

No. 757.354.

PATENTED APR. 12, 1904.

R. SCHELLER.
MUSICAL INSTRUMENT.
APPLICATION FILED JUNE 4, 1901.

NO MODEL.

Fig. 1.

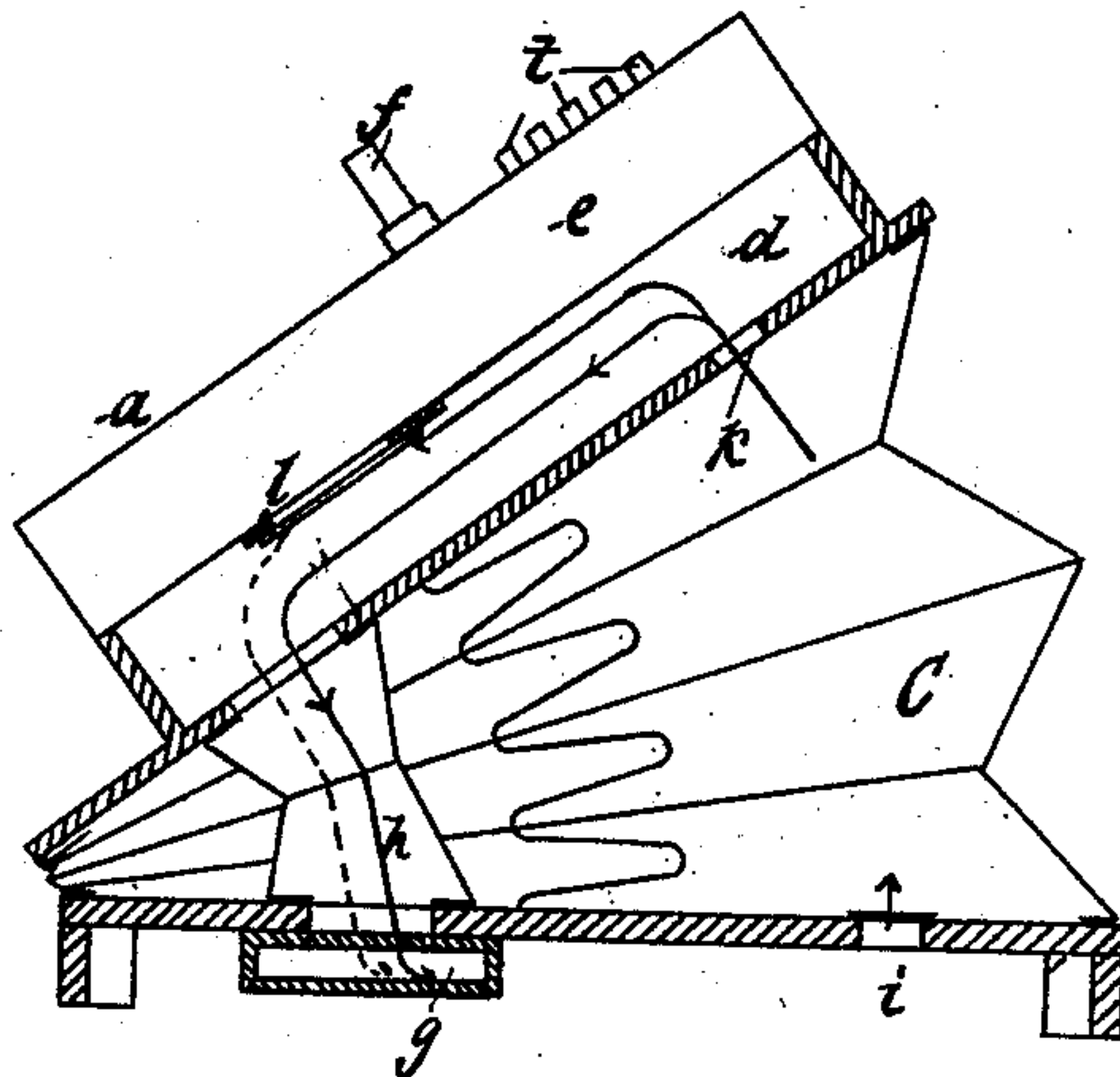
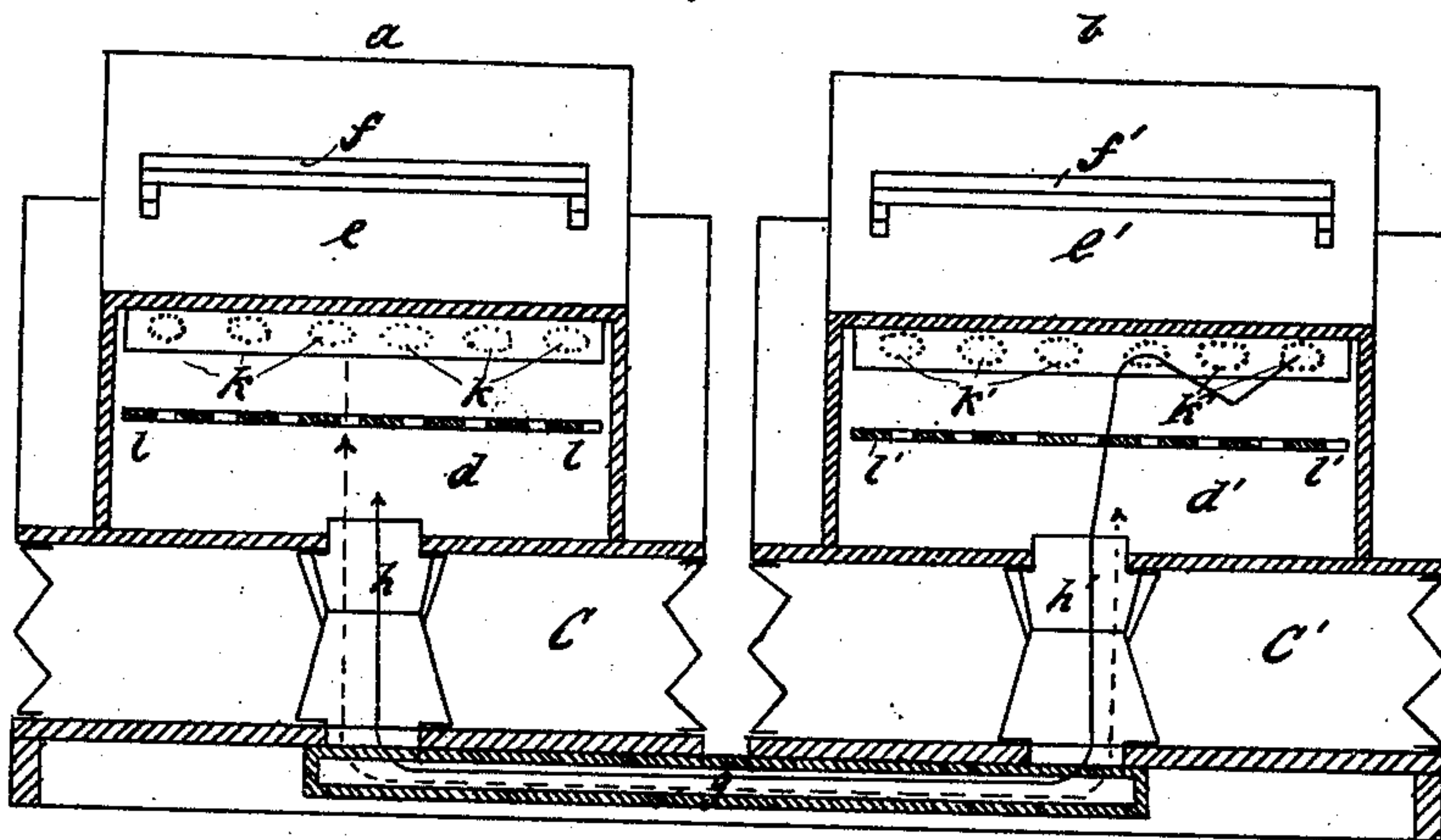


Fig. 2.



WITNESSES:

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MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 757,354, dated April 12, 1904.

Application filed June 4, 1901. Serial No. 63,123. (No model.)

To all whom it may concern:

Be it known that I, RICHARD SCHELLER, residing at Hohe Bleichen 23, Hamburg, Germany, have invented Improvements in Musical Instruments, of which the following is a specification.

In contrast to the musical instrument described in German Patent No. 68,609 the invention herein described relates to an improved musical instrument which must be provided with two independent bellows each provided with a wind or reed chest, but which need have no reserve bellows, and with which sustained music and also light music—such, for instance, as dance-music—may be played without the employment of separate registers. In this invention it is intended to provide, in the first place, a perfected hand-draft instrument which, in consequence of the peculiar arrangement of the bellows in two parts, only requires pressure-keys. In order to produce such an instrument by means of which, in spite of its very simple construction and without the attachment of separate registers, both light music as well as sustained music (harmonium-music) may be played, it is necessary that the reeds shall not receive air from a reserve bellows, as the latter prevents an immediate and easy change being made from “piano” to “forte,” also to enable each note to swell up and die away or, if desired, to be cut off short and suitably modulated.

In order to obtain the desired object, it is necessary that, first, two separate bellows not in communication with each other should exist, each provided with a wind or reed chest, and that the keyboard be distributed on the upper parts of both bellows; second, each of the two reed or wind chests must be in direct communication with each separate bellows in order that the notes of both wind-chests may be sounded and that the player may be enabled to draw fresh air alternately first into one bellows and then into another when playing. By this means the result is obtained that the strength of the tone is always directly dependent on the pressure of the hands playing without the necessity of separate devices, so the strength of tone of the notes of

the keys depressed in the upper part of bellows which is just about to be filled with air depends on the pressure which the playing hand exerts on the other bellows. By this means the further result is obtained that the notes are equally strongly sounded on the right and left hand upper part, as the two wind-chests are connected by the air-passage so that an equalization of the air-pressure in both chests takes place. This improved arrangement of musical instruments is shown in the accompanying drawings.

Figure 1 is a vertical cross-section through one of the two similar parts of the instrument, and Fig. 2 is a view of the instrument in longitudinal vertical section.

a and *b*, Fig. 2, are the two parts of the instrument, which coincide except as to the reeds. Each part consists of a bellows *c* or *c'*, a wind or reed chest *d* or *d'*, and a keyboard *e* or *e'*. On the latter there is a handle *f* or *f'*, consisting of a raised bar, under which travels the thumb of the hand playing, which moves to and fro, drawing the bellows. The two wind-chests *d* and *d'* are connected with one another by means of an air-passage *g*, lying under the bellows, and the compressible passages *h* and *h'*, formed in both bellows. When the bellows *c*, Fig. 1, is drawn upward, air flows into the same through a valve *i*. When the bellows *c* is compressed, the air is expelled through a valve *k* into the wind-chest *d*. From the wind-chest the air of course escapes through that reed or reeds which are caused to sound by the pressure of the keys. The reeds are arranged on boards *l* and *l'*. In Fig. 2 the sectional surface of the reed-board *l* is shown in order to show the position of the same; but otherwise the cross-section is drawn as if the reed-board *l* had been taken out in order to show the interior of the upper part. If then one bellows be compressed while the other bellows be inflated when the keys on the keyboard of both upper parts are depressed, both the reeds in the wind-chest of the bellows belonging thereto and also the reeds of the other wind-chest are sounded in a similar manner and with the same strength. The air passes then out of the wind-chest of the bellows

which is compressed—that is to say, for instance, out of the wind-chest d —into the passage h and through the air-channel g into the air-passage h' and through the reed or reeds
 5 which are caused to sound by pressure on the keys. The valve h' in the upper wall of the bellows c' is closed when the bellows c' is drawn up or inflated. The air forced from d
 10 into d' can therefore only escape through the reeds. A spring is arranged in each of the bellows, which spring is mainly intended to facilitate the lifting or inflation of the bellows by the player. The springs may also be made stronger, and then the instrument becomes
 15 like a harmonium—that is, an instrument only operated by pressure on the keys.

As appears from the drawings and the foregoing specification, the air-passage leads from one wind-chest into the other through both
 20 bellows. The same effect is, however, attained by any other suitable direct connection of the two wind-chests, it being only necessary to take care that the bellows are insulated from one another and that thus during
 25 the inflation of the one bellows the reeds of both wind-chests may be sounded perfectly simultaneously by the direct pressure of the hand on the other bellows.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The herein-described wind musical instrument comprising two independent bellows, inlet-valves in the bottom of each, a compressible cover upon the top of each, a reed-board
 35 for each bellows, a wind-chest for each bellows, of which the cover forms the bottom and the reed-board the top, a passage-way extending under both bellows, and a pair of compressible passage-ways, one communicating
 40 through each bellows between the wind-passage and the wind-chest, substantially as described.

2. In the wind musical instrument herein described comprising two independent bellows, a compressible cover for each bellows,
 45 a reed-board for each bellows, a keyboard and thumb-guard for each bellows, a wind-chest for each bellows of which the cover forms the bottom and the reed-board the top and a passage
 50 connecting the two wind-chests, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

RICHARD SCHELLER.

Witnesses:

E. H. L. MUMMENHOFF,
 OTTO W. HELLMRICH.