

No. 774,920.

PATENTED NOV. 15, 1904.

L. PEROTTI.  
MUSIC BOX.

APPLICATION FILED SEPT. 1, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

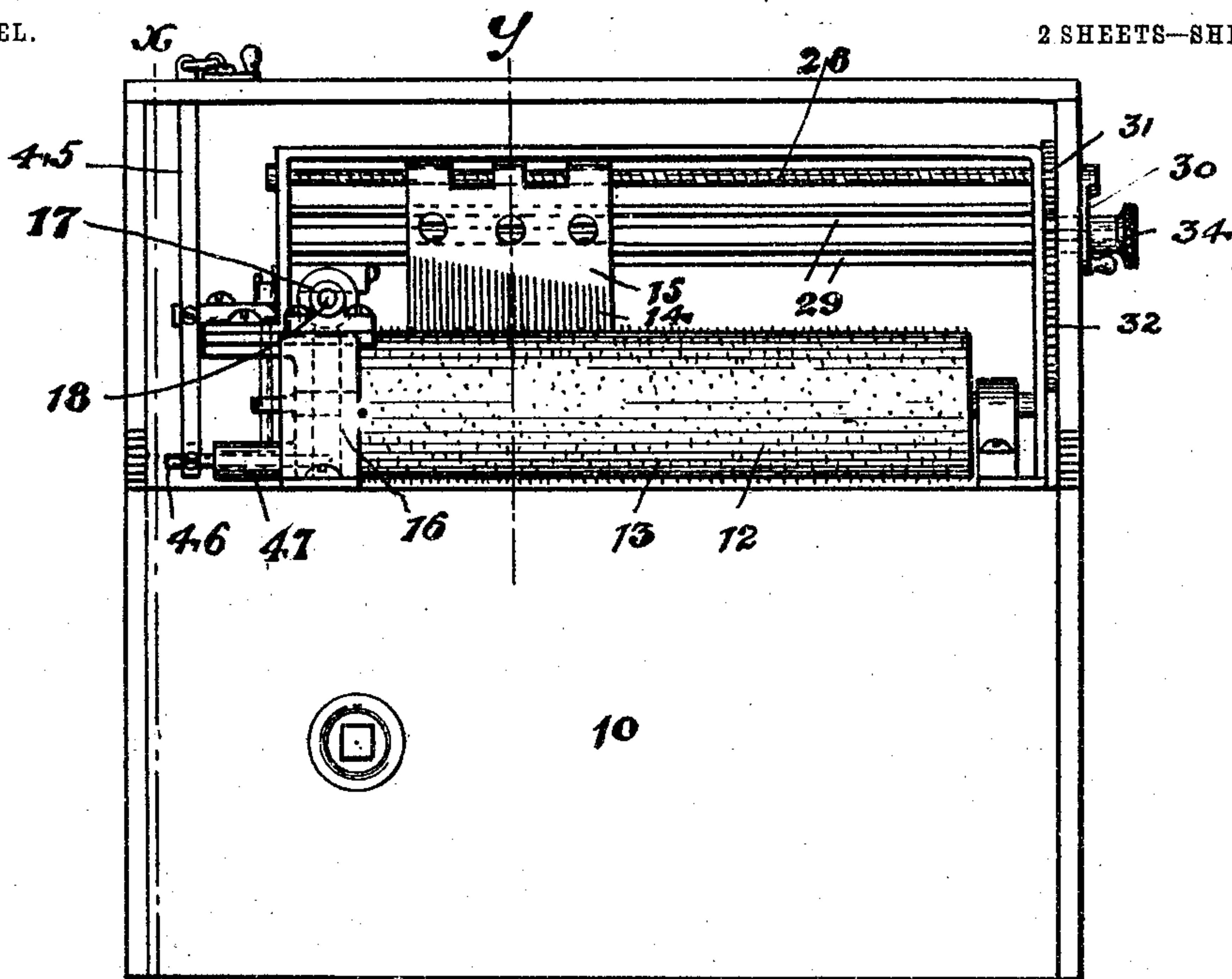


Fig. 1.

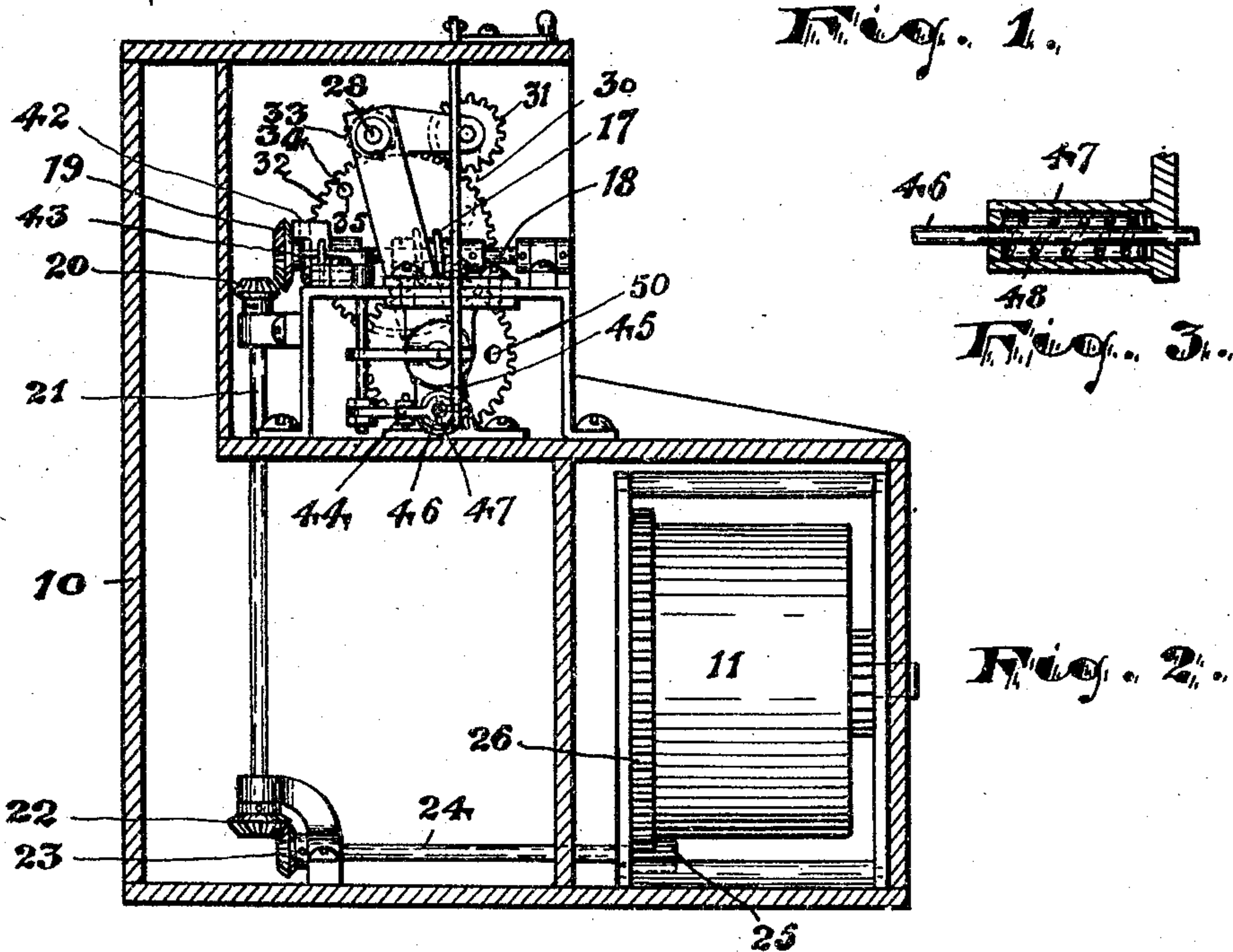


Fig. 2.

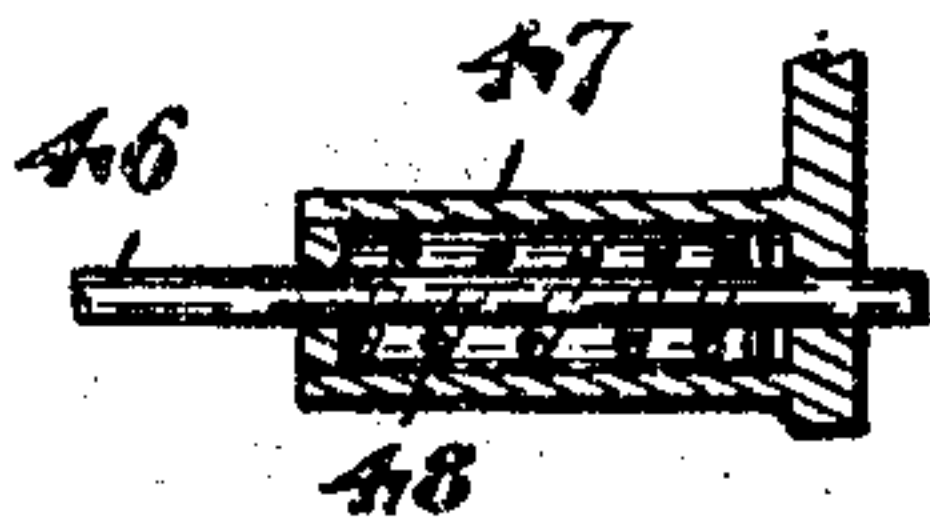


Fig. 3.

WITNESSES:

Ralph Lancaster.

Russell M. Everett.

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2 SHEETS—SHEET 2

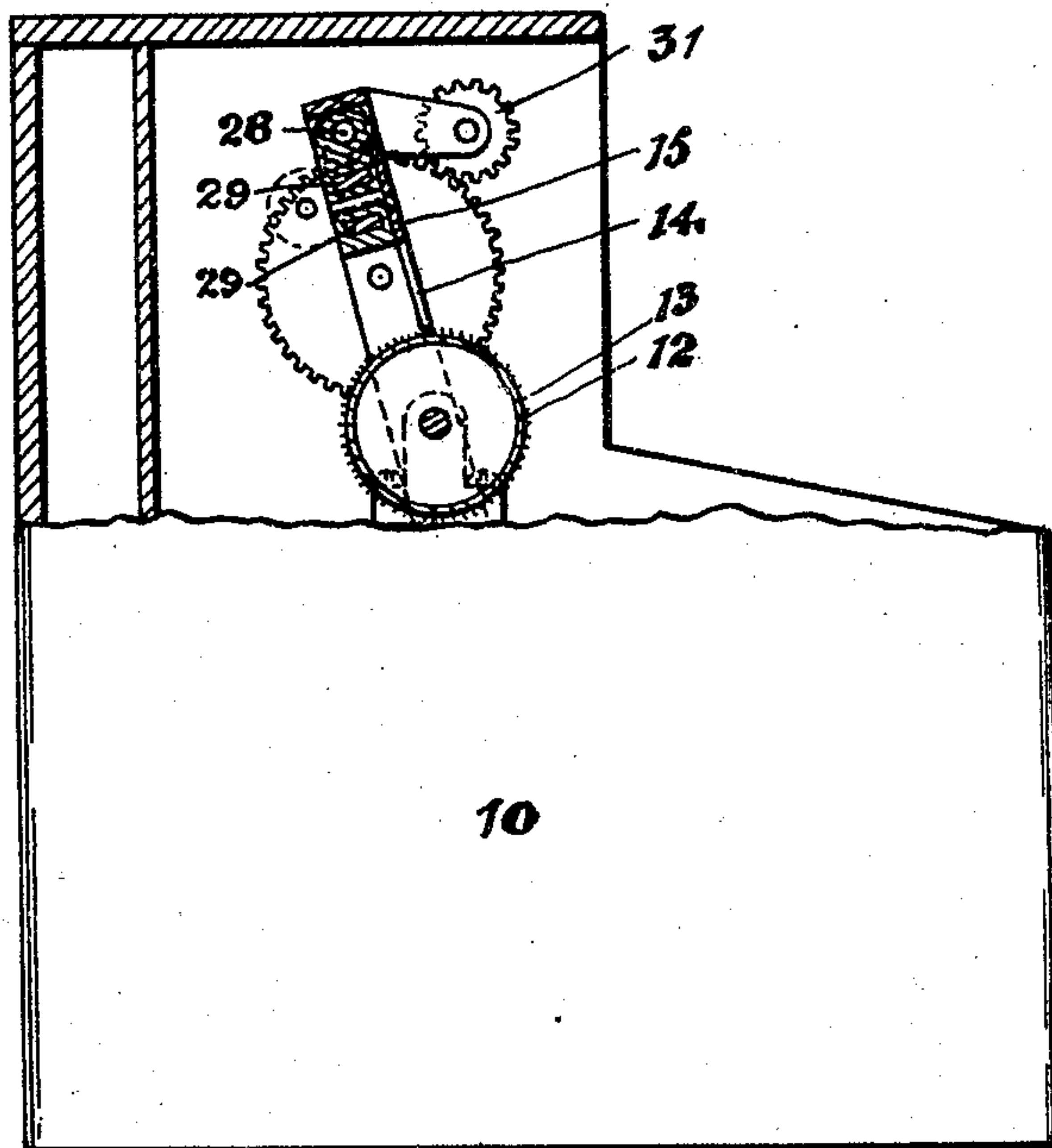


Fig. 4.

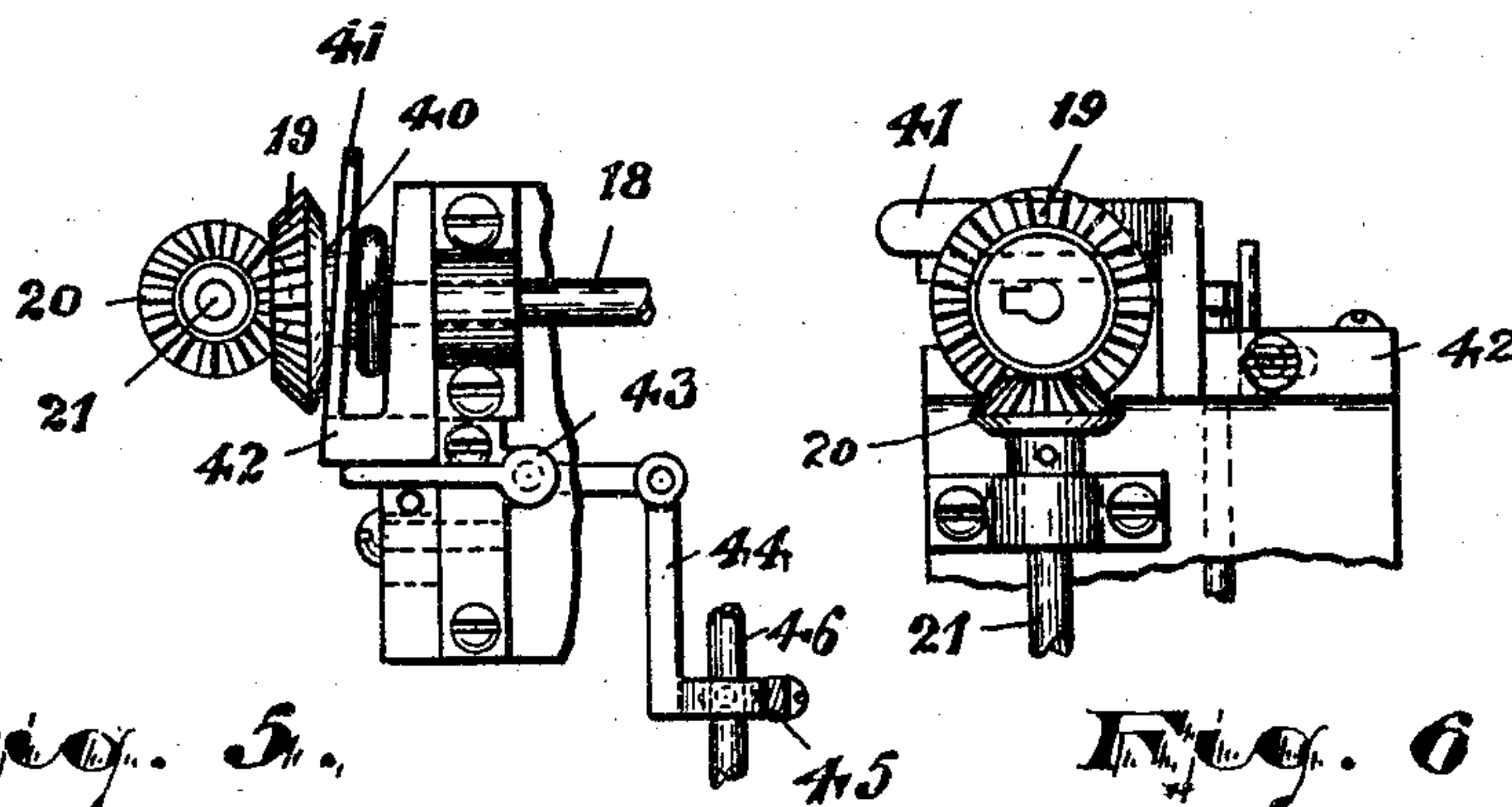


Fig. 5.

Fig. 6.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

LOUIS PEROTTI, OF NEWARK, NEW JERSEY.

## MUSIC-BOX.

SPECIFICATION forming part of Letters Patent No. 774,920, dated November 15, 1904.

Application filed September 1, 1903. Serial No. 171,488. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS PEROTTI, a subject of the King of Italy, residing at Newark, in the county of Essex and State of New Jersey, have invented and produced new and original Improvements in Music-Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-  
 10 pertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

The objects of this invention are to enable  
 15 a greater variety of tunes to be secured from each machine, to secure more distinct and melodious musical notes or sounds, and to secure other advantages and results, some of which may be referred to hereinafter in connection  
 20 with the description of the working parts.

The invention consists in the improved music-box and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth, and finally  
 25 embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like figures of reference indicate corresponding parts in each of the several figures, Figure 1 is a front elevation of the im-  
 30 proved music-box. Fig. 2 is a section of the same, taken at line *x*. Fig. 3 is a detail section of a certain stay or stop. Fig. 4 is a section taken at line *y*, Fig. 1; and Figs. 5 and 6 show means for throwing the device out of  
 35 operative relation to its motor, as will be hereinafter more fully described.

In said drawings, 10 indicates a suitable box or case adapted to contain the motor 11 and the music-producing devices adapted to be op-  
 40 erated by said motor. Of said music-producing devices, 12 indicates a cylinder having on its periphery the usual pins 13, adapted to engage the resonant teeth or tongues 14 of the comb-like sound-producing plate 15. Said  
 45 cylinder 12 is adapted to rotate on its axis, but has no longitudinal movement.

At one end of said cylinder 12 is a toothed wheel 16, adapted to engage a screw-wheel 17 on a shaft 18, the said shaft having at one end  
 50 a beveled gear-wheel 19, Fig. 2, adapted to

engage a second beveled wheel, 20, on a vertical shaft 21, which extends to the bottom of the box, where it is provided with another beveled gear-wheel, 22, which engages a beveled gear-wheel, 23, on a horizontal shaft 24, 55 having a pinion 25. This last meshes with a gear-wheel 26, immediately in connection with the motor, as shown in Fig. 2. The operation of the parts thus described is such as to transmit power to the cylinder to effect a slow  
 60 rotary movement of the same to secure the desired engagement of the pins with the teeth or tongues 14.

To secure the desired variety of tunes and to obtain a greater variety than has hereto-  
 65 fore been secured from music-boxes having the cylinders movable lengthwise of their axes, I have made the said comb-like plate 15 movable lengthwise of said axes, and with this in view I have arranged said comb-like  
 70 plate 15 on a screw-shaft 28, Fig. 1, and slide-ways 29, running parallel with said axis of the said cylinder 12, and thus by turning said screw-shaft the requisite distances the cylinder may be adjusted to produce the different  
 75 tunes. Said screw-shaft 28 is turned by a hand-crank 30 on the outside of the case or box and having a pinion 31, which meshes with a cog-wheel 32, which in turn transmits  
 80 motion to another pinion, 33, at one end of the screw-shaft and by which last the screw-shaft is turned.

To regulate the distances of movement of the comb-plate, I have provided a suitable stop-plunger 34, the inner end of which will  
 85 enter a hole or holes 35, preferably in the larger cog-wheel 32.

To disengage the cylinder 12 from operative connection with the motor, so that the music may be quickly stopped at will, I have  
 90 arranged the gear-wheels 19 20 so that they may be thrown out of meshing relation, as shown in Figs. 5 and 6 more clearly, thus enabling the motor to continue its working independent of the music-producing means—for  
 95 cradle-rocking purposes, for example, as described in a contemporaneous application. The gear-wheel 19 is adapted to slide a limited distance lengthwise of its shaft 18, so as to be disengaged from the gear-wheel 20, and is  
 100



back from the cogs or teeth thereof periph-  
erally grooved, as at 40, to receive an inclined  
arm 41 of a sliding piece 42, adapted to be op-  
erated by any suitable train of levers or de-  
vices either automatically or by hand, as may  
5 be desired.

I prefer when disconnecting the gear-wheels  
to stop the cylinder, and to this end the gear-  
wheel sliding means are connected or in train  
10 with means for stopping the cylinder, as fol-  
lows: The lever 43, fulcrumed near said slid-  
ing piece 42, is in turn operated by a second  
lever, 45, and connected to the first said lever  
by a pivoted link or connecting-rod 44. Said  
15 second lever is also loosely connected to a  
stop-plunger 46, which extends through a cy-  
lindrical receptacle 47, containing a spring 48,  
and at its end distant from the lever is adapt-  
ed to enter a hole 50 in the cog-wheel of the  
20 cylinder to stop the same from rotating.  
Suitable means may be provided, especially  
when the device is detached from other means  
to be operated, such as the cradle referred to  
in my cotemporaneous application, for stop-  
ping the independently-operable motor when  
25 the music-cylinder has been stopped.

I am aware that various changes may be  
made in the arrangements and operations of  
parts without departing from the spirit or  
30 scope of the invention, and I do not wish to  
be understood as limiting myself by all the  
positive descriptive terms employed in the  
foregoing specification, excepting as the state  
of the art may require.

35 Having thus described the invention, what  
I claim as new is—

1. The improved music-box, containing  
therein a rotary cylinder having peripheral  
pins, and a movable comb-like resonant plate,  
40 the tongues of which are engaged by periph-  
eral pins, and means for moving said comb-  
like plate lengthwise of the axis of said cylin-  
der, substantially as set forth.

2. The improved music-box, containing  
45 therein a rotary cylinder having peripheral  
pins, and a movable comb-like resonant plate,  
the tongues of which are engaged by said  
peripheral pins, and a screw-shaft for moving  
said plate lengthwise of the axis of said cyl-  
50 inder, substantially as set forth.

3. The improved music-box, containing  
therein a rotary cylinder having peripheral  
pins, and a movable comb-like resonant plate,  
the tongues of which are engaged by said pe-  
ripheral pins, a slideway for said comb-like  
55 plate and a screw-shaft, parallel with said  
slideway and the axis of said cylinder, sub-  
stantially as set forth.

4. In a music-box, the combination with  
the cylinder and peripheral pins and a motor  
60 for operating said cylinder, of a sliding plate  
having resonant tongues, means for moving  
said plate lengthwise of the axis of the cylin-  
der and means for disengaging the motor  
from the cylinder and permitting independ-  
65 ent operation of the said motor, substantially  
as set forth.

5. In a music-box, the combination with  
the cylinder and peripheral pins and a motor  
for operating said cylinder, of a sliding plate  
70 having resonant tongues, means for moving  
said plate lengthwise of the axis of the cylin-  
der, and a sliding inclined arm adapted to  
disconnect the motor from the cylinder and  
prevent a transmission of power, and levers  
75 for operating said inclined arm, substantially  
as set forth.

6. In a music-box, the combination with  
the cylinder having peripheral pins, a motor  
connected to said cylinder by a train of gear-  
80 ing including a pair of beveled gear-wheels,  
one of said beveled gear-wheels having a pe-  
ripheral groove, an inclined sliding arm ar-  
ranged in said groove and adapted to move  
said grooved gear-wheel from and toward its  
85 coöperating gear-wheel, means for sliding  
said inclined arm on its bearings, a comb-like  
plate movable lengthwise of the axis of said  
cylinder, means for moving said comb-like  
plate and means for stopping the movement  
90 of said comb-like plate at a definite relative  
position respecting the cylinder, substantially  
as set forth.

In testimony that I claim the foregoing I  
have hereunto set my hand this 26th day of  
August, 1903.

LOUIS PEROTTI.

Witnesses:

CHARLES H. PELL,  
M. V. DOYLE.