

F. Hoddick, *Reed Organ.*

N^o 76,759.

Patented Apr. 14, 1868.

Fig. 1.

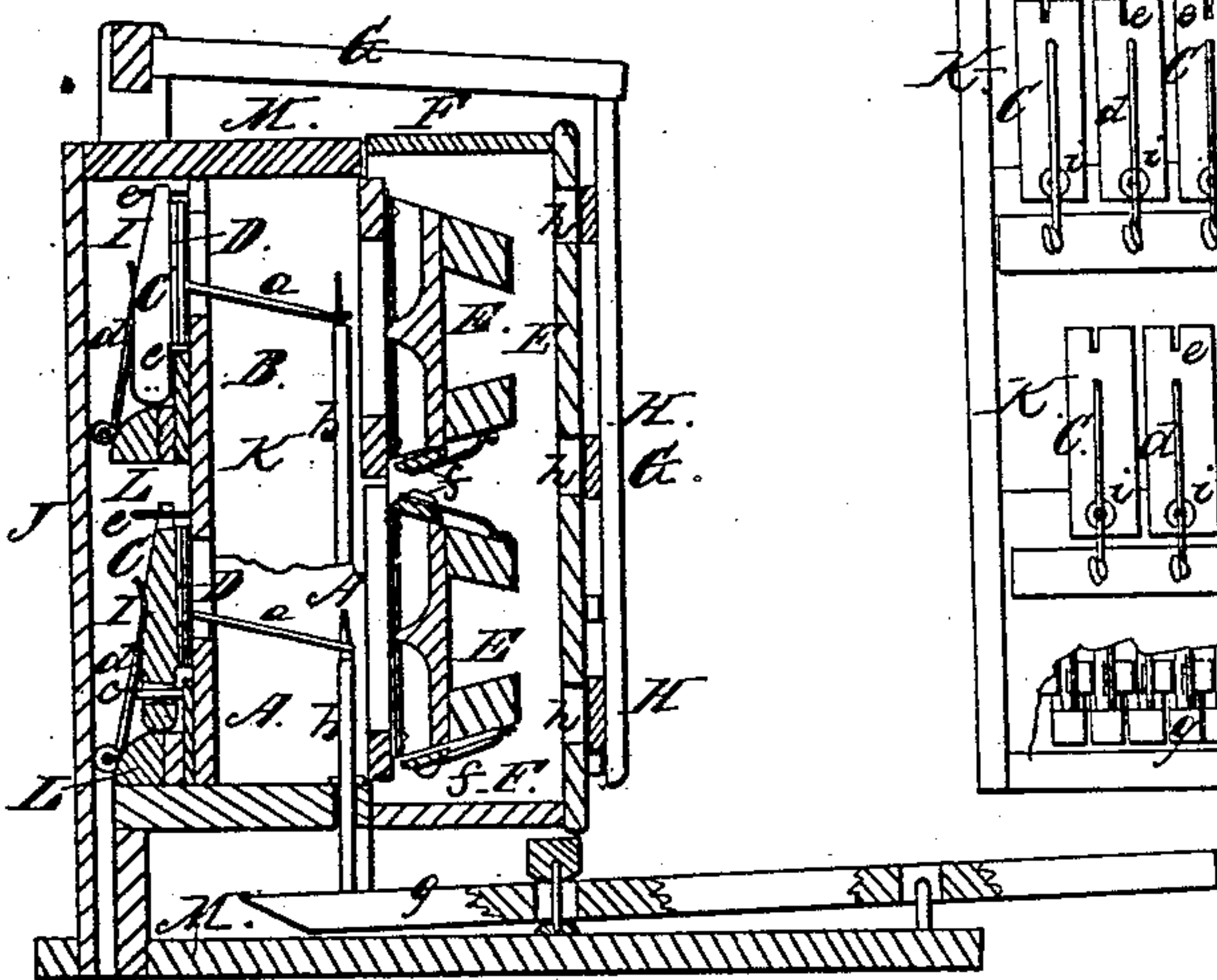


Fig. 2.

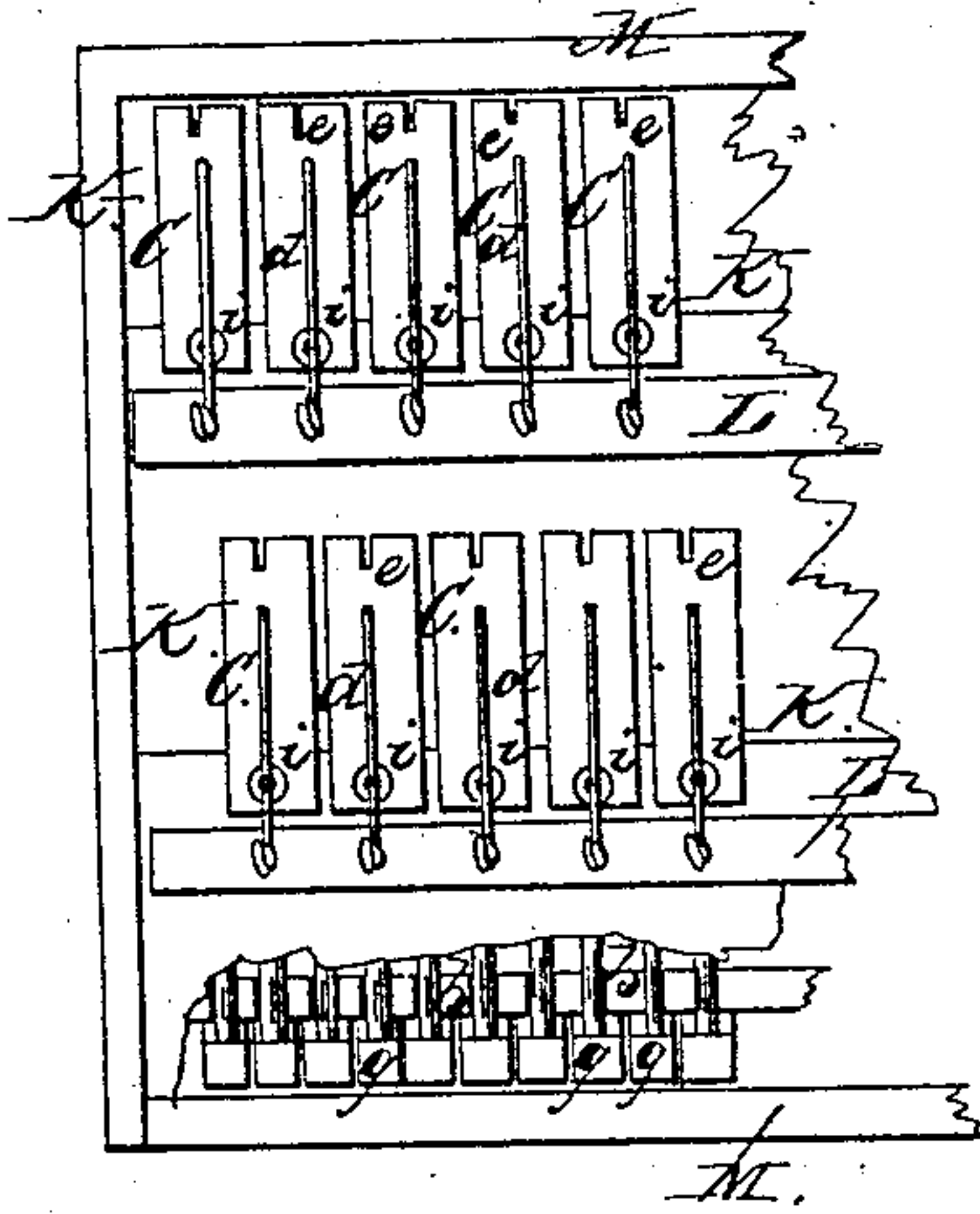


Fig. 4.

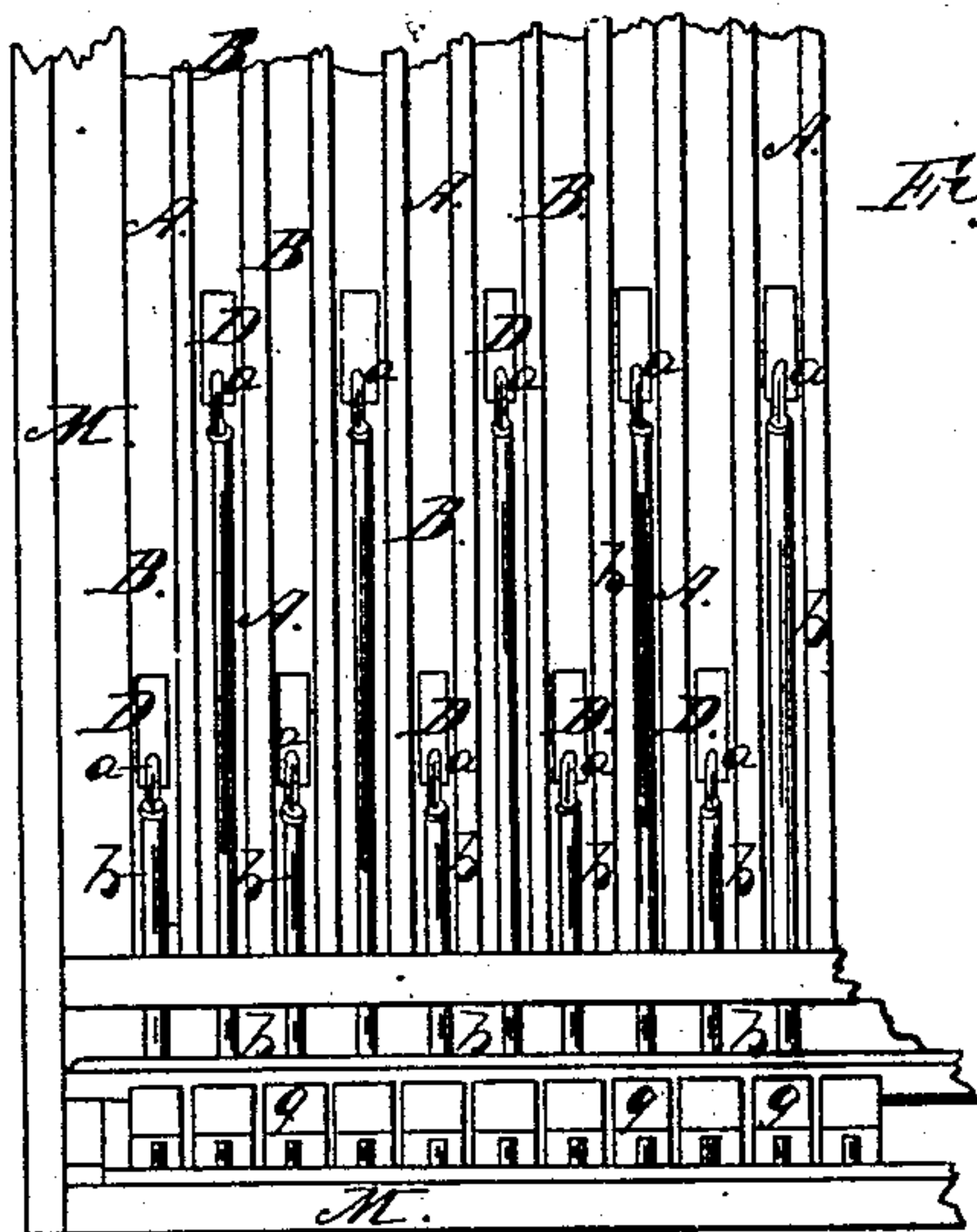
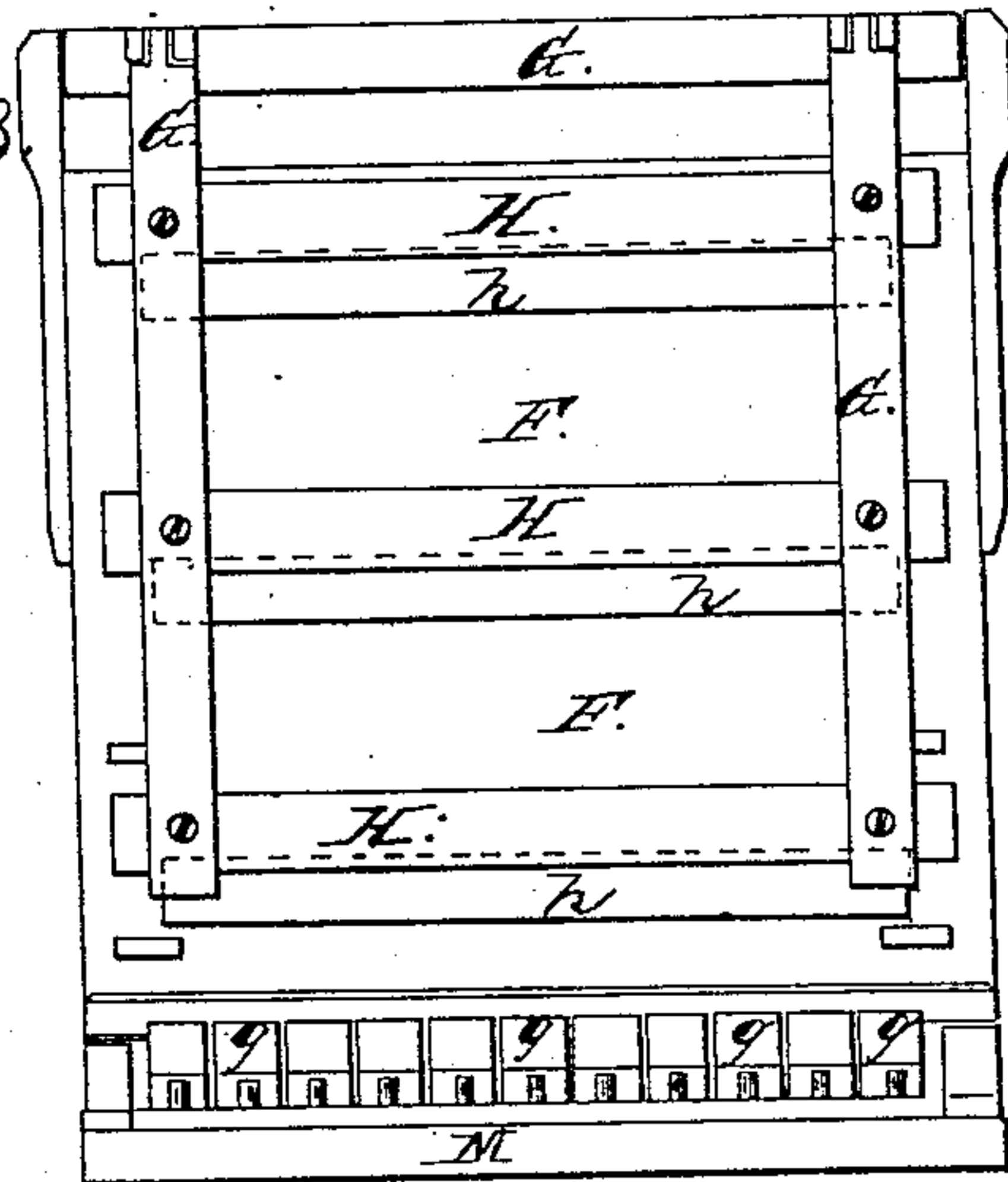


Fig. 3.



Witnesses.

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FREDERICK HODDICK, OF BUFFALO, NEW YORK, ASSIGNOR TO GEORGE A. PRINCE AND COMPANY, OF SAME PLACE.

Letters Patent No. 76,759, dated April 14, 1868.

IMPROVEMENT IN REED-ORGANS.

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, FREDERICK HODDICK, of Buffalo, in the county of Erie, and State of New York, have invented certain new and useful Improvements in Reed-Organs; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section of my upright reed-organ, with the swell-attachment applied.

Figure 2 is a rear view, with the back removed, showing my method of placing the valves.

Figure 3 is a front view, with the swell and reeds removed.

Figure 4 is a front view, showing the swell-box and slide-register.

Like letters of reference designate corresponding parts in all the figures.

My invention consists in dividing the body of an upright organ into chambers, against which the several sets of reeds are placed, said chambers corresponding in number with the number of individual reeds in a set, and each chamber covering all of the corresponding reeds of each set of reeds, the said chambers producing an effect similar to a pipe-organ. The invention also consists in the method of placing the valves and valve-openings, whereby economy of space is produced.

In the drawings, M shows the body of the organ, A A the upright partitions, and B B the chambers between the upright partitions, corresponding in number with the number of reeds in a set. C C are the valves at the back of the chambers. D D are the apertures in partition K, covered by the valves. *a a* are the operating-rods, connecting the valves with the top of the push-pins *b b*, running from the rods *a a* to the end of the levers *g*, forming part of the keys. *c c* are set-pins, fastened to the back of partition K, upon which the valves C C work. *i i* are conical holes near the bottom of the valves, in which the pins *c c* set. *d d* are the spring-rods of the valves, and *e e* are guiding-pins for the valves. E E are the several sets of reeds, resting, one above another, against the edges of partitions, A A, with the corresponding reeds of the several sets opening into the chambers B B.

The chambers B B, communicating, from the wind-chest or air-chamber I, to the sets of reeds E E, may be extended upwards to any desired height, and as many sets of reeds placed against them, one above the other, as may be wished, to produce any or all the varieties of stops. As the wind-chest I need never, in any of these organs, extend beyond a certain height, (simply sufficient to draw the air from chambers B,) the different sets of reeds may be placed on both the front and back of these partitions and chambers, which will greatly economize space.

A most important advantage of these chambers is, that they unquestionably give a pipe-organ tone to the reeds, which are placed opposite to them, making the tone thereby more mellow and rounder, and doing away with any objections to the penetrating quality of the reed-tone. The great difference in expense is obvious.

By the use of these chambers, it will also be perceived that where a single valve, C, is opened, the bellows draws upon all the air in any given chamber, and, therefore, produces a tone through all the individual reeds of the several sets opening into said chamber. Thus, if there are four sets of reeds, the opening of one valve will draw through four reeds of the same key, producing a fourfold power and variety of tone by a single touch of the operating-key; and, in doing this, there is but a single connection through push-pins and rods, *b a*. In other organs, a compound arrangement of push-pins has been employed, connecting with as many different sets of valves as there are sets of reeds, but such arrangements are expensive, and take up considerable room, but in none, so far as I am aware, has the opening of one valve produced a tone through several sets of reeds.

This effect is owing to the employment of the chambers B B.

These chambers and partitions allow me to attach my valves at the back, in two rows, one above another, fig. 2, the upper row alternating in position or breaking joints with the lower row; for example, the first valve of the lower set of valves opens into the first chamber; the first valve of the upper set opens into the second chamber, and so on, there being as many chambers as there are keys, the first key opening the first valve of the lower set, the second key the first valve of the upper set, and so on.

This arrangement of placing the valves in two rows, and alternating them in position, in combination with the chambers B B, enables me to economize space in the organ, as, when thus elevated, they still open into chambers B, and therefore act upon any given number of reeds connected with said chambers.

By the arrangement of the valves loosely upon the set-pins *c c*, as described, the said valves operate freely in opening and closing, and are also easily applied or removed.

My swell-arrangement is simple in the extreme, being composed of a wooden box, F, attached to and covering the entire front of the action, and having longitudinal openings, *h h*, covered by slats, H H, of a frame, G, which slats adjust up and down. This reduces the sound of the reeds to the most beautiful *pianissimo*, and, by gradually raising the sliding frame, the slats are at the same time raised, producing a gradual increase in tone, or *crescendo*. When the slats are entirely above the openings *h h*, the full tone of the reeds is allowed to issue. The *diminuendo* is, of course, produced by gradually working the sliding frame, with the slats H H, downwards over the openings *h h*.

This swell possesses many advantages. It is directly, easily, and surely worked, producing the whole range of tone, from *forte* to *piano*, and *vice versa*, as readily as described. It is also easily and quickly detached, when necessary to get at the reeds or action, and as quickly reattached to the instrument, and also being very simple in its construction.

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

1. The employment, in upright organs, of the chambers B B, interposed between the sets of reeds and the valves, and operating in the manner and for the purpose set forth.
2. So combining several sets of reeds, E E, with the chambers B B, that the opening of the one valve, C, in any one chamber, shall act upon all the reeds opening in that chamber, as herein set forth.
3. Arranging the valves C C and the openings D D, which they cover, in two rows, one above the other, and alternating in position, when combined with the chambers B B, in such a manner as to economize space, as herein set forth.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

FRED. HODDICK.

Witnesses:

ALBERT HAIGHT,
J. R. DRAKE.