

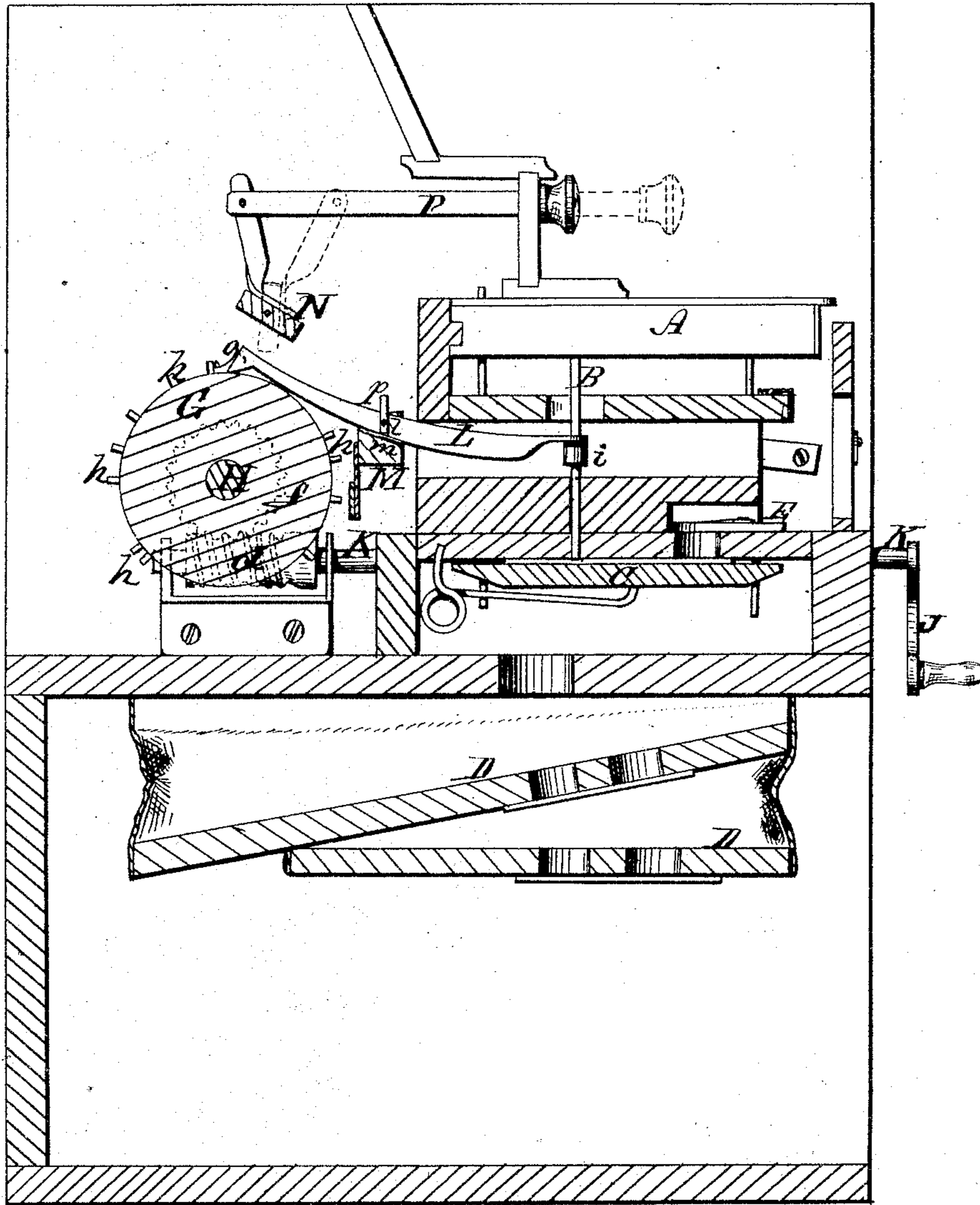
J. VAN DOREN.

Barrel-Attachments for Reed Organs.

No. 157,891.

Patented Dec. 15, 1874.

Fig. 1.



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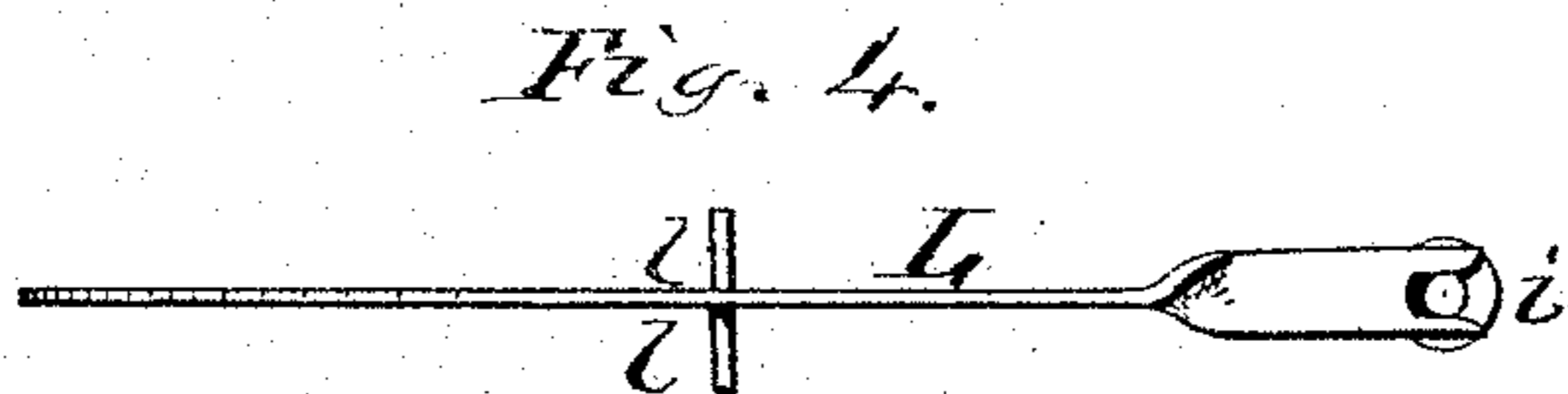
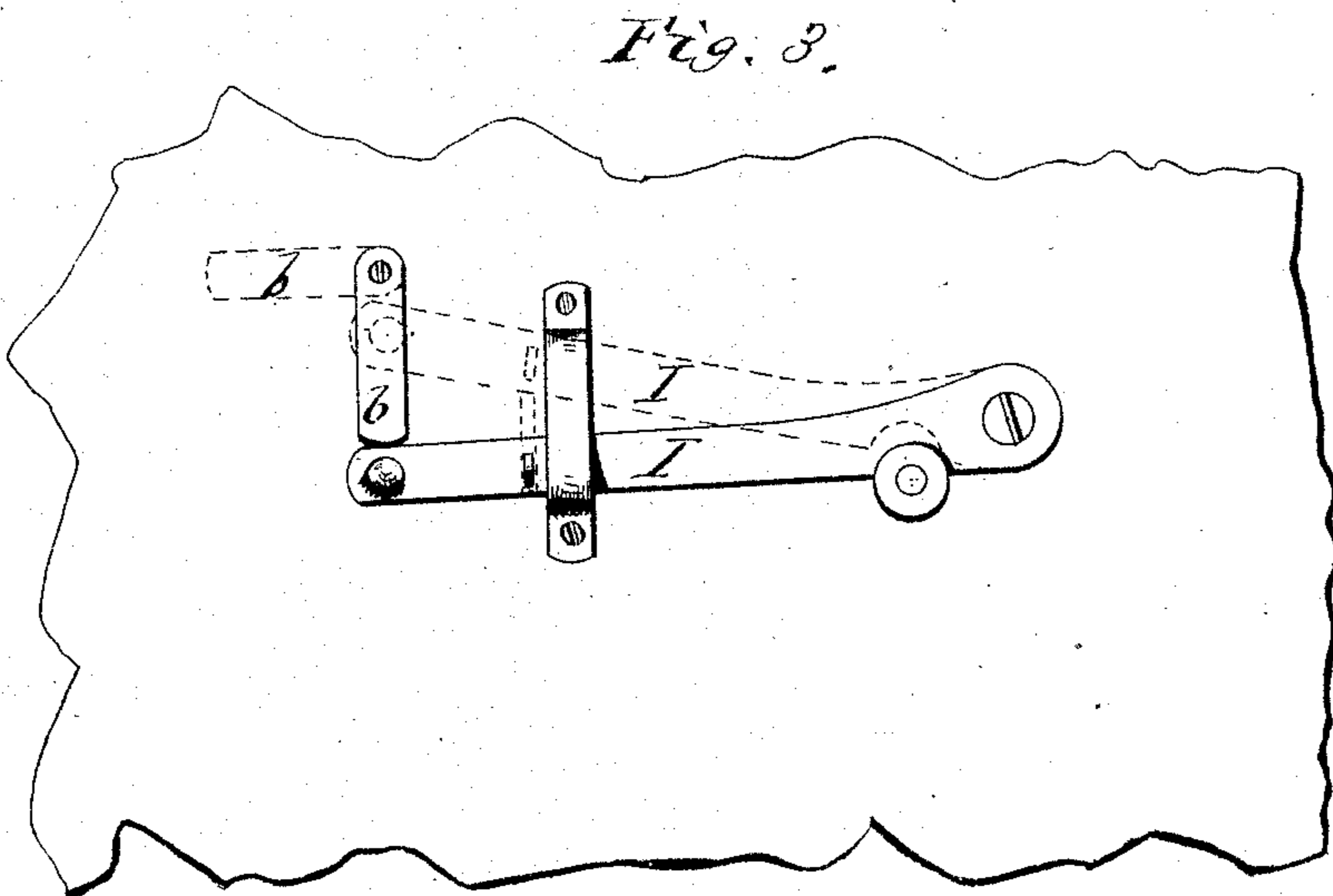
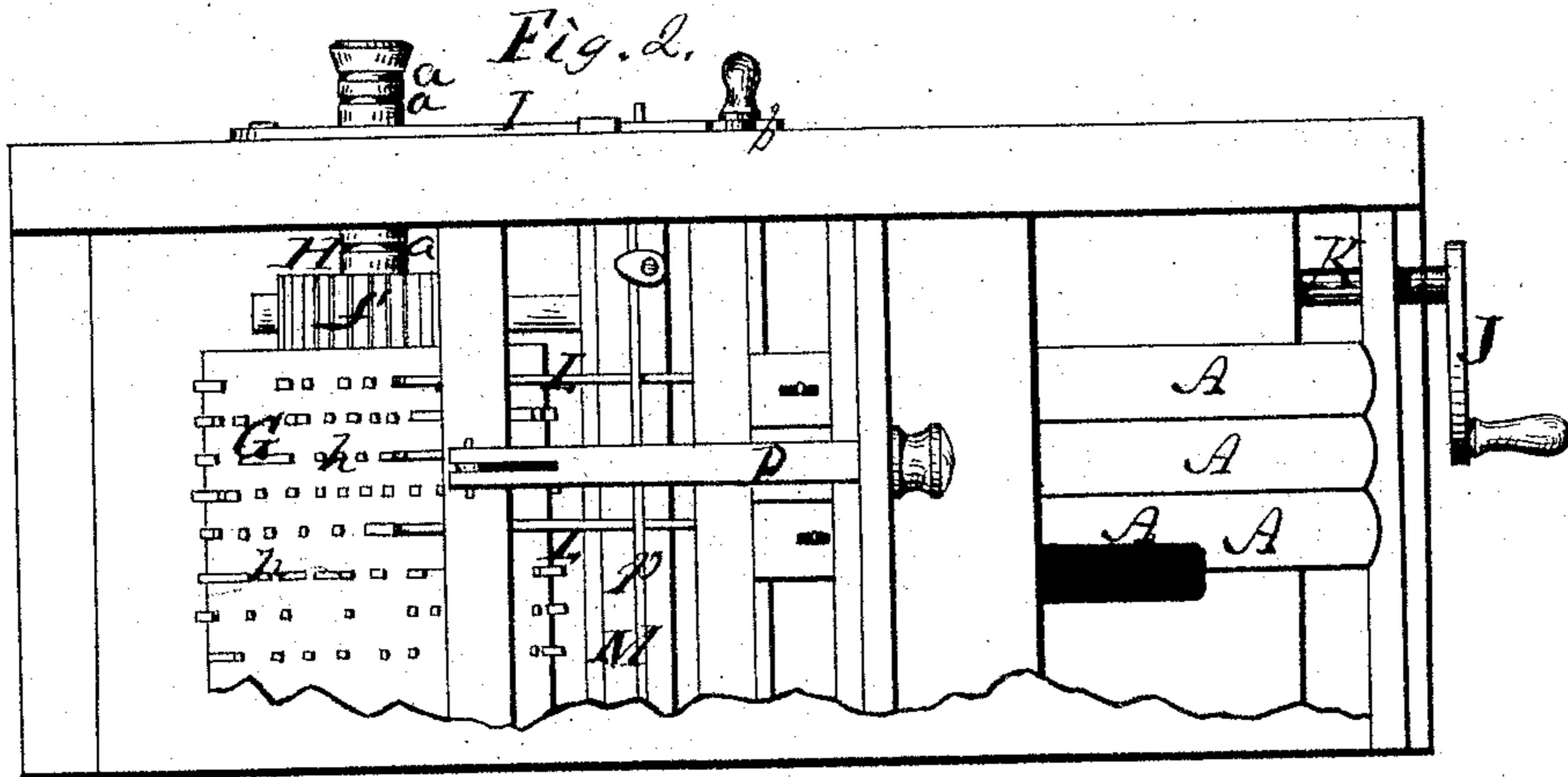
Inventor,
John Van Doren
My Atty,
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UNITED STATES PATENT OFFICE

JOHN VAN DOREN, OF BETHLEHEM, PENNSYLVANIA.

IMPROVEMENT IN BARREL ATTACHMENTS FOR REED-ORGANS.

Specification forming part of Letters Patent No. **157,891**, dated December 15, 1874; application filed June 4, 1874.

To all whom it may concern:

Be it known that I, JOHN VAN DOREN, of Bethlehem, in the county of Northampton and State of Pennsylvania, have invented an Improved Automatic Cylinder Attachment to Cabinet-Organs and Melodeons; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a vertical section, cutting from front to rear, of a melodeon or cabinet-organ provided with my invention, so much of the instrument being shown as is necessary to exhibit the construction and mode of applying my invention; Fig. 2, a top view of one end of the same; Fig. 3, a view of a portion of one end of the instrument; Fig. 4, a top view of a part detached.

Like letters designate corresponding parts in all of the figures.

The nature of my invention consists in the combination, with the reeds or pipes and valves of a cabinet-organ or a melodeon, of a revolving cylinder or barrel, on which airs or tunes are set by pins, in the manner of the cylinder or barrel of a hand-organ or music-box, so that while the organ or melodeon may be played with the keys, as usual, without interference with or by the said attachment, a number of set tunes may be automatically played by simply turning a crank arranged in the case of the instrument, and connected with the pin-cylinder, substantially as hereinafter specified.

In the drawings, let A A represent the keys of the organ or melodeon; B, one of the valve-pins by which the keys open the valves to the reeds or pipes; C, one of the valves; D, the bellows, either exhaust or blowing; and E, one of the reeds, a reed-organ being represented. In the case of the instrument, back of the key-board, in a suitable position for height and distance from the key-board, and so as to be out of the way of the other parts of the instrument, is located a pin cylinder or barrel, G, extending the length of the key-board, so that every valve of the instrument, unless otherwise preferred, may be operated thereby. It is provided with a means of longitudinal adjustment, whereby different

sets of pins may be brought into action for playing different tunes with the same cylinder. As represented in the drawings, the shaft or journal H of the cylinder is provided with a set of peripheral grooves or notches, *a a*, where it projects through one end of the instrument-case, into one of which notches a latch or detent-lever, I, shuts down, as shown by full lines in Fig. 3, and it is raised into a position shown by dotted lines in the same figure when the cylinder is to be shifted in position for changing the tune. There are as many of these peripheral grooves as there are different sets of pins, and different airs arranged to be played by the cylinder or barrel. The latch I is held down by a button or stop, *b*. Any equivalent device for shifting the position of the cylinder may be employed.

The cylinder or barrel is caused to revolve by turning a worm-wheel or screw-shaft, K, reaching forward to the front of the organ-case, and provided with a crank, J, as shown, or other means of turning it. The worm or endless screw-thread *d* of this shaft gears into the leaves or cogs of a pinion, *f*, on the cylinder shaft or journal. The connection between the pin cylinder or barrel G and the reeds or pipes of the instrument is made by means of a series of levers, L L, mounted on a pivot-bar, M, extending lengthwise of the instrument, between the cylinder and key-board. The rear ends of the levers terminate in cams or inclined surfaces *g g*, so that as the pins *h h* of the cylinder strike them successively, the rear ends of the levers will be raised thereby, and the front ends thereof correspondingly depressed. These front ends are forked, or have notches formed therein, so as to embrace the valve-pins B B, as shown in Figs. 1 and 4. Just beneath the forks of the levers, the valve-pins are enlarged or have shoulders *i i*, so that, as the ends of the levers are depressed, they will depress the pins and open the valves of the reeds or pipes, sounding thereby the corresponding notes of the instrument.

In order that the levers L L may not interfere with the ordinary playing of the instrument by the keys A A, or make a noise by rising and descending with the pins B B, a rock-bar, N, is mounted on journals or a shaft above the pin-cylinder G, and in position par-

allel therewith, being of flat form, and so arranged that when turned up, as shown in Fig. 1 by full lines, it does not interfere with the vibratory movements of the levers L L; but when it is turned down, as indicated by dotted lines in the same figure, it will prevent the rear ends of the said levers from rising, and the front ends thereof from moving with the valve-pins. A sliding rod, P, is connected with this rock-bar, as represented, and it is so arranged that when pushed back it raises the rock-bar out of the way of the levers, and when pulled forward it turns the rock-bar down close to the levers.

The levers L L are peculiarly mounted on the pivot-bar M. At the pivot-point each lever has a shaft or pair of trunnion-journals, *l l*, which are let down into a longitudinal groove, *m*, while each lever itself vibrates in a transverse groove of the bar. A rod, *p*, is secured longitudinally over the bar M, and prevents the escape of any of the levers; and on lifting the rod from the levers any one of them can be

removed freely and instantly without disturbing any of the others.

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

1. The combination of the keys A A, valve-pins B B, and valves C C of a cabinet-organ or melodeon with a revolving pin-cylinder, G, set to airs or tunes, and connecting-levers L L, substantially as herein specified, whereby the instrument may be played on by the keys or by the pin-cylinder without change or adjustment, as herein set forth.

2. The pivot-bar M, constructed as described, in combination with the levers L L, as herein specified.

3. The rock-bar N, arranged as described, in combination with the levers L L, substantially as and for the purpose specified.

Specification signed by me this 16th day of April, 1874.

Witnesses: JOHN VAN DOREN.
J. S. BROWN,
R. D. O. SMITH.