

F. ZOGBAUM.

Accordion.

No. 223,461.

Patented Jan. 13, 1880.

Fig. 1.

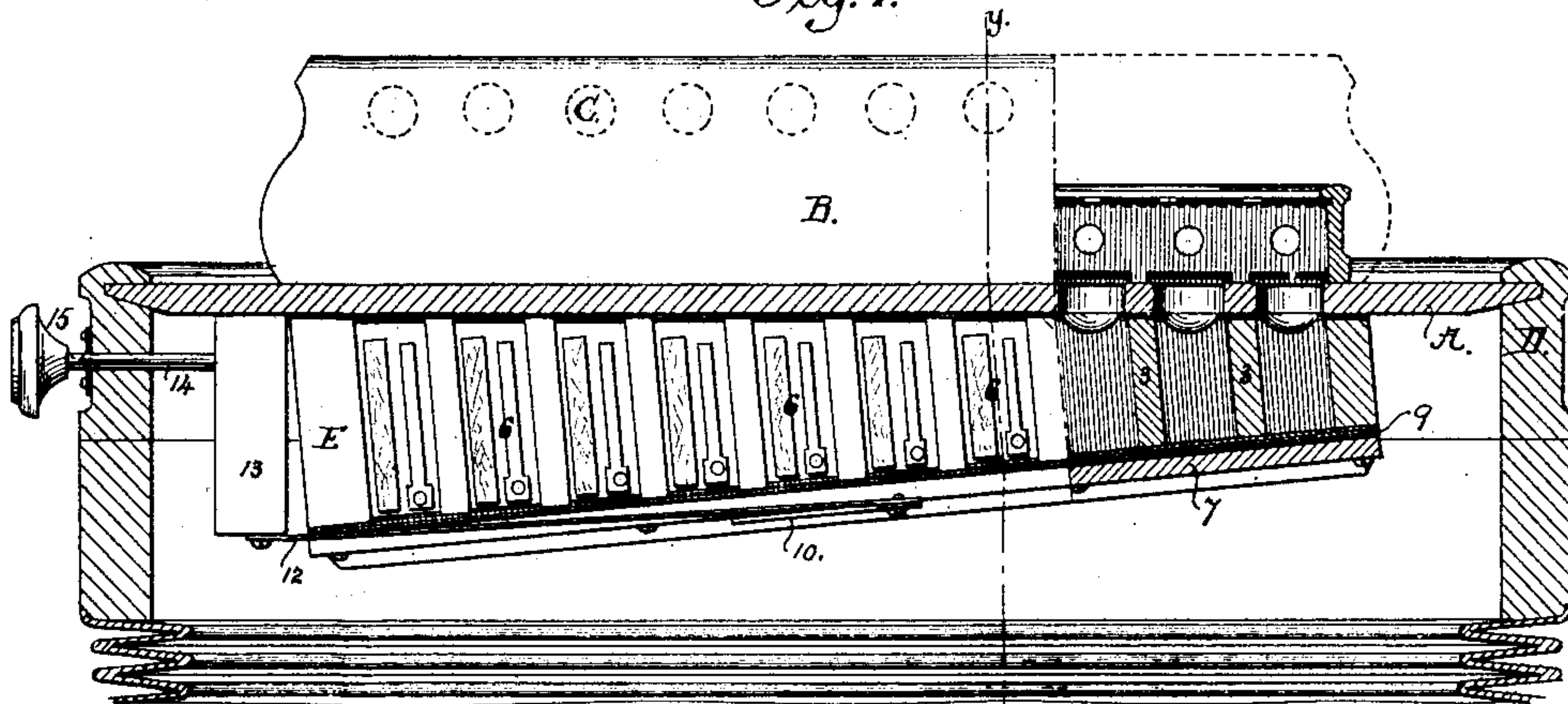


Fig. 2.

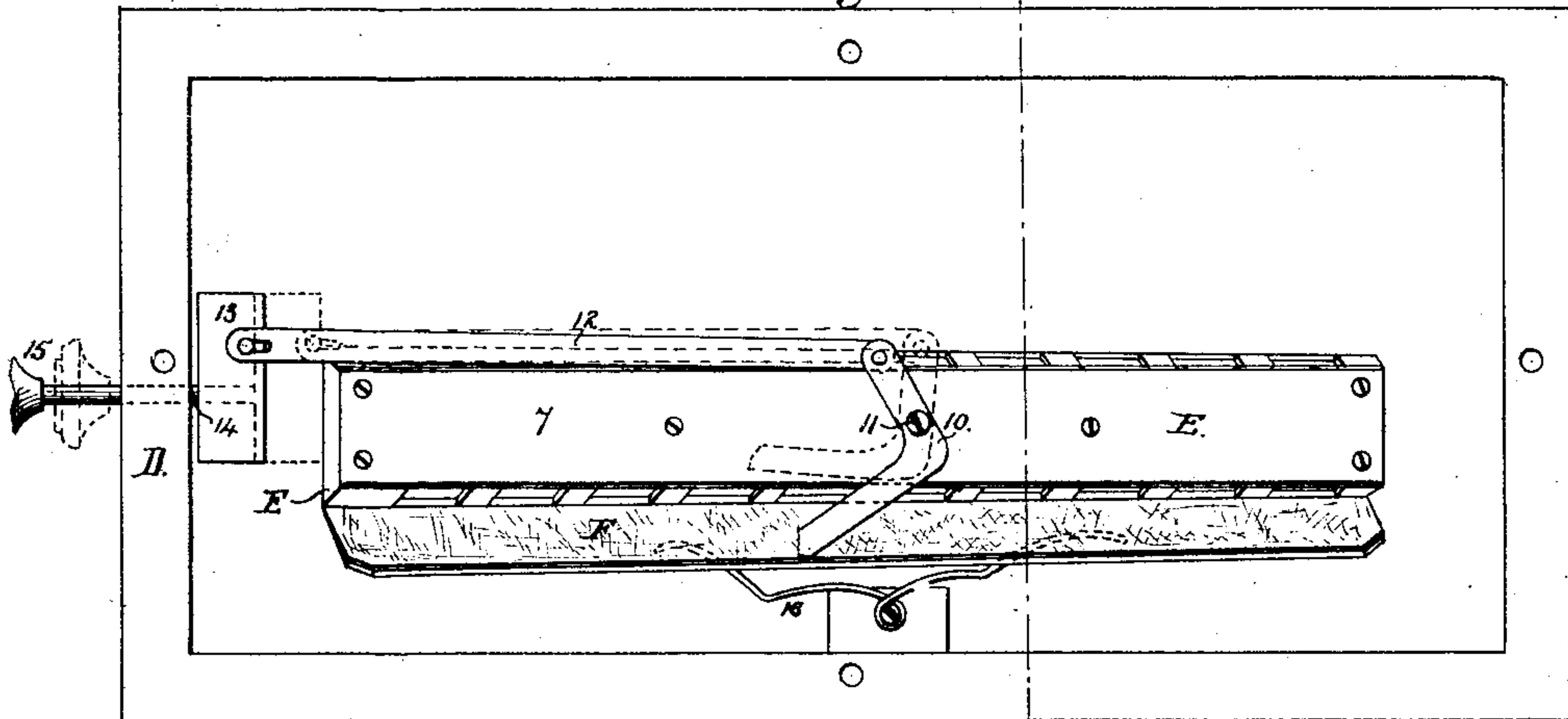


Fig. 3.

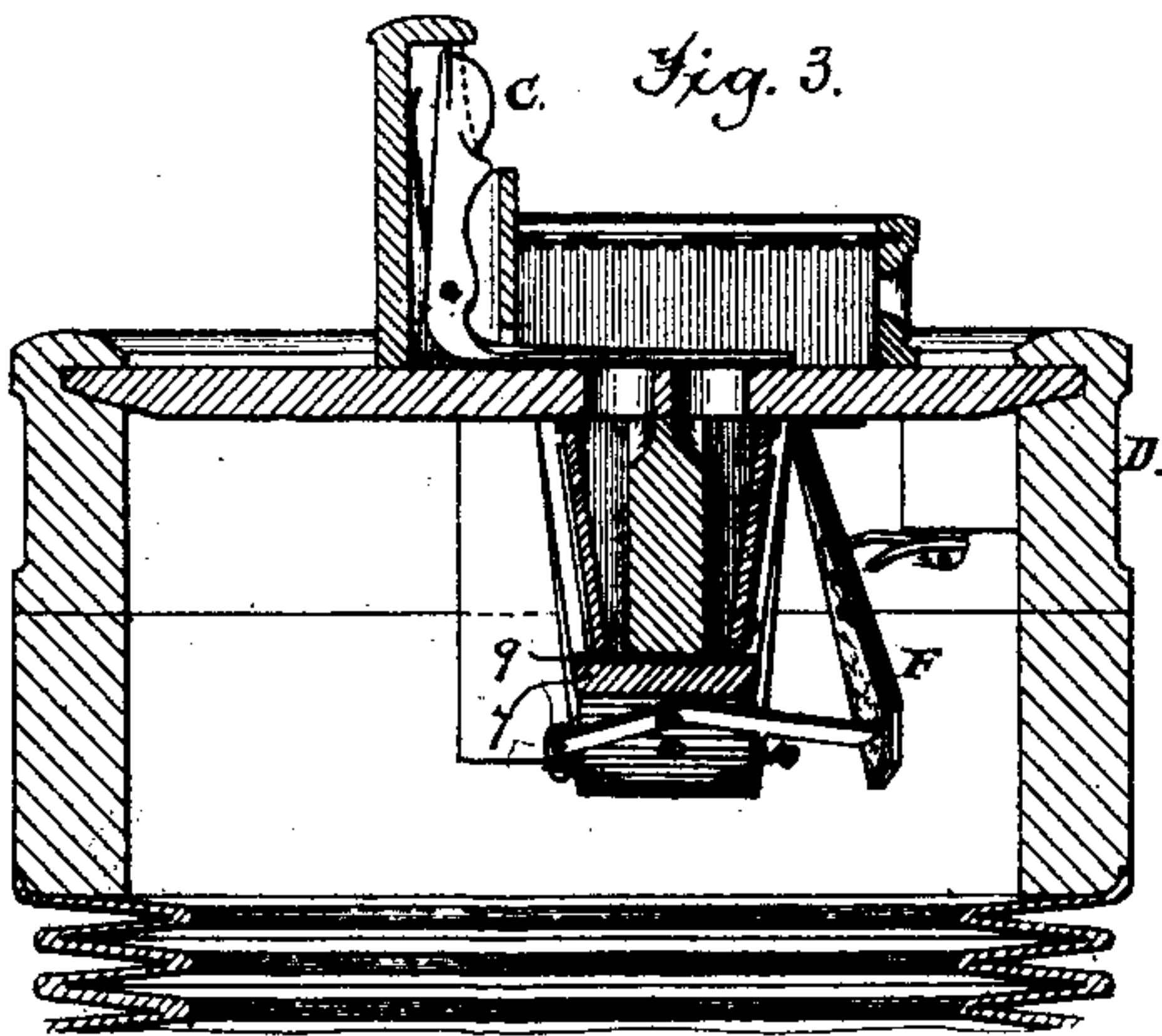


Fig. 4.

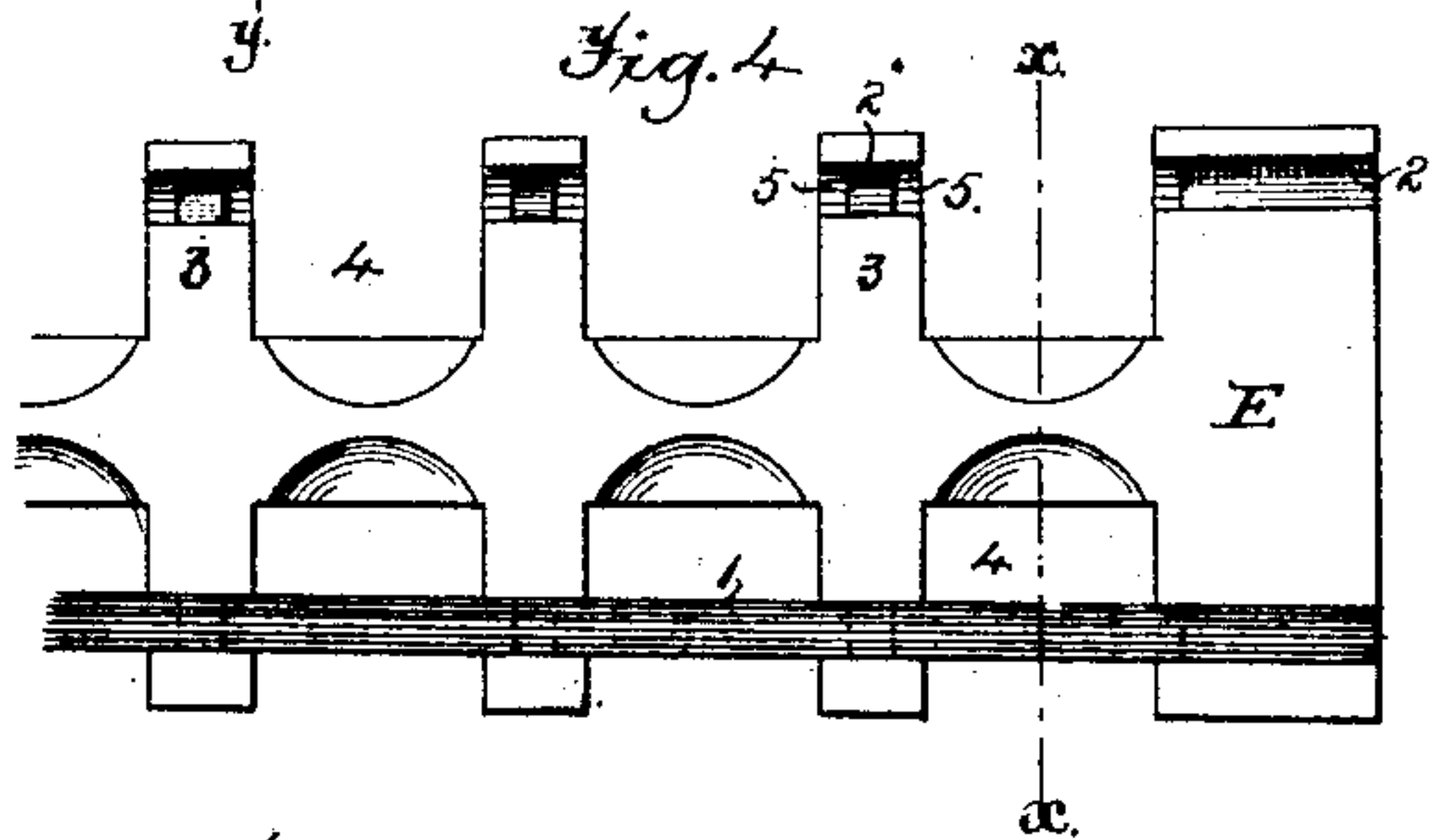
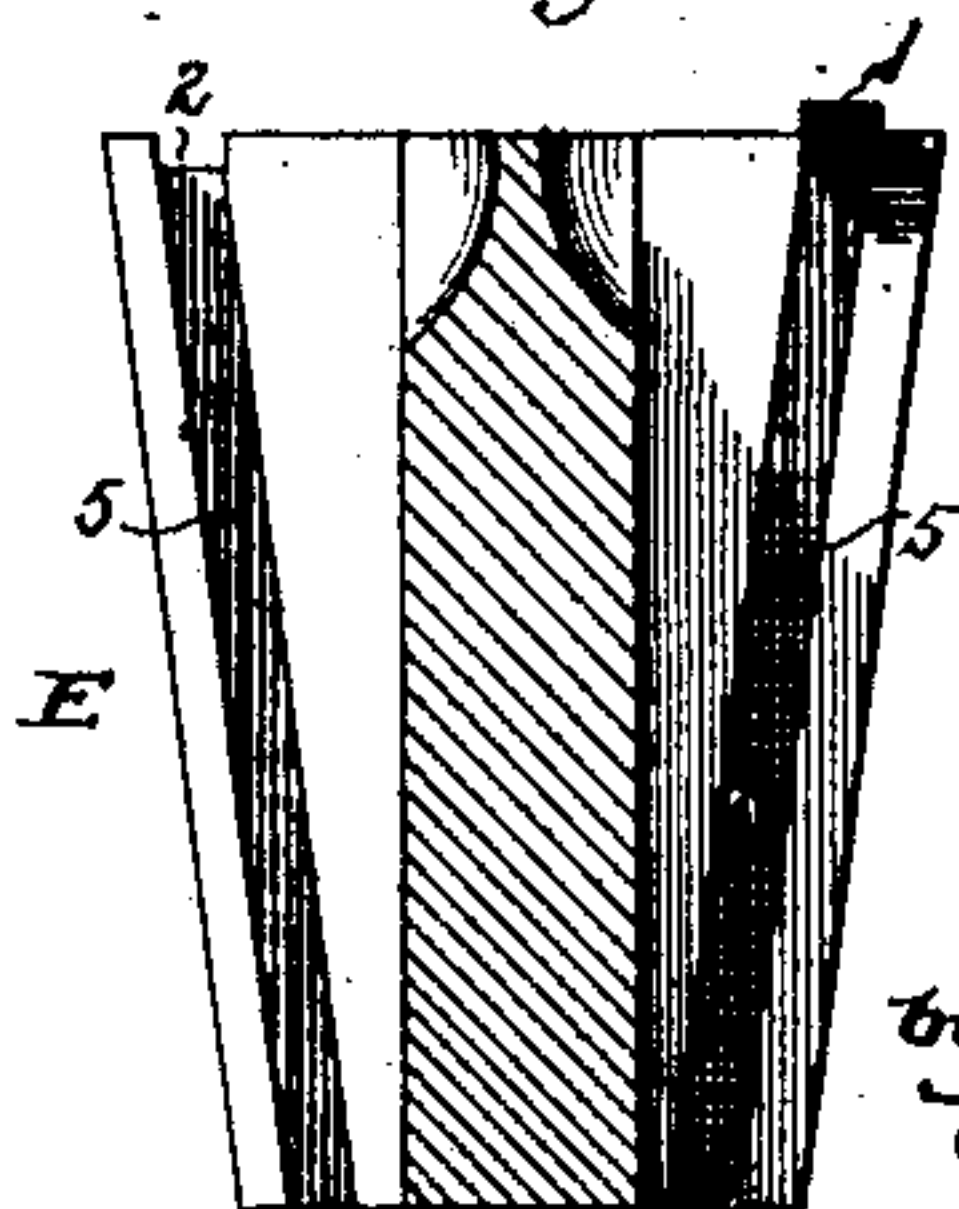


Fig. 5.



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Fig. 6.

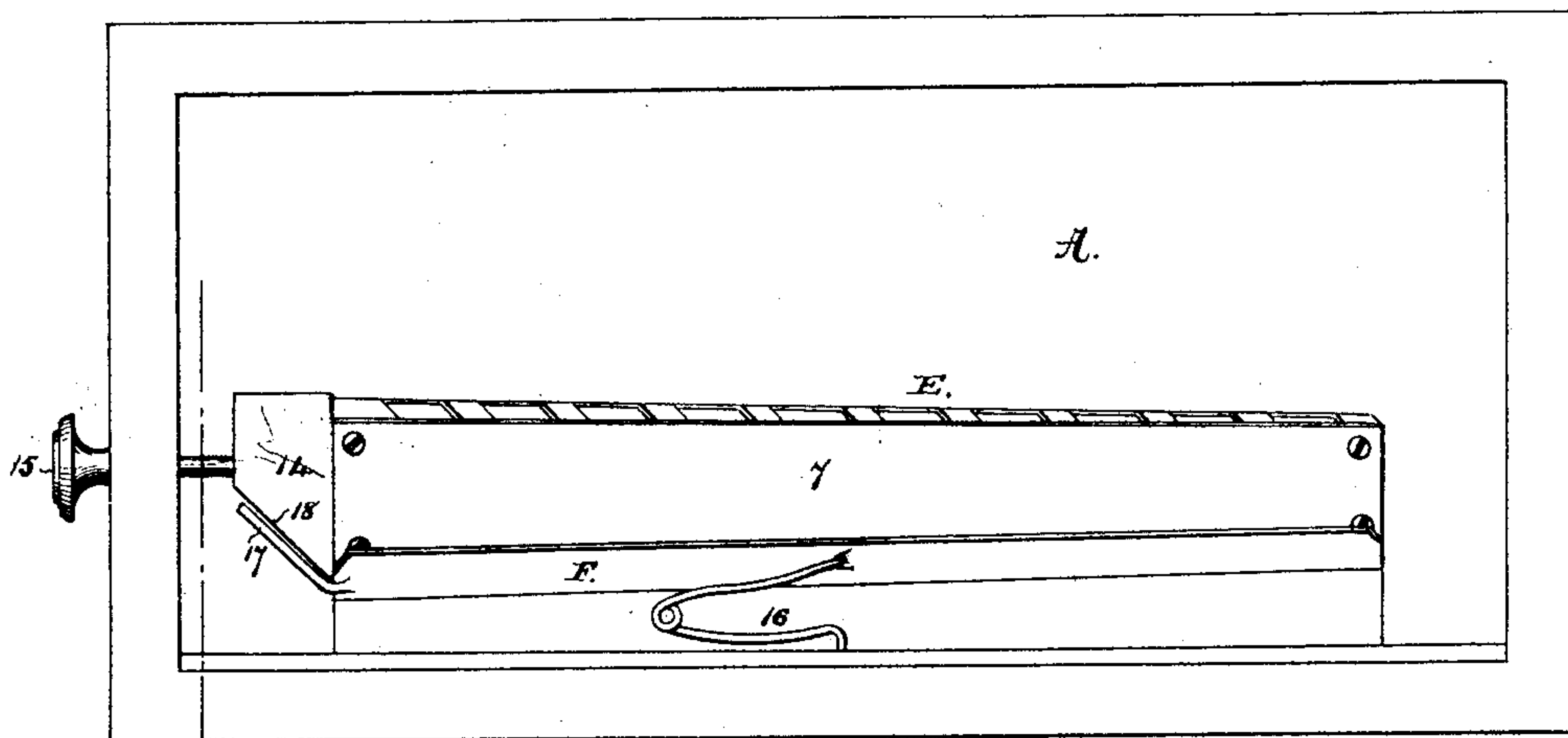


Fig. 7.

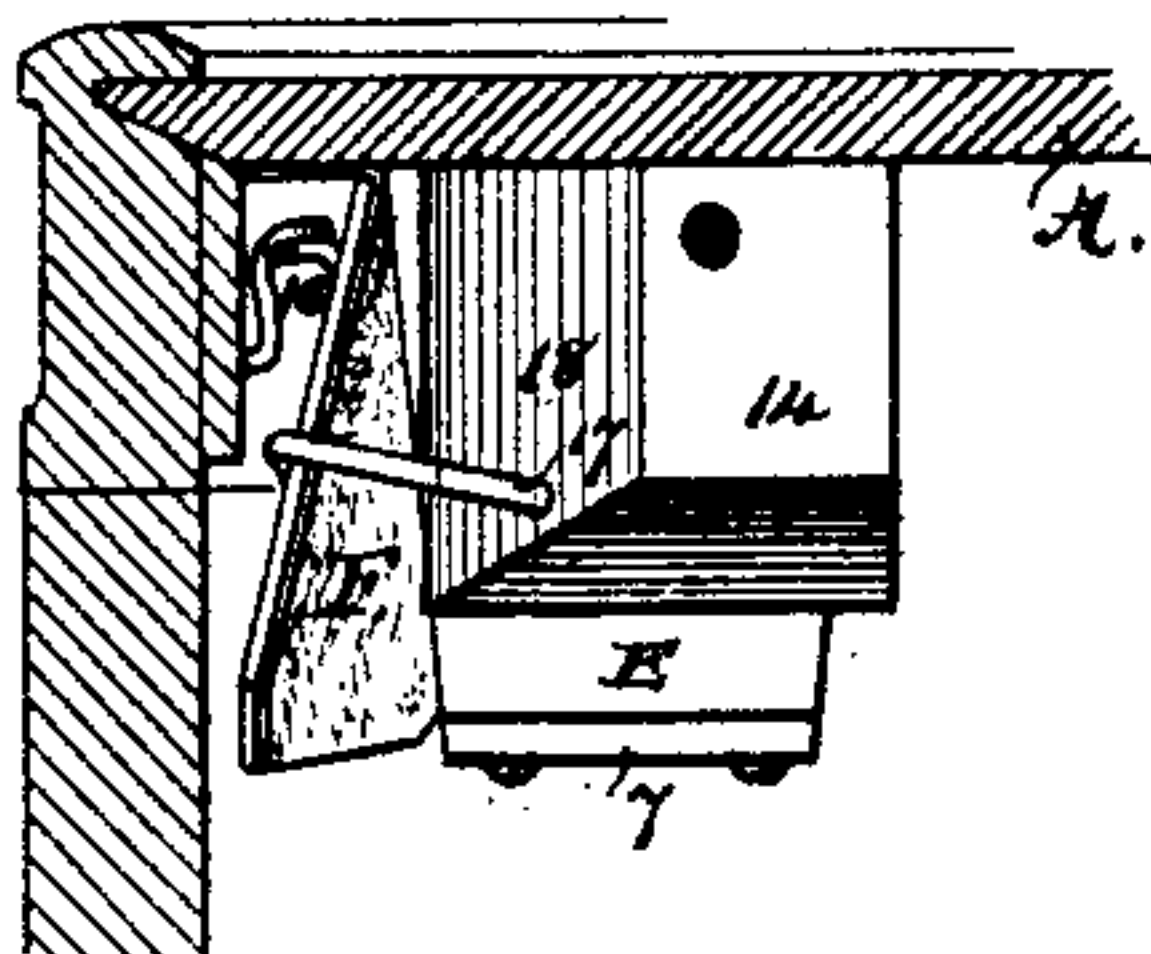
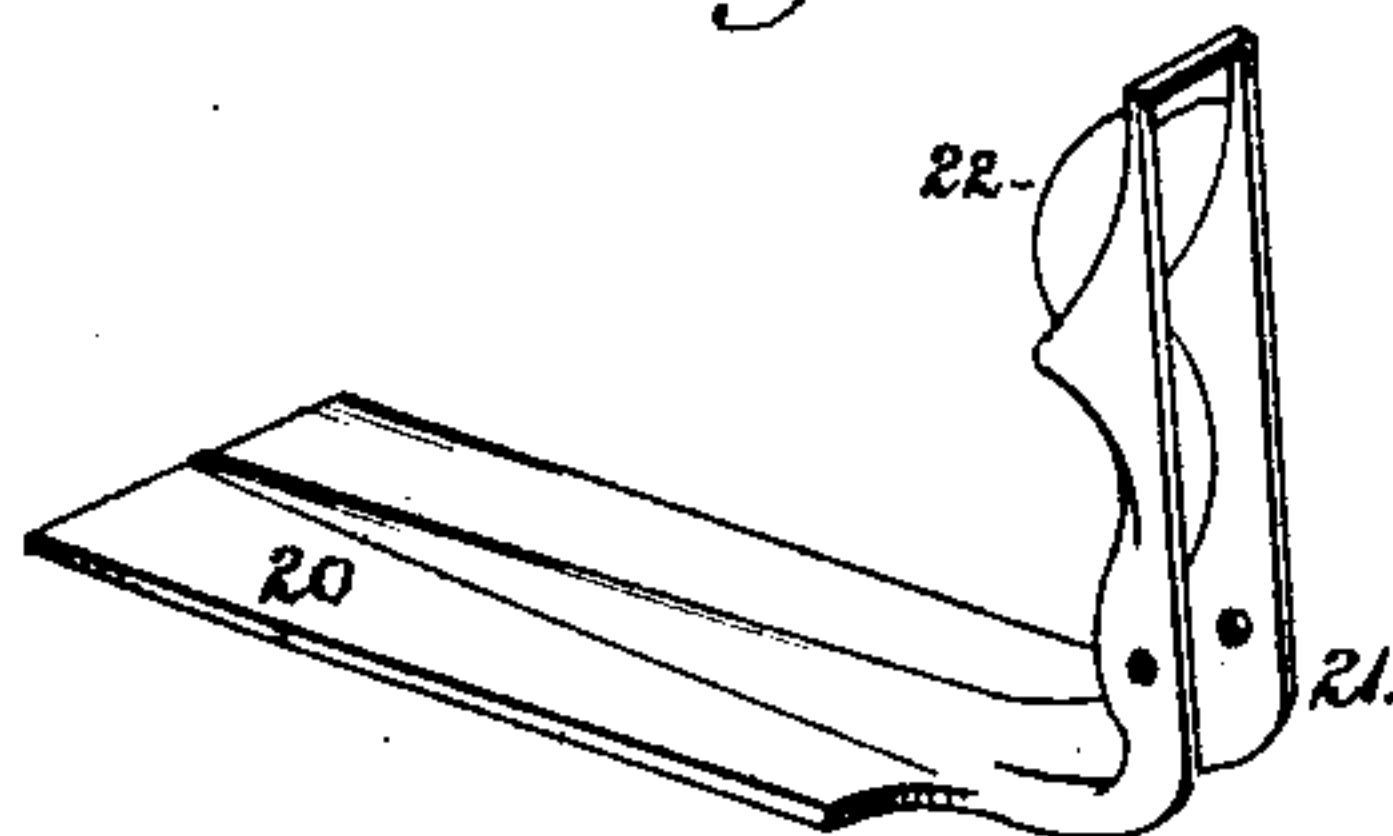


Fig. 8.



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UNITED STATES PATENT OFFICE.

FERDINAND ZOGBAUM, OF NEW YORK, N. Y.

ACCORDION.

SPECIFICATION forming part of Letters Patent No. 223,461, dated January 13, 1880.

Application filed April 12, 1879.

To all whom it may concern:

Be it known that I, FERDINAND ZOGBAUM, of the city, county, and State of New York, have invented certain new and useful Improvements in Accordions, of which I declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal sectional elevation. Fig. 2 is a plan view of the top board removed and turned upside down. Fig. 3 is a cross-section on line *y y* of Figs. 1 and 2. Fig. 4 is a top view of the reed-board as it appears when removed from the top board, and Fig. 5 a cross-section of the same on line *x x*.

This invention relates to improvements in accordions, and more especially to the construction and mode of attachment of their reed-boards, and to the means for operating the swell attachment, all of which is too particularly hereinafter set forth to need preliminary description.

The top board, A, supports the bridge B and the system of keys C, and is adapted to slide in and out of channels in the upper part, D, of the body of the instrument in like manner as is shown and described in Patent No. 192,478, granted to me June 26, 1877. The reed-board E is likewise fastened to the under side of said top board, so as to be removed with it. In the present invention this reed-board, instead of being glued directly to the under side of the top board and depending upon such joint alone to afford a wind-tight connection, is provided with longitudinal strips of packing 1, of felt or similar cushioning material, which is let into grooves 2 cut in the inner face of said reed-board, which packing, besides affording the means of securing a wind-tight joint between the ends of the divisions 3 3 of said reed-board, which abut against the under side of the top board, affords a packing-seat for the reeds themselves, as will hereinafter more fully appear. This reed-board is divided, as is usual, into graduated compartments or cells 4, which receive the reeds and form wind-passages. The reeds are inserted in said cells 4 by means of grooves 5 cut in the inner faces of the sides of the divisions 3 3, in which they are fitted to slide. The reed-board has its sides inclined, as is seen in Figs. 3 and 5, and the grooves 5 are

cut parallel with the inclined sides, so that the wind-passages or cells 4 are given a wedge form. The packing-strips or cushions 1 occupy such a position that the ends of the reeds 6 will abut against them, thus being cushioned against the inner face of the top board, and thereby provided with a wind-tight joint at that point, in which position they are securely held by means of the clamping-strip 7, which is secured over their outer ends by being screwed or otherwise fastened to the bottom of the reed-board. A cushion, 9, of felt, chamois, or like material, may be interposed between them and the said clamping-strip, as shown in Fig. 3.

By removing the strip 7 the ends of all of the reeds will be exposed, and any one may be conveniently removed and replaced when, from any cause, that operation is desirable.

One row of the reeds is in a constantly-operative position—that is to say, the sides of the reeds composing it are always in condition to admit the passage of air when the position of one or more keys permits the same; but the opposite row is covered, as is usual, by a valve adapted to be moved over the same by means of a controlling device, so as to admit or shut off the ingress of the air to the second wind-reeds, and thus produce the swell effect. One branch of the present invention relates to this swell attachment, and consists in a construction that embodies a hinged or swinging valve that operates to permit or shut off the ingress of the air from the second row of reeds, and thus, at will, to render them sounding-reeds. Two forms of such construction are shown, both of which are within the scope of my invention, as will appear from the following description of them:

A valve, F, of suitable shape and proportions to cover one side of the reed-board, and provided with a lining of felt or other packing so as to tightly fit against the divisions 3, is suitably hinged so as to be capable of swinging from the closed position of Fig. 1 to the open position of Figs. 2 and 3. The means for controlling the said movements of this valve F may be of various constructions. I have herein illustrated two forms of such means. That shown in Sheet 1 consists of a bell-crank lever, 10, pivoted at 11 to the clamping-strip 7, one end of which bell-crank lever

bears against the free edge of said valve F, while the other end of said bell-crank lever is attached to rod 12, that is pivoted to a sliding head, 13. This head has a rod, 14, projecting from it through one end of the body D, and terminates on the outside by a button, 15, by which a sliding movement may be imparted to it, and thus, through the rod 12 and bell-crank 10, cause the said valve to be opened, as in Fig. 3. The reverse movement of the bell-crank lever permits the valve to be closed by the action of a spring, 16, which was compressed by the opening movement of said valve. Another form of the means for controlling the movements of this valve, as shown at Fig. 6, consists of an angular arm, 17, projecting from one end of said valve so as to overlie the sliding head 13, which is there provided with an angular surface, as 18. When the head 13 is drawn outward its angular surface abuts against the arm 17 and forces said valve outward or open, as seen in Fig. 7, the spring 16 being compressed and acting to close said valve upon the return movement of the head 13, as before described.

The present invention also includes an improved structure of the keys. Heretofore keys for accordions and similar instruments have been constructed of several parts, which, from the nature of the rapid and forcible manipulations of said keys, frequently become separated and destroyed. This defect was largely overcome by the improvement illustrated in my Patent No. 201,974, dated April 2, 1878; but the key therein shown has one detachable

part that is liable to become loose, and thus cause injury to the instrument. The present structure of key has its valve 20, its shank 21, and its finger-piece 22 composed of one piece of metal, that is swaged or bent up into the shape shown in Fig. 8. This construction provides enlarged finger-pieces that protrude through the opening in the bridge and form a light and strong key composed of a single piece of metal.

What is claimed is—

1. A reed-board for accordions and similar wind-instruments having a packing-strip, 1, laid in recesses 2 in the divisions 3 of said base-board, and interposed between the base-board and the top board, whereby the ends of the reeds are seated upon said packing-strip, substantially as described.

2. An accordion the reed-board of which has a swinging valve, F, provided at one end with an inclined arm arranged to be operated by a bevel-sided sliding head, 13, substantially as described.

3. A key for accordions whose valve, shank, and finger-piece are constructed of one continuous piece of metal swaged into shape, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

F. ZOGBAUM.

Witnesses:

H. S. MUNSON,
GEO. H. GRAHAM.