

(No Model.)

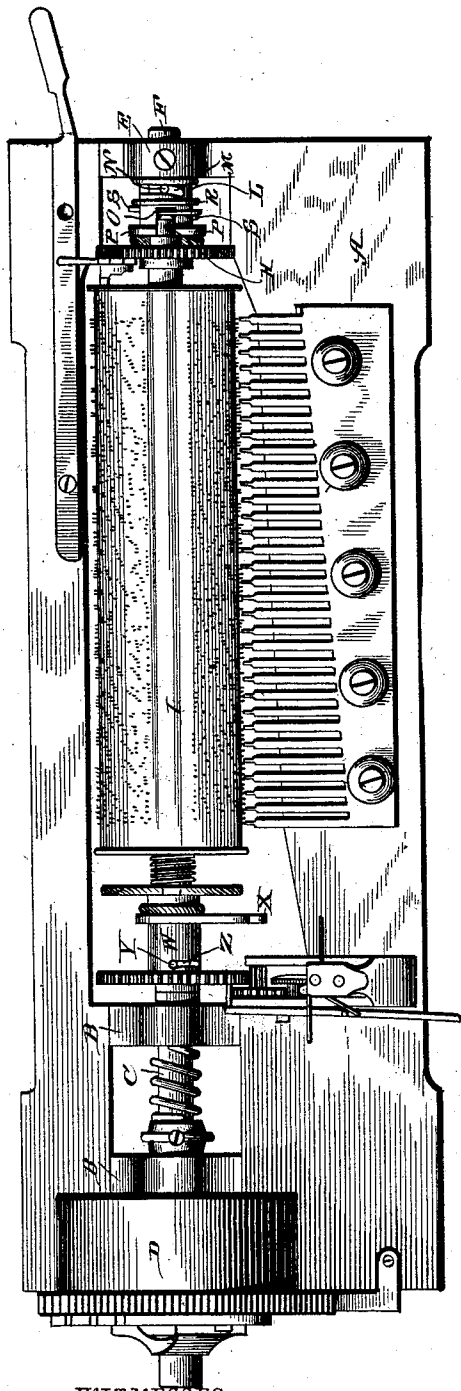
2 Sheets—Sheet 1.

A. JUNOD.
MUSIC BOX.

No. 366,325.

Patented July 12, 1887.

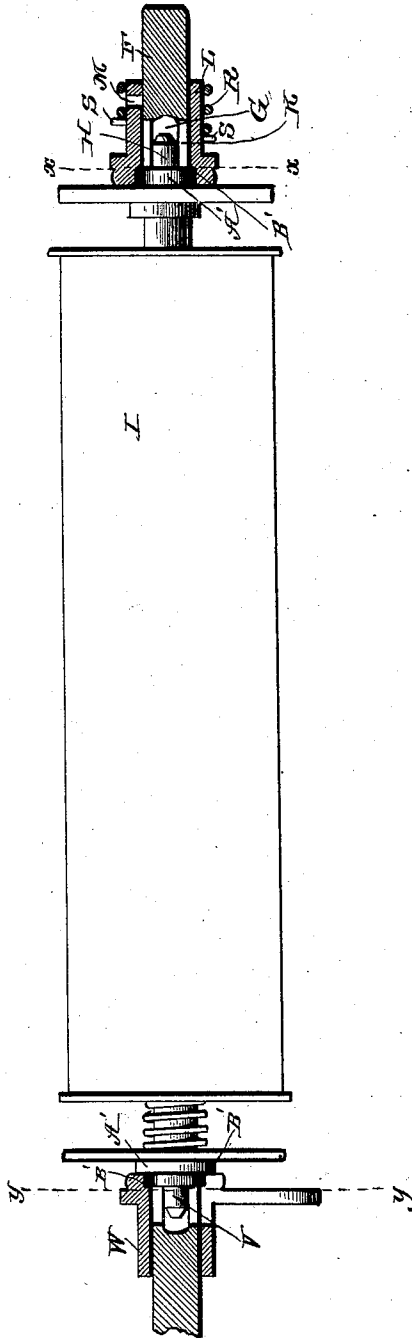
Fig. 1.



WITNESSES

Jos. A. Ryan
J. W. Garner

Fig. 2.



INVENTOR

Arthur Junod
by *C. H. Howells*
Attorneys

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2 Sheets—Sheet 2.

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Fig. 3.

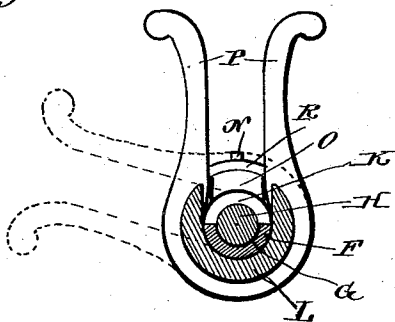


Fig. 4.

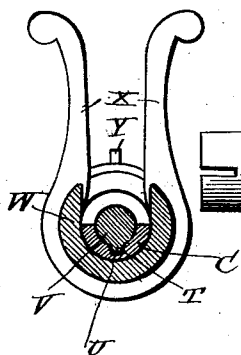
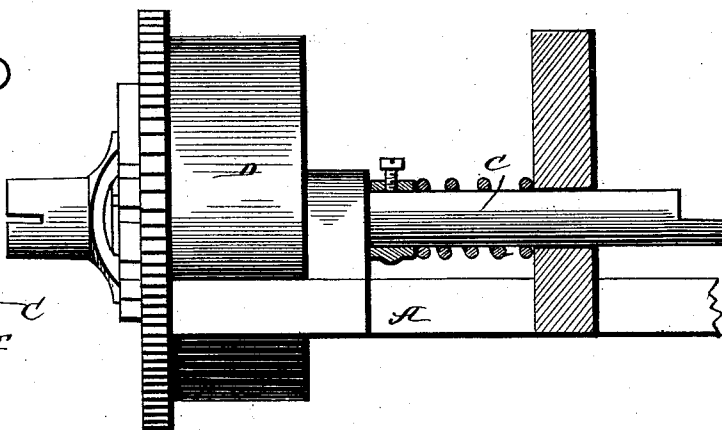


Fig. 5.



WITNESSES

Jos. A. Ryan
J. W. Garner

INVENTOR

Arthur Junod
by C. A. Snowden
Attorney

UNITED STATES PATENT OFFICE.

ARTHUR JUNOD, OF ST. CROIX, SWITZERLAND, ASSIGNOR TO EMILE CUEVDET, OF HOBOKEN, NEW JERSEY.

MUSIC-BOX.

SPECIFICATION forming part of Letters Patent No. 366,325, dated July 12, 1887.

Application filed May 20, 1887. Serial No. 238,890. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR JUNOD, a citizen of Switzerland, residing at St. Croix, in the canton de Vaud and Republic of Switzerland, have invented a new and useful Improvement in Music-Boxes, of which the following is a specification.

My invention relates to an improvement in music-boxes; and the object of my invention is to provide devices whereby the cylinder of the music-box may be removed therefrom and another cylinder having the pins set for different tunes substituted in its stead.

To this end my invention consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a top plan view of a music-box embodying my improvements. Fig. 2 is a similar view, partly in section, of the main shaft and the toothed cylinder. Fig. 3 is a transverse sectional view of the same, taken on the line *xx* of Fig. 2. Fig. 4 is a similar view of the same, taken on the line *yy* of Fig. 2. Fig. 5 is a sectional view to show the spring on the main shaft.

A represents the base-plate of the music-box. B represents the pair of vertical standards or brackets, which rise from one end of the base-plate in line with each other; and C represents the main shaft, which is journaled horizontally in the said brackets or standards, and is provided with the usual coiled spring (not shown) inclosed in the drum D and provided with the usual pawl-and-ratchet device, by means of which the spring may be wound. From the end of the base-plate opposite the brackets or standards B, and in line with the said standards or brackets, is a bracket or standard, E, to which is secured a stud, F, that projects toward the inner end of the main shaft. This stud is provided at its inner end with a socket, G, adapted to receive one of the projecting spindles, H, of the cylinder I, an opening K being made in one side of the stud and communicating with the socket to admit of the ready insertion of the spindle H into the socket.

L represents a hollow cylindrical sleeve which fits on the stud and is adapted to partly

rotate thereon. The said sleeve is provided near its outer end with a transverse slot, M, and a pin, N, projects from the stud and enters the said slot, the function of the said pin being to limit the rotation of the sleeve. In one side of the sleeve is an opening, O, which is adapted to communicate with the opening in the stud that communicates with the socket therein.

P represents a pair of arms which project from the inner end of the sleeve at right angles thereto, the said arms forming a guide leading to the opening O. A coiled spring, R, is arranged on the sleeve and bears between the inner side of the standard E and pins S that project from the cylindrical sleeve. The function of the said spring is to move the sleeve inwardly on the stud, so as to cause the pin which projects from the stud to bear against the outer side of the slot in the sleeve with sufficient friction to maintain the sleeve in any position on the stud.

The inner end of the main shaft is socketed similarly to the inner end of the stud, the said socket having an offset, T, on one side to receive a key, U, that projects from one side of the spindle V of the cylinder, that is adapted to bear in the socket of the main shaft. The function of this key is to lock the cylinder firmly to the main shaft, so that the cylinder will be rotated when the main shaft is turned.

W represents a sleeve which is similar in construction to the sleeve L and is secured on the inner end of the main shaft. The said sleeve W has the opening in one side to register with the opening in one side of the socket of the shaft, and is provided with the projecting guide-arms X. A pin, Y, projects from the inner portion of the main shaft and works in the transverse slot Z in the hollow cylindrical sleeve W.

From the foregoing description it will be readily understood that the hollow cylindrical sleeves may be turned on the stud and on the inner end of the main shaft in such a position as to cause the openings in their sides to register with the openings in the sides of the sockets of the stud and main shaft. When in this position, the cylinder may be very readily withdrawn from the said socket, and thereby disconnected from the main shaft and the stud,

and another cylinder adapted to play different tunes may be substituted therefor, thus adapting a number of cylinders to be used successively in connection with the music-box, and thereby adapting the music-box to play a great number of tunes. When a new cylinder has its spindles inserted in the sockets of the stud and main shaft, the cylindrical sleeves are turned so as to cause their side openings to move past the side openings of the sockets, and thereby prevent the cylinder from becoming accidentally detached. In order to prevent the cylinder from moving loosely in the sockets, its projecting spindles are provided with enlarged annular collars A', and the inner ends of the cylindrical sleeves are provided with countersunk openings B', adapted to receive the said collars.

The trains of gears connected to a gear-wheel on the main shaft and having the regulating-fan and the comb having the teeth which are engaged by the projecting teeth of the cylinder while the latter rotates are not more particularly described herein, for the reason that they are of the well-known usual construction and form no part of my invention.

Having thus described my invention, I claim—

1. In a music-box, the combination of the main shaft and the studs arranged in line with each other and having their opposing ends provided with sockets, and side openings communicating with the said sockets, the sleeves secured on the projecting socketed ends of the main shaft and the stud, the said sleeves having the side openings adapted to register with the side openings in the sockets, whereby the cylinder may be detached from the main shaft and the stud by turning the sleeves so that the side openings therein shall register with the side openings in the sockets, substantially as described.

2. In a music-box, the combination of the main shaft and the projecting studs arranged in line with each other and having the sockets in their opposing ends, and the side openings communicating with the said sockets, the sleeves secured on the opposing ends of the main shaft and the studs, and having the side

openings adapted to communicate with the side openings of the sockets when the sleeves are turned, the said sleeves being further provided with the transverse slots, and the main shaft and the studs being provided with the projecting pins engaging the said slots to limit the rotation of the sleeves, substantially as described.

3. In combination with the studs having the sockets, the locking-sleeves, and the cylinder having the projecting spindles adapted to enter the sockets, the said spindles being locked in the sockets by the sleeves.

4. In a music-box, the combination of the main shaft and the studs in line with each other and having the sockets in their opposing ends, and the side openings communicating with the sockets, the cylinder having the projecting spindles at its ends to enter the sockets, the sleeves secured on the stud and the shaft and adapted to partly rotate thereon, said sleeves having the side openings and the transverse slots, the pins projecting from the stud and the main shaft and entering the slots, and the spring bearing against the sleeves to force them against the pins, for the purpose set forth, substantially as described.

5. In a music-box, the combination of the main shaft and the studs in line with each other and having the sockets in their opposing ends, the side openings communicating with the sockets, the revoluble sleeves on the stud and shaft having the side openings to register with the side openings in the sockets, and the countersunk openings in the opposing ends of the sleeves, and the cylinder having the projecting spindles at its ends adapted to enter the sockets in the stud and shaft, and the collars at the inner ends of the spindles to enter the countersunk openings in the ends of the sleeves, for the purpose set forth, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ARTHUR JUNOD.

Witnesses:

HENRI ALBERT WEIDMANN,
ARNOLD FREDERICK LANG.