

J. R. Cluxton.
Reed Organ.
N^o 94,713. Patented Sept. 14, 1869.

Fig. 1

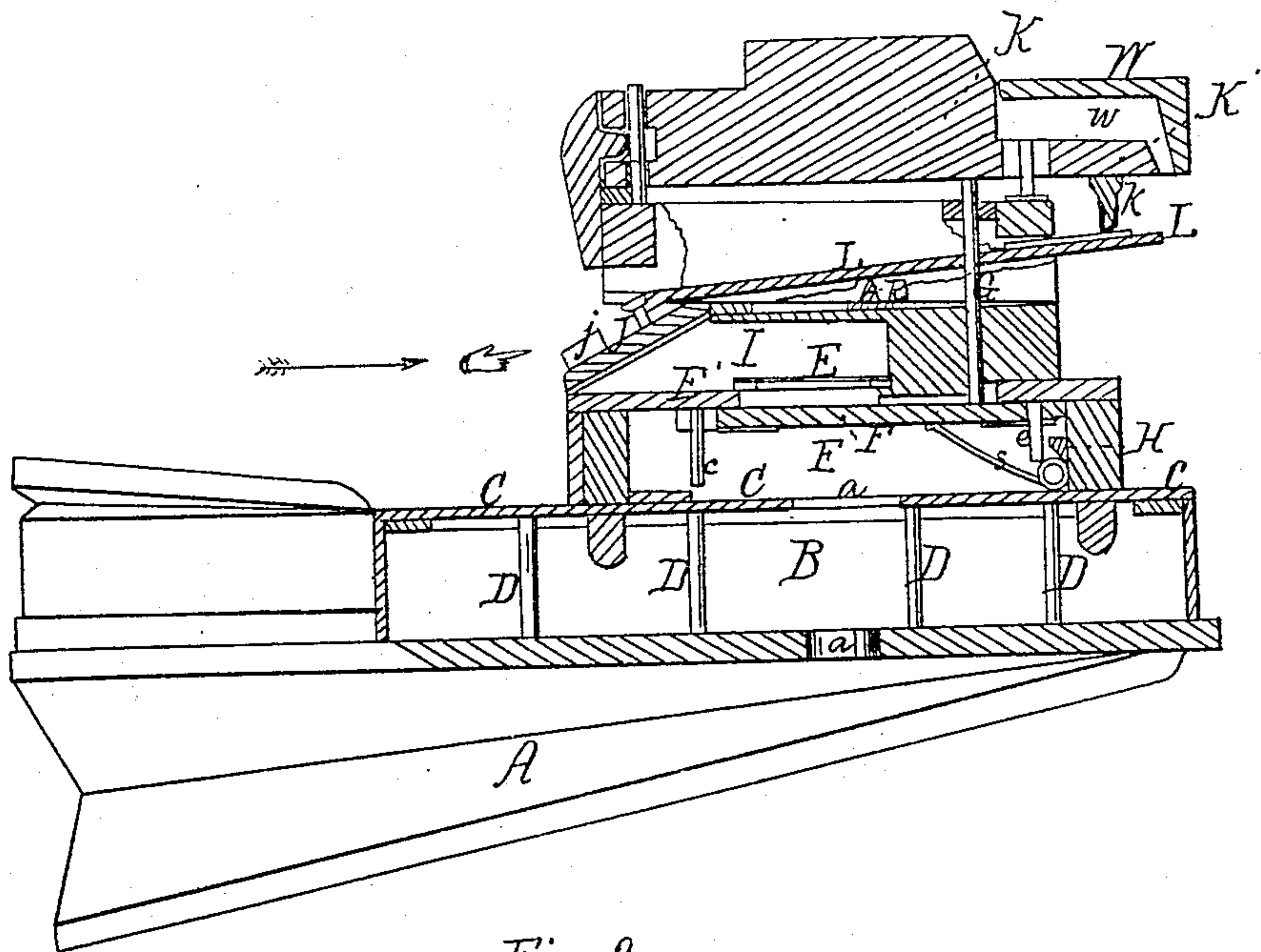
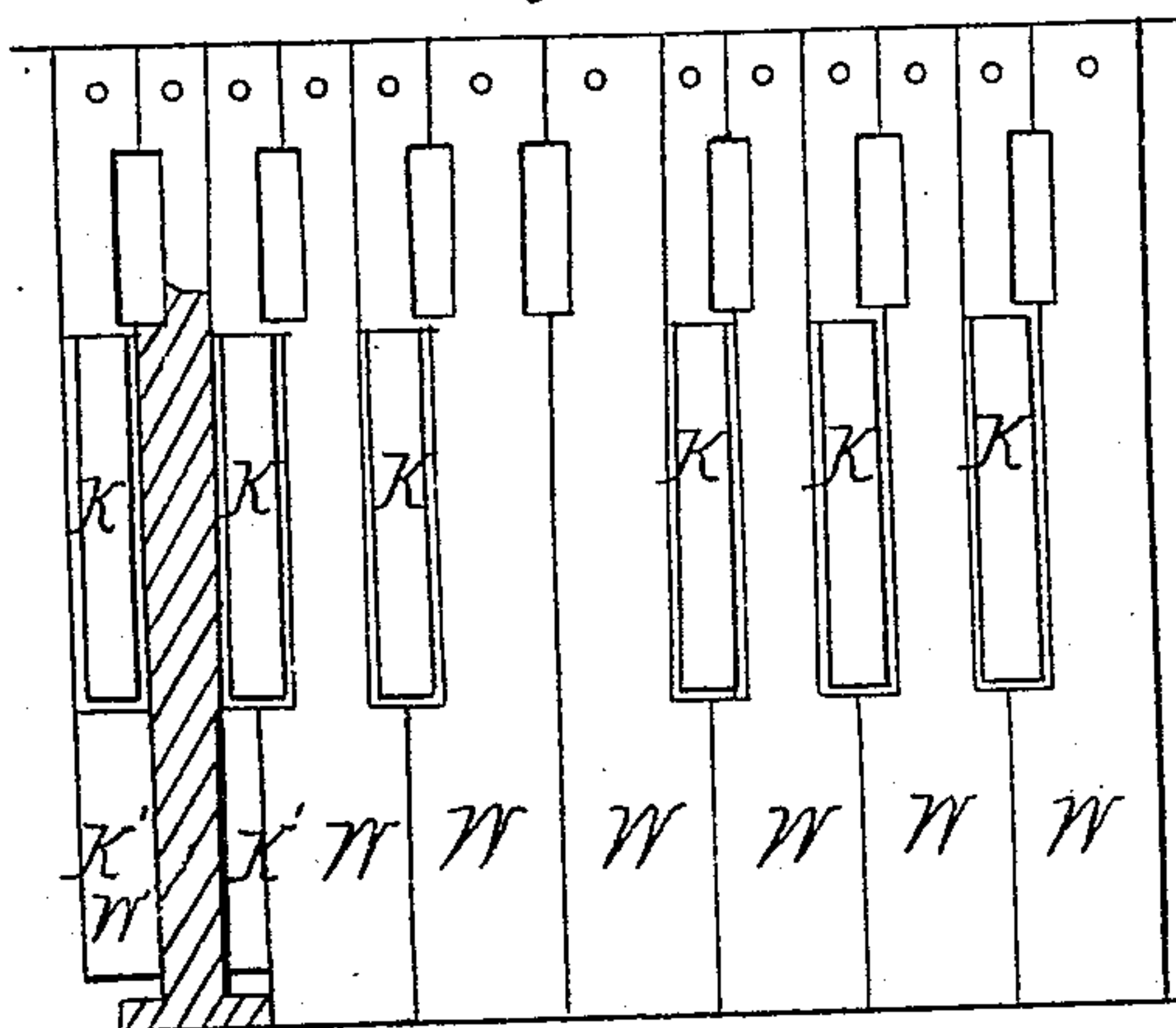


Fig. 2.



Witnesses.
Chas. A. Pettit
John C. Kemmer

Inventor.
J. R. Cluxton
By Messrs. H. C. & Co. Attorneys.

United States Patent Office.

J. R. CLUXTON, OF RUSSELLVILLE, ASSIGNOR TO HIMSELF AND THOMAS W. GORDON, OF GEORGETOWN, OHIO.

Letters Patent No. 94,713, dated September 14, 1869.

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, J. R. CLUXTON, of Russellville, in the county of Brown, and State of Ohio, have invented a new and useful Improvement in Melodeons; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical transverse section.

Figure 2 is a top view of the key-board, one of the keys being shown in section.

This invention comprises an important improvement in melodeons, and other instruments of a similar character. The volume of sound from each key is made to depend upon the pressure of the finger upon that particular key, so that pedals, stops, swells, &c., may be entirely dispensed with, and the loudness or softness of each sound be regulated with the utmost nicety by the touch of the player.

In the drawings—

A indicates the bellows, and B a vibrating box, which is arranged directly above the bellows, and through which, by means of openings, *a a*, the bellows forces the air to the reeds.

The top or cover of the box B forms a sounding-board, C, which is made of fir or other suitable wood, and is supported along the centre or at other suitable points by sounding-posts, D D D.

The other operating parts of the instrument are supported upon the sounding-board.

The sounding-board and the box B, when thus constructed and employed, increase the power, and at the same time improve the quality of the tones of the instrument to a very remarkable degree, while they can be easily applied, and do not materially increase the cost of its construction.

The apparatus by which the power of the tones is regulated may be described as follows:

E is a box directly above, and resting upon the sounding-board, and the top of which, E', forms the reed-board, the reeds themselves being shown at *e*.

A valve, F, seats upward against the under side of the reed-board, being held in position, and guided in its action, by means of guide-rods, *c c*, and a spring, *s*.

G is a rod extending from the valve F, near one of its ends, up to one of the keys, K, and serving to depress the valve and let the current of air strike the reed whenever the key is pressed.

It will be observed that the end of the spring *s*, which supports the valve and presses it up against its seat, is nearer to the centre of the valve than is the end of rod G, which operates the valve. The effect of this arrangement is, that if the key be slightly pressed downward, it will slightly depress the right-

hand end of the valve, as seen in the drawings, fig. 1, while its left-hand end will remain seated, so that a very small quantity of air will pass to the reed, and a soft, low sound will be the result.

But if the key be pressed down with greater force, the right-hand end of the valve will be arrested in its downward motion by a block or stop, H, and then the left-hand end of the valve will be unseated, and the whole volume of air will be admitted to the reed, producing a strong, full tone.

Above each reed is a box, I, into which the air enters after passing through the reed, and from which it is finally discharged to the open air by means of a valve, J, operated by a lever, L, which is in its turn actuated by a pin, *k*, projecting down against it from the under side of the keys.

i is the fulcrum of lever L, and *j* is a weight attached to the valves J J, which closes them and keeps the lever in contact with the pins *k k*.

It will be seen from this description, that the depression of any key will open the valve F, below the reed, and at the same time will, to the same degree, open the valve J above the reed, so as to afford a free passage for the current of air required to produce the sound. The sound of the reed will, therefore, be clear and of good quality, while its power will depend entirely upon the extent to which the key is depressed and the valves opened.

It is evident that the pins on the black keys K K, and the white keys W W, ought to be at the same distance from the fulcrum of the levers L L, and also, that they ought to be so far towards the front ends of the keys as will give the levers an easy operation, rendering the action of the keys easy, and making the sound instantly responsive to the touch.

In order to effect this, it is necessary to elongate the lower side of the black keys, as shown at K', and to cut in the under side of the white keys a recess, *w*, for such elongated part to work in without coming in contact with its neighboring keys.

The keys can be made in this form as easily and as cheaply as in any other. Their outside appearance will not be different from that of any other keys, and their action will be easy and perfectly uniform. In consequence of this construction, it is evident that all the swell-attachments, &c., may be omitted in connection with my improved instrument. Its power will depend entirely upon the player's touch, and may be varied at pleasure. Each key acts independently of all the others, in this respect, and while one is played softly, any other, or all the others, may be at the same instant played loudly. The bass keys may be played with one degree of power, and the treble keys at the same time with a different degree. The improved apparatus thus produces entirely new and

very important results, enabling the player to give much greater expression to the music, and to produce a variety of artistic and pleasing effects not attainable by any other instrument heretofore in use.

Having thus described my invention,

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

1. The key K, provided with the elongation K', in combination with the key W, provided with the recess *w*, as and for the purpose described.

2. The combination of keys K W with levers L L,

and valves J J, when the parts are constructed to operate in the manner and for the purpose set forth.

3. The stop H, when operating in connection with the valve F that admits the air to the reeds, substantially in the manner and for the purpose set forth.

4. The combination and arrangement of the valve F, guides *c c*, spring *s*, stop H, and actuating-rod G, when operating in the manner and for the purpose described.

Witnesses:

J. R. CLUXTON.

JOHN WILLIAMSON,
S. A. COLLINS.