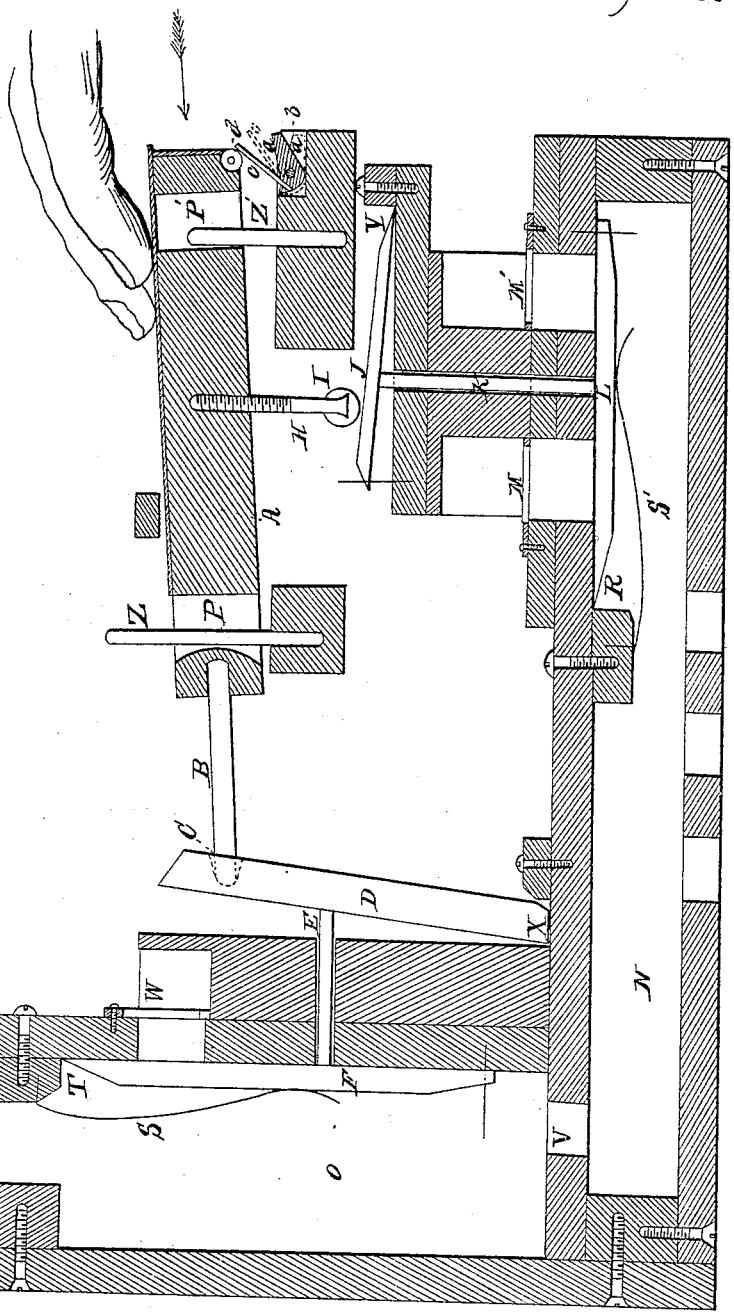
D. Schuyler,

Organ Action.

No. 52,892. Patented Feb. 27, 1866.



Witnesses.
F. M. Chandler
Thos Oakman

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UNITED STATES PATENT OFFICE.

DANIEL SCHUYLER, OF BUFFALO, NEW YORK.

IMPROVEMENT IN ORGANS, &c.

Specification forming part of Letters Patent No. **52,892**, dated February 27, 1866.

To all whom it may concern:

Be it known that I, DANIEL SCHUYLER, of the city of Buffalo, county of Erie, and State of New York, have invented a new and useful Action for Organs and Reed-Instruments; and I do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in so constructing the keys that the volume of any desired note or notes can be increased by the movement of the key or keys, they being so constructed that one or more can be pressed longitudinally back into the key-board, so as to cause one or more extra reeds to sound in connection with the front set of reeds. The extra reeds which the back movement of the keys causes to sound can be tuned so as to produce the tremolo.

It also consists in a new arrangement of valves, whereby the loss of air around the "push-down" pins during the sounding of the reed is prevented.

It further consists in having a "stop" for throwing the key or keys back in the key-board when the usual downward pressure is applied to the keys.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

As keys are now constructed they can have only the downward movement, they having two slots for the key-pins, the slots being only of sufficient length to allow such downward movement.

I construct my key with two elongated slots, P P′, (see drawing,) so that the key can be moved longitudinally back in the key-board.

In the ordinary method the key presses directly down on the "push-down pin" K, which opens the valve L, and as the push-down pin must work freely, more or less air escapes around the pin. To prevent this loss of air I place the valve J over the push-down pin and hole through which pin K passes to open the valve L. When the valve L is open the valve J is closed.

For the purpose of causing the key to move back in the key-board when only the downward pressure is applied, I use a stop, consisting of a bar, *a*, running the length of the key-board under the front end of the keys, with an arm, *c*, for each key, the arm standing at an angle of forty-five degrees (more or less) to the under side of the key, and when the bar is turned so as to bring the arm up against the end of the key, as shown in the drawing, the key, when pressed down, is caused to slide back in the key-board, the stop to be operated by any of the usual methods of operating stops.

The key A is supported by means of screw H and roller I, resting on valve J. It (the key) is pivoted at the back end in a recess, C. When the key is pressed down it closes valve J, which forces down push-pin K and opens valve L, allowing the wind to take effect on reeds M M′. The key, when pressed down and back, opens valve L, also closes valve D and opens valve F, thus allowing reed W to be sounded in connection with reeds M M′.

By withdrawing the backward pressure from the key, spring S closes valve F, forcing back push-pin E and valve D and key A, thus restoring the key to its original position in the key-board. The key is kept in position laterally by means of key-pins Z Z′ in slots P P′. Valve J is hinged at Y. Valve D is hinged at X. Valve L is hinged at R. Valve F is hinged at T. Air-chambers N and O are connected by the aperture V. Arm *c* of bar *a* is lowered from or raised up to the end of the key A by turning the bar *a*, which turns on the pin *b*, and can be operated by any of the usual methods of shifting stops. A roller, *d*, can be used in the end of the key to prevent any friction on the end of the key.

I claim—

1. The longitudinal action of the keys, they being so constructed that any one or more of them can be pressed back in the key-board at the pleasure of the performer, for the purpose substantially as set forth.

2. The use of a stop, as shown in the drawing, or any equivalent method of causing the keys to move back in the key-board when the usual downward pressure is applied to the key, substantially as and for the purpose set forth.

3. The use of valves to prevent the loss of air around the push-down pins when arranged substantially as herein described.

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Witnesses:

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