

Aug. 12, 1941.

R. K. KIND ET AL

2,252,289

CONTAINER WITH MUSIC WORKS

Filed Oct. 4, 1940

3 Sheets-Sheet 1

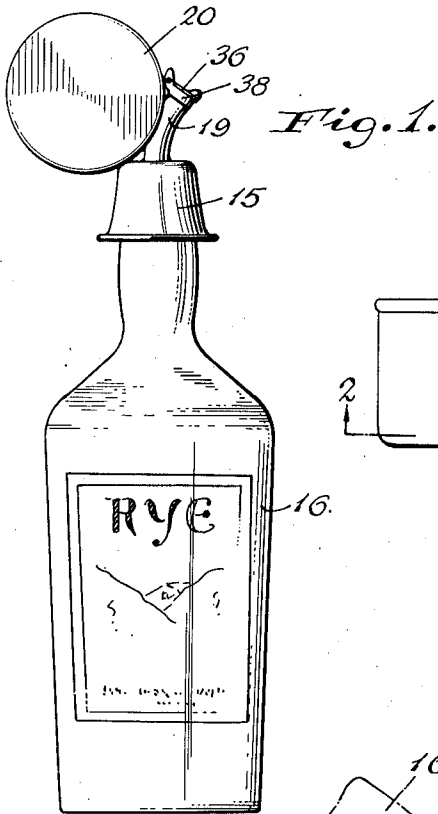


Fig. 1.

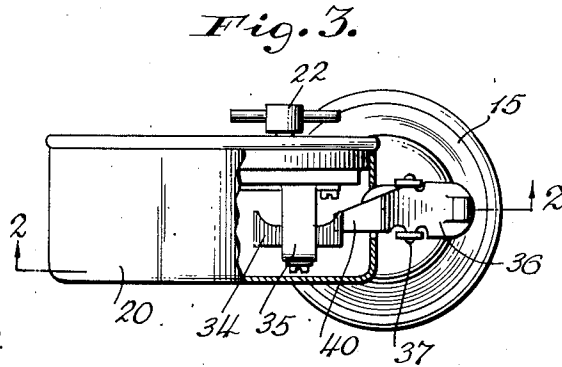


Fig. 3.

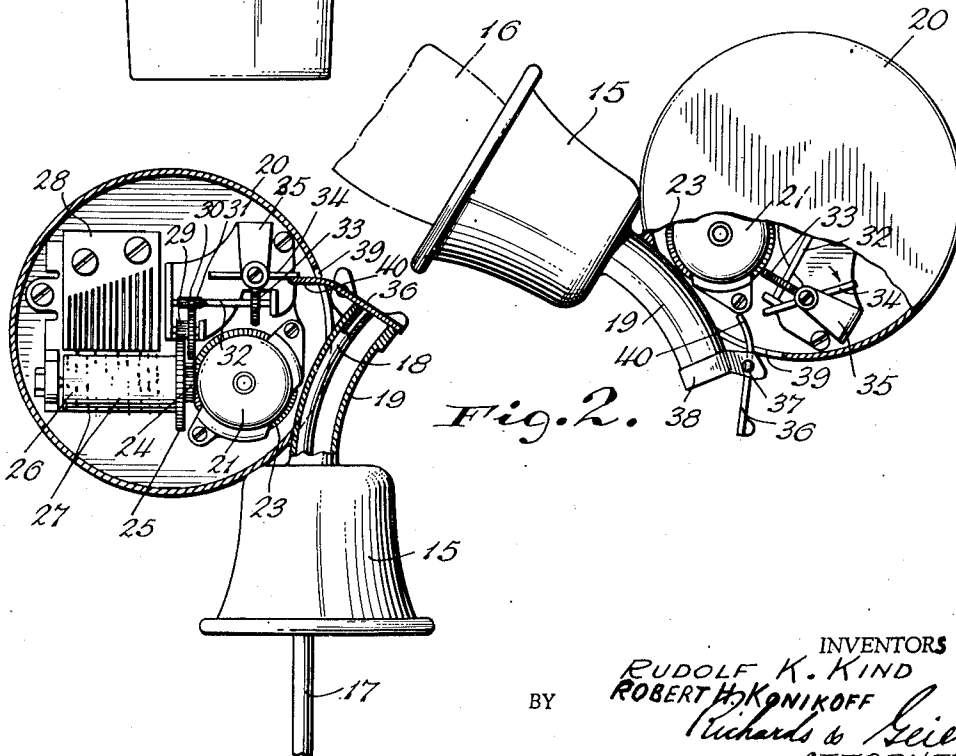


Fig. 2.

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Fig. 5.

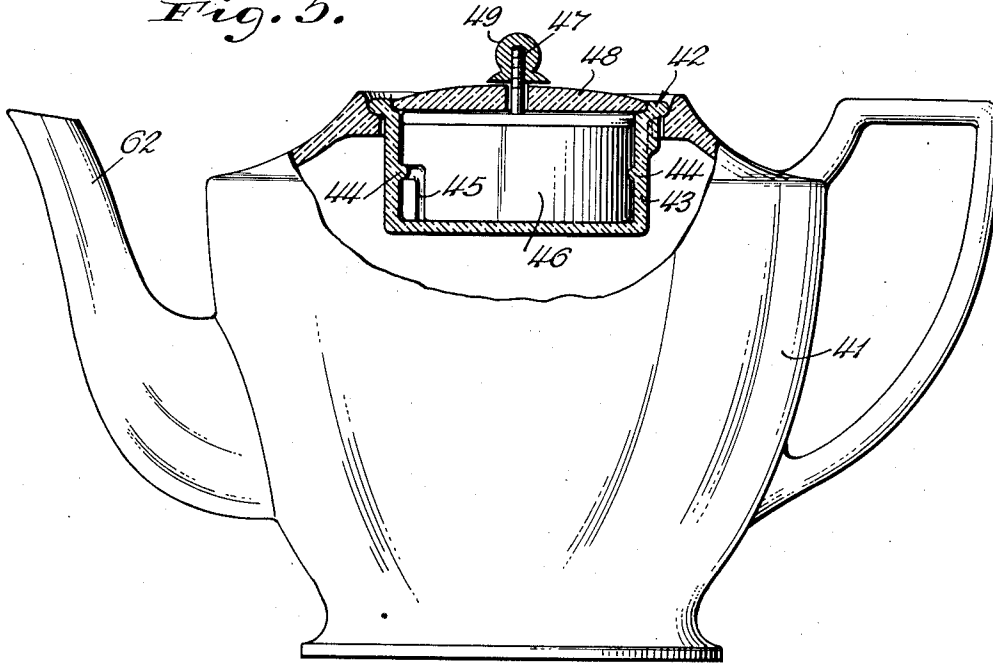


Fig. 6.

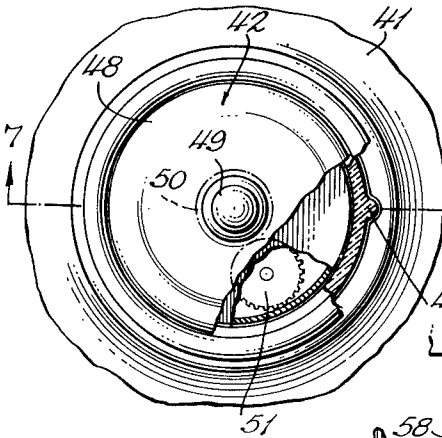


Fig. 7.

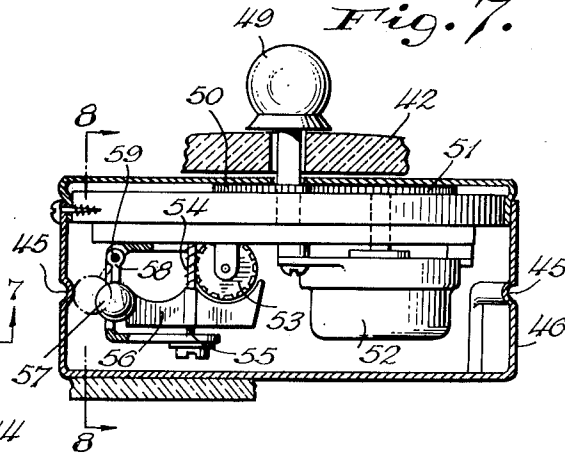
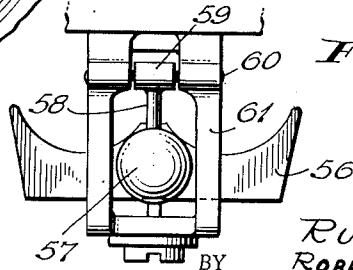


Fig. 8.



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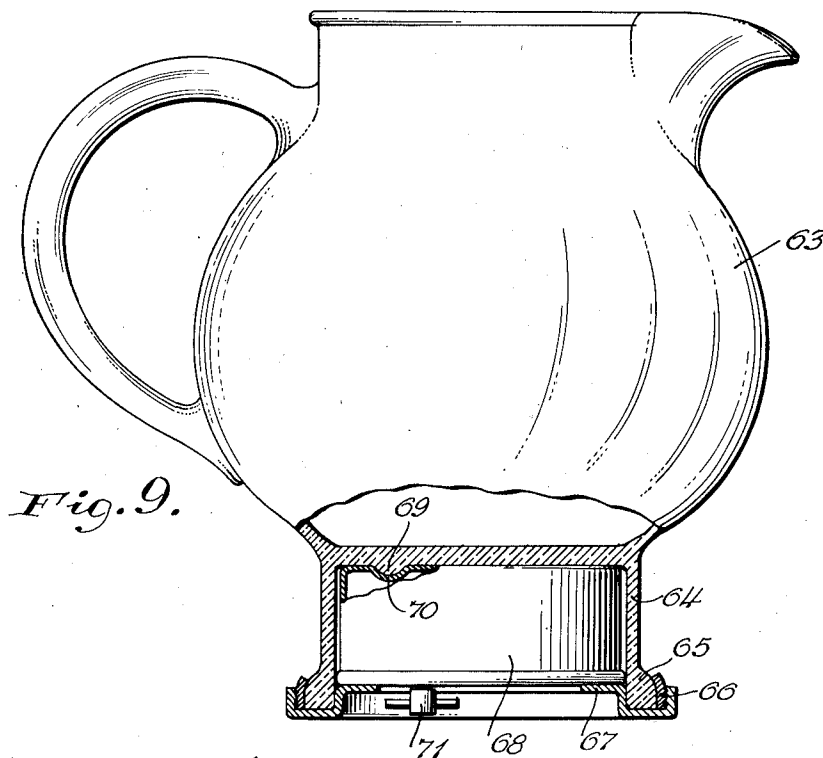
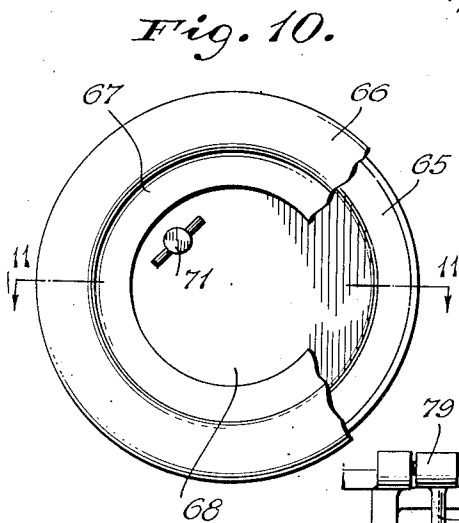
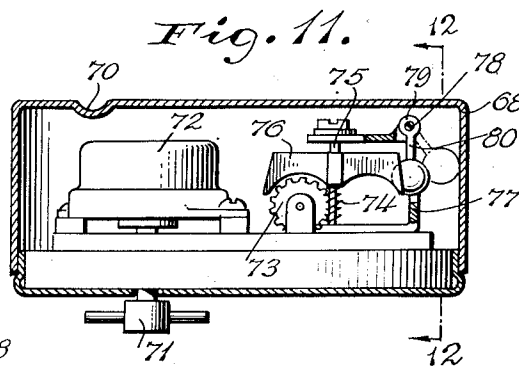
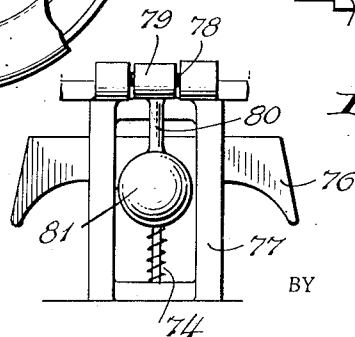
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3 Sheets-Sheet 3



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2,252,289

CONTAINER WITH MUSIC WORKS

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Application October 4, 1940, Serial No. 359,716

7 Claims. (Cl. 84—94)

This invention relates to containers and refers more particularly to containers which are used for pouring out liquids and which are provided with music works.

An object of the present invention is the creation of a container provided with a mechanism capable of producing a musical tune while a liquid is poured out of the container.

Another object is the provision of a container for liquids, said container carrying a music producing mechanism which is automatically operated to produce a musical tune as soon as the container is inclined to pour out a liquid.

A further object is the provision of a music producing mechanism which will operate automatically as soon as it is shifted to an inclined position.

A still further object is the provision of a container for liquids which is so constructed that it is capable of carrying an automatically operable music producing instrument, which will not interfere with the general use of the container.

Yet another object of the present invention is to combine a spout closure with a switch for music works in such manner that the switch releases the music works at the time when the closure is raised.

Other objects of the present invention will become apparent in the course of the following specification.

In accomplishing the objects of the present invention, it was found advisable to provide a container or a closure for the container with means constituting a chamber capable of containing a music producing mechanism.

In accordance with one embodiment of the inventive idea, the flap or valve closing the passage for the liquid is combined with a switch which locks or releases the music producing mechanism.

The music producing mechanism is so constructed that a movement of the mechanism to an inclined position in which a liquid may be poured out of the container carrying the mechanism will release a switch of the mechanism and thereby allow it to play a musical tune.

The invention will appear more clearly from the following detailed description, when taken in connection with the accompanying drawings showing, by way of example, preferred embodiments of the inventive idea.

In the drawings:

Figure 1 shows in side elevation a closure provided with music works constructed in accordance with the principles of the present invention.

Figure 2 is a section along the line 2—2 of Fig-

ure 3, and shows the closure and the music works partly in side elevation and partly in section.

Figure 3 is partly a top view and partly a section of the closure and the music works.

Figure 4 shows the closure and the music works in an inclined operative position.

Figure 5 shows partly in section and partly in side elevation a teapot the cover of which contains a music producing mechanism.

Figure 6 is a top view of the teapot cover shown in Figure 5, some parts having been illustrated as broken off.

Figure 7 is a section along the line 7—7 of Figure 6.

Figure 8 is a section along the line 8—8 of Figure 7, on an enlarged scale.

Figure 9 shows partly in side elevation and partly in section a jar or pitcher provided with a music producing mechanism.

Figure 10 is a bottom view of the jar shown in Figure 9, some parts being shown as broken off.

Figure 11 is a section along the line 11—11 of Figure 10.

Figure 12 is a section along the line 12—12 of Figure 11, on an enlarged scale.

The closure shown in Figures 1 to 4 includes a conical cover 15, the interior of which carries a stopper (not shown) which fits into the opening of a bottle 16. A tube 17 is adapted to project into the interior of the bottle 16. The upper end 18 of the tube 17 is curved and is situated within a larger tube 19 which is integral with the cover 15.

The music producing mechanism is situated within a cylindrical casing 20 which is firmly connected with the tube 19 and a cover 15 by soldering or the like. The casing 20 may be provided with a suitable opening or indentation into which the tube 19 fits to provide a better connection between these two elements.

The music producing mechanism includes a spring (not shown) which is enclosed by a casing 21 and is wound or tensioned by a key 22 extending through the casing 20.

The spring is firmly connected with a gear wheel 23 so that as the spring proceeds to unwind itself, it turns the gear wheel 23 which meshes with a pinion 24. The pinion 24 is firmly connected with a larger gear wheel 25 which is rotatable along with a drum 26. The drum 26 carries a number of projections having the form of spokes or hammers 27 which are adapted to engage individually the elements of a reed 28. These elements are of different size and are so constructed that when the projections 26 pluck

or strike them, they produce different musical notes.

The gear wheel 25 is also in engagement with a pinion 29 which is firmly connected with a gear wheel 30. The gear wheel 30 meshes with a gear wheel 31 which is integral or firmly connected with a shaft 32. The shaft 32 carries a toothed wheel 33 which meshes with a worm carrying a fly wheel 34. The worm is supported by a bracket 35.

As shown in Figures 2 and 4, a flap or closure element 36 covers the upper opening of the pipes 18 and 19 when the closure is in its vertical position. The flap 36 is pivoted at 37 to a sleeve 38 enclosing the upper ends of the pipes 18 and 19. The flap 36 extends through an opening 39 provided in the casing 20 and has an end 40 which may serve as a stop for the fly wheel 34.

Although the music works may be wound in the position shown in Figure 2, they cannot be operated in that position since the end 40 of the flap 36 will be situated in the path of rotation of the fly wheel 34.

However, as soon as the bottle 16 is inclined, for the purpose of pouring out its contents, the flap 36 will move by gravity to the position shown in Figure 4. In this position the end 40 of the flap will be situated outside of the path of rotation of the fly wheel 34, so that the music works are released and if they are wound, they will play a musical tune. At the same time, the flap 36 is moved away from the pipes 18 and 19 so that the liquid can be conveniently poured out of the bottle.

Thus the flap 36 serves the double purpose of covering and uncovering the opening leading to the interior of the bottle and of locking and releasing the music works.

Figures 5 to 8 show a teapot 41, the cover 42 of which is provided with music works. The cover 42 includes a cylindrical body 43 provided with suitable projections 44 fitting into recesses 45 provided in the casing 46 of the music works. The casing 46 may be arranged to fit within the cylindrical body 43 in the manner of a bayonet joint.

The key 47 which is used for winding the music works extends through the top portion 48 of the cover 42 and carries a knob 49 which may be screwed upon the projecting end of the key 47.

The key 47 carries a gear 50 which meshes with a gear 51. The gear 51 is connected with a spring (not shown) which is wound or tensioned by a rotation of the gear 51.

This spring is firmly connected with a gear wheel (not shown), which is situated within a casing 52. As the spring proceeds to unwind itself, this gear wheel is turned and its rotation is transmitted to a drum carrying a number of projecting spokes or hammers which are adapted to engage individually and in succession the elements of a reed. This construction is substantially similar to the one previously described and is not shown in the drawings.

A gear transmission (not shown) connects the drum with a gear wheel 53 meshing with a worm 54 which is carried by a shaft 55. A fly wheel 56 is mounted upon the shaft 55 and is rotatable therewith.

Thus, as in the previously described construction, the possibility of operating the music works depends upon the freedom of rotation of the fly wheel 56.

The element stopping the fly wheel 56 consists of a ball or weight 57 which is carried by a rod

58. The rod 58 is integral with a sleeve 59 which is mounted upon a shaft 60. The shaft 60 is carried by a downwardly extending bracket 61 which also serves as a support for the shaft 55. The bracket 61 is provided with a central opening which makes it possible for the weight 57 to swing freely.

When the teapot 41 is placed upon a horizontal surface, the rod 58 will extend vertically and the ball 57 will be situated in the position shown in full lines in Figure 7.

In this position the ball 57 is situated within the path of movement of the fly wheel 56. Thus, the music works will be unable to operate in this position, even though they may have been wound by the turning of the knob 49.

When the teapot is inclined in order to pour the liquid out of its spout 62, the weight 57 will swing by gravity from the position shown in full lines in Figure 7 to the position shown in broken lines in that figure. Thus, the ball 57 will move out of the path of rotation of the fly wheel 56 so that the latter will be released. Then the music works are free to be operated.

Figures 9 to 12 show the combination of music works with a jug or pitcher 63. The bottom of the pitcher 63 is constituted by a cylindrical body 64 terminating in an annular bead-like flange 65. The flange 65 is enclosed by an annular groove 66 of a support 67 carrying the casing 68 of the music works. A projection 69 formed in the body of the pitcher 63 fits into a corresponding recess 70 provided in the casing 68 of the music works.

The music works are wound by a key 71 extending through the casing 68. As in the previously described constructions, the key 71 is used to wind a spring situated within a casing 72 and actuating through a gear transmission a drum the projections of which pluck in succession the elements of a reed to produce a musical tune. The same mechanism, which is not shown in the drawings, drives a gear wheel 73 which meshes with a worm 74 constituting a part of a shaft 75. A fly wheel 76 is keyed upon the shaft 75 which is supported by an upwardly extending bracket 77. The bracket 77 also carries a pin 78 upon which a sleeve 79 is mounted. The sleeve 79 is integral with a rod 80 the lower end of which is adapted to carry a weight or ball 81.

The ball 81 serves as a stop for the fly wheel 76 and the music works mechanism in general, when the pitcher 63 is situated upon a horizontal surface. However, as soon as the pitcher 63 is inclined, the ball 81 will swing by gravity into the position shown in broken lines in Figure 11, thereby clearing the fly wheel 76 and enabling the music works to operate.

It is apparent that the specific illustrations shown above have been given by way of illustration and not by way of limitation and that the structures above described are subject to wide variation and modification without departing from the scope or intent of the present invention. All of such variations and modifications are to be included within the scope of the present invention.

What is claimed is:

1. A drive control for music works, comprising a rotary fly wheel, driving means operatively connected with the music works and said fly wheel, a locking element adapted to be situated within the path of rotation of said fly wheel to lock said driving means and said fly wheel, and means suspending said element and enabling it to swing by gravity out of said path of rotation

when the music works are inclined, thereby releasing said driving means and said fly wheel.

2. A drive control for music works, comprising a casing, a rotary fly wheel within said casing, driving means operatively connected with the music works and said fly wheel, a locking element adapted to be situated within the path of rotation of said fly wheel to lock said driving means and said fly wheel, an elongated body constituting a continuation of said locking element, a pivot carrying said elongated body, and means connected with said casing and engaging said pivot for suspending said body, whereby said locking element is swingably supported and is enabled to swing by gravity out of said path of rotation when the music works are inclined, thereby releasing said driving means and said fly wheel.

3. The combination of means, constituting a passage for a liquid, with a drive control for music works comprising, a rotary fly wheel, driving means operatively connected with the music works and said fly wheel, a flap adapted to cover said passage and having an end portion which is situated within the path of rotation of said fly wheel when the passage is covered, whereby said end portion locks said driving means and said fly wheel, and means holding said flap in suspension to enable it to swing by gravity to a position in which said passage is uncovered and said fly wheel is freed by said end portion.

4. The combination of a closure comprising a cover, a tube carried by said cover and constituting a passage for a liquid, a flap adapted to cover said tube, and a sleeve carried by said tube and holding said flap in suspension; with a drive control for music works comprising a casing connected with said tube, a rotary fly wheel within said casing, and driving means operatively connected with the music works and said fly wheel, said flap extending through an opening formed in said casing and having an end portion which is situated within the path of rotation of said fly wheel when said tube is covered, whereby said end portion locks said driving means and said fly wheel in that position and whereby said flap

may swing by gravity to a position in which said passage is uncovered and said fly wheel is freed by said end portion.

5. A drive control for music works, comprising a casing, a rotary fly wheel within said casing, driving means operatively connected with the music works and said fly wheel, a weight adapted to be situated within the path of rotation of said fly wheel to lock said driving means and said fly wheel, a rod having an end carrying said weight, means connected with the other end of said rod for holding said rod in suspension, and a support carrying the last-mentioned means, whereby said weight may swing by gravity to a position in which said fly wheel is freed.

6. The combination of a cover having a chamber formed therein; with a drive control for music works comprising a casing situated within said chamber, a rotary fly wheel within said casing, driving means operatively connected with the music works and said fly wheel, a weight adapted to be situated within the path of rotation of said fly wheel to lock said driving means and said fly wheel, a rod having an end carrying said weight, means connected with the other end of said rod for holding said rod in suspension, and a support carrying the last-mentioned means, whereby said weight may swing by gravity to a position in which said fly wheel is freed.

7. The combination of a container having walls enclosing a chamber formed in said container; with a drive control for music works comprising a casing situated within said chamber, a rotary fly wheel within said casing, driving means operatively connected with the music works and said fly wheel, a weight adapted to be situated within the path of rotation of said fly wheel to lock said driving means and said fly wheel, a rod having an end carrying said weight, means connected with the other end of said rod for holding said rod in suspension, and a support carrying the last-mentioned means, whereby said weight may swing by gravity to a position in which said fly wheel is freed.

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