(No Model.) 2 Sheets—Sheet 1.

C. E. JUILLERAT.

AUTOMATIC CHECK FOR MUSICAL BOXES.

No. 343,767. Patented June 15, 1886.

Fig. 1

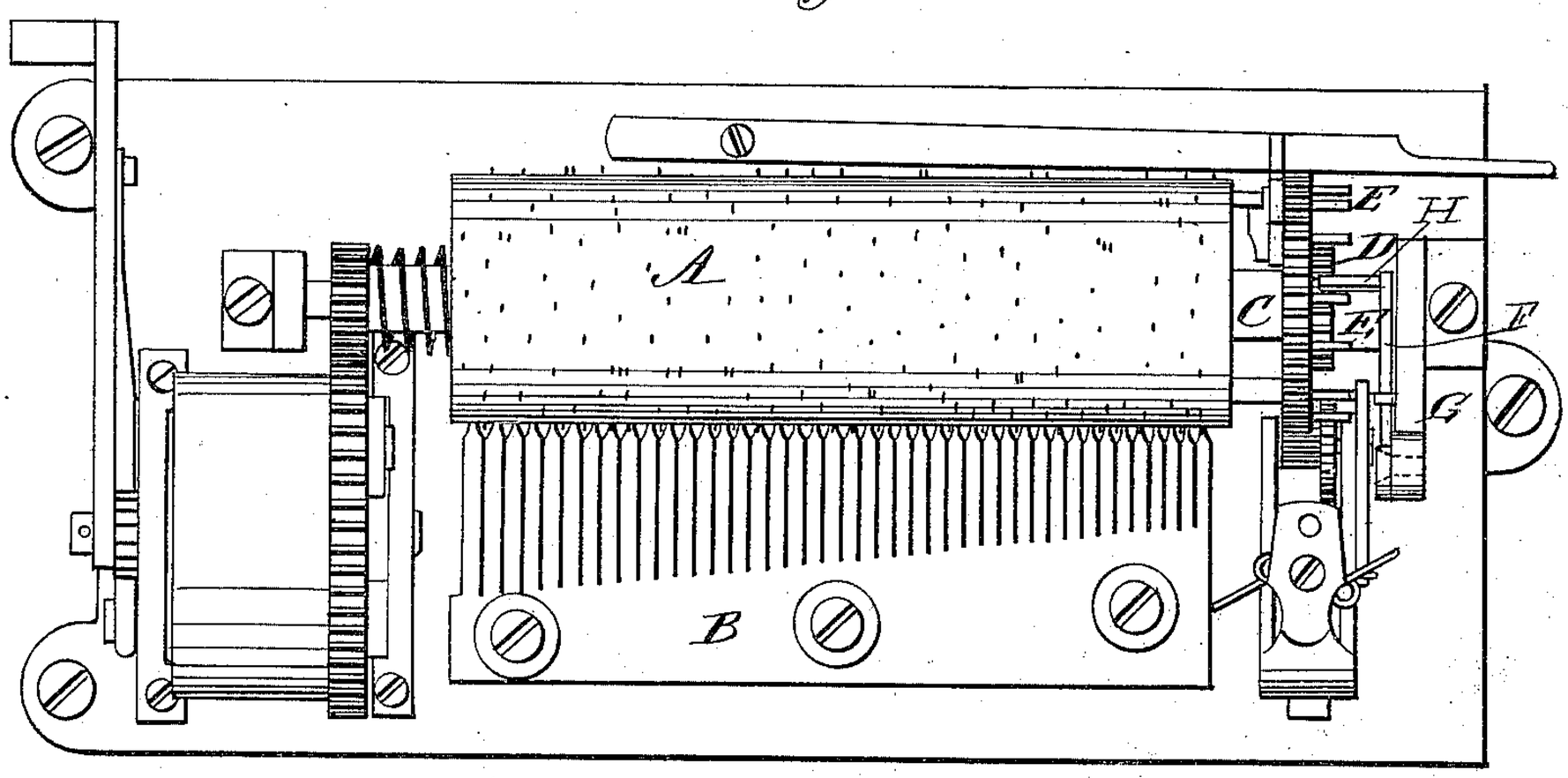


Fig. 2

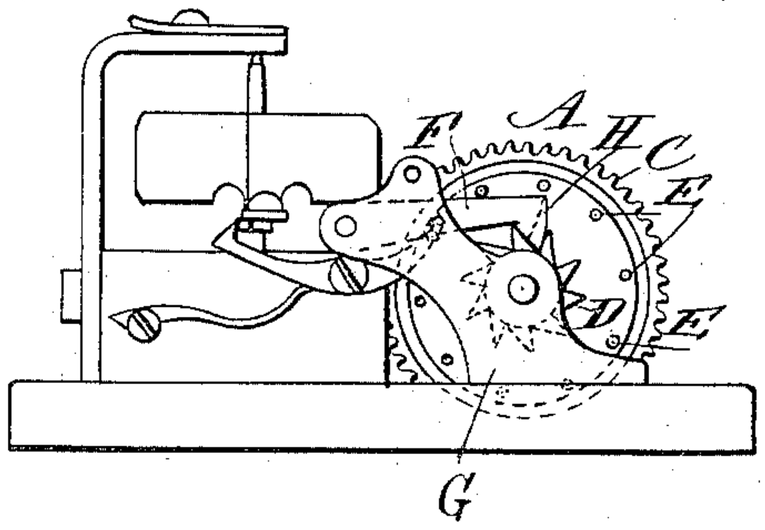


Fig. 3

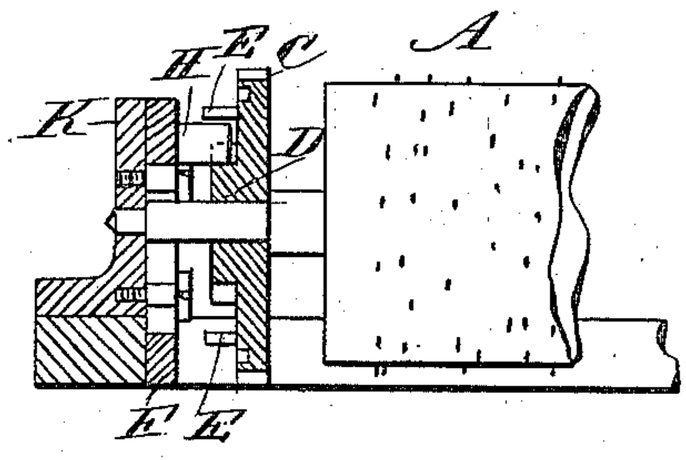
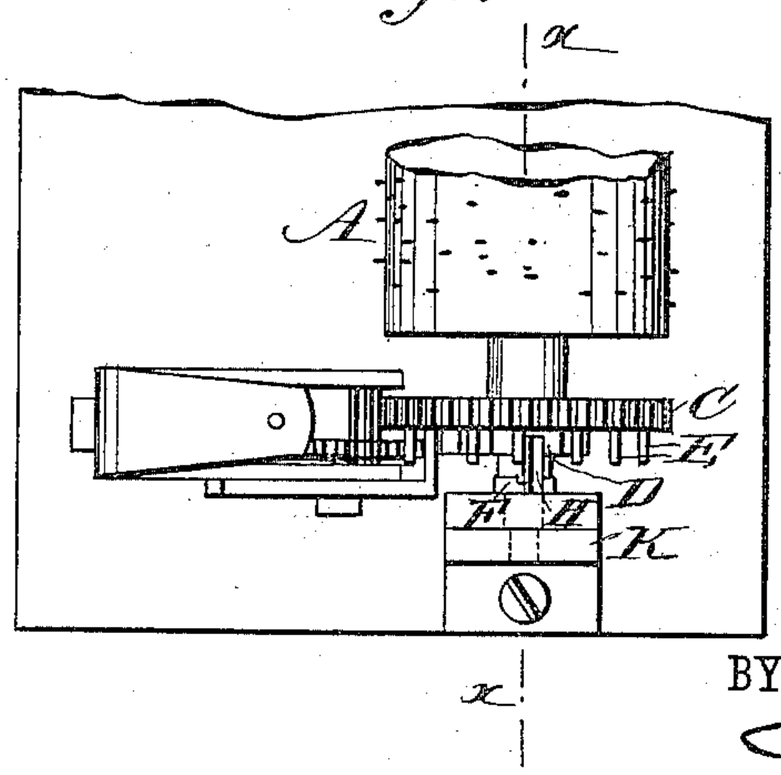


Fig. 4



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(No Model.) 2 Sheets—Sheet 2.

C. E. JUILLERAT.

AUTOMATIC CHECK FOR MUSICAL BOXES.

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Fig. 5

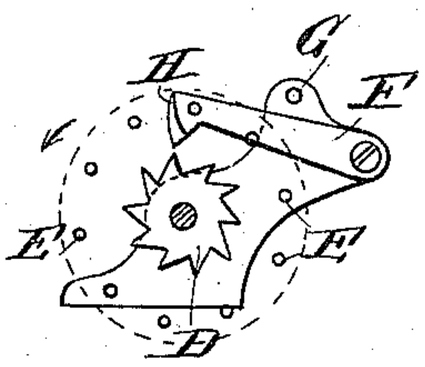


Fig. 6

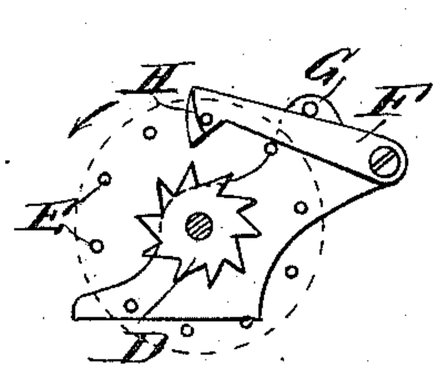


Fig. 7

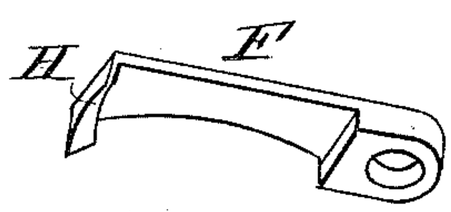


Fig. 8

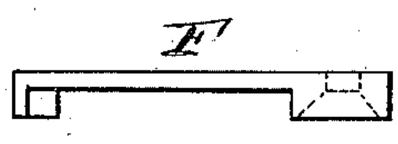
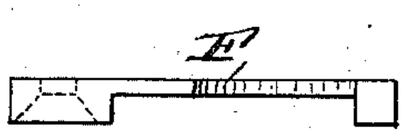


Fig. 9



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UNITED STATES PATENT OFFICE.

CHARLES E. JUILLERAT, OF NEW YORK, N. Y.

AUTOMATIC CHECK FOR MUSICAL BOXES.

SPECIFICATION forming part of Letters Patent No. 343,767, dated June 15, 1886.

Application filed October 6, 1885. Serial No. 179,146. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. JUILLERAT, of the city, county, and State of New York, have invented a new and Improved Automatic Check for Musical Boxes, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved automatic check for musical boxes for the purpose of checking the cylinder when the flier mechanism gets out of order or is removed, thus preventing the too-rapid revolution of the cylinder or roller, and thus also preventing the breaking of the teeth of the comb and of the pins on the cylinder.

The invention consists in the construction and combination of parts and details, as will be fully described and set forth hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of a musical-box mechanism provided with my improved automatic check. Fig. 2 is an end view of the same. Fig. 3 is a cross-sectional view of the check mechanism, showing a modified construction of the same, on the line *x x*, Fig. 4. Fig. 4 is a plan view of the same. Fig. 5 is side view of the frame on which the cylinder is mounted, showing the ratchet-wheel, the pawl-lever, and the pins. Fig. 6 is a like view showing the parts in different positions. Fig. 7 is a detail perspective view of the pawl-lever. Fig. 8 is a top edge view of the pawl. Fig. 9 is a bottom edge view of the same.

The pin-cylinder A and the comb B are of the usual construction, as are also the flier and the gearing for operating the same. On the outer face of the cog-wheel C the cam-wheel D is secured, which has less diameter than the said cog-wheel, and is surrounded by a ring of pins or teeth, E, projecting from the outer surface of the said wheel C, the ends of the teeth of the cam-wheel D being about midway between the pins or teeth E, as shown in Fig. 2.

A pawl, F, is pivoted on the frame-piece G of the mechanism, and said pawl is provided on its swinging end with a laterally-projecting tooth, H, or lug, which is shown in dotted lines in Fig. 2, and which is slightly beveled toward its upper end. The tooth or lug H is of such height that when it rests in a recess between two teeth of the cam-wheel D its top edge will be below and will clear the pins or teeth E, as is shown in Fig. 2.

If desired, the pawl F can be mounted to slide vertically on the standard K, as shown in Figs. 3 and 4, the pawl having the tooth or lug H, as set forth above. In this case the pawl must be slotted longitudinally for the shaft of the cylinder A.

The operation is as follows: When the cylinder revolves at the ordinary speed, the teeth of the cam-wheel D, acting on the lug H, raises the same, and when the lug slides off the said teeth it drops in time to let the pins or teeth E pass without catching on the same, and without interfering with the operation of the mechanism. When the flier mechanism breaks or gets out of order, or is removed and the spring is free to revolve the cylinder with such great rapidity as to break the teeth of the comb or the pins on the cylinder, the pawl is thrown upward with such great rapidity that the lug H catches on one of the pins or teeth E and immediately locks the cylinder in place, and prevents any further revolving of the same.

The automatic check can be applied at either end of the cylinder, as may be desired, and the number of pins or teeth E and the number of teeth or raised parts on the cam may be increased or decreased, according to the size of the cylinder.

The pins and cam-wheel may be arranged on the end of the cylinder.

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

1. The combination, with the cylinder and comb of a musical box, of a wheel on said cyl-

inder, a cam-wheel on said wheel, pins or teeth projecting from the said wheel and surrounding the cam-wheel, and of a pawl resting on the cam-wheel, substantially as herein shown and described.

2. The combination, with the cylinder and comb of a musical box, of a wheel on the cylinder, a cam-wheel on said wheel, pins or teeth projecting from said wheel and surrounding the cam-wheel, and of a pawl provided with a laterally-projecting lug resting on the cam-wheel, substantially as herein shown and described.

CHARLES E. JUILLERAT.

Witnesses:
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EDGAR TATE.