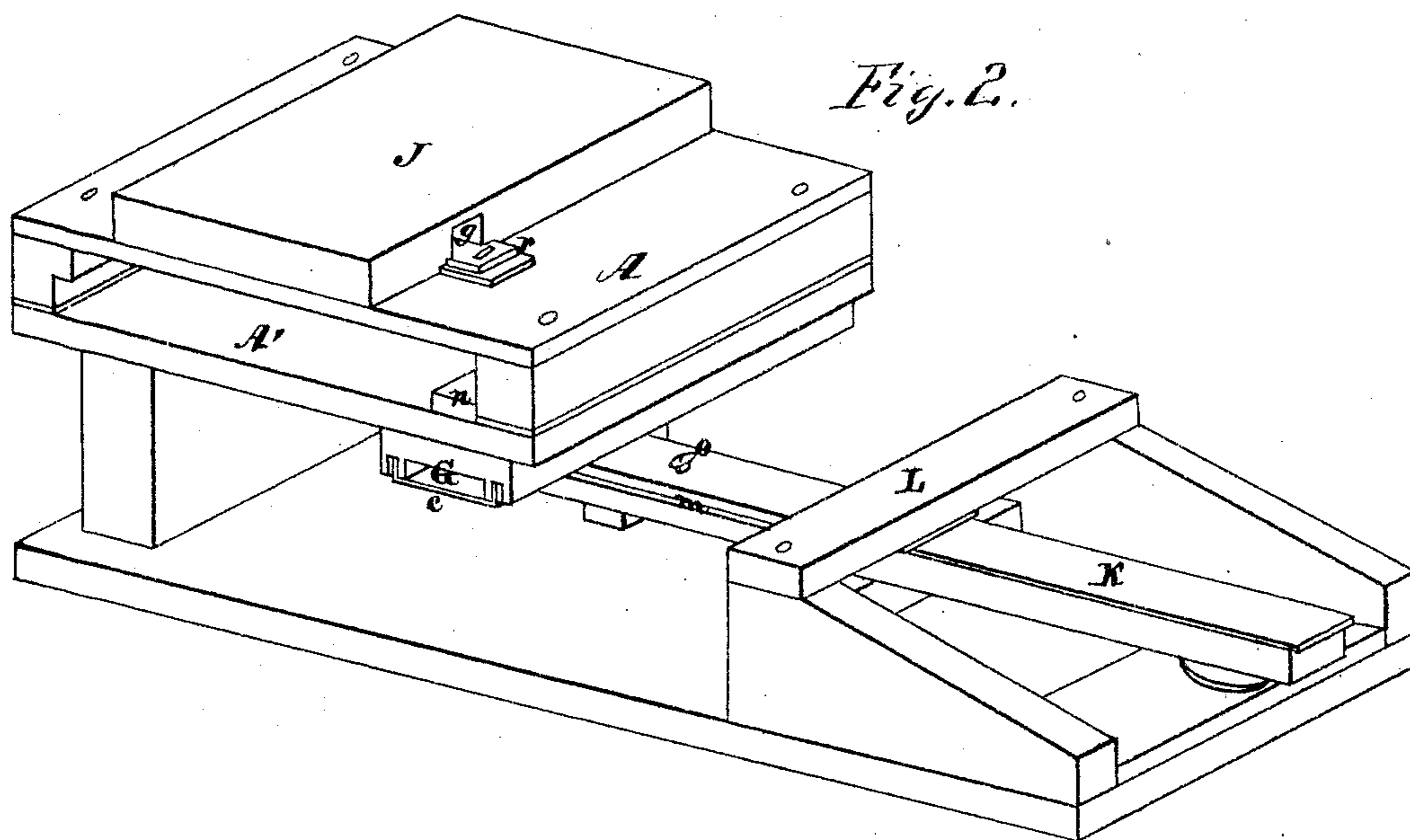
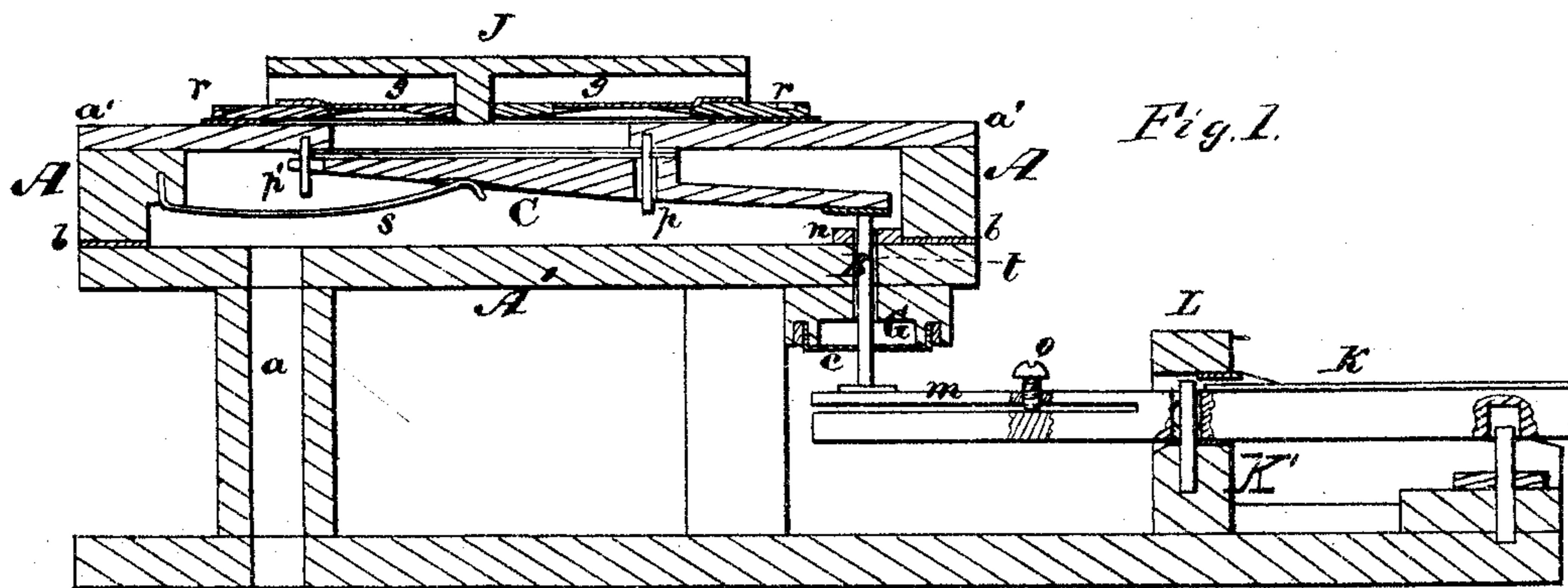


W. N. MANNING.
Reed-Organ Actions.

No. 144,781.

Patented Nov. 18, 1873.



Witnesses.
E. A. Bates.
Phil C. Masi

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UNITED STATES PATENT OFFICE.

WILLIAM N. MANNING, OF ROCKPORT, MASSACHUSETTS.

IMPROVEMENT IN REED-ORGAN ACTIONS.

Specification forming part of Letters Patent No. **144,781**, dated November 18, 1873; application filed August 23, 1873.

To all whom it may concern:

Be it known that I, WM. N. MANNING, of Rockport, in the county of Essex and State of Massachusetts, have invented a new and valuable Improvement in Organ-Actions; 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 annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1. of the drawings is a representation of a longitudinal section of my organ-action. Fig. 2 is a view of my organ-action.

This invention relates, first, to a new and improved arrangement of the wind-chest, valves, push-pins, and keys of an organ, by means of which one or more sets of reeds can be placed in such a position that a tuner has free access to them without disturbing the action, the top of the wind-chest is removable for repairs or adjustment without disarranging the whole instrument, the tone is greatly increased, and an elastic noiseless action is secured; second, to a mode of applying the push-pins, by which the movement of the keys lifts the valves, whereby all friction is removed from these pins, and, at the same time, all leakage around them is prevented, as will be hereinafter more fully explained.

In the accompanying drawings, A represents the wind-chest of the organ, which is secured down upon the board A' by means of screws, as shown in Fig. 2, so that it can be conveniently removed for adjusting the parts contained in it. This chest, or the removable portion of it, is packed at *b b* for the purpose of preventing leakage; and it is also provided with the usual exit-pipes *a*, leading down from the board A', for the escape of air. Inside of the wind-chest A, and applied to the opening leading from the reed-cells *g* of the box J, is a valve, C, which is pivoted at *p* and guided at *p'*, in the usual well-known manner of setting organ-valves, and which is held up in its place by means of a spring, *s*. Above this valve C, and secured upon the wind-chest, is the cell-box J, containing in its cells *g* the removable

reeds *r*, as shown in Fig. 1. The tail of the valve C is supported upon a vertical push or lifting pin, B, but is not connected to this pin; consequently the wind-chest and its attachments can be removed from its place without in any manner disarranging the action. The push-pin passes through a guide-strip, *n*, which is applied in the wind-chest A, and which covers a passage, *t*, leading down through the board A' into a chamber, G. The bottom *c* of this chamber G is formed of a thin flexible piece, *c*, of india-rubber, and through this rubber the push-pin B passes, and rests upon the key K. The rubber *c* acts like a diaphragm, and while it allows the push-pin perfect freedom to be moved upward and downward, it also embraces this pin so tightly as to serve as a guide for it, and also a packing, which will prevent the escape of air around it. I therefore denominate the rubber strip *c* an aerial flexible guide. The key K, by which the push-pin is lifted and the valve C opened, is pivoted to the bridge K', and guided by pins in the usual well-known manner. The lifting end of this key has a kerf, *m*, cut longitudinally into, and an adjusting-screw, *o*, applied to, it, for the purpose of adjusting the throw of the key to the proper opening of the valve C.

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

1. The arrangement of the wind-chest, valves, push-pins, and keys of an organ as hereinbefore described, by means of which one or more sets of reeds can be placed in such a position that a tuner can have access to them without disturbing the action, substantially as specified.
2. The guide-strip *n*, passage *t*, and flexible guide *c*, combined with the push or lifting pin B of the valve C, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM N. MANNING.

Witnesses:

HENRI N. WOODS,
B. R. KIDDER.