(No Model.)

E. S. VOTEY.

ORGAN ACTION.

No. 422,100. Patented Feb. 25, 1890.

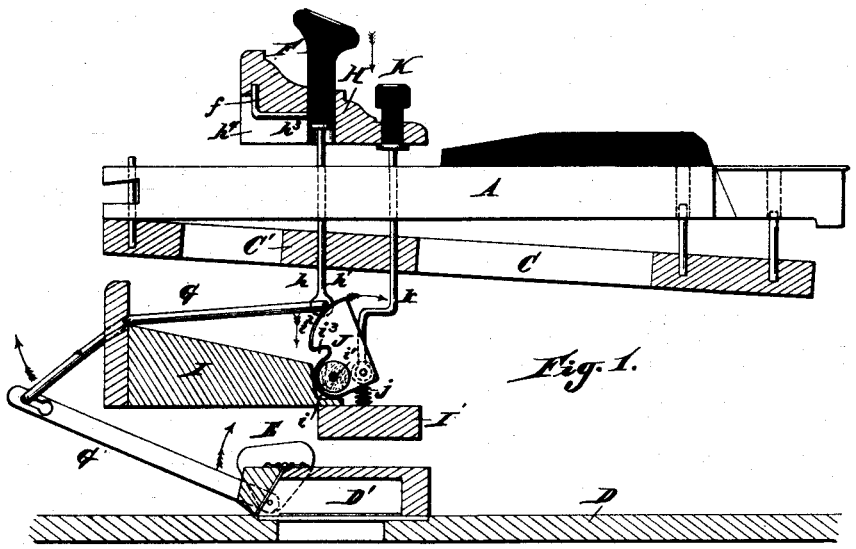

Fig. 1.

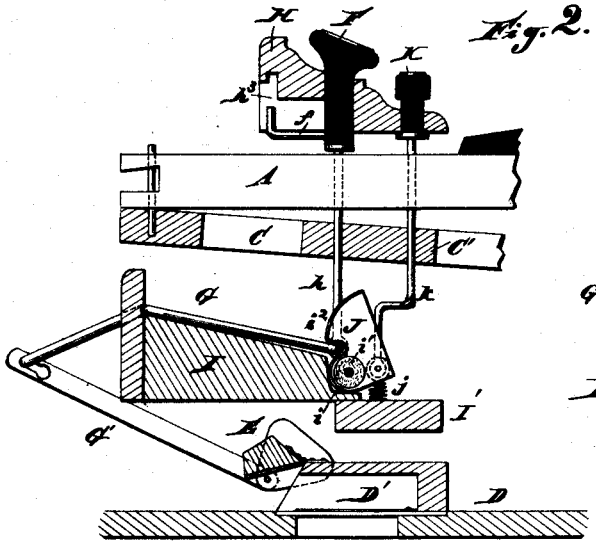

Fig. 2.

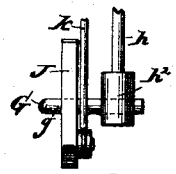

Fig. 3.

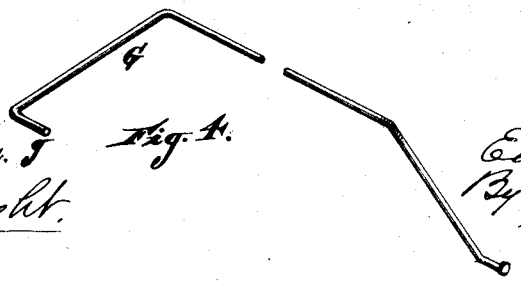

Fig. 4.

WITNESSES

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EDWIN S. VOTEY, OF DETROIT, MICHIGAN.

ORGAN-ACTION.

SPECIFICATION forming part of Letters Patent No. 422,100, dated February 25, 1890.

Application filed July 5, 1887. Serial No. 243,409. (No model.)

To all whom it may concern:

Be it known that I, EDWIN S. VOTEY, of Detroit, county of Wayne, State of Michigan, have invented a new and useful Improvement in Organ-Actions; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in organs, and has special reference to the construction and operation of the stops or knobs and related parts of an organ-action; and it consists of the combinations of devices and appliances, as hereinafter specified, and more particularly pointed out in the claims.

In the drawings I have shown my invention as applied to a reed-organ, although in some of its features its application to pipe-organs is also contemplated as coming within the scope of my invention.

Figure 1 is a vertical cross-section of an organ-action; Fig. 2, a similar view showing the several parts in different position to those in Fig. 1. Fig. 3 is a detail view of parts entering into my invention. Fig. 4 is a separate view of the cranked rod of the organ-action.

Heretofore it has been common to construct and arrange the stops of an organ-action in such a manner that the knobs must be pulled out and shoved in on a substantially horizontal plane. To do this requires the hand of the performer to be taken off the key-board, as the knobs cannot be operated with less than two fingers. It has been found exceedingly desirable, however, to so construct the stops and their engagement with the organ-action that the knobs may be operated without the necessity of removing the hand from the key-board, either in opening or closing the stops, and this I accomplish in the following manner:

A represents the key-board; F, the name-board; C, the key-frame; D, the reed-board; D′, the reed-cells; E, the mutes, and F the knobs, by which the mutes are operated through any suitable intervening mechanism. That shown in the drawings consists of a cranked rod G, engaged at one end with a slotted lever G′, connected with the mute, said rod at the opposite end engaged with my improved knobs F. I would have it understood, however, that I do not confine myself to the particular organ-action herein described and shown, as the knobs, in carrying out my invention, may be combined with various actions, as may be desired.

I prefer to locate the knob in a vertical or substantially vertical position in the name-board H, a metallic rod h leading downward from the knob, or forming a part thereof, through the guide-strip C′. The lower end of the rod h is engaged with the organ-action to open and close the mute as the knob is moved downward or upward. The cranked rod G of the drawings at one end is passed through an eye h' at the lower end of the rod h. This may be done by providing the rod h with an integral eye, although I prefer to engage a perforated wooden block h^2 with the lower end of the rod h to connect it with the organ-action, as the wooden block will effectually prevent any possible metallic ring or noise should two metallic rods be united directly.

I is the bed or frame upon which the cranked rod G is engaged to have a rocking action, said bed being preferably constructed with a front plate I′, connected therewith and below its front edge, as shown, or be made an integral portion thereof. It will be obvious that when the knob F is depressed the arm of the cranked rod G, to which it is connected, will be tilted downward, rocking the rod G and opening the mute.

To hold the cranked rod in a position to keep the mute open, I provide a jack J, pivotally engaged at its lower end upon the bed I, said bed preferably recessed, as at i, to receive the end of said jack or a portion thereof. The pivotal connection of the jack upon the bed is shown at i'. The jack is constructed with a cam-face, as shown at i^2, notched at i^3 to engage upon the cranked rod and hold it down when so operated by the knob F. The extremity of the cranked rod, as at g, is constructed to ride over the cam-face of the jack readily and into the notch i^3, a spring j serving to effect and keep the jack thus into engagement with the cranked rod, as shown in Fig. 2. This spring may be variously con-

structed. As shown, it consists of a coiled spring located upon the plate I and bearing upon the under outer edge of the jack.

To release the jack, I provide an additional releasing-knob K, located in the name-board and connected with the jack by an intervening rod *k*, constituting a part of the releasing-knob, if desired, though I prefer to make it separate therefrom, the lower end of the knob being provided with a layer of felt to form contact therewith. The engagement of the jack upon the bed I and that of the knob K with said jack are upon opposite sides of the center of the jack, though I do not limit myself to any particular method of connection so as to operate the jack. By depressing the knob K it is evident that the jack will be thrown off from engagement with the cranked rod G, when the spring beneath will return the knobs to their normal position and the mute will be closed.

Instead of making the rod *h* a part of the knob F, I prefer a separate construction, the lower end of the knob F being provided with a layer of felt or analogous material, as shown at h^3. For convenience the lower end of the rod *k* may be bent at its lower end to engage the jack. By such a construction the knob F and the releasing-knob K may each be readily depressed by simply extending a single finger without lifting the balance of the hand from the key-board. The releasing-knob may be made smaller than the knob F, which should bear the name of the stop, as the case may be.

I have illustrated a single knob F with its associated releasing-knob K arranged to operate a single mute, and from this it will be perfectly clear that every mute in an organ-action may be similarly connected with a similar vertically-operating knob and its releasing mechanism, and thus the entire stops be brought under command of the operator without lifting his hand.

To prevent the knob F from turning and keep the name straight before the player, I provide it with an arm *f*, rigidly engaged therewith, the said arm working freely in a vertical direction in a socket h^4 in the name-board.

What I claim is—

1. The combination, with an organ-action, of a push-knob provided with a rod L, connected with the organ-action, and a releasing-knob *b*, provided with a rod *k*, a jack connected with the latter knob at one end and engaging at its other end the rod *h*, and a spring for returning the jack to its normal position when released, substantially as described.

2. The combination, with an organ-action, of a bed or frame I, located beneath the key-board, and a crank-rod having a bearing upon said bed and connected with a push-knob at one end and with a mute at the other, a pivoted jack for engaging the crank-rod, and a rod connected to said jack, and a push-knob for operating the rod to release the jack from engagement with the crank-rod, substantially as shown and described.

3. The combination, with an organ provided with a name-board, of a knob, said knob provided with an arm *f*, and said name-board recessed to permit the movement of said arm therein, substantially as and for the purpose described.

In testimony whereof I sign this specification in the presence of two witnesses.

EDWIN S. VOTEY.

Witnesses:
N. S. WRIGHT,
M. B. O'DOGHERTY.