

(No Model.)

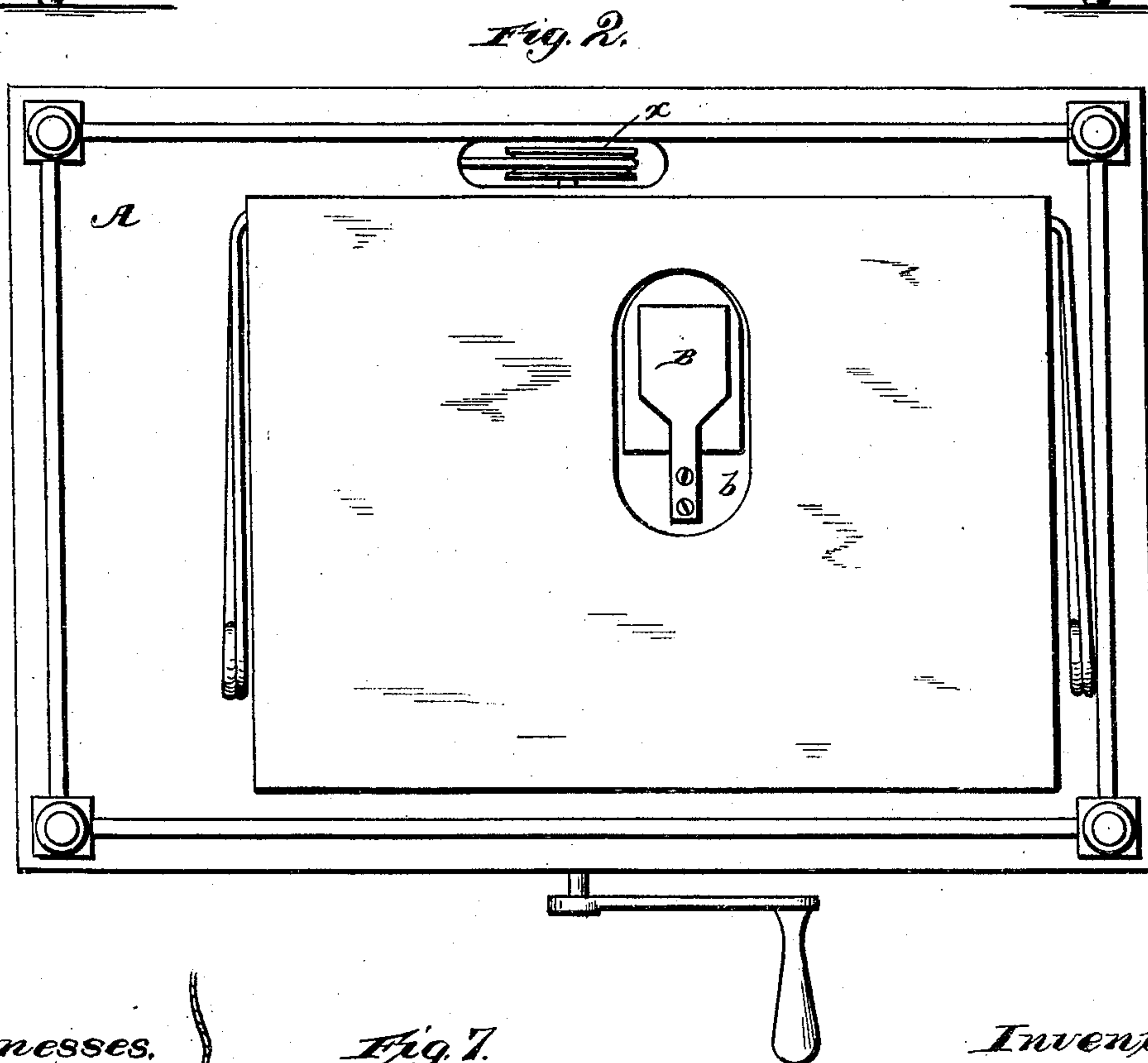
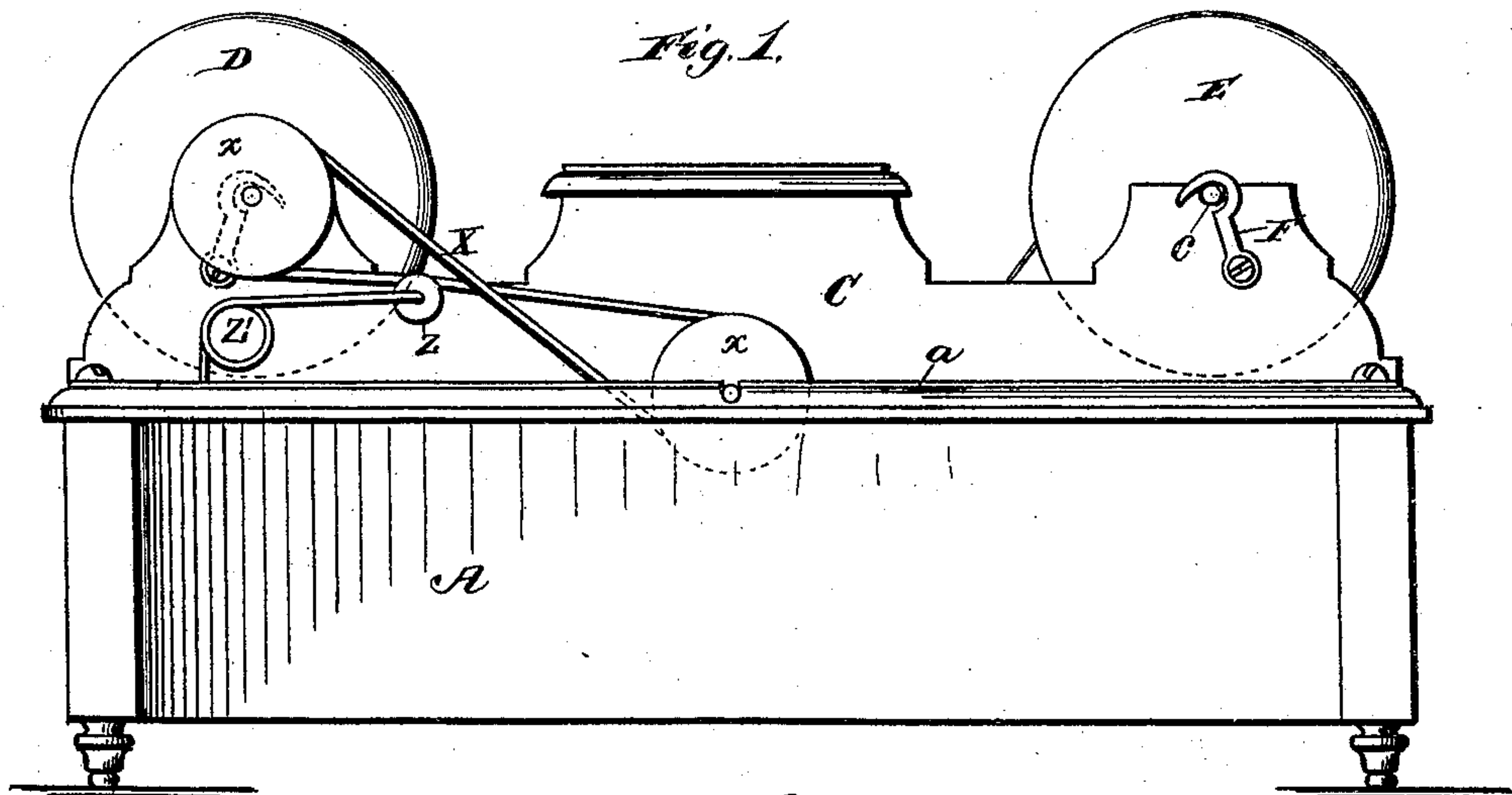
2 Sheets—Sheet 1.

J. McTAMMANY, Jr.

MECHANICAL MUSICAL INSTRUMENT.

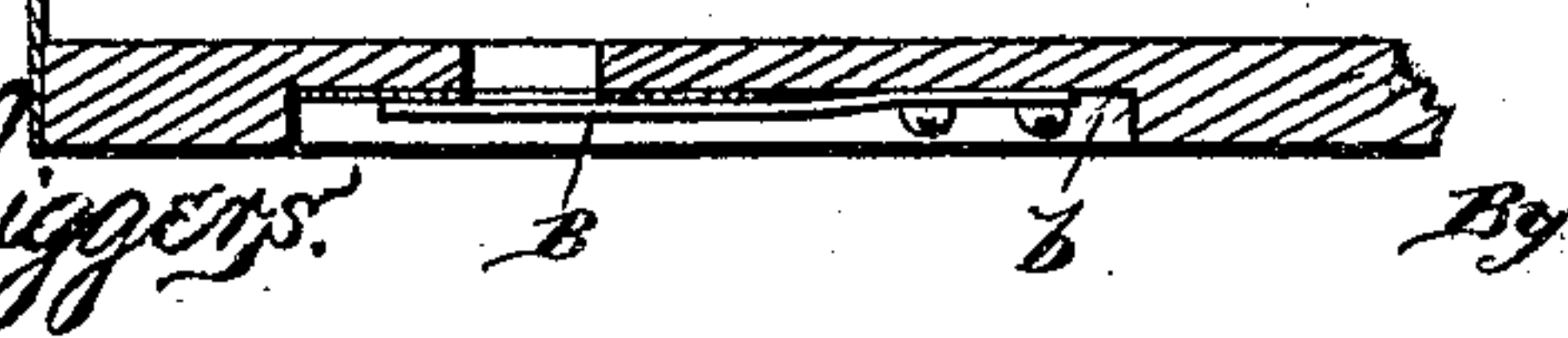
No. 248,943.

Patented Nov. 1, 1881.



Witnesses.
Phet Everett,
Edward G. Siggers.

Fig. 7.



Inventor.
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(No Model.)

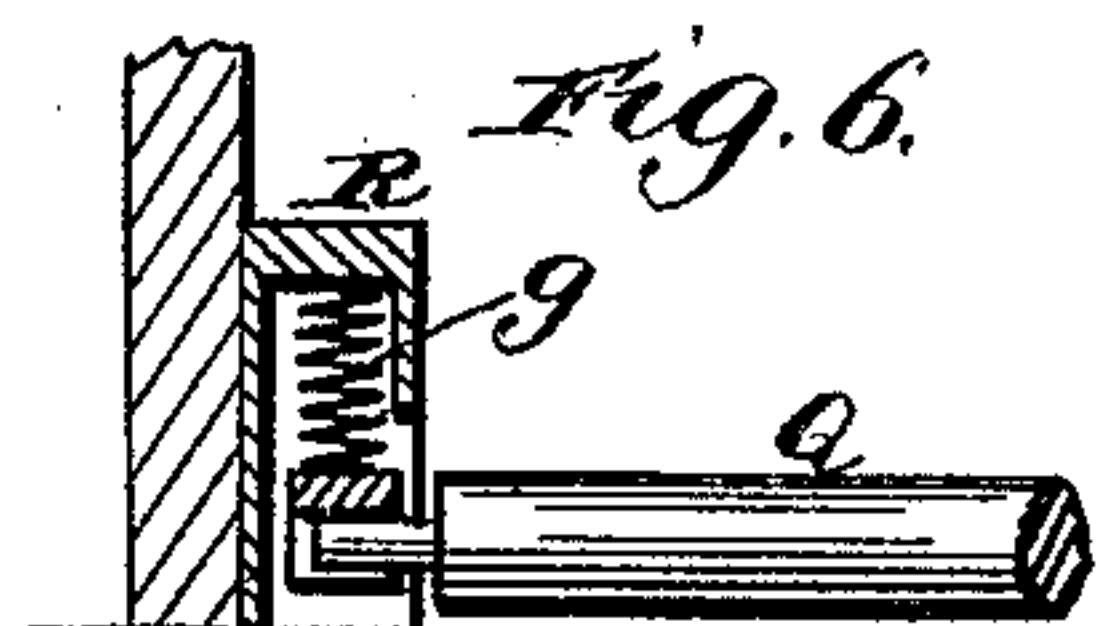
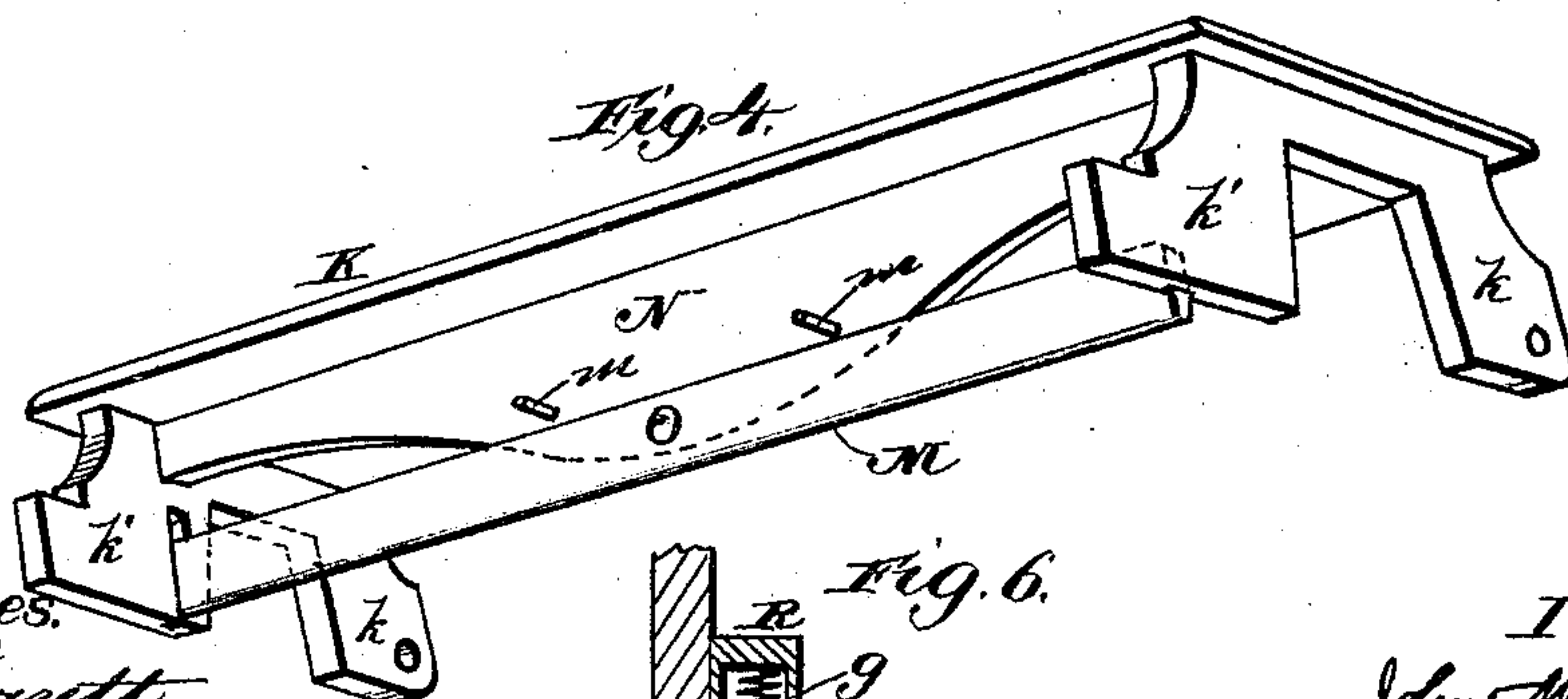
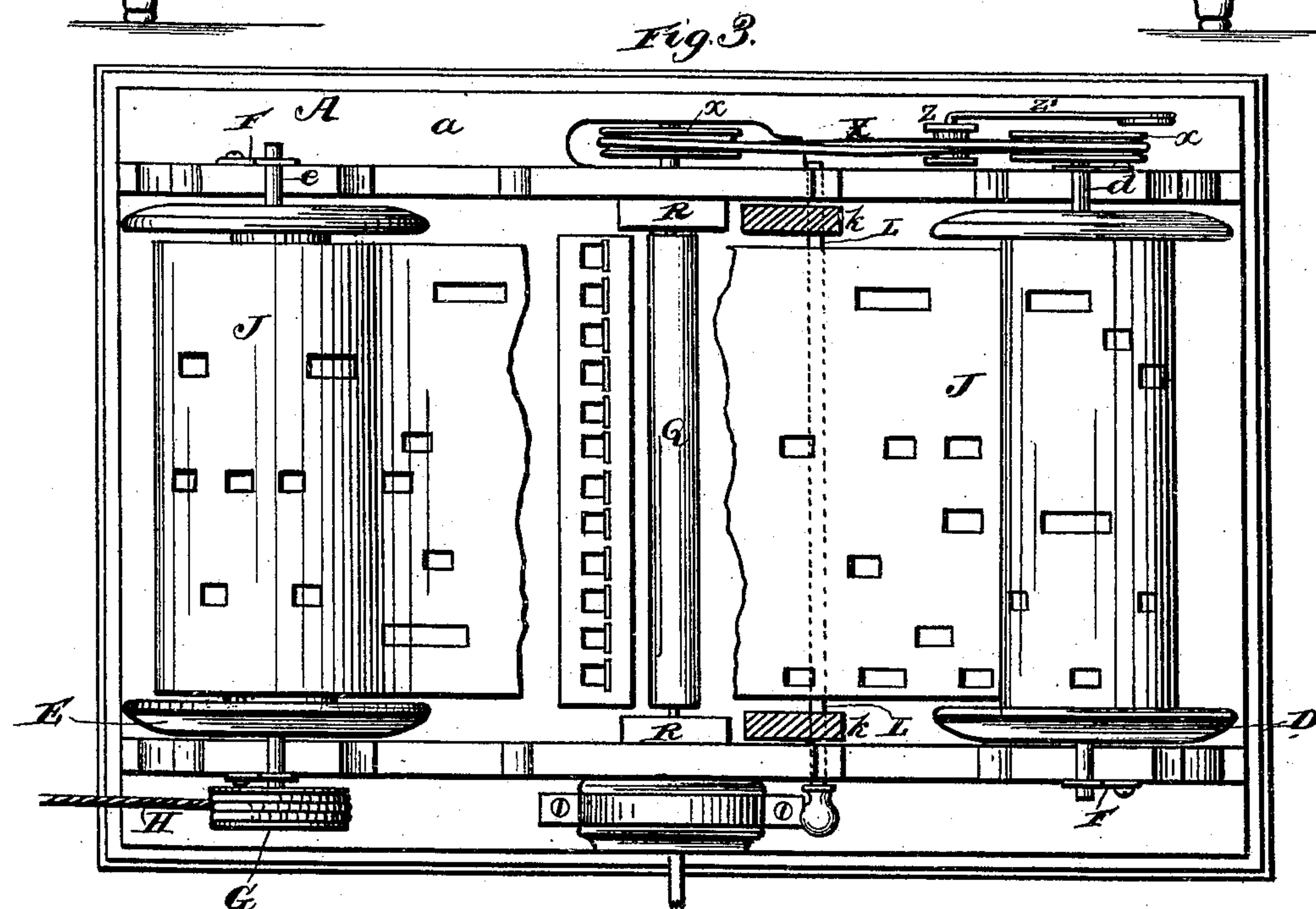
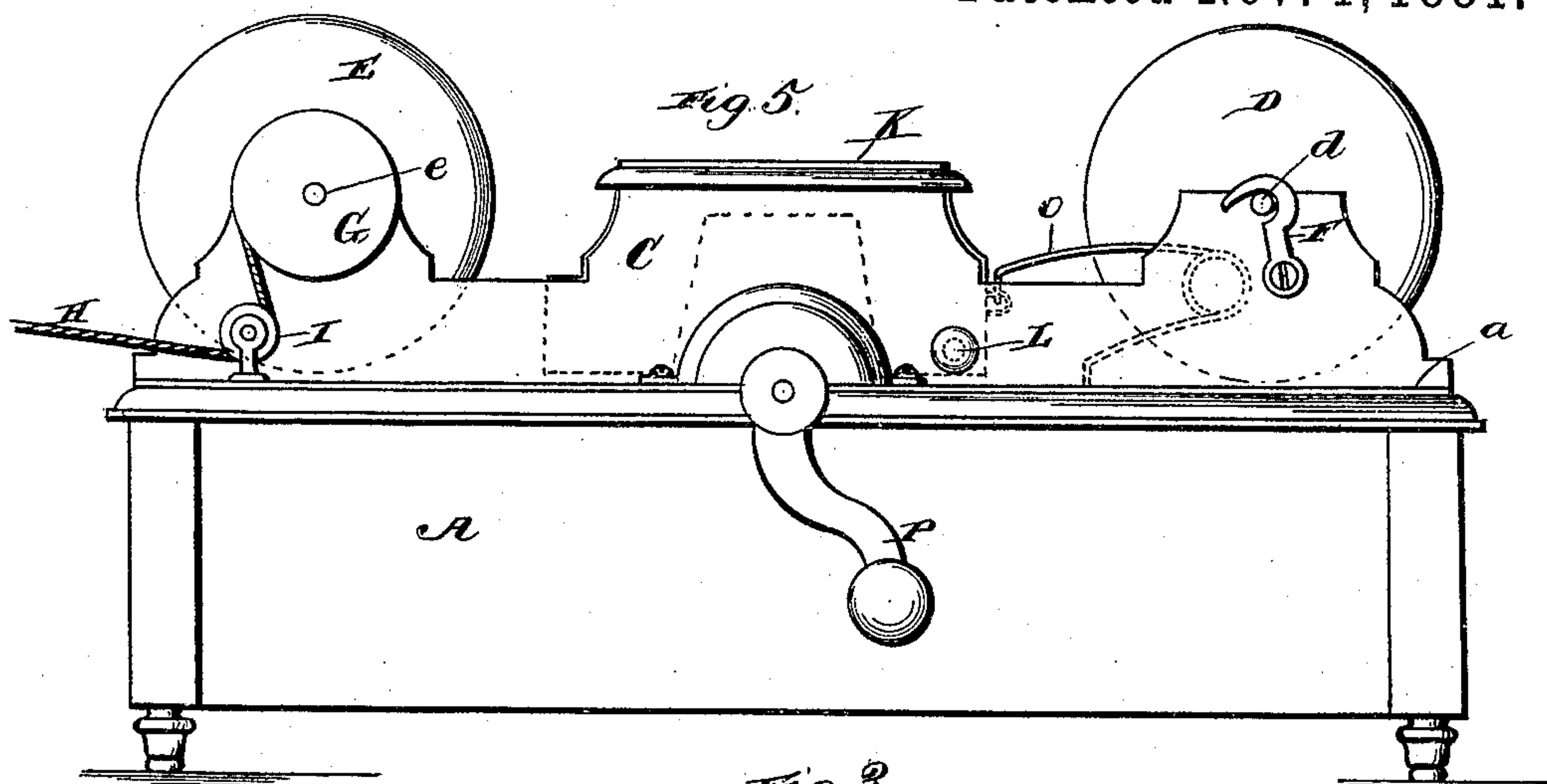
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UNITED STATES PATENT OFFICE.

JOHN MCTAMMANY, JR., OF WORCESTER, MASSACHUSETTS.

MECHANICAL MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 248,943, dated November 1, 1881.

Application filed July 28, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN MCTAMMANY, JR., a citizen of the United States of America, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Automatic Musical Instruments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention is an improvement in automatic musical instruments; and it consists, partly, in the peculiar construction and arrangement of the safety-valve of the bellows, whereby said valve is protected from being rubbed off by being sunk in a recess in the outer face of the bottom of the bellows and secured to the material at the back of said recess, as hereinafter stated; partly in the combination, with one of the winding-rolls, of a pulley on the shaft thereof and a rewinding-cord which passes around said pulley; partly in the combination of a pivoted drag or rack with the side supports and the feed-rolls, the presser-bar being attached to said rack and movable therein, but the feed-rolls being separate therefrom; partly in a presser-bar pivoted to the rack at a point between the middle and the ends of said presser-bar, and adapted to accommodate itself to any irregularity of the paper; and, finally, in other peculiarities of construction, combination, and arrangement, all substantially as and for the purposes hereinafter set forth.

In the accompanying drawings, Figure 1 represents a side elevation of my improved automatic organette embodying the said invention, taken on the side of the belt and tension device. Fig. 2 represents a bottom view of the same. Fig. 3 represents a top or plan view with the rack removed. Fig. 4 represents a detail view of the rack and presser-bar; and Fig. 5 represents a side elevation of the instrument, showing the rewinding-cord. Figs. 6 and 7 represent detail views.

The same letters designate the same parts in all the figures.

As there is no especial novelty in the con-

struction of the reeds, reed-valves, ducts, and bellows, and as all these parts have heretofore been fully described in my patents already granted, it is not necessary to give a detailed description here of the parts contained within the casing A of the instrument.

Preferably three bellows are employed, the lowest being the reservoir-bellows, and having in its bottom a safety-valve, B, which is set into a recess, *b*, in said bellows-bottom so as to be out of danger of contact with anything passing over or rubbing against said bellows-bottom.

A safety-valve located at the bottom of the reservoir-bellows is not new, but it has hitherto been made to extend out or down from said bottom, and is often brushed or struck against and injured, especially during transportation or packing and unpacking; also, when in use, there is constant danger of injury to the safety-valve while moving the instrument from one table to another, or otherwise handling it. My countersunk or recessed construction of bellows-bottom and safety-valve effectually guards against all such danger, and to enable me to use this precaution with the least possible cutting of the bellows-bottom, I have made my valve of a flat sheet of metal, attached by a thin strip or tang, and bearing by its own elasticity against a suitable soft packing which faces the recessed part of the bellows-bottom.

On the top or table *a* of casing A, parallel to and near the sides thereof, are secured two longitudinal and vertical walls or supports, C, which have formed in their tops, near their ends, semi-cylindrical open bearings *c* for the gudgeons *d d* and *e e* of the winding-rolls D and E. To the outer sides or faces of these walls are pivoted hooks F F, one of which sets over each one of said gudgeons, respectively, holding it down into its bearing. By turning back the two hooks F F of either winding-roll said roll is set free for removal from said bearings.

On one of the gudgeons *e* of winding-roll E is attached a grooved pulley, G, which is operated by means of a rewinding-cord, H. One end of said cord is fastened to said pulley, while the other end passes round a guide-pulley, I, that is journaled in a bracket or bearing I' attached to top *a* of casing A. As the music-sheet J, which is attached at its ends to said winding-rolls, respectively, is wound on roll D

by the regular operation of the feeding-rolls, hereinafter described, said cord H is wound on pulley G. When the end of the tune is reached and the operator desires to repeat it he pulls the free end of cord H, and thereby rotates pulley G and roll E so as to wind the music-sheet back on the latter in readiness for playing again.

K designates a rack or frame, which is pivoted by its rear standards, *k k*, on a rod, L, that extends across the top *a* of the casing A, being secured to side walls, C C. This rack has also two front standards, *k' k'*, which are recessed in their inner sides or faces to allow the vertical play of the ends of a presser-bar, M, which is pivoted at its middle to a downwardly-extending bar, board, or plate, N, attached to and forming part of said rack. On the face of said bar N are two small stops, *m m*, one being on each side of the pivotal point of said pressure-bar. These stops limit the upward play of said bar, yet allow a certain degree of said play or motion. The office of said pressure-bar is to hold the music-sheet against the mouths of the reed-ducts where they pass through top *a* of casing A. The pivoted attachment of said pressure-bar allows it to automatically adjust itself to any inequality of the music-sheet. The standards *k' k'* brace its ends, and the stops *m m* brace it on top. A spring, O, bearing against one of the rear standards, *k*, operates to force said pressure-bar down on the music-sheet.

Of course the construction of the frame-spring, &c., can be varied in many ways.

The lower feed-roll is operated by the hand-crank P or some equivalent device. The upper feed-roll, Q, which is more properly an idle-roll, is held down upon the music-sheet by the pressure of springs *g g*, which bear against its gudgeons, said gudgeons being capable of vertical upward movement in recessed blocks R, fixed to the inner sides of walls C. As the roll Q is not attached to rack K in any way, the said rack can be turned back to allow the insertion of the music-sheet between the feed-rolls without in any way disturbing the said rolls. The pivot-rod L of said rack acts also as a guide and support for the music-sheet, which passes over it. Said sheet is thus held above engagement with any obstacle that may happen to lodge on the top *a* in front of said rolls.

The winding-rolls are geared together by a belt, X, which passes around pulleys *x x* on the gudgeons of said roll at the side of the instrument opposite to the rewinding-cord, here-

inbefore described. To maintain the tension of said belt, I employ a tension device consisting of a roller or block, Z, carried by the free end of a spring, Z', which is fastened to the top of the casing of the instrument or to one of the side walls, hereinbefore described. Said roller bears against said belt and keeps it in proper condition for transmitting motion from one winding-roll to the other.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A bellows-bottom having recess *b* in its exterior face and an aperture in the material at the back of said recess, in combination with plate-valve B, which is attached at one end to the material at the back of said recess and covers said hole, the said valve being entirely within said recess, for the purpose set forth.

2. In combination with one of the winding-rolls, a pulley fast on a gudgeon thereof, and a cord attached to said pulley for the purpose of rewinding the music-sheet, substantially as set forth.

3. In combination with the casing A and feed-rolls, a pivoted rack and a presser-bar attached thereto, said bar being movable in said rack, and said feed-rolls being separate from said rack, substantially as set forth.

4. In combination with the music-sheet, bellows, reeds, valves, and ducts, a pressure-bar pivoted at a point between its ends to automatically adjust itself to irregularities of the music-sheet, substantially as set forth.

5. In combination with rack K and the music-sheet, the rod L, which serves both as a pivot for said rack and to guide said sheet above the top *a* of casing A, substantially as set forth.

6. Tension-spring Z', attached to casing A and carrying roller Z, in combination with belt X and pulleys on the driving-shaft and winding-shaft of a musical instrument, substantially as set forth.

7. In a mechanical musical instrument, a rack provided with vertically-recessed side pieces, in combination with a presser-bar pivoted to said rack, and having its ends moving freely in the vertical recesses of said side pieces, so as to be braced laterally by the latter.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN MCTAMMANY, JR.

Witnesses:

DAVID MANNING, Jr.,
MICHAEL H. MCGRATTY.