W. MEISSNER.
Music-Box.

No. 204,356. Patented May 28, 1878.

Fig. 1.

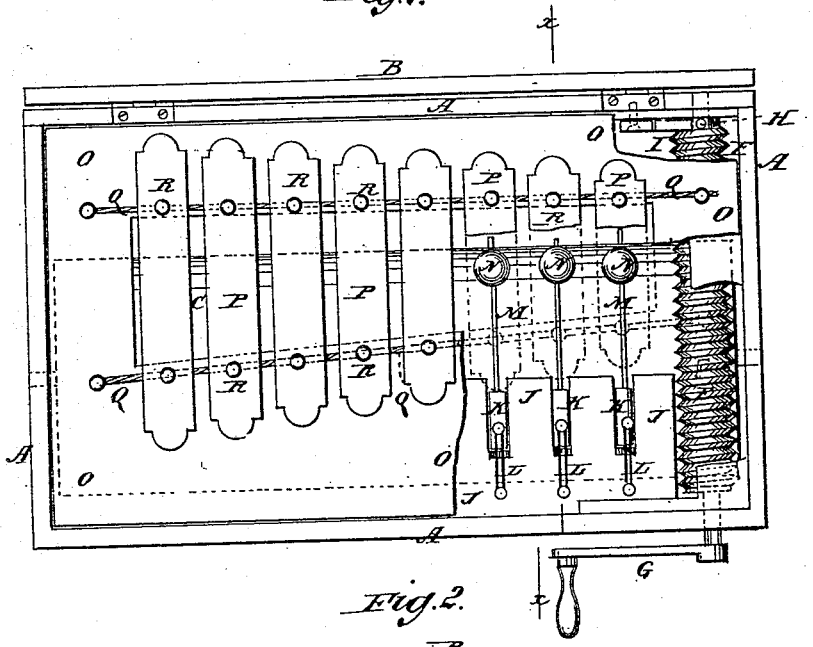
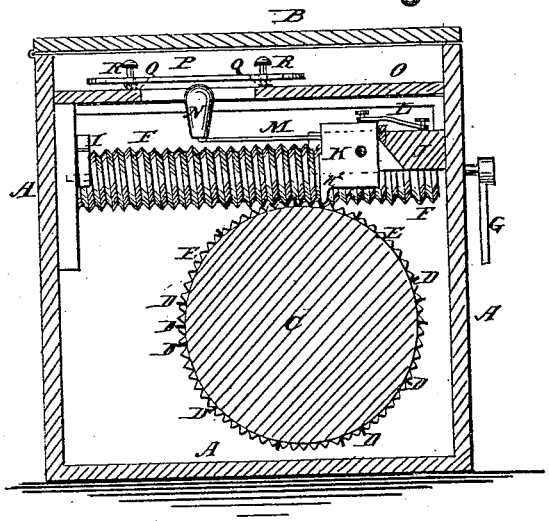


Fig. 2.



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WILHELM MEISSNER, OF NEW YORK, N. Y.

IMPROVEMENT IN MUSIC-BOXES.

Specification forming part of Letters Patent No. **204,356**, dated May 28, 1878; application filed April 18, 1878.

To all whom it may concern:

Be it known that I, WILHELM MEISSNER, of New York city, in the county and State of New York, have invented a new and useful Improvement in Music-Boxes, of which the following is a specification:

Figure 1 is a top view of my improved music-box, the cover being removed and parts being broken away to show the construction. Fig. 2 is a cross-section of the same, taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved music-box which shall be simple in construction and inexpensive in manufacture.

The invention consists in an improved music-box formed by the combination of the cylinder provided with the pins and the screw-wheel, the swiveled screw provided with the ratchet and pawl, the pivoted blocks provided with the projections, the springs, the hammers, the metal plates, and the cushions and pins with each other and with the box and the boards or plates, as hereinafter fully described.

A is the box, of rectangular form and of suitable size to contain the mechanism, and which is provided with a cover, B. To the ends of the box A are pivoted the ends of a cylinder, C, to the surface of which are attached pins D.

Upon one end of the cylinder C is formed, or to it is attached, a screw-wheel, E, the teeth of which mesh into the teeth of a screw, F, swiveled to the sides of the box A, near one end. To one of the journals of the screw F is attached a crank, G, by which the machine is operated. To the other end of the swiveled screw F are attached, or upon it are formed, one or more ratchet-teeth, H, with which engages a pawl, I, pivoted to the side of the box A, to prevent the screw F from being turned back, and thus breaking the machine.

To one side of the box A, a little above the top of the cylinder C, is attached a board or plate, J, which is slotted transversely from its inner edge, and to which are pivoted, within the said slots, the blocks K. Upon the lower side of the blocks K are formed projections *k'* in such a position that, as the cylinder C is revolved, the pins D of the said cylinder may strike against the projections *k'* and swing the blocks K back upon their pivots. The blocks K are brought back to their former position, when the projections *k'* are released from the pins D by springs L, attached to the upper sides of the said blocks and to the plate or board J.

To the forward side of the blocks K are attached spring-arms M, to the outer ends of which are attached wooden heads or hammers N.

To the upper part of the box A is attached a plate, O, the middle part of which is cut away, and across the opening thus formed are laid eight or more strips of iron or other suitable metal, P, each of which is tuned to give one note of the scale. The end parts of the metal strips P rest upon cushions Q, attached to the said plate O, and are kept in place by pins R, also attached to the said plate O, and which pass through holes in the end parts of the metal bars P.

The pins are also cushioned, to prevent the metal plates P from coming in contact with the metal bodies of the said pins.

With this construction, as the cylinder C is turned by turning the crank G, as each pin D of the said cylinder C strikes the projection *k'* of one of the blocks K and turns it back, it lowers the hammer N. As the projection *k'* escapes from the pin D it is brought back to its former position with a sudden movement by the elasticity of the spring L, projecting its hammer N against the plate P, placed above the said hammer, and sounding the note to which the said plate has been tuned.

By this construction, by arranging the pins D upon the cylinder C in a suitable order, the hammers N may be made to operate in such an order as to give the notes of the piece of music.

If desired, the screw F or the cylinder C may be turned by a coiled spring arranged to be wound up and allowed to run down.

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

An improved music-box formed by the combination of the cylinder C, provided with the pins D and the screw-wheel E, the swiveled screw F, provided with the ratchet and pawl H I, the pivot-blocks K, provided with the projections *k'*, the springs L, the hammers M N, the metal plates P, and the cushions and pins Q R with each other and with the box A and boards or plates J O, substantially as herein shown and described.

WILHELM MEISSNER.

Witnesses:

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