March 12, 1935. N. FEINEN 1,994,340

TOY MOVIE APPARATUS

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Fig-1-

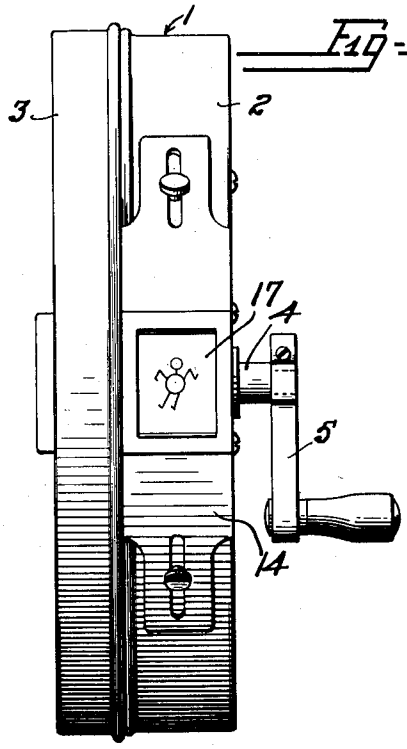


Fig-3-

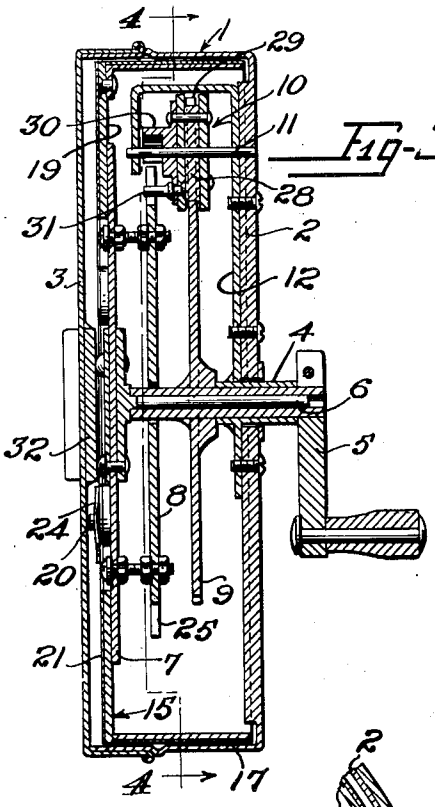


Fig-6-

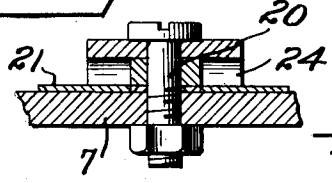


Fig-8-

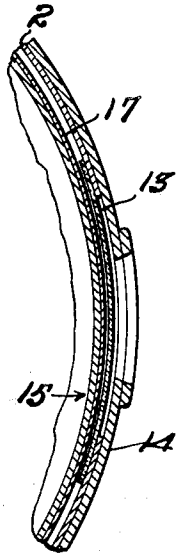


Fig-9-

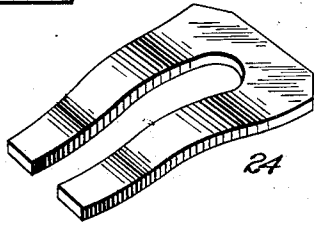
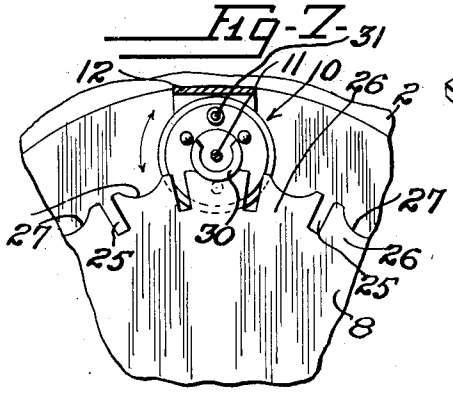


Fig-7-



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TOY MOVIE APPARATUS

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Fig-2-

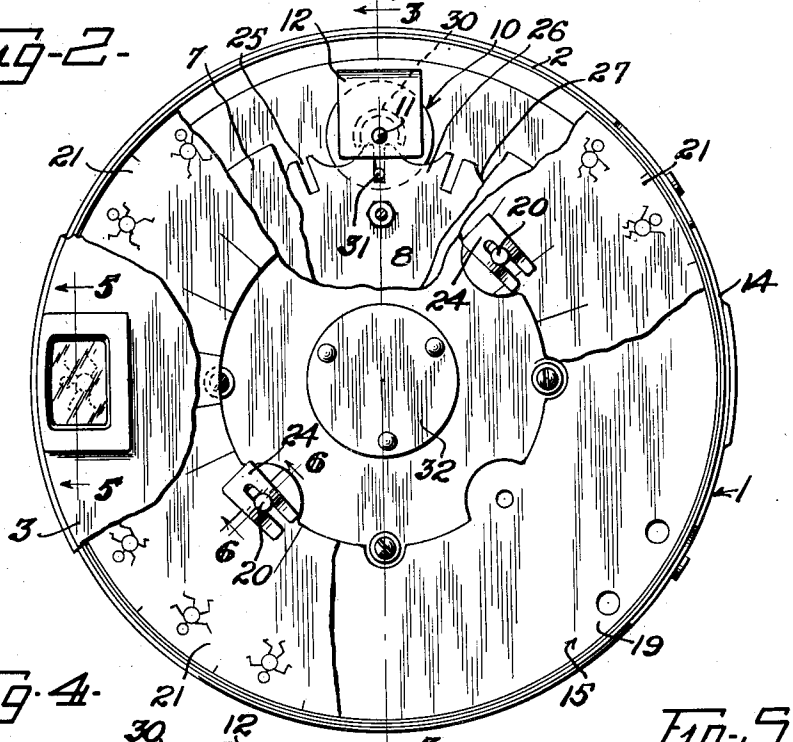


Fig-4-

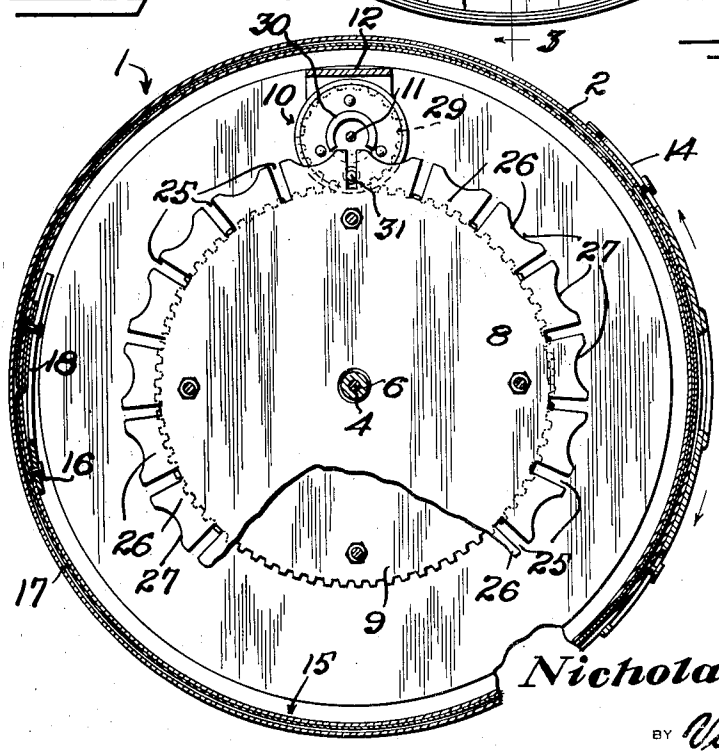
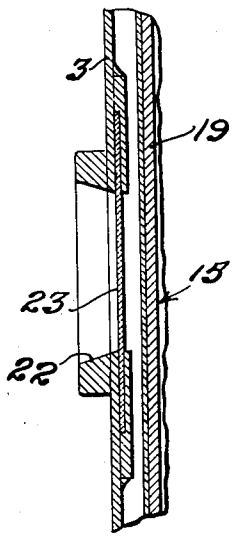


Fig-5-



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Patented Mar. 12, 1935

1,994,340

UNITED STATES PATENT OFFICE

1,994,340

TOY MOVIE APPARATUS

Nicholas Feinen, Buffalo, N. Y.

Application May 4, 1934, Serial No. 723,959

2 Claims. (Cl. 46—37)

This invention relates to a toy movie apparatus, and has for the primary object the provision of a device of the above stated character which may be manufactured and sold at a low cost and is capable of displaying cartoons with a movie effect as well as displaying of a plurality of photographs with the same effect and thereby afford maximum amusement and is so constructed that the cartoons and photographs may be readily removed and substituted by others as desired.

With these and other objects in view this invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which

Figure 1 is a side elevation illustrating a toy movie apparatus constructed in accordance with my invention.

Figure 2 is a vertical sectional view illustrating the same.

Figure 3 is a transverse sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a sectional view taken on the line 4—4 of Figure 3.

Figure 5 is a detail sectional view taken on the line 5—5 of Figure 2.

Figure 6 is a detail sectional view illustrating one of the spring clips for holding the display drum and disc to the driving disc.

Figure 7 is a detail view, partly in section, showing the escapement device for imparting an intermittent rotation to the display drum and disc by the rotation of a crank handle.

Figure 8 is a fragmentary sectional view illustrating a sight opening or window to permit display of the characters carried by the drum.

Figure 9 is a perspective view illustrating one of the spring clips.

Referring in detail to the drawings, the numeral 1 indicates a casing preferably of cylindrical formation having one end closed by an integral wall 2 and its opposite end closed by a removable cover 3. The integral wall 2 is apertured to receive a bearing for rotatably supporting a hollow shaft 4, one end of which is disposed exteriorly of the casing and has removably secured thereto a crank handle 5. The other end of the hollow shaft 4 terminates in spaced relation to the cover 3 and receives a shaft 6 to which is secured a supporting disc 7 and the latter has secured thereto and arranged in spaced relation therefrom an escapement gear 8, the latter being apertured to permit the hollow shaft 4 to extend therethrough. Secured to the hollow shaft 4 is a gear 9 meshing with an escapement pinion or mechanism 10 journaled on a stub shaft 11 and carried by a bracket 12 removably secured to the wall 2. The rotation of the hollow shaft 4 by the crank handle 5 drives the escapement pinion or mechanism 10 through the gear 9 and said escapement pinion or mechanism imparts to the escapement gear an intermittent rotation and the supporting disc is correspondingly rotated due to the fact that it is secured directly to the escapement gear 8. The periphery of the casing 1 is provided with a slot 13 over which is slidably mounted a window frame 14. The frame 14 provides a sight opening to the casing and is capable of a limited sliding movement relative to said casing.

A character bearing or display drum 15 is located in the casing 1 with its annular wall located to move relative to the sight opening of the casing and is slotted transversely and carries upon its inner face a pin 16. A cartoon bearing strip 17 surrounds the annular wall of the drum and has its ends passed through the slot and apertured to receive a pin, the latter being of a headed type to be engaged by a notched lever 18 pivoted to the drum thus efficiently and removably securing the cartoon strip to the annular wall of the drum so that the strip can be easily removed and replaced by another when desired. The drum besides including the annular wall also includes a perforated inwardly extending attaching flange 19 provided with apertured ears to receive headed pins or bolts 20 carried by the disc 7. The flange forms a backing for a removable character of cartoon bearing disc 21 viewable through a window or sight opening 22 in the cover 3. The sight opening is closed by a transparent panel 23. The disc 21 and strip 17 may bear characters other than characters in the form of cartoons or the strip for instance may be composed of a series of photographs. During the rotation of the crank handle the drum will be caused to intermittently rotate, causing the characters, illustrations, photographs or the like thereon to move in view through the windows or sight openings of the device with what may be termed a moving picture effect.

Bifurcated spring clips 24 engage with the headed bolts or pins 20 for retaining on the latter the character bearing disc as well as the flange 19 of the drum 15 and permits the disc and drum to be readily removed or detached from the sup-

porting disc 7 when it is desired to change the display of the device.

The escapement gear 8 has a plurality of relatively spaced notches 25 forming therebetween teeth 26 each provided with an arcuately curved face 27. The escapement pinion or mechanism 10 consists of a hub portion 28 having gear teeth 29 which mesh with the gear 9. Secured to the hub portion 28 is an arcuately curved member 30 and also a pin 31. The pin 31 is eccentrically located on the hub portion to engage with the notches 25 of the escapement gear 8 for imparting a step by step movement thereto by the rotation of the escapement pinion or mechanism 10 and during the rotation of the latter and as the pin 31 moves out of the notches 25 the arcuate-shaped member 30 engages with the arcuate face 27 of a tooth to retain the escapement gear against movement when disengaged by the pin 31.

A bearing plate 32 is secured to the inner face of the cover 3 and abuts the hub portion of the disc 7 to retain the shaft 6 within the hollow shaft 4 when the cover is assembled in the casing 1 and permits the removal of the shaft 6 from the shaft 4 as well as the disc 7 and drum 15 from the casing when the cover is removed.

Having described the invention, I claim:

1. A toy apparatus comprising a casing having a sight opening, a hollow shaft journaled in the casing, a shaft journaled in said hollow shaft, a supporting disc carried by said second shaft, a character display drum removably secured to the disc and viewable through the sight opening, a crank handle secured to the hollow shaft, a gear secured to the hollow shaft, an escapement gear secured to said disc, and an escapement pinion journaled in the casing and meshing with the first-named gear and the escapement gear.

2. A toy apparatus comprising a casing having sight openings, a drum journaled and removably mounted in said casing and including an annular wall provided with a slot and an inwardly extending flange, a pin carried by the annular wall and located adjacent the slot, a character bearing strip viewable through one of the sight openings surrounding the annular wall and having its ends passing through the slot and apertured to receive the pin, a notched catch pivoted to the annular wall to engage with the pin and overlying the ends of the character bearing strip, a character bearing disc removably secured to the flange and viewable through the other sight opening, and means for intermittently rotating the drum.

NICHOLAS FEINEN.