

No. 748,087.

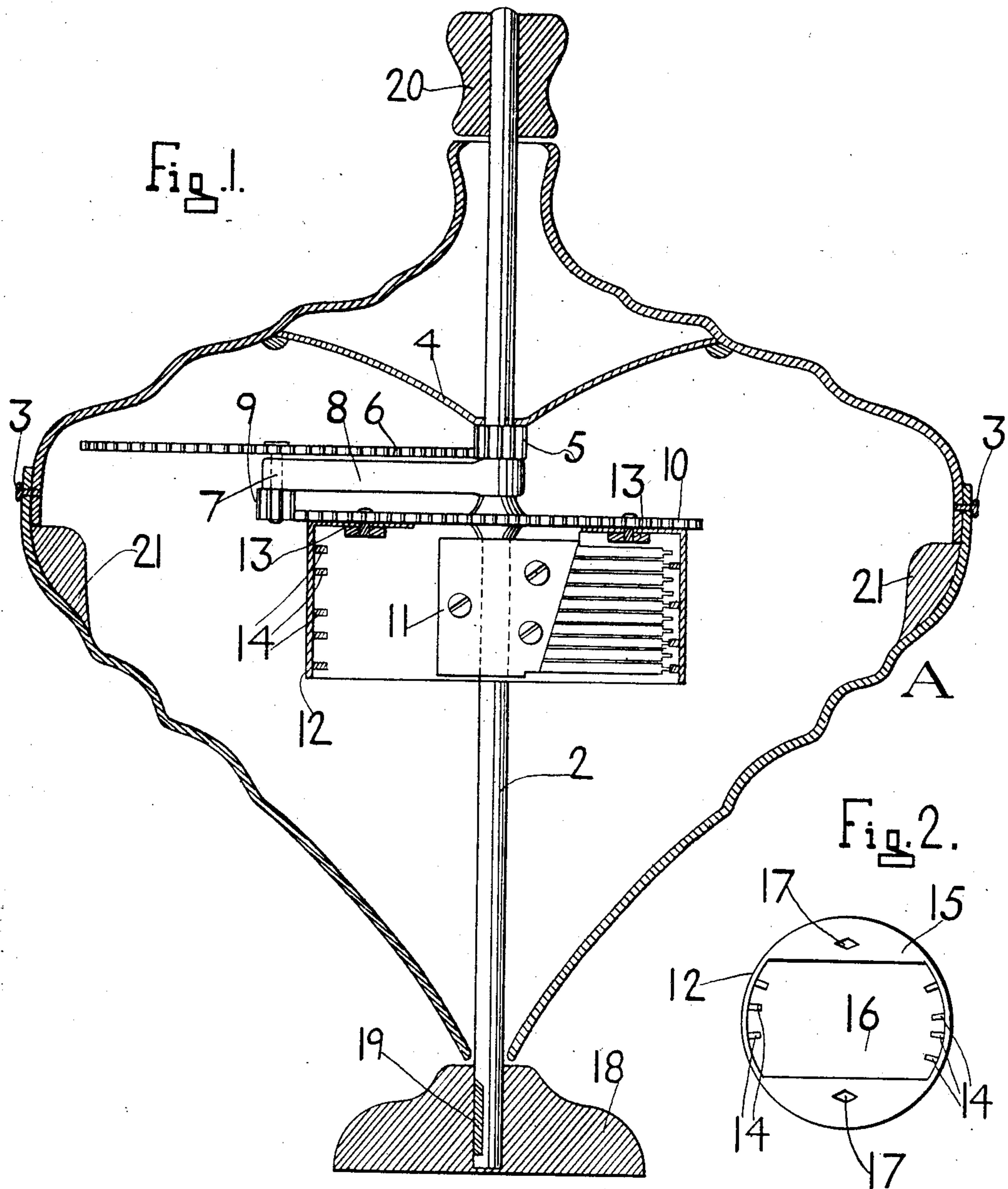
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MUSICAL TOP.

APPLICATION FILED FEB. 7, 1903.

NO MODEL.



WITNESSES:

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UNITED STATES PATENT OFFICE.

PHILIP V. MIGHELS, OF OAKLAND, AND CHARLES Z. ELLIS, OF BERKELEY,
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MUSICAL TOP.

SPECIFICATION forming part of Letters Patent No. 748,087, dated December 29, 1903.

Application filed February 7, 1903. Serial No. 142,270. (No model.)

To all whom it may concern:

Be it known that we, PHILIP V. MIGHELS, residing at Piedmont, Oakland, and CHARLES Z. ELLIS, residing at Berkeley, county of Alameda, State of California, citizens of the United States, have invented an Improvement in Musical Toys; and we hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to improvements in mechanical and musical toys, and particularly to that class in which musical tones are produced by a spinning-top.

It consists of the parts and the construction and combination of parts, as hereinafter more fully described, having reference to the accompanying drawings, in which—

Figure 1 is a vertical section through our invention. Fig. 2 is a plan view of the cylinder reduced.

A represents the casing of the top, which may be of any suitable size or design. This casing is turnable freely about a vertical stationary axis 2 and incloses the music-playing mechanism. It is made in two separable sections provided with suitable interlocking means 3, whereby access may be had to such mechanism, as for the purpose of inspection or substitution. The upper or cover portion of the casing has an interior web 4, which, with the end of the cover, forms a bearing for the top in its rotation about the shaft or stem 2. Concentric with and turnable about stem 2 is a gear 5, rigid with the web 4 and loose upon the shaft 2 and adapted to mesh a larger gear 6, whose shaft 7 is journaled in the end of a stationary horizontal arm 8, fixed rigid with stem 2. The lower end of shaft 7 carries a small gear 9, which engages the music-cylinder-operating gear 10. The latter is turnable loosely on stem 2 and is held in place thereon between arm 8 and the comb or reed support 11, which is removably secured on stem 2. The arms 8 and the comb 11 are fixed to the shaft 2, these three parts being the stationary elements of the device. The cylinder or drum 12 is detachably secured by suitable means, as the buttons 13, to the under side of gear 10 and incloses the reeds.

The distinction is to be noted between the relative arrangement of the cylinder and

reeds in the present device and in music-boxes of ordinary construction. The reeds herein are adapted to engage projections or pins 14 upon the inner periphery of the cylinder to produce a succession of harmonious tones in the manner well known in the art. Cylinder 12 is open at one end, and the head 15 is transversely slotted, as at 16, to accommodate the reeds in the putting on or off of a cylinder. The openings 17 are for the reception of the buttons 13 on gear 10. The pins 14 on the cylinder may be stamped from the metal of the cylinder itself or may be attached by any suitable mechanical means. The lower end of stem 2 is removably stepped in a block or base 18 and is provided with a key 19 or equivalent means to prevent the shaft turning when the top is spun. The upper end of the stem may carry a knob or handle 20, by which the device may be steadied during the operation of setting the top in motion and by which it may be lifted from the base. The bottom portion of the casing is provided with an interior annular weighted projection 21, which affords a seat for the cover portion and serves to give steadiness and momentum to the spinning-top.

In operation the top is made to spin by any suitable means not necessary here to mention. Motion is transmitted by the rapidly-revolving gear 5 through the chain of reducing-gears 6, 9, and 10 to the cylinder 12, which turns with gear 10 and engages the stationary comb to produce the musical effect desired.

Unlike most musical boxes an endless variety of tunes may be played by the same operating means, since it is possible to remove a cylinder and replace it with one for a different tune.

To change a cylinder, the top is lifted out of the block, the locking means 3 released, and the bottom portion of the top removed, leaving the cover portion, the stem 2, and the playing mechanism still intact. The buttons 13 are turned to release the cylinder, allowing another to be substituted.

The device is neat, simple, entertaining, and in external appearance does not differ from ordinary tops.

Having thus described our invention, what

we claim, and desire to secure by Letters Patent, is—

1. A musical toy comprising a sectional shell or casing; a stationary stem about which
5 the casing rotates; a comb rigid with the stem; a drum loose on the stem having the bottom open and having projections on its inner periphery adapted to engage the teeth of the comb; a gear-wheel loose on the stem; devices
10 for detachably securing the upper end of the drum to said gear; and gearing between the last-named gear and the shell or casing.

2. A musical toy comprising a sectional shell or casing; a gear fixed to said casing;
15 a stationary axis; an arm fixed to the shaft and extending radially therefrom; a shaft journaled in the outer end of said arm; said arm having a gear at one end to mesh with the first-named gear and having a second
20 gear; a hollow cylinder loose on the stationary axis, having one end open and having projections on its inner side; a gear detachably connected to the upper end of said drum and meshing with said second gear; and a
25 comb fixed to the stationary axis and having its teeth engaged by the projections on the drum.

3. In a musical toy the combination of a casing or shell, a stationary axis about which
30 it rotates, a comb, a drum or cylinder said

drum having the lower end open and the upper end formed with a slotted head, a gear-wheel having turnable buttons said buttons passing through openings in the head of the drum and detachably locking the drum to
35 the gear; and transmitting-gearing between the casing and said drum-gear.

4. The combination in a musical toy, of a separable sectional shell or casing, a stationary stem about which said casing is rotatable,
40 a gear rigid with the casing, an arm rigid with the stem, a comb likewise rigid with the stem, a gear-wheel rotatable loosely about the stem, gears carried by the arm interposed between said gear-wheel and said rigid gear,
45 a hollow removable music-cylinder carried by and rotatable with said gear-wheel and having projections upon its periphery engaging the teeth of said comb, and detachable
50 fastenings between the cylinder and the said gear-wheel whereby the cylinder may be readily removed.

In witness whereof we have hereunto set our hands.

PHILIP V. MIGHELS.
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Witnesses:

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