3 Sheets—Sheet 1.

T. BRETT.

MELODEON.

No. 108,560. Patented Oct. 25. 1870.

Fig. 1.

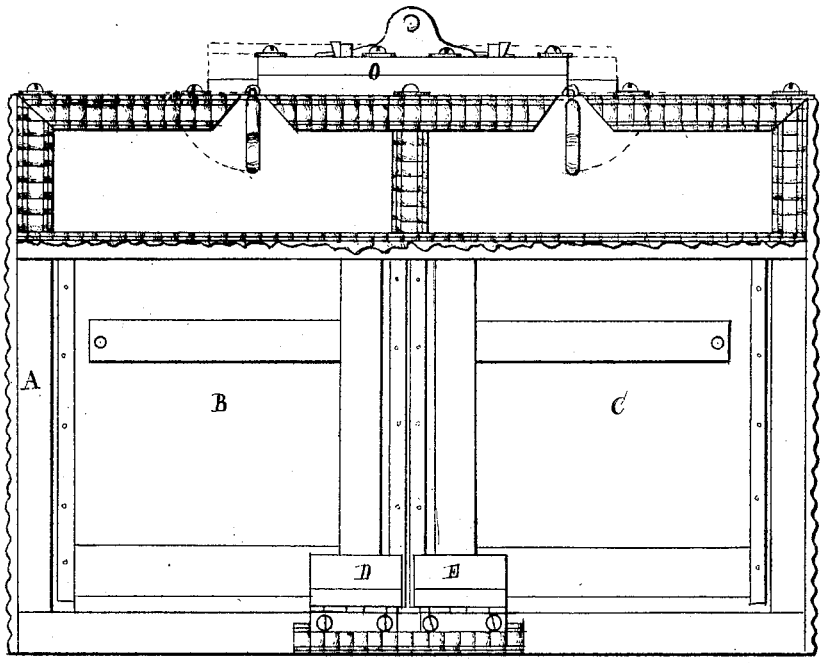

Fig. 2.

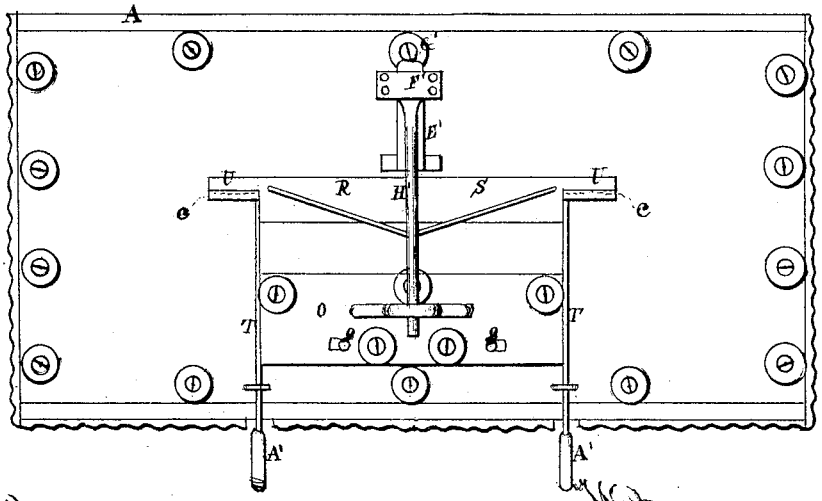

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Fig. 3.

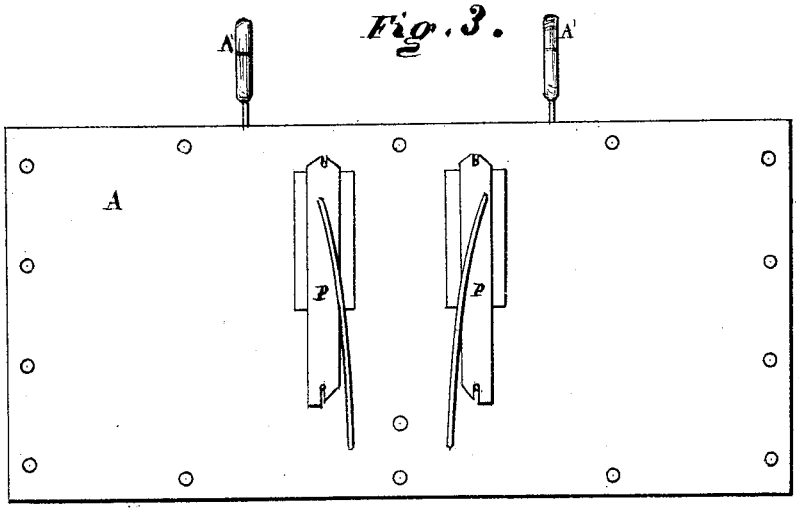

Fig. 4.

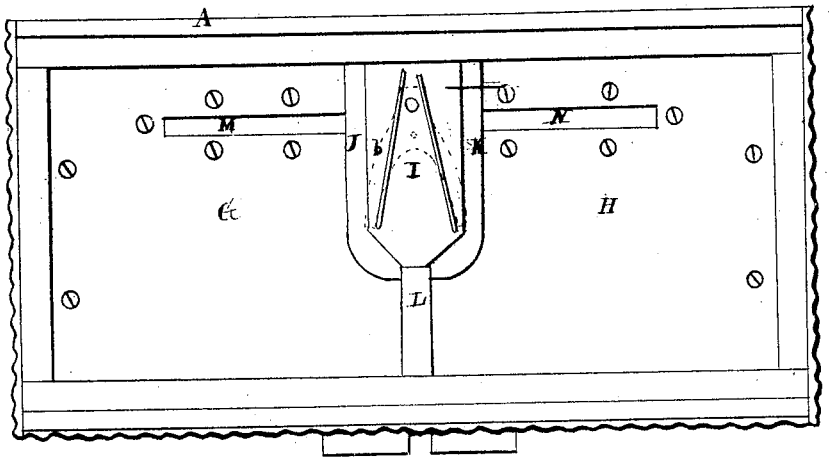

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Fig. 5.

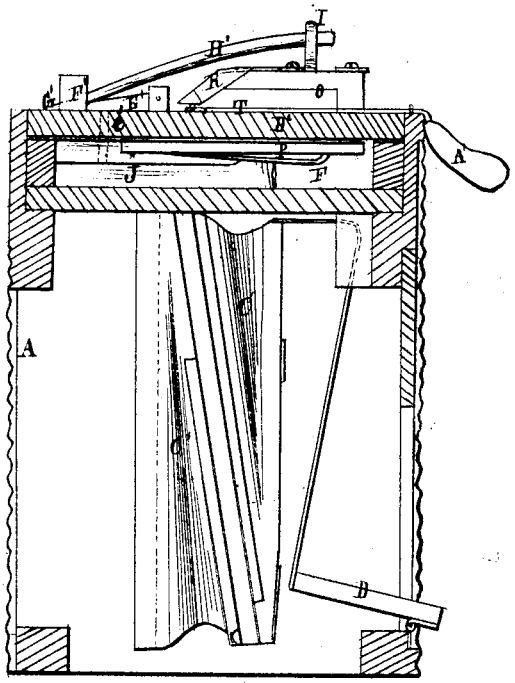
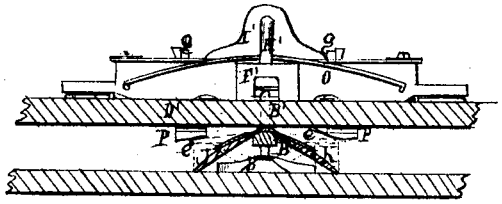


Fig. 6.



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United States Patent Office.

THOMAS BRETT, OF GENEVA, OHIO.

Letters Patent No. 108,560, dated October 25, 1870.

IMPROVEMENT IN MELODEONS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, THOMAS BRETT, of Geneva, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Melodeons or Reed-Organs, so called; and I do hereby declare that the following is a full and complete description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a front view of the melodeon.

Figure 2, a plan view, the cover of the instrument being removed.

Figure 3, an under-side view of the reed-board.

Figure 4, a top view of the floor of the wind-chest.

Figure 5 is a vertical section.

Figure 6, a detached section.

Like letters of reference refer to like parts in the several views.

The nature of this invention relates to improvements in melodeons or reed-organs, so called, the object of which is to produce an increase of the volume of sound of either half of the reeds ranging either to the right hand or to the left, independently of each other, and subject to the will of the performer; or a full volume of sound may be given to the whole set or sets of reeds at once as the player, or the nature of the composition may demand, in the manner as hereinafter more fully described.

In fig. 1, A represents the case of the instrument, in which are the bellows B C; said bellows are constructed in the usual manner, and operated by pedals D E in the ordinary way.

Each bellows has its own and special receiver C', co-operating therewith, for the continuation and uniformity in the supply of wind to the reeds.

F, fig. 5, is the wind-chest, divided into two compartments, G H, fig. 4, by means of the rib I of the valves J K attached thereto. Each of said compartments communicates directly with the bellows and receiver immediately below it by means of the air-passages M N; thus, compartment G with the bellows B, and receiver and compartment H with the bellows C, &c.

The two compartments may be put in communication with each other and with the two bellows by the valves J K referred to, in the manner as and for the purpose presently shown.

O, figs. 5 and 6, is the reed-board.

P, figs. 3 and 6, are the reed-valves, two reeds and valves only being shown, and which are opened by pins Q, operated by the keys of the instrument in the usual way.

On the rear side of the reed-chest are two swell-valves, R S, fig. 2. The valve R relates to the compartment G, and valve S to compartment H, each valve specifically affecting one section of the range of reeds, independently of each other, or conjointly if so desired by the performer, by means of the rods T, fig. 2. One end of each rod is turned at a right angle, forming an arm, indicated by the dotted line *c*, lying under the extension U of the valve, which, on turning the rod by the handle A', attached to the front end thereof, will be lifted by a crank-like action of the rods, singly or together, by the knees of the player, as the nature of the music may require the application of the swell or swells.

The valves J K above described are operated by pin B' passing through the rib of the valves. Its lower end rests upon the single short arm of the lever underneath the valves. Said lever is indicated by the dotted lines *b*, fig. 4, a transverse view of which is shown in fig. 6.

It will be observed that the opposite end of the lever is bifurcated; one limb thereof actuates the valve J, whereas, the other actuates the valve K.

The upper end of the pin referred to projects through the top D', as indicated by the dotted lines *c'*, fig. 5, and is rested upon by the free end of a tongue, E', lying between the cheeks of the stay F'. Said tongue is pressed down upon the end of the pin by a wedging slide, G', fig. 2, attached to one end of the stem H', held in a stay, I', and in which it slides for operating the tongue and pin, and thereby the two valves J K.

Having thus described the construction and arrangement of the instrument, the practical operation of the same is as follows:

In the matter of musical compositions, it often becomes necessary, for effect and good execution, to give a certain number or range of notes a more full development of sound than others; as, for instance should the composition require more volume of sound for the range of reeds manipulated by the right hand than for the reeds fingered by the left hand to produce an increased volume of sound of the right or left-hand range of reeds independently of each other is the purpose, as before said, of my invention; and this I accomplish by dividing the air-chamber into the two compartments above described. Now, as each compartment is specifically confined to the right and left-hand range of reeds, it will be obvious that the reeds at the right hand may be played with greater power, or louder than those at the left hand, by a stronger action of the bellows actuating that range of reeds, or by opening the swell S by means of the handle A', by pressing it with the knee. While this increased action is expended upon the right-hand reeds, those at the left hand remain unchanged in tone; *per contra*, should the left-hand range of reeds require to be played louder than the right-hand range. it can be

done by a stronger action of the left-hand bellows, &c., without in the least affecting those at the right hand.

It will be obvious that, by this means, a more complete command of the power of the instrument is obtained to the player, as soft and loud tones on the right or left are at all times made available, and hence a more effective execution of the music is rendered.

In the event that the power of both bellows is required on all the reeds at once, it can be had by opening the two valves J K, which is done by depressing the pin B', above described, by means of the wedge G' at the end of the stem H', or its equivalent; thus, on pushing the rod downward, the wedge will press upon the end of the pin, and against the upper side of the stay, thereby forcing down the pin upon the end of the bifurcated lever; the two limbs thereof will each, respectively, lift the valves, thereby making an open and free communication between the two air-chambers G and H, so that the combined power of the two bellows can be expended upon the whole number of reeds at once. The two valves thus open are indicated by the dotted lines *e*, fig. 6.

Claims.

What I claim as my improvement, and desire to secure by Letters Patent, is—

1. The compartments G H, when said compartments are separated from each other by a valve-partition, in the manner described, bellows B C, and receivers C', all arranged to operate in relation to each other, in the manner as described, and for the purpose specified.

2. The valves J K, as arranged in relation to the compartments G H, substantially as and for the purpose specified.

3. The valves R S, bellows B C, receivers C', and compartments G H, all arranged in relation to each other, in the manner as described, and for the purpose set forth.

4. The stem H', wedge G', tongue E', pin B', and lever I', as arranged to operate the valves J K, substantially as and for the purpose set forth.

Witnesses: THOS. BRETT.

W. H. BURRIDGE,

D. L. HUMPHREY.