(No Model.)

# G. A. BRACHHAUSEN.

## STAR WHEEL STANDARD FOR MUSIC BOXES.

No. 577,835. Patented Mar. 2, 1897.

Fig. 1.

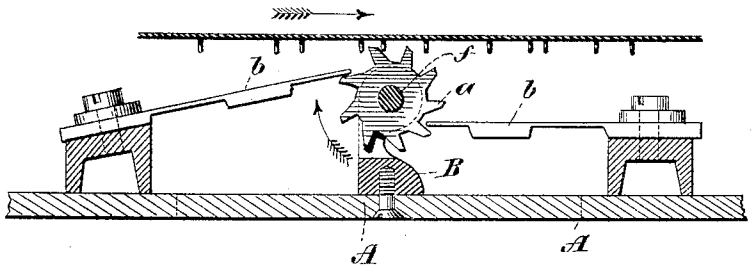



Fig. 2.

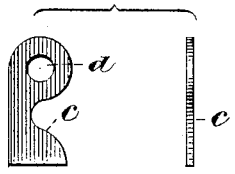



Fig. 3.

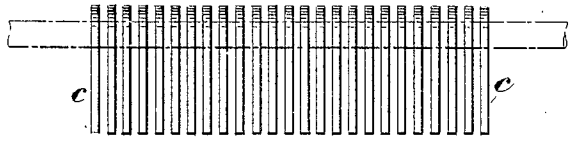



Fig. 4.

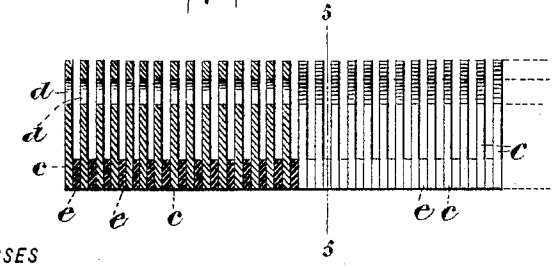
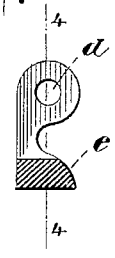



Fig. 5.




WITNESSES

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# UNITED STATES PATENT OFFICE.

GUSTAV A. BRACHHAUSEN, OF RAHWAY, NEW JERSEY, ASSIGNOR TO THE REGINA MUSIC BOX COMPANY, OF SAME PLACE.

## STAR-WHEEL STANDARD FOR MUSIC-BOXES.

SPECIFICATION forming part of Letters Patent No. 577,835, dated March 2, 1897.

Application filed August 11, 1896. Serial No. 602,384. (No model.)

*To all whom it may concern:*

Be it known that I, GUSTAV A. BRACHHAUSEN, a resident of Rahway, Union county, State of New Jersey, have invented certain new and useful Improvements in Star-Wheel Standards for Music-Boxes, of which the following is a specification.

My invention relates more particularly to music-boxes; and it consists in a star-wheel standard of the construction hereinafter described and claimed.

In music-boxes as heretofore made and wherein star-wheels were employed it has been customary to cast the standard for the star-wheels in a single piece of substantially the outline shown in Figure 5 of the drawings and with a hole cored therethrough for the passage of the shaft of the star-wheels. The standard was then cut with a saw, so as to provide a series of saw-kerfs of equal extent divided by spacing-partitions similar to those shown in Fig. 4. The star-wheels must fit close in the spaces between the partitions, and the saw-kerfs left roughened sides to the partitions, and at times fins of metal were left projecting therefrom which unduly retarded the rotation of the star-wheels.

The object of my invention is to overcome these and other objections to star-wheel standards as heretofore made.

In the accompanying drawings, Fig. 1 is a vertical sectional view of a portion of the music-box, showing the employment of a star-wheel standard made in accordance with my invention. Fig. 2 is a detail face and edge view of one of the plates of which the standard is formed. Fig. 3 is an edge view of a series of such plates. Fig. 4 is a like view (with parts broken away) of the same with the plates soldered or secured together. Fig. 5 is a vertical sectional view on the line 5 5 of Fig. 4.

The letter A in the drawings represents a bed-plate of an ordinary music-box, to which is secured a star-wheel standard B. The purpose of this star-wheel standard is to retain properly spaced apart the star-wheels *a* and to support them in position to vibrate one or more of the music-tongues *b*. The star-wheel standard forming the subject-matter of my invention is made up of a series of supporting-plates *c*, which are preferably stamped up into the form shown in Fig. 2 from a flat polished piece of metal. These plates are each provided with an aperture *d* therein for the passage of the star-wheel shaft. When a requisite number of these plates have been maintained properly spaced apart for the reception of the star-wheels in the manner indicated in Fig. 3, they are soldered or otherwise secured together for a portion of their lengths, preferably near the lower ends or bases thereof, as indicated at *e* in Fig. 4. The standard is then ready for use, and the star-wheels may be mounted in position, one between each pair of the plates, and the shaft *f* passed through the apertures in the star-wheels and the coinciding apertures in the star-wheel standard, it being understood that the aperture in one of the plates coincides with the apertures in the adjacent plates, so that the shaft after having been passed through the apertures in the standard and through the star-wheels maintain said star-wheels in exact alinement.

The advantages of a star-wheel standard made in accordance with my invention over standards heretofore made and which have been hereinbefore described is thought to be obvious.

By my invention I am enabled to present the smooth polished sides of the partitions to the star-wheels and no burs or unevenness of the parts are had, and the difficulty heretofore experienced in coring out the hole which extends throughout the length of the standard-casting and through which the shaft for the star-wheels passes is overcome.

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

A standard for star-wheels consisting of a series of independent apertured supporting-plates secured together for a portion of their lengths to form a base and spaced apart to receive and support star-wheels between them, the apertures in one plate coinciding with the apertures in the adjacent plates for the passage of a shaft therethrough.

GUSTAV A. BRACHHAUSEN.

Witnesses:

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A. MERKLE.