(No Model.) 2 Sheets—Sheet 1.

E. TULLER.

MUSIC BOX.

No. 467,485. Patented Jan. 19, 1892.

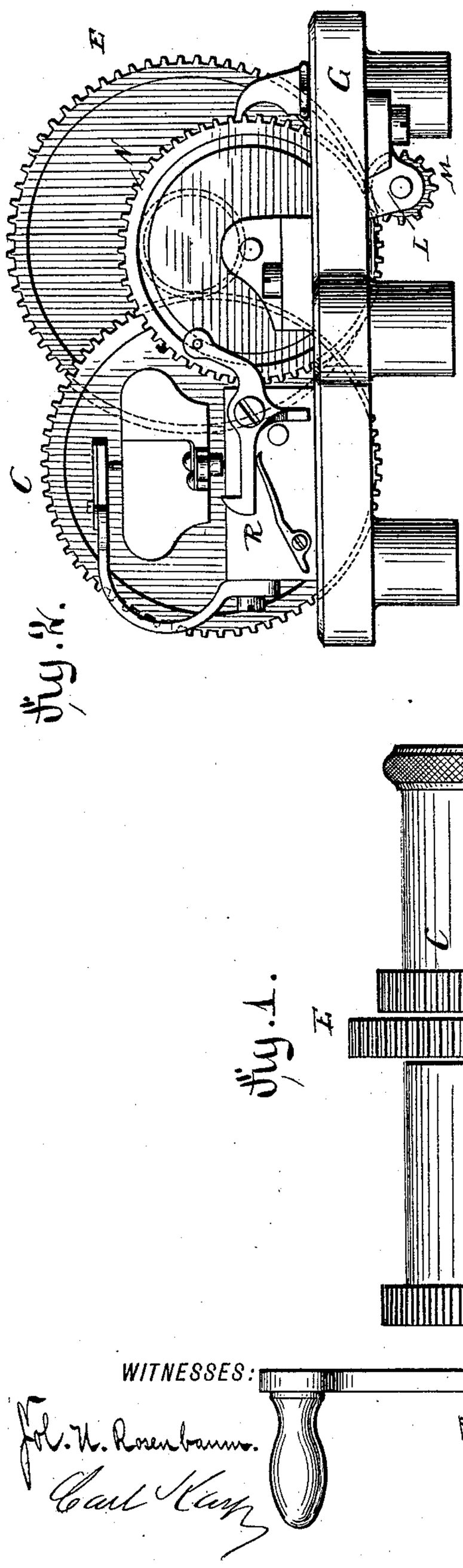

Fig. 2.

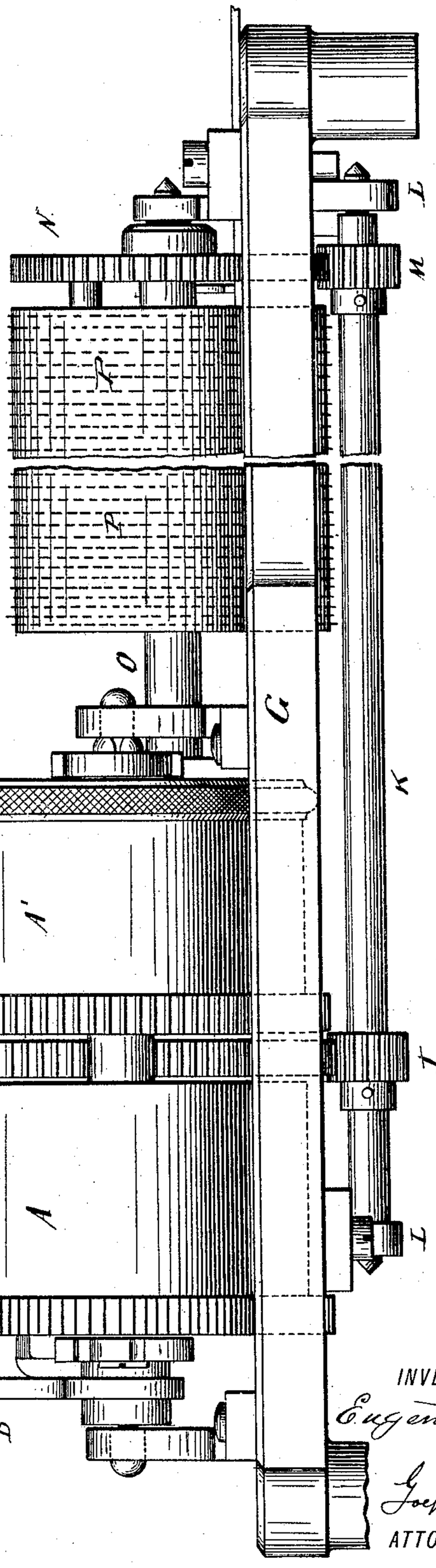

Fig. 1.

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BY

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(No Model.) 2 Sheets—Sheet 2.

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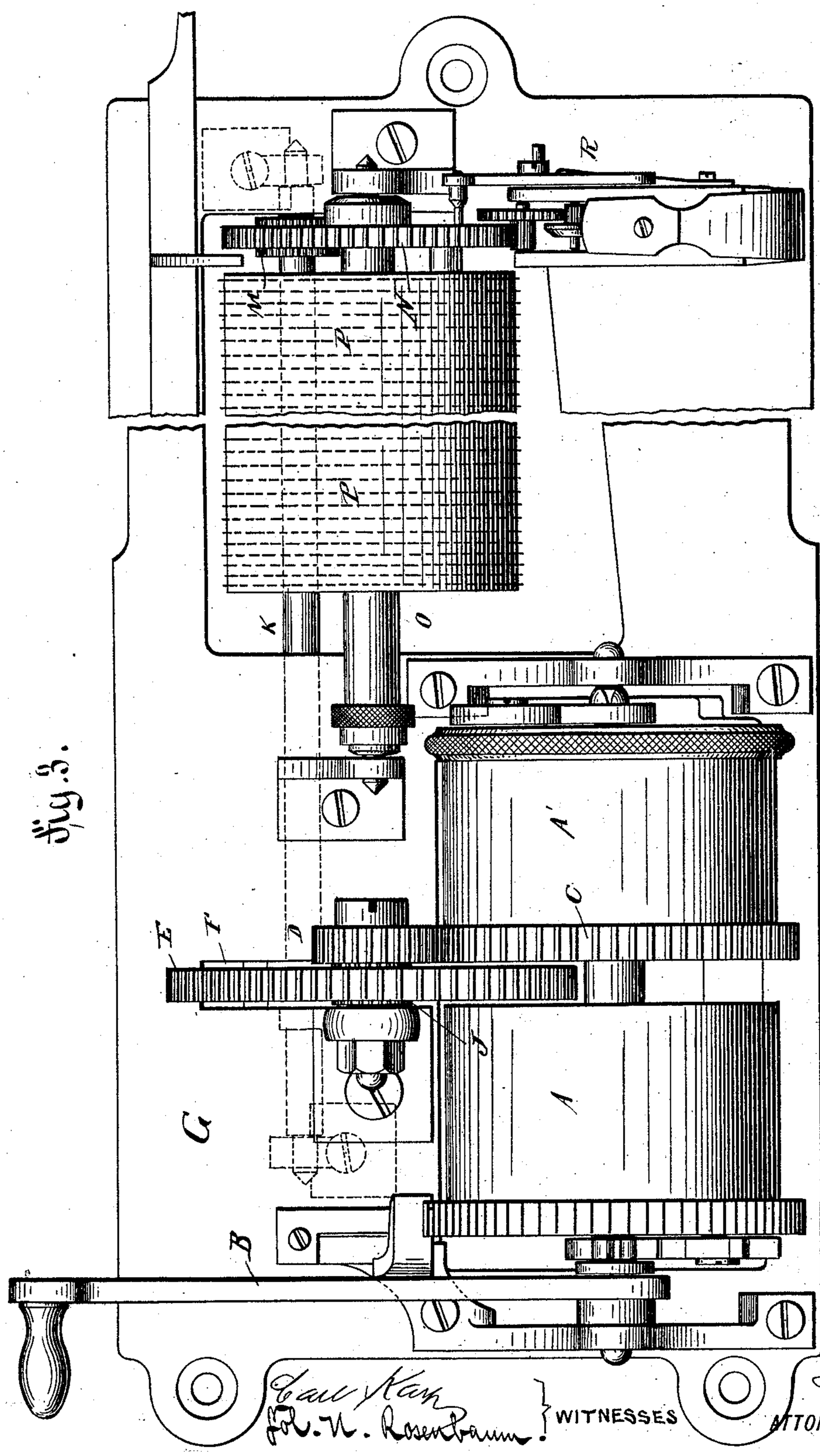

Fig. 3.

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UNITED STATES PATENT OFFICE.

EUGÈNE TULLER, OF STE. CROIX, SWITZERLAND.

MUSIC-BOX.

SPECIFICATION forming part of Letters Patent No. 467,485, dated January 19, 1892.

Application filed April 20, 1889. Serial No. 307,618. (No model.)

To all whom it may concern:

Be it known that I, EUGÈNE TULLER, a citizen of the Republic of Switzerland, residing at Ste. Croix, in the Republic of Switzerland, have invented certain new and useful Improvements in Music-Boxes, of which the following is a specification.

The object of my invention is to provide a music-box which, with one winding of the springs, runs a much longer time than music-boxes of the ordinary construction.

The invention consists in the combination, with a spring-motor for music-boxes, of a transmitting-shaft journaled on the under side of the base-plate, gearing for transmitting motion from the said motor to one end of the said transmitting-shaft, and gearing for transmitting motion from the other end of the said shaft to the pin-cylinder.

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

In the accompanying drawings, Figure 1 is a longitudinal elevation of my improved music-box, parts being broken out. Fig. 2 is an end view of the same. Fig. 3 is a plan view, parts being broken out.

Similar letters of reference indicate corresponding parts.

The springs are contained in the usual spring-barrels A A′, and can be wound by means of a lever B of the usual construction. The barrel A′ is provided with a cog-wheel C, engaging a pinion D, mounted on the same shaft with the large cog-wheel E, the lower part of which passes through a slot F in the bed-plate G. The shaft carrying the cog-wheels E and the pinions D is journaled in suitable standards on the bed-plate G. The wheel E engages a pinion J, fixed on the shaft K, journaled below the bed-plate G in bearing-blocks L, projecting from the under side of said bed-plate, which shaft extends in the direction of the length of the bed-plate. At the opposite end of the shaft K a pinion M is mounted on said shaft and engages a cog-wheel N, projecting through a slot or opening in the bed-plate and mounted on the end of the shaft O, carrying the pin-cylinder P, which pin-cylinder is mounted to slide on and rotate with said shaft in the usual manner. The retarding-gear R is driven from said cog-wheel N in the usual manner. By the above-described arrangement of the cog-wheels and pinions the speed is increased and with a comparatively slow movement of the cog-wheel C on the spring-barrel A′ high speed of the pin-cylinder P can be obtained, and thus a greater number of revolutions of the pin-cylinder can be obtained for a given number of revolutions of the spring-barrel than can be obtained in the music-boxes of the ordinary construction in which the power is transmitted directly to the shaft of the pin-cylinder.

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

1. In a music-box, the combination, with a spring-barrel, of a cog-wheel on the same, a pinion engaging said cog-wheel on the barrel, a shaft on which the pinion is mounted, a cog-wheel fixed on said shaft and passing through a slot in the bed-plate of the mechanism, a shaft journaled on the under side of the bed-plate, a pinion on one end of said bottom shaft and engaging the cog-wheel passed through the slot in the bed-plate, a toothed wheel on the opposite end of said bottom shaft, and gearing driven from said toothed wheel, substantially as set forth.

2. In a music-box, the combination, with a spring-barrel, of a shaft journaled on the under side of the bed-plate, gearing for transmitting motion from the spring-barrel to one end of said shaft, and gearing for transmitting motion from the opposite end of said shaft to the pin-cylinder shaft, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

EUGÈNE TULLER.

Witnesses:
OTTO SCHENKER,
EMIL NEEFF.