J. GARAMI.

TOY.

APPLICATION FILED JULY 3, 1918.

1,294,441.

Patented Feb. 18, 1919.

3 SHEETS—SHEET 1.

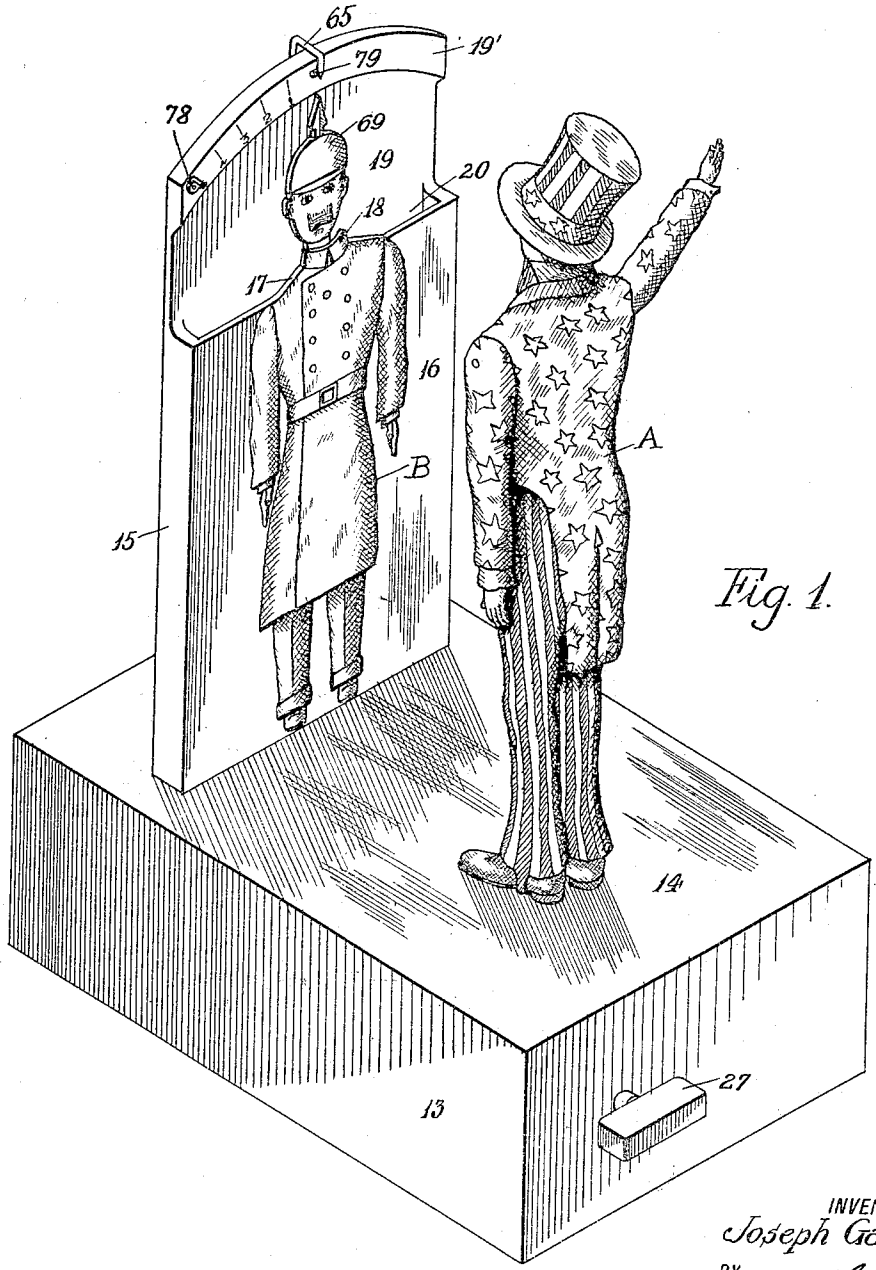


Fig. 1.

INVENTOR
Joseph Garami.
BY
Alexander Ames
ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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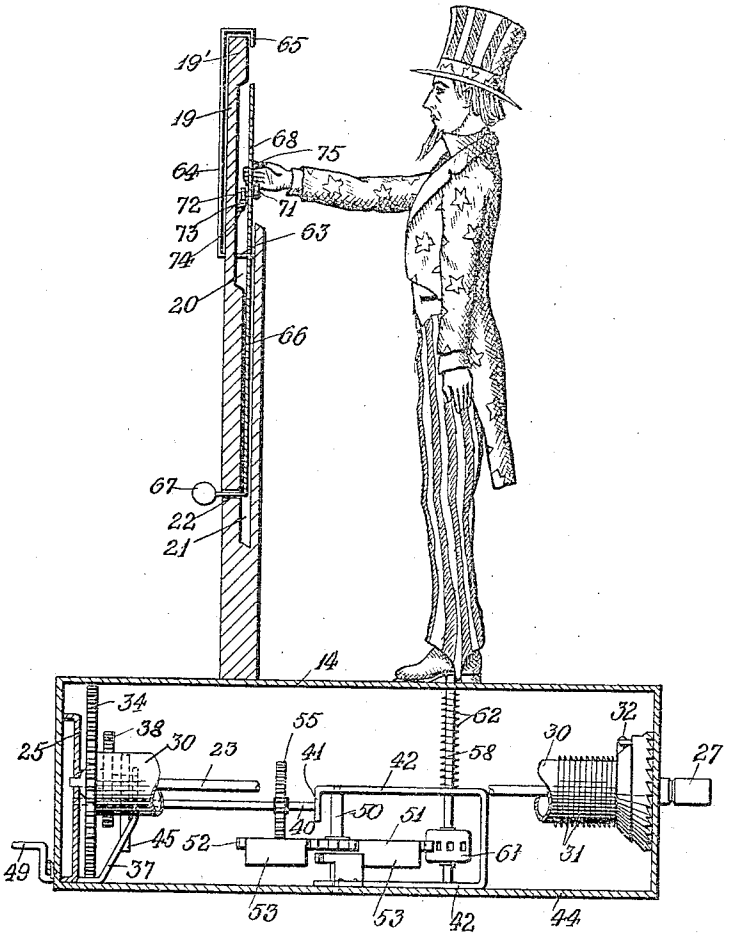


Fig. 3.

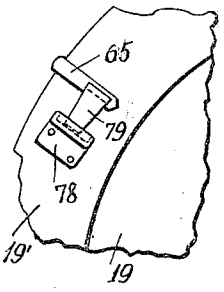


Fig. 6.

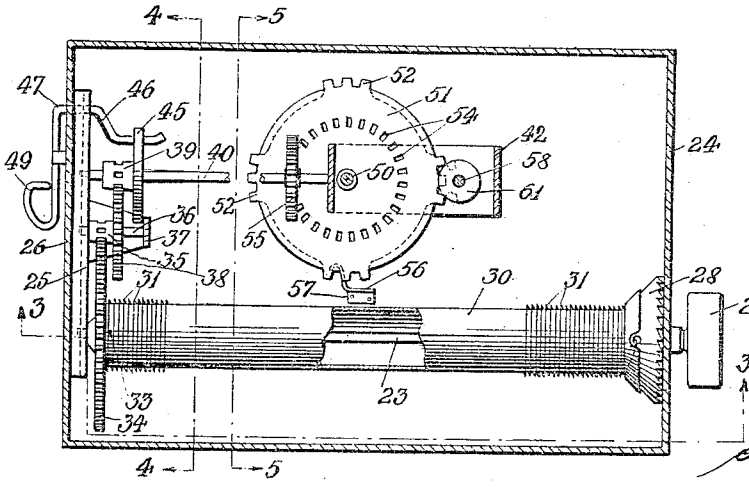


Fig. 2.

INVENTOR

Joseph Garami.

BY

Alexander Brown

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

J. GARAMI.

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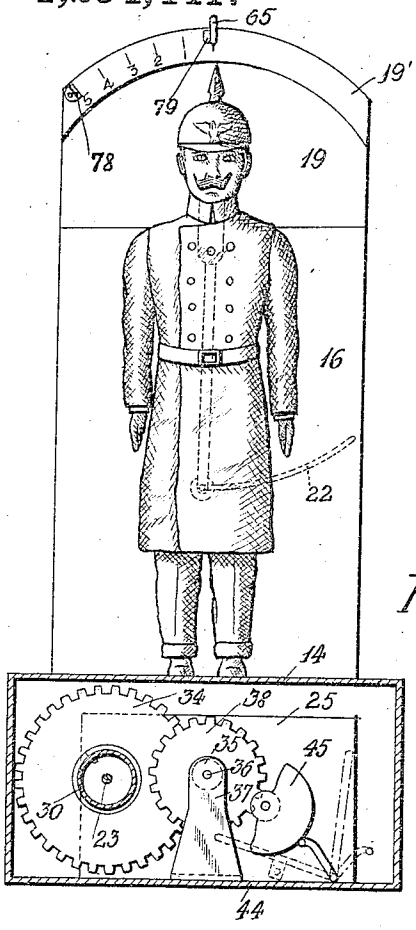


Fig. 4.

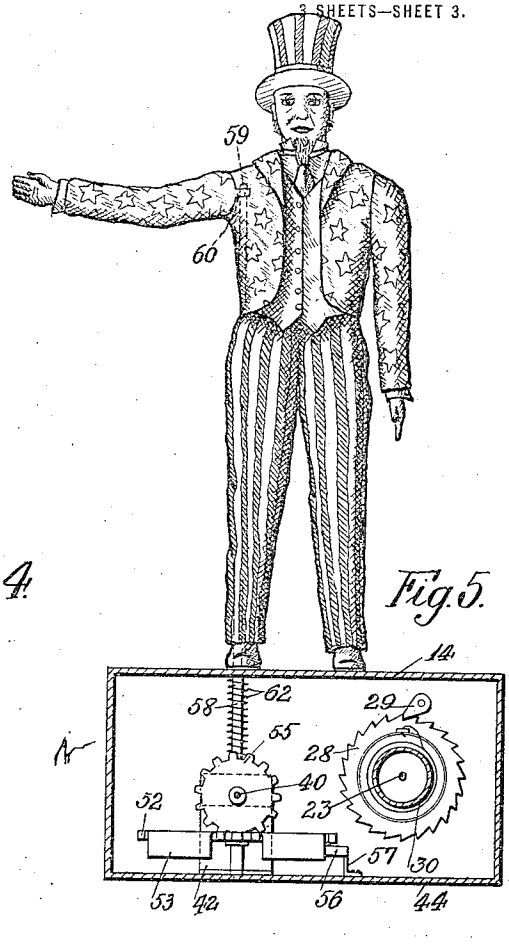


Fig. 5.

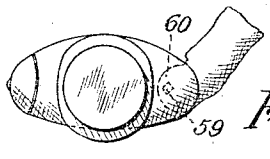


Fig. 7.

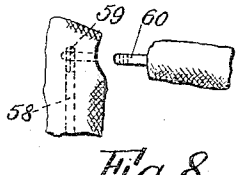


Fig. 8.

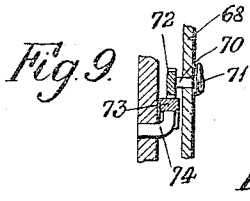


Fig. 9.

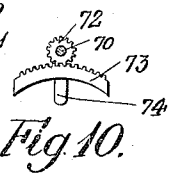


Fig. 10.



Fig. 11.

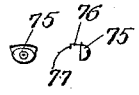


Fig. 12.

INVENTOR

Joseph Garami.

BY

Alexander Ames

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH GARAMI, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-HALF TO SARA STEINER, OF NEW YORK, N. Y.

TOY.

1,294,441. Specification of Letters Patent. Patented Feb. 18, 1919.

Application filed July 3, 1918. Serial No. 243,094.

To all whom it may concern:

Be it known that I, JOSEPH GARAMI, a subject of the King of Hungary, residing at Newark, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Toys, of which the following is a specification.

This invention relates to toys, and a principal object of the same is the provision of a novel toy having mechanism by which to cause a manikin or figure to strike blows against another manikin or object.

Another object of the invention is the provision of a novel toy operating mechanism in which the power of a spring motor is regulated and controlled in its application in such manner as to enable the intermittent operation of a manikin operating shaft, there also being provided in this connection manually operated means by which at will to lock the mechanism against operation.

A further object of the invention is the provision in a toy of this character of means adapted to be operated by an automatic manikin whereby, through impact, to cause the explosion of powder caps.

A further object of the invention is the provision in a toy of this character of a pivoted manikin head having parts or features capable of movement or oscillation relatively with respect with the movements of the head.

With the foregoing objects in view and others, the invention resides in the details of construction and in the arrangement and combination of parts hereinafter described, defined in the claims, and disclosed in the accompanying drawings, forming a part of this specification; it being understood that changes and alterations in the specific embodiment of the invention herein shown, may be made, to which changes and alterations the inventor is entitled, provided the same are effected within the scope of what is claimed.

In the accompanying drawings:—

Figure 1 is a view in perspective of my novel toy.

Fig. 2 is a horizontal sectional view through the box or casing, illustrating in plan, with parts broken away, the arrangement of the mechanism therein disposed.

Fig. 3 is a vertical longitudinal section, taken approximately in the direction of the line 3—3 of Fig. 2.

Fig. 4 is a vertical cross section, taken approximately in the direction of the line 4—4 of Fig. 2.

Fig. 5 is a similar view, taken approximately in the direction of the line 5—5 of Fig. 2.

Fig. 6 is a detail elevational view of the parts by which the powder caps are held and exploded.

Fig. 7 is a fragmental top plan view of the manikin illustrated in Fig. 5.

Fig. 8 is a detail view, illustrating how the striking arm is connected with the shoulder for radial movement, the parts here being shown separated, but in proper relative position.

Fig. 9 is a detail sectional view through the manikin head, showing the arrangement of parts by which the combined nose and mustache element of the manikin head is caused to oscillate.

Fig. 10 is a detail view of the pinion and rack illustrated in Fig. 9.

Fig. 11 is a detail view of the combined nose and mustache.

Fig. 12 shows details in front and side elevation, respectively, of the movable eye elements.

With more particular reference to the accompanying drawings, the numeral 13 denotes a box or casing, in which is disposed the operating mechanism to be presently described, and upon the top plate 14 of which, midway its width, near its forward end, is secured a manikin or figure A shown herein attired to resemble Uncle Sam. 15 is a board or housing which is secured in upright position upon said top plate, near the opposite end thereof. On the front wall 16 of this board or housing, confronting the manikin A, there is painted or otherwise produced, the body portion of a figure or manikin B, herein represented as a military figure, the top edge of this front wall being curved to produce the top portions of the shoulders 17, and the collar 18 of the military figure. The rear wall 19 of this board or housing extends upwardly for a distance beyond the top edge of the front wall and terminates in an arched portion, forwardly enlarged, on the front surface of which, at the left-hand side, is preferably provided a registering scale as shown in Fig. 1. Between the front and rear walls, the board or housing 15 is provided for a distance with a top cavity 20,

which opens into a smaller cavity 21. Said last cavity extends downwardly for a considerable distance and communicates near its lower end with a curved slot 22 (Fig. 4), provided through the rear wall 19 on the right-hand side thereof.

Arranged in the casing 13 lengthwise thereof, near one of the side walls, is a shaft 23, the front end of which is journaled for rotation in the front end wall 24 through which it projects, and the rear end of which is journaled in a plate 25 secured to the inner side of the rear end wall 26. Secured to the shaft exteriorly of the front end wall 24 is a thumb key 27 by which the same is turned. Fast upon the shaft on the inner side of the front wall 24 is a ratchet wheel 28 having a cone-shaped face, and pivoted upon this same wall, so as to fall by gravity to engage the teeth of the ratchet wheel in an obvious manner, is a pawl 29 (Fig. 5).

Around the shaft 23 is mounted a drum 30, upon which is wound a spiral spring 31, the forward end of which is engaged with a pin 32 carried by the ratchet wheel 28, and the opposite end of which is pinned fast at 33 to said drum. The end of the drum 30 is flared to correspond to the cone-shaped face of the ratchet wheel, upon which it is loosely mounted. The opposite end of the drum is secured to a spur gear 34, loosely mounted upon the shaft 23. This whole arrangement is such that with the turning of the key 27, the spiral spring 31 is tightened or compressed upon the drum so as to serve as the main spring or motor for operating the mechanism to be presently described, the pawl 29 engaging the ratchet teeth to hold the spring against unwinding action.

In mesh with the spur gear 34 is a pinion 35, the axis 36 of which is journaled for rotation one end in the standard 37 and the other end in the plate 25. Fast on the axis 36 is a spur gear 38 in mesh with another pinion 39, the axis 40 of which is journaled at its rear end in said plate 25 and at its forward end in the bearing hanger 41, formed integral with the horizontally inclined U-shaped frame 42, the bottom side or leg of which is secured to the inner side of the bottom 44 of the box. Fast upon the shaft 40 adjacent the pinion 39, is a brake disk 45, with which is adapted to engage the inner end 46 of the angular trip lever 47, operatively secured for movement in the plate 25 and end wall 26, the said trip lever upon the outer side of said wall being formed with a hooked handle element 49, or other suitable finger piece, whereby at will it may be swung into and out of engagement with the brake disk 45 so as to control the operation of the main spring or motor 33.

Beyond the end of the shaft 40 is a vertical shaft 50 having its opposite ends journaled in the top and bottom sides of the U-shaped frame 42. Carried by this shaft is a gear 51 of the segmental variety, which is formed with four sets of equi-spaced teeth 52. Between the sets of teeth this gear is formed with downwardly projecting rim flange sections 53. Through the face of this gear, concentrically therein, are spaced openings 54, receptive of the teeth of a spur gear 55, secured upon the shaft 40. Secured upon the bottom 44 is a spring detent or brake 56 having a hook-shaped end 57, the heel of which is adapted to bear against the flange sections 53 to retard the movement of the wheel 51, when the trip lever 47 is disengaged from the brake disk 45, the said end 57 also being adapted, for a reason to be presently disclosed, to drop into the openings or spaces between the downwardly extending flange sections 53.

Journaled in the U-shaped frame and also in the top 14 of the box or casing, is a shaft 58, which extends upwardly through the foot, leg and side, and into the shoulder of the manikin A, where it terminates in a square end 59 (Fig. 7), engaged in a suitable square opening provided in a plate 60, carried by the arm of the manikin, in such manner that the arm will be moved radially toward or away from the confronting figure painted on the wall 16, accordingly as said shaft 58 is turned.

Fast on the shaft 58 so as to be engaged by the sets of teeth carried by the wheel 51, is a pinion 61 through which motion is given to the shaft 58 to swing the arm of the manikin away from the board 15 to occupy a position as shown in Fig. 1. Above the U-shaped frame, there is provided around the shaft 58 a strong spiral spring 62, which is connected one end with the said U-shaped frame and the other end with said shaft 58, in such manner as to be tightened or wound in tension upon the shaft 58 each time the same is actuated by the gear 51. By this arrangement, the arm of the manikin is caused to swing swiftly toward the board 15 each time a set of teeth on the wheel 51 is disengaged from the pinion 61. Each time, therefore, the trip lever 47 is drawn from engagement with the disk wheel 45, the power of the spring motor 33 may be utilized to wind up the spring 62 upon the shaft 58, simultaneously bringing the arm of the manikin in position for striking a blow; and each time a set of teeth of the segmental wheel is disengaged from the pinion 61, the said shaft 58 under the tension of the spring 62, will be swiftly turned so as to cause the arm of the manikin to strike a blow.

As best shown in Fig. 3, there is pivoted in both the front wall 16 and rear wall 19 of the upright board 15, so as to cross the opening 20 behind the shoulders 17 of the figure painted on the front wall 16, the horizontal

end 63 of the bar 64, which extends upwardly behind the rear wall 19 and it has its top portion 65 bent forwardly and downwardly over the enlarged portion 19′. Fast with the horizontal element 63 so as to move the same, is a bar 66 which extends downwardly through the reduced opening 21, and is bent rearwardly to work in the curved slot 22, the said bar beyond the rear wall being provided with a weight 67, the purpose of which is to normally maintain the said bar in vertical position and also to return it into vertical position each time it is swung upon its axis.

Below the collar 18 of the manikin figure painted on or formed with the front wall, the bar 66 is enlarged and at the top edge of the collar it is further enlarged and fashioned to provide a head 68 for the manikin, the head herein shown being fashioned and painted to resemble the Kaiser, and showing him as wearing a spiked helmet 69, the apex of the spiked helmet, in the present embodiment of the invention, being adapted to swing underneath the scale provided on the enlarged end 19′. Loosely journaled transversely through the head portion 68 is a stem 70, carrying on its forward end in front of the head a device 71, fashioned to resemble, as best shown in Fig. 11, the combined lips, mustache and nose-end for the head 68. Upon the rear of this stem is secured a gear 72, adapted to mesh with a curved rack 73 fast on a stud 74, which is secured in the rear wall 19. This arrangement is such that when the bar 66 is swung with its axis, the gear 72 will be caused to rotate upon engaging the rack 73, with the result that the device 71 will be oscillated. Eyes 75 are also arranged in the head 68 in proper position, the said eyes each being provided with a stem 76, which extends loosely through the head end and is bent downwardly therebehind forming an angular end 77, whereby the eyes are attached loosely to the head, so that when the bar 66 is suddenly swung upon its axis, the movement thereof will cause the eyes to oscillate.

The position of the manikin A upon the box is such that when his arm is swung forwardly, the fingers formed on the end thereof will strike or impinge against the edge of the head 68, as best shown in Fig. 3, causing the bar 66 to swing upon its axis with the head end thereof moving under the curved enlarged portion 19′. When the blows are delivered, the device 71 and the eyes 75, will be oscillated, as hereinbefore described, to illustrate the punishment which the Kaiser is receiving under the chastisement of Uncle Sam.

Secured to the front of the enlarged portion 19′, at the end of the scale thereon, is a device 78 receptive of one or more powder caps of the type usually employed in toy pistols. As best shown in Fig. 6, there is secured to the downwardly projecting end 65, a plate or hammer 79, which is adapted to strike and explode the powder caps when the arm 64 swings to the left along with the bar 66. In this manner I provide novel means, whereby each time the Kaiser is struck by Uncle Sam, a slight explosion may take place.

Having thus described my invention, what I claim is:—

1. A toy including a casing, figures mounted upon the casing and provided each with a movable part, the movable part of one figure consisting of an arm arranged to be swung to impinge the movable part of the other figure, a rotatable shaft to which said arm is secured extending into said casing, means acting on said shaft to cause the same normally to swing said arm in the direction of and to impinge the movable part of the other figure, and mechanism disposed in said casing for applying power at will to said shaft to turn it in the opposite direction for a distance and then to free the same to permit said means to act.

2. A toy including a casing, an object pivotally supported thereupon for movement, a manikin supported thereon and provided with a swinging arm adapted under its forward stroke to impinge said object, a shaft to which said swinging arm is secured extending into said casing, means acting on said shaft within said casing tending normally to turn it to cause said arm to effect its forward stroke, and mechanism disposed in said casing for applying power at will to said shaft to turn it in the opposite direction drawing the arm away from said object, said mechanism including means for freeing said shaft at a pre-determined point to permit said means to act.

3. In a toy, the combination with a casing, of an object pivotally supported upon the casing for movement, a manikin secured upon the casing and provided with a swinging arm adapted under its forward stroke to impinge said object, a rotatable shaft to which the arm is secured extending into the casing, mechanism disposed within the casing for applying power at will to said shaft so as to swing said arm away from the object, said mechanism including means for automatically freeing said shaft when said arm is swung away for a distance, and means combined with said shaft within the casing to turn the shaft vigorously in the opposite direction, when freed, to cause said arm to effect its forward stroke.

4. In a toy, in combination with a casing, an upright supported thereon, a weighted object pivotally supported on said upright for swinging movement, a manikin mounted upon said casing and provided with a swinging arm adapted to strike said object, a shaft

to which said swinging arm is attached extending into said casing, a key-wound spring motor arranged in said casing, means for applying at will the power of said motor to said shaft to turn said arm away from the object, means for automatically freeing the shaft from the application of the power when the arm has reached the approximate limit of its withdrawing movement, and means combined with said shaft within the casing to turn the shaft instantly, when freed, in the opposite direction so as to cause said arm to impinge the object.

5. In a toy, the combination with a casing, an upright secured on the top thereof, a weighted object pivoted to the upright for swinging movement, a manikin secured upon the casing and provided with a swinging arm adapted to impinge said object, a rotatable shaft to which the arm is attached extending into the casing, a key-wound spring motor disposed in the casing, a pinion on the shaft within the casing, a segmental gear having four sets of equi-spaced teeth adapted to mesh in succession with the pinion, means adapted to be actuated by the motor to rotate said segmental gear, and spring means combined with the shaft within the casing, said spring means being arranged to be put into a state of tension each time the shaft is turned under the engagement of the segmental wheel with the pinion, said spring also being adapted upon disengagement of each set of teeth with the pinion to turn the shaft in the opposite direction to cause the arm to impinge said object.

6. In a toy, a shaft, a spring combined therewith and adapted to actuate the same when put into a state of tension, a spring motor, means for locking the same when wound, a pinion on said shaft, a segmental gear having equi-spaced sets of teeth adapted successively to engage said pinion, each set of teeth as it engages said pinion being adapted to rotate said shaft drawing the spring thereon into a state of tension, mechanism operated by said spring motor and engaged with said segmental gear to rotate the latter in one direction, means for locking said mechanism against action, and means for retarding the movement of said segmental gear when the sets of teeth thereof are out of engagement with said pinion.

7. In a toy, a shaft, a spring combined with the shaft, a pinion on the shaft, a segmental gear provided with sets of equi-spaced teeth adapted each set to engage the pinion successively, a key-wound spring motor, means arranged to be actuated by the unwinding action of the motor to rotate the segmental gear in one direction, rim flanges formed with the segmental gear between the sets of teeth, a spring brake adapted to bear on said rim flanges to retard the movement of the segmental wheel, the end of said spring brake being adapted to drop into recesses between said flange sections when a set of teeth engages the pinion, means for controlling the unwinding action of said motor, said spring being adapted to be drawn into a state of tension upon the shaft each time the shaft is turned through the engagement of a set of teeth with the pinion, and said spring also being adapted to rotate said shaft in the opposite direction each time a set of teeth is disengaged from said pinion.

In testimony whereof I have signed my name to this specification.

JOSEPH GARAMI.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."