

(No Model.)

G. A. BRACHHAUSEN & P. RIESSNER.
DAMPING DEVICE FOR MUSIC BOXES.

No. 480,993.

Patented Aug. 16, 1892.

Fig. 1.

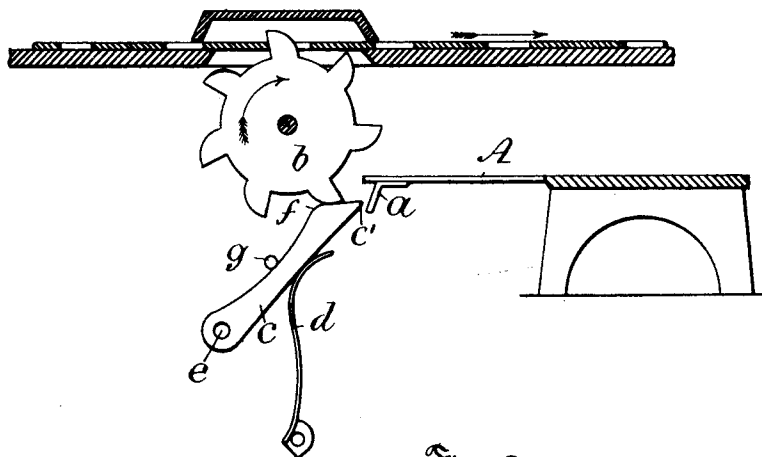


Fig. 2.

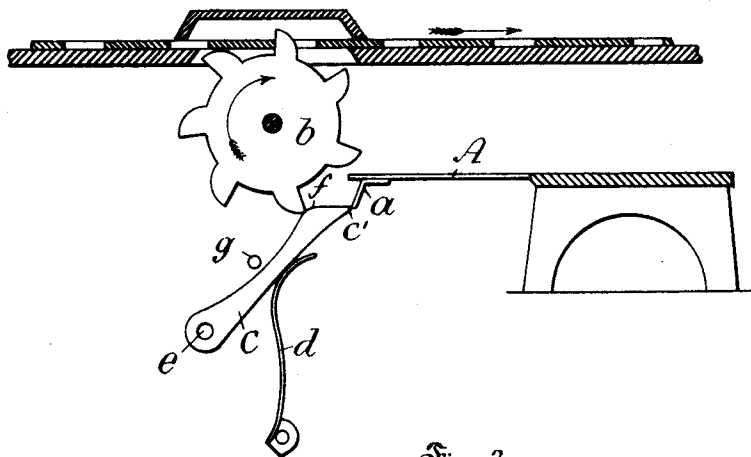
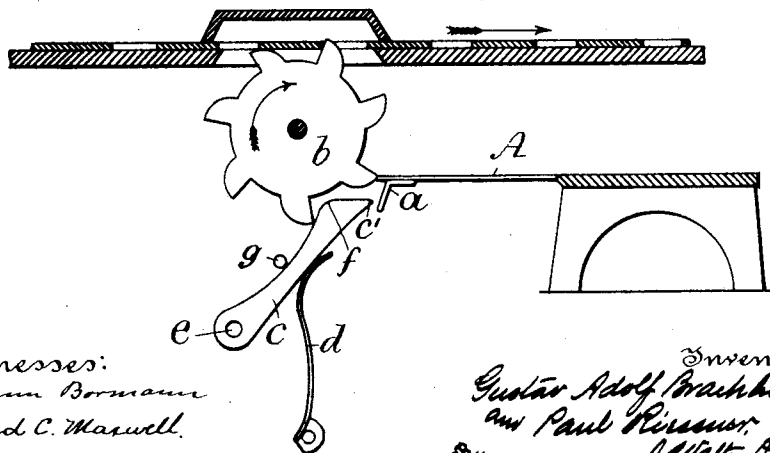


Fig. 3.



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UNITED STATES PATENT OFFICE.

GUSTAV ADOLF BRACHHAUSEN AND PAUL RIESSNER, OF ENTRITZSCH,
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DAMPING DEVICE FOR MUSIC-BOXES.

SPECIFICATION forming part of Letters Patent No. 480,993, dated August 16, 1892.

Application filed April 11, 1892. Serial No. 428,721. (No model.)

To all whom it may concern:

Be it known that we, GUSTAV ADOLF BRACHHAUSEN and PAUL RIESSNER, subjects of the Emperor of Germany, residing at Entritzsch, near Leipsic, in the Kingdom of Saxony and German Empire, have jointly invented certain new and useful Improvements in Damping Devices for Music-Boxes, of which the following is a specification.

Our invention relates to musical instruments in which the sound is produced in whole or in part by means of teeth or reeds that are struck and vibrated by means of a rotating pin-barrel.

The principal objects of our invention are, first, to provide such musical instruments with simple, durable, and comparatively inexpensive means for automatically preventing undue vibration of the reeds or teeth, whereby the sound is deadened or damped, and, second, to employ the pin-barrel which actuates the reeds or teeth for operating the damping devices.

Our invention consists of the improvements hereinafter described and claimed.

The nature, scope, and characteristic features of our invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, and in which—

Figure 1 is a transverse section of so much of an ordinary type of musical box as is necessary to illustrate the application of our improved damping device thereto, also showing the position of one of the teeth of the pin-barrel after it has actuated the vibrating reed or tooth and is about to shift the damping-lever into contact with the same. Fig. 2 is a similar view showing the damping-lever in position for checking the vibrations of the reed or tooth, and Fig. 3 is a like view showing the damping-lever in normal position and also showing one of the pins of the pin-barrel in contact with the reed or tooth.

For the sake of a further explanation of our invention a description of certain of the parts of the music-box illustrated in the drawings will now be given. The comb containing the reeds or teeth A is mounted upon a support,

and the teeth A are struck and thrown into vibration by means of pins projecting from a pin barrel or cylinder b, which is caused to rotate with a positive motion in the direction indicated by the curved arrows in the drawings either by means of a perforated sheet, as shown, or in any preferred manner.

Referring to the drawings for a description of our invention, a are fingers rigidly connected with and depending from some or all of the reeds A.

c are damping-levers pivotally supported at e and normally maintained out of range of the fingers a and in contact with the back-stop g by means of springs d. The free extremities c' of each of the levers c are suitably curved, as at f, for engagement with the respective pins of the pin-barrel b, so that the same shift the levers c into range of the vibrating teeth or reeds A.

The mode of operation of the hereinbefore-described damping device is as follows: After a pin of the pin-barrel has depressed and liberated the reed or tooth A, thus causing the latter to vibrate and emit sound, it contacts, by the further revolution of the pin-barrel, with the curved surface f and forces the free extremity c' of the damping-lever c into contact with the finger a, whereupon the vibrations of the reed or tooth A are automatically stopped and the sound caused to cease. The further revolution of the pin-barrel causes the pin to release the damping-lever, whereupon the spring d returns the same to its normal position in contact with the back-stop g and out of range of the reed or tooth A.

The above-described operation is repeated for each pin of the pin-barrel, so that the damping is automatically effected in an extremely rapid and simple manner.

Having thus described the nature and objects of our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a musical instrument, a vibrating reed or tooth and its complemental pin-barrel and a damping-lever provided with a curved free extremity interposed in the path of a pin as it escapes from the reed or tooth, substantially as and for the purposes set forth.

2. In a musical instrument, a vibrating reed
or tooth and its complemental pin-barrel, a
finger applied to said tooth, a pivotal damp-
ing-lever provided with a curved free extrem-
ity disposed in range of the pin that pre-
5 viously actuated the reed or tooth, substan-
tially as and for the purposes set forth.

In witness whereof we have hereunto set
our hands in presence of two witnesses.

GUSTAV ADOLF BRACHHAUSEN.
PAUL RIESSNER.

Witnesses:

CARL BORNGRAEBER,
HENRY N. DIEDERICH.