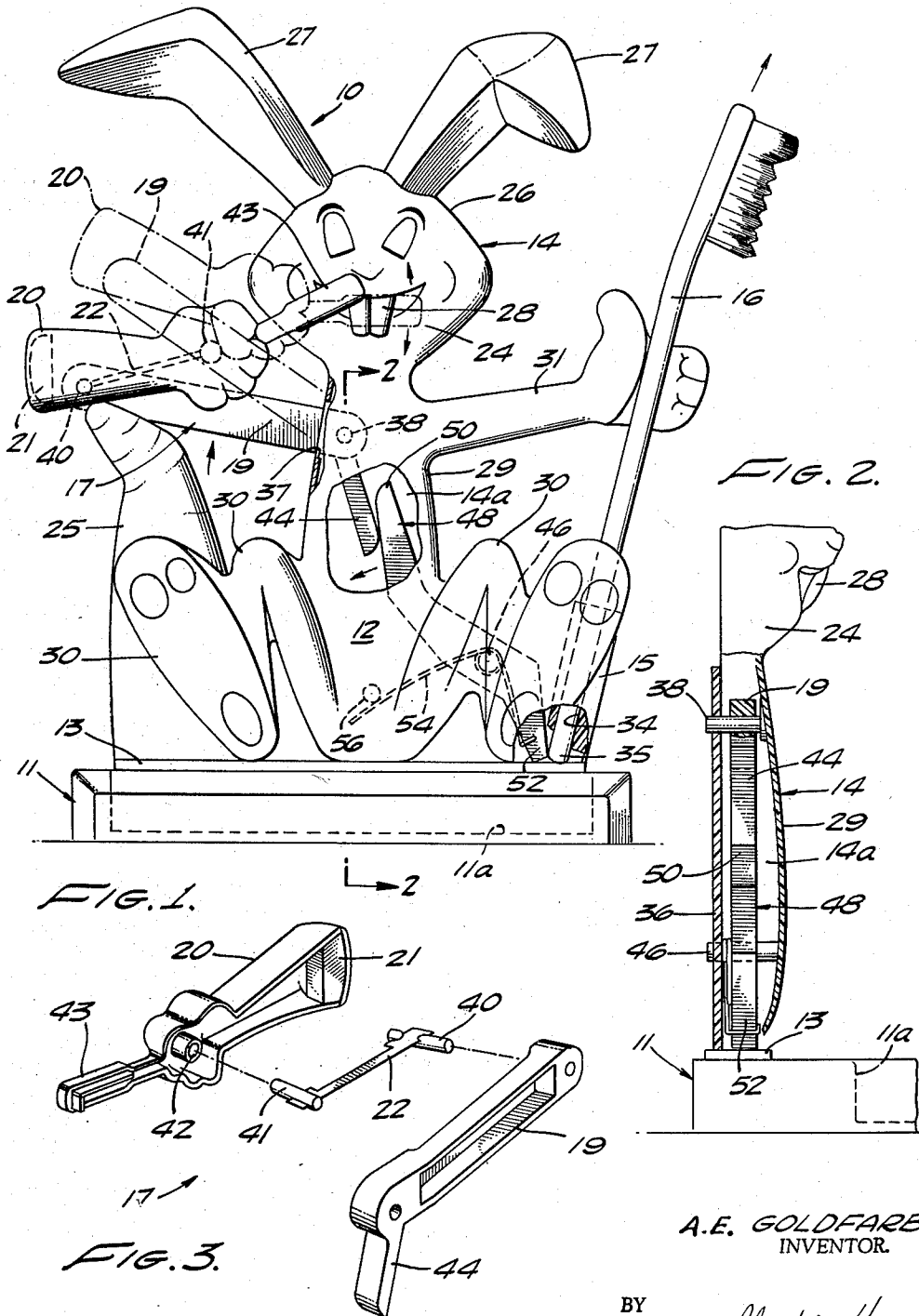


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A. E. GOLDFARB
ANIMATED TOOTHBRUSH HOLDER

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1

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ANIMATED TOOTHBRUSH HOLDER

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This invention relates generally to a toy, and more particularly to a simple yet amusing animated toy toothbrush holder in the form of a character which operates to simulate toothbrushing action when the toothbrush is removed from the holder.

A multitude of action type toys have been devised for children, but these toys are generally for solely amusement purposes, and further, are often quite complicated so as to be expensive and subject to malfunctioning.

It is an object of the present invention to provide an improved animated toy.

It is a further object to provide an improved toy which, not only amuses, but also serves a function in teaching the child good habits. More specifically, it is an object of the present invention to provide a toy toothbrush holder which portrays a character or figure which brushes its teeth when the toothbrush is removed from the holder.

It is a further object to provide improved means for effecting life-like movement or brushing action; this being accomplished by oscillating means.

It is a still further object of the present invention to provide a simple and economical toy which may be readily and inexpensively produced yet which is not readily susceptible to malfunctioning.

Other objects and advantages of the present invention will become apparent from the following description and the accompanying drawings, wherein:

FIGURE 1 is a front view, with parts broken away to show the interior structure, of a toy toothbrush holder including various features of the invention, the action position of the simulated arm and toothbrush being shown in phantom;

FIGURE 2 is a partial side-view taken generally along line 2-2 of FIGURE 1, and;

FIGURE 3 is an enlarged exploded perspective view of the upper arm member, weighted lower arm member, and leaf spring of the toy.

Briefly, the illustrated toy toothbrush holder 10 comprises a frame 12 including a figure section 14 in the form of a living character. A receptacle 15 is provided for receiving a toothbrush 16. The toy is provided with a movable arm assembly 17 and means between the arm assembly and the toothbrush receptacle 15 for causing the arm assembly to simulate toothbrush movement when the toothbrush 16 is removed from the receptacle 15. Of particular note, the movable arm assembly 17 includes a movable upper arm member 19 and a weighted lower arm member 20 which simulates a forearm and hand holding a miniature toothbrush. The lower arm member 20 is provided with a weight 21 at one end and is fixed to one end of a thin leaf spring 22 which is fixed at its other end to the movable upper arm member 19. When the toothbrush 16 is removed from the receptacle 15, a short limited movement is imparted to the upper arm member 19, and as a result the lower arm and simulated toothbrush provided by member 20 vibrate or oscillate by virtue of the weight and leaf spring to create the illusion that the character is brushing his teeth.

The construction of the illustrated toy is simple and inexpensive, making it particularly suitable as a give-away item associated with toothpaste or a toothbrush. Further, the simple construction, which will be explained in detail down below, leaves little room for malfunctioning as found in more complicated devices.

Considering the toy 10 in further detail, it comprises a

2

generally rectangular flat base 11 which may be provided with an elongated cavity or recess 11a for receiving a small tube of toothpaste or the like and the frame 12 which rests upon the base 11. The frame 12 includes a base plate 13 which rests upon or is secured to the base 11 and the hollow figure section 14 which rests upon it is secured to the base plate 13. The illustrated hollow figure 14 is formed or molded to represent, in the forward direction, a rabbit character 24 and an associated large carrot 25 extending in the vertical direction and disposed to the left of the rabbit character as viewed in FIGURE 1. The hollow figure section 14 opens rearwardly, forming a cavity 14a within it which receives the mechanism of the device as will be described. The figure section 14 may be formed from various materials such as plastics, porcelain, stamped metal, or the like.

As viewed from the front the rabbit character 24 includes a head 26 having a pair of elongated ears 27 and several exposed teeth 28. The rabbit character 24 further has a simulated body 29, a pair of outwardly extending legs 30, and an arm 31 extending generally outwardly to the right as viewed in FIGURE 1. The receptacle or holding means 15 for the toothbrush 16 is connected to the base plate 13 and to one leg 30 of the rabbit character 24 on the same side as the arm 31. The receptacle 15 is provided with a vertical extending cavity 34 in which the lower end 35 of the toothbrush is received. As seen in FIGURE 1, when the lower end 35 of the toothbrush is inserted in the receptacle 15, the shaft of the toothbrush extends adjacent the hand on the outwardly extending arm 31 and said hand is formed to create the impression that it is grasping the toothbrush.

The interior portion or cavity 14a of the hollow figure section 14 receives certain mechanism of the toy and there is a rear cover plate 36 which partially encloses the cavity 14a and also cooperates with the hollow figure section itself to support several short shafts or rods which will be described (FIG. 2). The rear cover plate 36 may be secured in position by means of an adhesive, suitable fasteners, or the like (not shown).

A recess or aperture 37 is provided in the side of the figure section 14 opposite the outwardly extending arm 31 and the inner end of the elongated upper arm member 19 extends therethrough and is pivotally supported by means of a horizontal shaft or pin 38 extending between the wall of the figure section 14 and the rear cover plate 36. The upper arm member 19 and the other parts which comprise the movable arm assembly 17, i.e., the lower arm member 20 and the leaf spring 22, are shown in detail in FIGURE 3. Fixed to the outer end of the upper arm member 19 is a forwardly extending pin 40 to which the outer end of the thin flat leaf spring 22 is secured. In the illustrated toy, the leaf spring 22 is disposed in a generally horizontal plane and extends generally parallel to the upper arm member 19. Fixed to the inner end of the leaf spring 22 is a horizontal forwardly extending pin 41 which is in turn fixed to an intermediate point designated 42 on the elongated lower arm member 20.

The lower arm member 20 of the illustrated toy, as seen in FIGURES 1 and 3, is constructed in a rearwardly open shell or hollow configuration. This construction not only facilitates ready manufacture, but reduces the weight of the member 20 and thereby contributes to the effective operation of the movable arm assembly 17. Fixed within the outer end of the lower arm member 20, and positioned a substantial distance from the point 42 at which the spring 22 is connected to the lower arm, is the weight 21. As viewed from the front the lower arm member 20 is formed to simulate a forearm and a closed hand holding a small simulated toothbrush 43. When the toothbrush 16 is held by the receptacle 15, the upper arm member 19 will normally assume the position shown

3

in FIGURE 1 and the lower arm member 20 will be disposed in the position shown by the solid lines in that figure.

The inner end of the upper arm member 19 is provided with a generally downwardly extending tab or lever 44 extending down into the cavity 14a of the toy. Also disposed within the cavity 14a and pivotally connected intermediate its end on a horizontal pivot pin or shaft 46 is an elongated generally vertically extending but irregularly shaped lever 48 having an upper end 50 and a lower end 52.

The receptacle 15 is formed at its lower end so as to expose the lower end 35 of the toothbrush 16 when the toothbrush is inserted in the receptacle. As shown in FIGURE 1, the lower end 52 of the lever 48 is positioned adjacent this exposed lower end 35 of the toothbrush and is urged into abutting relationship with said lower end 35 by a thin spring 54 which coils about the pivot pin 46 of the lever 48 and has one end engaging the lower end 52 of the lever while the other end abuts a pin or plug 56 fixed to the figure section 14. As shown in FIGURE 1, when the lower end 52 is urged against the lower end 35 of the toothbrush, the upper end 50 of the lever 48 is disposed adjacent to the tab 44 on the upper arm member 19.

Thus, when the toothbrush 16 is removed from the receptacle 15 the spring 54 will cause the lever 48 to pivot, the upper end 50 of the lever 48 engaging the tab 44 and raising the upper arm member 19 to the position shown in phantom in FIGURE 1. The engagement of the upper edge of the upper arm member 19 with the upper end of the side slot 37 tends to limit the movement of the arm 19 to the increment shown in the drawings. The lower arm member 20, however, is suspended at the end of the leaf spring 22 and because of this connection and the weight 21, the lower arm member 20 will vibrate or oscillate. As seen in phantom in FIGURE 1, the small simulated toothbrush 43 is disposed adjacent the two teeth 28 of the rabbit figure 24, and the oscillation of the lower arm member 20 will cause the simulated toothbrush 43 to move so as to create the illusion or impression that the rabbit is brushing his teeth. This will not only amuse the child, but further, will set an example for him to follow, i.e., brushing his own teeth.

When the toothbrush 16 is returned to the receptacle 15 the movable arm assembly 17 is returned to the lowered position shown in the solid line in FIGURE 1. Preferably, the lower arm member 20 engages the upper end of the carrot 25 to deaden or limit any vibration of the lower arm member 20 when it is in the lowered position.

Thus, a novel, amusing and educational device is provided. This device includes improved motion producing means which very realistically simulate the action of someone brushing their teeth. Further, the construction and design of the illustrated toy is such that it may be economically produced and yet is relatively sturdy and resistant to malfunctioning.

Various modifications and changes may be made in the preferred embodiment shown in the drawings without departing from the spirit and scope of the present invention. Various features of the present invention are set forth in the following claims.

What is claimed is:

1. An animated toy holder for a toothbrush in the form of a character adapted to create the appearance that he is brushing his teeth, said holder comprising:

- (a) a frame including means simulating the appearance of a living character,
- (b) holding means on said frame adapted to support a toothbrush,
- (c) a first member which simulates the appearance of an upper arm of the character and is pivotally supported on said frame,
- (d) a leaf spring connected at one of its ends to said first member,

4

(e) a second member which simulates the appearance of the lower arm and hand of the character holding a small toothbrush, and is supported solely by being fixed to the other end of said leaf spring, said leaf spring being supported by said first and second members, and

(f) means on said frame adapted to pivot said simulated upper arm a limited increment incident to the removal of the toothbrush from said holding means, whereby the removal of the toothbrush from said holding means will cause said simulated lower arm and toothbrush to oscillate to simulate toothbrushing action.

2. An animated toy holder for a toothbrush in the form of a character adapted to create the appearance that he is brushing his teeth, said holder comprising:

- (a) a frame including means simulating the appearance of a living character,
 - (b) holding means on said frame adapted to receive and support a toothbrush,
 - (c) a first elongated member which simulates the appearance of an upper arm of the character and has one end pivotally supported on said frame,
 - (d) an elongated leaf spring disposed in generally parallel relation to said first elongated member and having one end connected to the other end of said first member,
 - (e) a second elongated member simulating the appearance of the forearm and hand of the character holding a toothbrush, said second member being fixed to the other end of said elongated leaf spring, said leaf spring being supported by said first and second elongated members,
 - (f) a weight fixed to said second member at a point substantially spaced from the point where said second member is connected to said spring,
 - (g) and means on said frame between said first member and said toothbrush holding means and adapted to pivot said simulated upper arm a limited increment incident to the removal of the toothbrush from the holding means,
- whereby the removal of the toothbrush from said holding means will cause the simulated forearm and toothbrush to oscillate to simulate toothbrushing action.

3. An animated toy holder for a toothbrush in the form of a simulated character and adapted to create the appearance that the character is brushing his teeth incident to the removal of the toothbrush from the holder, said holder comprising:

- (a) a frame simulating the appearance of a living character,
- (b) holding means on said frame adapted to receive and support the lower end of a toothbrush,
- (c) an elongated first member simulating the appearance of an upper arm of the character and pivotally connected at its inner end to said frame,
- (d) a relatively thin flat elongated leaf spring lying in a horizontal plane and extending generally parallel to said first member, said spring being fixed at its outer end to the outer end of said simulated upper arm and extending generally inwardly therefrom,
- (e) an elongated second member simulating the appearance of the forearm and hand of the character holding a small simulated toothbrush disposed in generally parallel relation to said leaf spring, said second member being fixed to the inner end of said leaf spring at a point spaced substantially inwardly from the outer end of said second member, said leaf spring being supported solely by said members,
- (f) a weight fixed to said second member adjacent its outer end,
- (g) an elongated lever pivoted to said frame and having one end adapted to abut the toothbrush when it is inserted in the holding means to restrict the rotation of said lever in a predetermined direction, and

5

the other end adapted to engage said first member incident to rotation of said lever in said direction to pivot said first member a limited increment, and (h) a spring biasing said lever in said direction, whereby when the toothbrush is removed from said holding means said lever will pivot said first member a limited increment and thereby cause the simulated

6

arm and toothbrush to vibrate to simulate tooth-brushing action.

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