

[54] **ROBOT PUSH TOY**

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[58] **Field of Search**.....46/97, 99, 101, 103, 106, 104

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[57] **ABSTRACT**

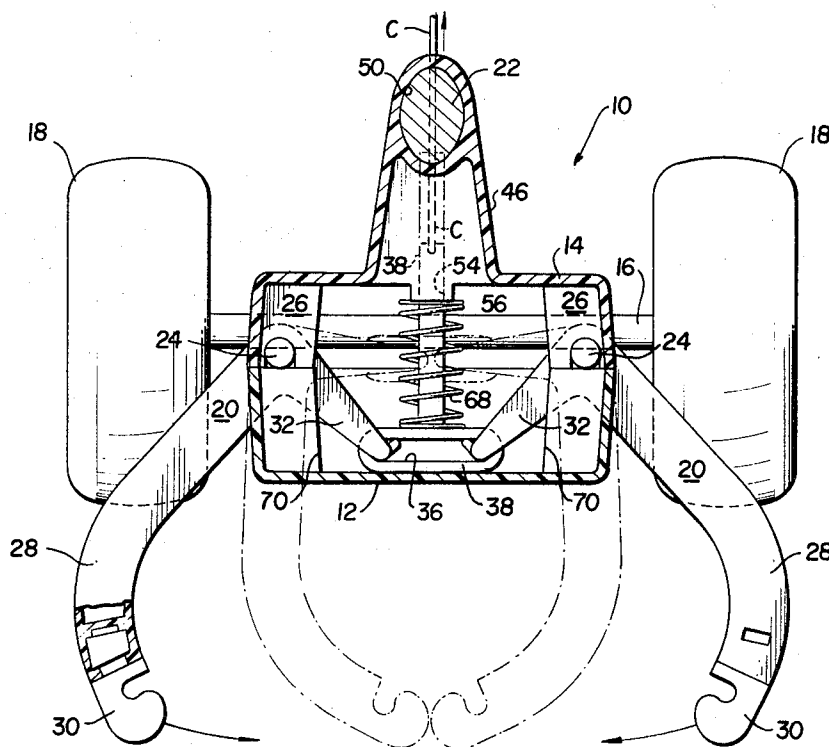
A wheeled, figure push toy of the robot type having arms or upper legs which are pivotable together from a spread out position by means of an operating lever adjacent the handle of a push rod by which means the figure may be propelled and/or tilted toward the supporting surface to pick up or put down an object such as a child's block, etc.

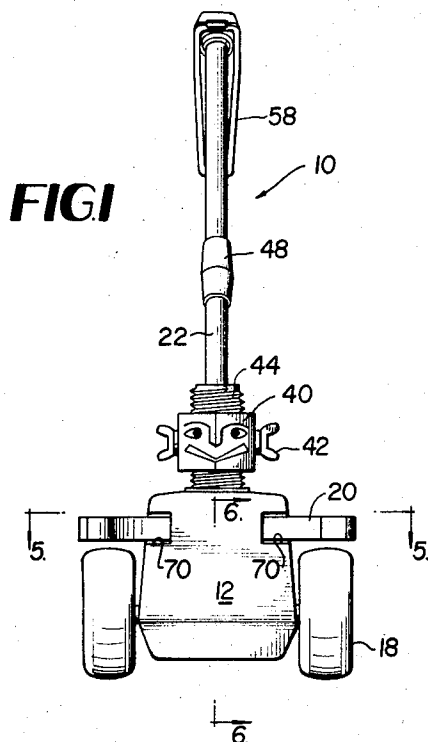
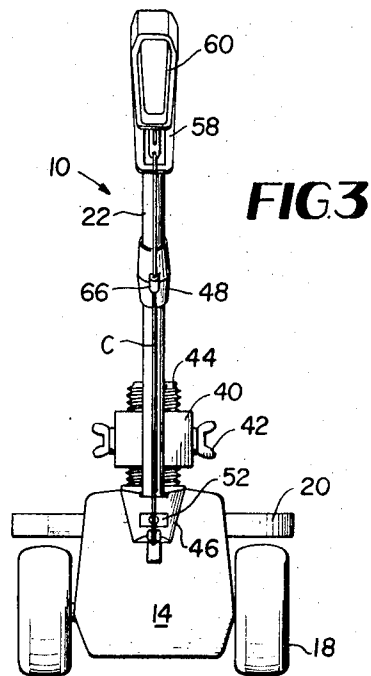
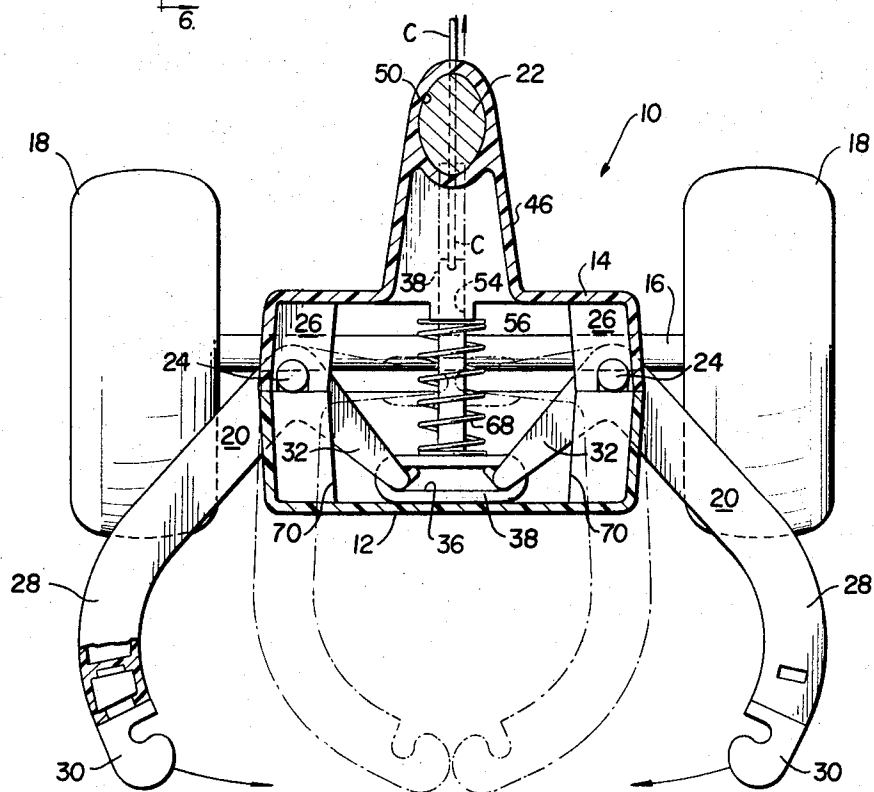
[56] **References Cited**

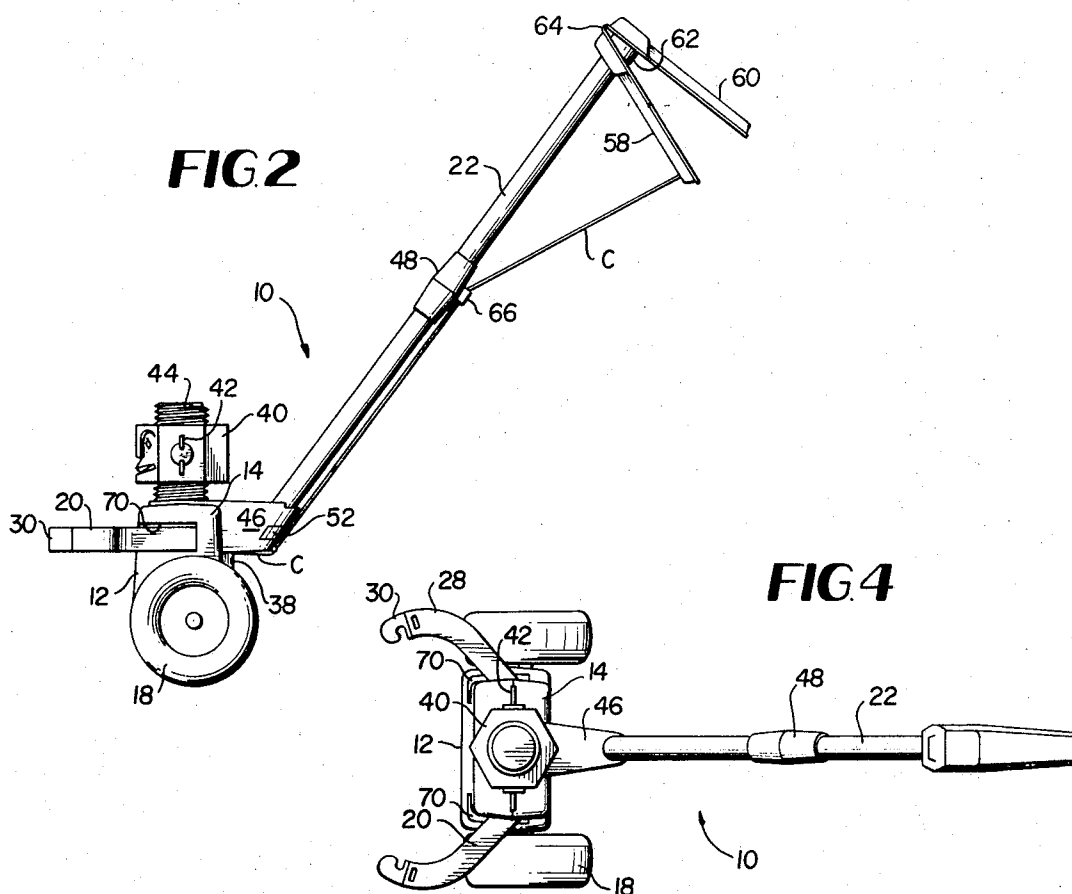
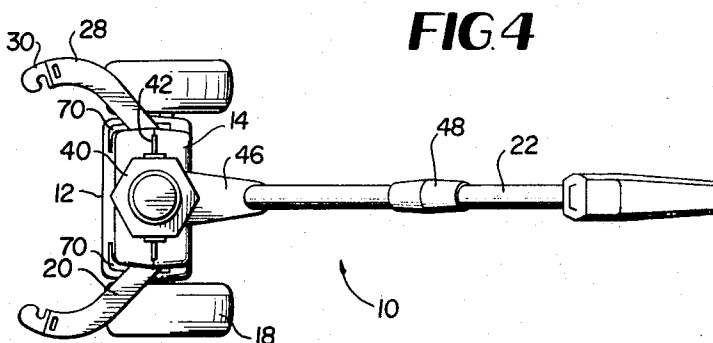
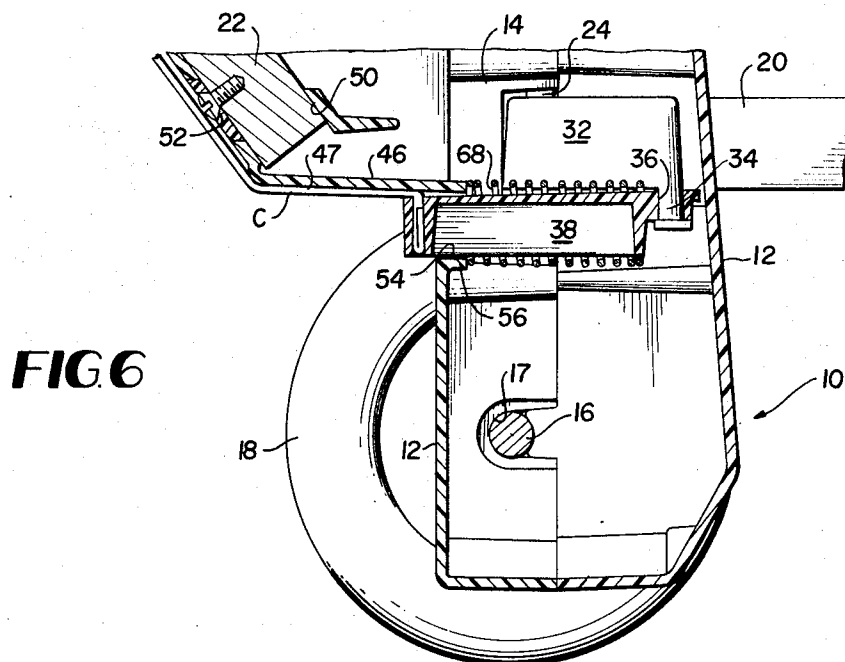
10 Claims, 6 Drawing Figures

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ROBOT PUSH TOY

This invention relates generally to toys and more particularly to figure push toys of the robot type having movable arms and an operating handle on a push rod by which the toy may be propelled and tilted about its supporting wheels which may be one or two in number.

Wheeled toys and manikin figures having movable arms and being of the robot type are known in the art but insofar as is known, are usually undesirably characterized by a complexity of structure, linkage, and/or operating mechanism which renders them impractical, inordinately expensive, and unsuitable for use and operation by young children.

Accordingly, the chief object of the present invention is to provide an improved but simple push toy of the robot type for use and operation by young children which will be free of the above and other undesirable characteristics of known toys of this type.

An important object of the present invention is to provide an improved and simplified toy of the robot type which may be readily propelled and operated by young children to clap its hands and tilt forwardly and pick up and carry or put down small objects.

Another important object of the present invention is to provide an improved and simplified toy of the robot type which has a minimum of movable parts so as to be free of maintenance or repair problems.

A further important object of the present invention is to provide a push toy of the robot type which will be strong, rugged and of long life in use and which is susceptible of ready and economical manufacture.

Other objects and advantages of the present invention will become apparent during the course of the following description.

In the drawings, we have shown one embodiment of the invention. In this showing:

FIG. 1 is a front elevational view of the invention showing the arms in the at-rest position;

FIG. 2 is a side elevational view thereof;

FIG. 3 is a rear elevational view thereof;

FIG. 4 is a top plan view thereof;

FIG. 5 is a horizontal, sectional view thereof to an enlarged scale, parts being shown in plan, taken on the line 5-5 of FIG. 1; and

FIG. 6 is a vertical sectional view thereof taken on the line 6-6 of FIG. 1.

Referring to the drawings, numeral 10 designates as a whole the robot push toy comprising the present invention which includes an upstanding figure body having a front portion 12, a rear portion 14 having an axle 16 journaled therein as at 17 and mounting a pair of supporting wheels 18, a pair of pivotable arms 20, and a push rod 22 for propelling and tilting the toy. While the elements of the toy may be formed of any suitable material, all but the handle which is of wood are preferably formed of polystyrene. It will be appreciated that while the tilting function provided by the present invention may be accomplished by the use of only one supporting wheel, it is more desirable for one to four year olds to have a pair of spaced wheels (as shown) to provide lateral stability during tilting to pick up or put objects down.

As is clearly shown in FIGS. 5 and 6, the arms 20 are pivotally mounted intermediate their ends in opposite sides of the rear body portion 14 by pins 24 fixed between inturned flanges 26 and the top of the body.

The arms are generally straight with outer arcuate portions 28 terminating in article gripping mitts 30. The inner ends 32 of the arms 20 are angularly disposed and function as bell cranks by means of crank pins 34 which project downwardly from the cranks into the laterally extending recess 36 of a yoke 38 to be further described.

While the figure of the toy 10 is shown as that of a mechanical robot, it is to be understood that the principles of the invention are applicable to other upstanding figures such as humans, animals, birds, etc. As shown, the robot 10 is provided with a hexagonal nut 40 for a head with wing nuts 42 for ears and mounted on a threaded bolt 44 serving as a neck and projecting upwardly from a rearwardly extending shoulder portion 46.

The push rod 22 is formed in upper and lower portions joined by a connector 48 and the lower end is received in a socket 50 formed in the rear of the shoulder 46 and retained therein by a clip 52 (and a screw or glue) forming an arcuate portion of the rear face of the socket. The bottom face 47 of the shoulder 46 (FIG. 5) serves as a guide for the upper surface of the yoke 38 which is of inverted -U shape extending rearwardly from its crank pin receiving recess 36 and projects through a rectangular aperture 54 defined by an inturned rectangular flange 56 which also functions as a guide.

The upper end of the push rod 22 is inserted through an aperture in an arm operating lever 58 which is integral with and hinged to a propelling handle 60 having a rod-receiving socket 62, by a flexible reduced portion 64. As seen in FIGS. 2, 5 and 6, the outer end of the lever 58 is connected by a cord C passing through a connector eyelet 66 to the rear end of the yoke 38 so that squeezing of the lever 58 and the handle 60 together moves the yoke 38 rearwardly to pivot both arms 20.

This yoke movement is opposed by a compression spring 68 which surrounds the yoke and bears against the forward portion of the yoke and the rectangular flange 56 to hold the arms 20 in the open, at-rest position shown in full lines in FIG. 5. The arms 20 and their mitts 30 are able to move from the open position to the dotted line closed position (FIG. 5) due to rectangular recesses 70 formed in the sides and front of the front portion 12 of the figure body.

It will now be readily apparent that the various parts are readily assembled together and into the rear portion 14 of the body which is then completed by affixing the front body portion 12 thereto as by fusing, glueing, etc. A youngster may now use the toy merely as an attractive push toy or it may manipulate the arm actuating lever 58 to effect pivoted movement of the arms toward each other as in clapping the hands. A block or other article may be readily picked up and carried by maneuvering the toy so that the arms are astride of the article, tilting the push rod forwardly to place the arms in the same place, and then closing the mitts on the article.

It is to be understood that the form of the invention herewith shown and described is to be taken as a preferred example of the same and that various changes in the shape, size and arrangement of parts may be resorted to without departure from the spirit of the invention or the scope of the subjoined claims:

What is claimed is:

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1. A push toy comprising, in combination, an up-
standing body figure; an axle journaled in said figure
and at least one wheel mounted on said axle, a pair of
arms pivotally mounted on said figure; a push rod fixed
to said figure to propel and effect tilting thereof; and
means mounted on said rod and connected to said arms
to effect a pivotal movement of said arms toward each
other.

2. The combination recited in claim 1; and means
mounted in said figure to effect reverse pivoting of said
arms.

3. The combination recited in claim 1 wherein said
figure includes a yoke operatively engaged with said
arms to effect pivotal movement thereof and said
mounted means comprises an operating lever and a
cord connected to said yoke.

4. The combination recited in claim 3; and means
mounted in said figure to effect reverse pivoting of said
arms.

5. The combination recited in claim 4 wherein said
last mentioned means comprises a spring acting against
said yoke.

6. A push toy comprising, in combination, an up-
standing figure body mounted on a wheeled axle, a pair

of arms pivoted intermediate their lengths to said body
at spaced points; a slotted yoke slidably mounted in
said body for front to rear movement; the inner ends of
said arms comprising bell cranks having depending
crank pins projecting into opposite ends of the yoke
slot to effect pivoting of said arms upon movement of
said yoke; a push rod fixed to said wheel mounted body
to propel and effect tilting thereof, and means mounted
on said rod for effecting movement of said yoke and
pivotal movement of said arms toward each other.

7. The combination recited in claim 6; and means
mounted in said body for effecting reverse movement
of said yoke and said arms.

8. The combination recited in claim 6 wherein said
mounted means comprises an operating lever and a
cord connected to said yoke.

9. The combination recited in claim 8; and means
mounted in said body to effect reverse movement of
said yoke and said arms.

10. The combination recited in claim 9 wherein said
last mentioned means comprises a spring acting against
said yoke.

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