The present invention generally relates to a novel construction in a toy and more particularly relates to an action toy actuated by a motor and generally simulates an apparatus found in carnivals, county fairs or the like in which a person employs a hammer and strikes a pivoted member which projects a projectile upwardly towards a bell with the strength of the person employing the hammer being generally determined by the height of movement of the projectile so that when the projectile engages the bell, the ringing of the bell will indicate that the greatest height of the projectile has been obtained.

An object of the present invention is to provide an action toy including a simulated man and hammer arrangement all of which is actuated by a motor together with means for projecting a projectile upwardly towards the bell whereby the bell will not be engaged by the projectile with each movement of the simulated man and the simulated man will move every time the projectile is projected towards the bell thereby providing a highly amusing and intriguing type of action toy.

A further important object of the present invention is to provide a toy in accordance with the preceding objects which is simple in construction, easy to use, highly entertaining and relatively inexpensive to manufacture.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of the action toy of the present invention;

Figure 2 is a longitudinal, vertical sectional view taken substantially upon a plane passing along section line 2—2 of Figure 1 illustrating the details of construction of the toy of the present invention;

Figure 3 is a detailed sectional view taken substantially upon a plane passing along section line 3—3 of Figure 2 illustrating further structural details of the present invention; and

Figure 4 is a bottom plan view of the construction of Figure 1.

Referring now specifically to the drawings, the numeral 10 generally designates the toy of the present invention including a base generally designated by the numeral 12 which includes a top wall 14, end walls 16 and elongated side walls 18 all disposed in perpendicular relation to each other thus forming an inverted hollow base 12. Secured to and rigidly upstanding from a central portion of the base 12 is an elongated upright 20 having a bell shaped member 22 mounted thereon by a rivet 24 or other suitable fastening means with the free edge of the bell facing vertically. Mounted on the upright member 20 is an elongated tubular guide 26 with an elongated longitudinal slot 28 extending throughout the length thereof. The upper open end of the tubular guide 26 terminates adjacent and immediately below the bell 22 and the lower end of the tubular guide 26 is provided with an adapter 30 of resilient material which projects below the top wall 14 of the base 12. For supporting the tubular guide 26, a plurality of forwardly projecting apertured lugs 32 is provided on the upright 20 thus holding the tubular guide 26 in position.

Slidably disposed in the tubular guide 26 is a projectile 34 having a longitudinally extending pin 36 on the lower end thereof with the pin 36 being of a length to extend through the adapter 30 and project below the bottom thereof. The projectile 34 is freely movable in the tubular guide 26 so that when the pin 36 is struck by a force, the projectile 34 will be projected upwardly so that the upper end thereof will project out through the top end of the tubular guide 26 and strike the bell 22 thus indicating that the projectile has reached the upper limit of its movement after which gravity will cause the projectile 34 to move downwardly in the tubular guide 26 so that the pin 36 will again project below the adapter 30.

Disposed in front of the upright 20 and the tubular guide 26 is an upstanding bracket 38 thereon having an elongated plate 40 mounted rigid therewith. The plate 40 simulates the usual pivoted impact receiving member employed for projecting the projectile 34. However, the plate 40 is rigid and does not move. Mounted on the top wall 14 in spaced relation to the plate 40 is a figurine 42 in the form of a man having swingable arms 44 with a hammer 46 secured thereto whereby the arms 44 will swing in a vertical plane thus swinging the hammer 46 in a vertical plane to simulate actual hitting of an object.

The hammer handle 48 is a continuation of a link 50 terminating within the body of the man 42. The link 50 is pivotally mounted on a support pin 52 and provided with an offset arm 54 to which is connected a depending connecting link 56 extending downwardly through the hollow man 42 into the interior of the base through an opening 57 in the top wall thereof. The lower end of the connecting link or rod 56 is pivotally connected to one end of an actuating lever 58 pivotally supported and suspended from a bracket 60 which is disposed adjacent the midpoint of the lever 58. Thus by pivoting the free end of the lever 58 upwardly, the offset arm 54 will be pulled downwardly thus pulling the hammer 46 upwardly after which gravity will urge the hammer 46 downwardly into contact with the plate 40 simultaneously with movement of the projectile 34 upwardly in the tubular guide 26.

An elongated leaf spring member 62 has one end thereof rigidly attached to the top wall 14 of the base 12 by fastening members 64 with the free end thereof curving downwardly as designated by numeral 66 and being disposed generally for contact with the pin 36. The upper surface of the spring 62 is provided with resilient material 68 for cushioning the engagement with the pin 36. A tension coil spring 66 is connected to the midpoint of the spring 62 and extends upwardly through an opening 70 in the top wall 14 and is terminally secured to the bight portion 74 of an inverted U-shaped bracket having depending legs 76 thus urging the spring member 62 upwardly into engagement with the depending pin 36 on the projectile 34. A protective enclosure or housing is provided for the springs and bracket assembly designated by numeral 78 with a figurine 80 being provided therein thus providing an attractive toy and concealing the structure of the spring and bracket 76.

Mounted in the hollow base 12 is a spring motor generally designated by numeral 81 which includes a transverse power shaft 82 projecting outwardly of the side wall 18 and provided with a key 84 for winding of
the spring motor 80. The power shaft 82 is provided
with a spider-like actuating member 36 on the inner end
thereof having a plurality of radially projecting arms 88
with two of the arms being equal in length and the other
arm being shorter than the two equal lengthened arms.
The arms 88 are all curved away from the direction of
rotation of the spider for engagement with the free end
of the lever 58 and the free end of the spring 62. Figure
2 illustrates the orientation of this structure so that when
one of the arms 88 is moving the spring 62 downwards,
the other of the long arms 88 is moving the hammer 46
upwardly so that the hammer 46 is released and en-
gages the plate 49 substantially simultaneously with re-
lease of the spring member 62 thus causing the projectile
34 to move upwardly and engage the bell 22. When
the shorter of the three arms 88 is in position for en-

gagement with the lever 58 or the spring 62, the hammer
46 or the projectile 34 will not be fully actuated due to
failure of the shorter arm to fully engage the mecha-
nism for operating the same.

The details of the spring motor are not specifically
set forth but may generally include any conventional
spring motor construction normally employed in toys
of this nature including a main spring and a gearing
mechanism for converting the stored energy within the
spring to a driving force. Also, it is pointed out that
other types of motors may be employed such as small
electric motors or the like.

The device may be constructed of any suitable ma-

terial and decorated in any suitable manner to actually
simulate a device of this nature.

The foregoing is considered as illustrative only of the
principles of the invention. Further, since numerous
modifications and changes will readily occur to those
skilled in the art, it is not desired to limit the invention
to the exact construction and operation shown and de-
scribed, and accordingly, all suitable modifications and
equivalents may be resorted to, falling within the scope
of the invention as claimed.

What is claimed as new is as follows:

1. A toy device comprising a base, a bell mounted
in vertically spaced relation to the base, vertical guide
means extending above the base and terminating ad-

djacent the bell, a projectile movably carried by said guide
means for striking the bell, means mounted on said base
engaging the projectile for causing upward movement
of the projectile for striking the bell, a figurine mounted
on the base, arms pivotally mounted on said figurine
for movement in a vertical plane, a hammer rigidly carried
by said arms for pivotal movement therewith, linkage
means for elevating the arms and hammer, and operating
means on said base for engagement with the linkage
means and projectile engaging means for effecting actua-
tion thereof for fully raising and releasing the hammer
and causing full upward movement of the projectile for

ringing the bell, said operating means including base
supported means for engaging and fully actuating the
projectile engaging means at certain times when the
linkage means is not fully actuated and for engaging and
fully actuating the hammer elevating linkage means at cer-
tain times when the projectile engaging means is not fully
actuated, said base supported means including a driven
rotary member having a plurality of radially extending
arms for engagement with the hammer elevating linkage
means and said projectile engaging means, one of said
arms having a length less than the other arms for in-
completely actuating the hammer elevating linkage means
and projectile engaging means.

2. The structure as defined in claim 1 wherein said
projectile engaging means includes a flat leaf spring
having one end anchored to the base and the other end
disposed in the path of movement of the arms on the
rotary member, said projectile having a longitudinal
extension thereon disposed in the path of movement of
a portion of the spring adjacent said other end with
the spring normally resiliently engaging the extension
whereby the arms will move the spring away from the
projectile extension and tension the same, the rapid
return of the spring to a normal position when released
by an arm causing upward movement of the projectile.

3. The structure as defined in claim 1 wherein said
linkage means includes a lever pivotally mounted on
said base, a link connected to one end of said lever and

extending upwardly into the figurine, an offset member
connected to said arms, the upper end of the link being
pivotally connected to the offset member for oscillating
said arms upon oscillation of the lever, said lever hav-
ing a free end disposed in the path of movement of the
arms on the rotary member, the pivotal movement of
the lever in one direction due to engagement of an arm
on the rotary member therewith causing upward swing-
ing movement of the figurine arms and hammer with
subsequent disengagement of the arm of the rotary
member from the lever permitting the hammer and figurine
arms to freely drop to a lowermost position due to the
force of gravity.

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