly of the reed cells. The lever 53 is adapted to bear upwardly against the swell, while lever 54 is adapted to bear upwardly against the mute finger 48. These levers 53 and 54 are
 50 similar in their movement to bell crank levers and are actuated by the inner offset horizontal ends 56 of the knee levers 57, the intermediate straight portions 58 of which are journaled in brackets or clips 59. Thus
 55 all complicated connections are done away with.

Thus from the foregoing it will be ap-
 60 parent that it is simply necessary to release the connections between the legs 12 and 13 and the strip 16, in order that the former may be swung in overlapping relation, and the latter, together with the strips 14 and 15 and the pedals 17, folded against the casing side 11, preparatory to closing and locking
 65 the sides in the position shown in Fig. 2, after which the closed structure may be lifted and carried from place to place by its handle 60.

I claim:

1. In a folding organ, a case inclosing the 70 organ action, said case having certain of its walls hinged, one of said hinged walls serving as a supporting leg for the rear portion of the case when unfolded, legs hinged to the end walls of the case and foldable thereinto, 75 said legs carrying at their lower ends a plate having slots in its edges, and a removable brace connecting the last-mentioned legs, said brace carrying bifurcated plates at its ends straddling the slotted portion of the 80 aforesaid plates.

2. In a folding organ, a case inclosing the organ action, said case having certain of its walls hinged, one of said hinged walls serv- 85 ing as a supporting leg for the rear portion of the case when unfolded, legs hinged to the end walls of the case and foldable thereinto, said legs carrying at their lower ends a plate having slots in its edges, a remov- 90 able brace connecting the last-mentioned legs, said brace carrying bifurcated plates at its ends straddling the slotted portion of the aforesaid plates, and a hook carried by the second-mentioned plate and engageable with the first-mentioned plate. 95

3. In a folding organ, a case inclosing the organ action, said case having certain of its walls hinged, one of said hinged walls serv- 100 ing as a supporting leg for the rear portion of the case when unfolded, legs hinged to the end walls of the case and foldable thereinto, cross bars hinged to the aforesaid hinged wall, and a brace carried by said cross bars and removably connected to the last-mentioned legs when unfolded. 105

In testimony whereof I affix my signature in presence of two witnesses.

BARTIN N. HANSON.

Witnesses:

ANNA M. MENGEL,
 H. G. BATCHELOR.