

Aug. 19, 1941.

B. G. JEFFRIES

2,253,030

PUSH TOY

Filed Feb. 16, 1940

2 Sheets-Sheet 1

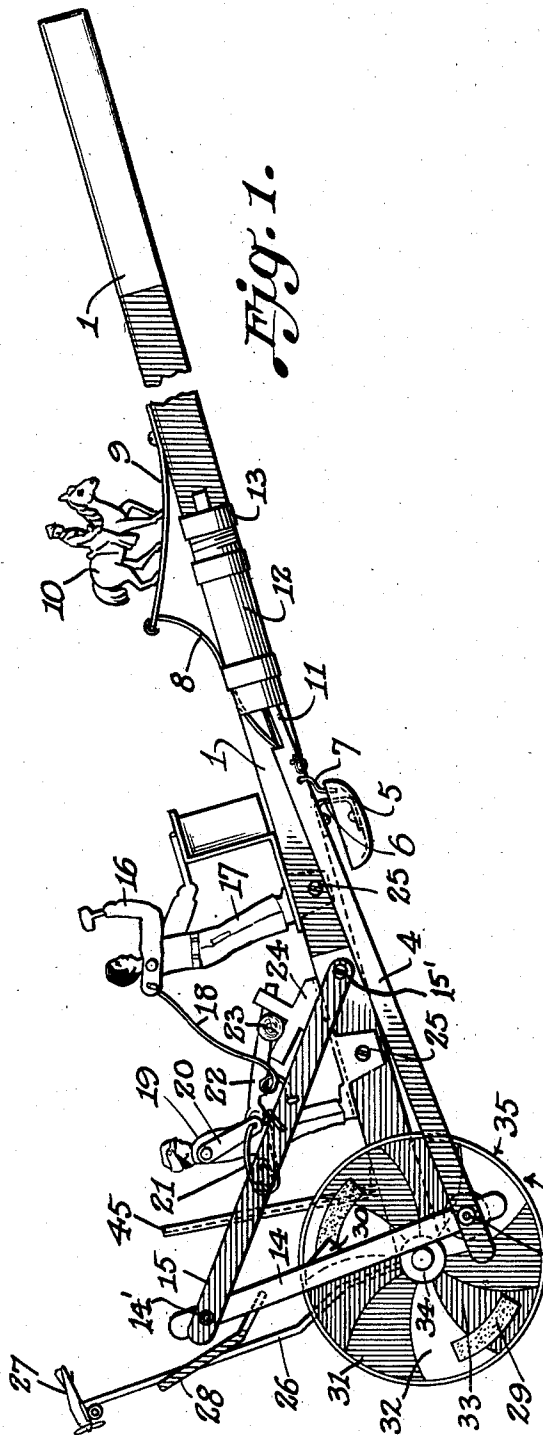


*Fig. 1.*

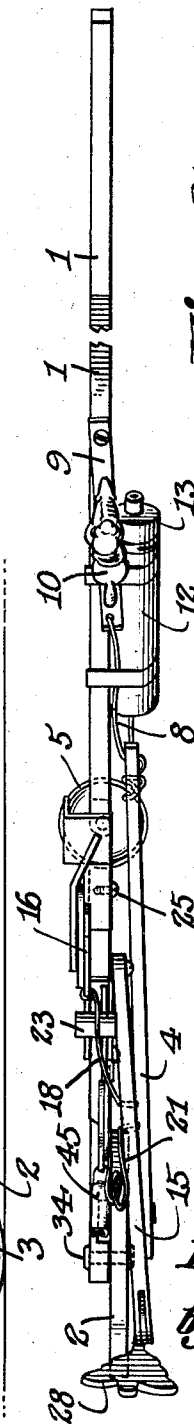


*Fig. 2.*

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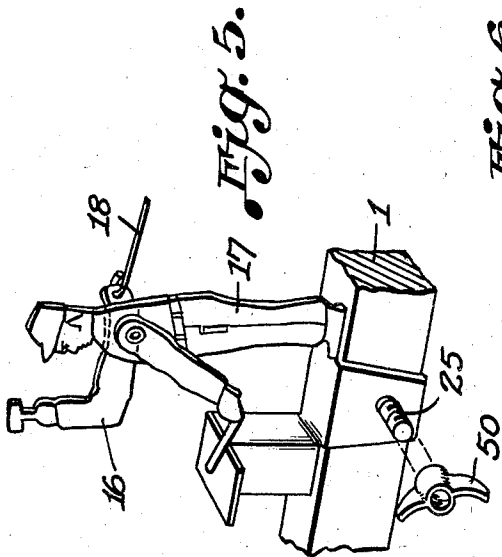
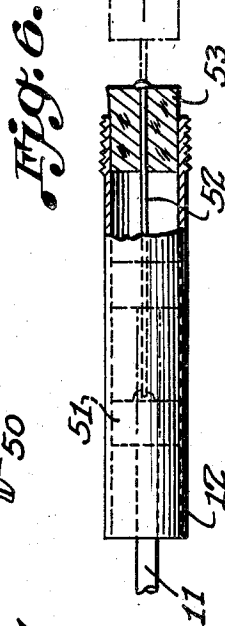
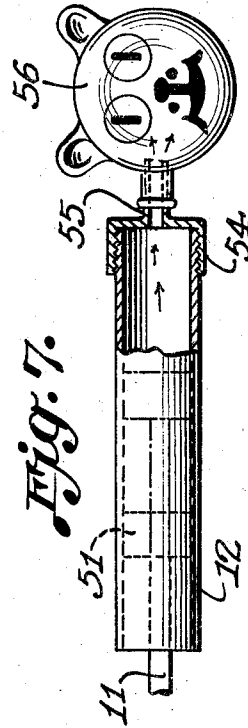
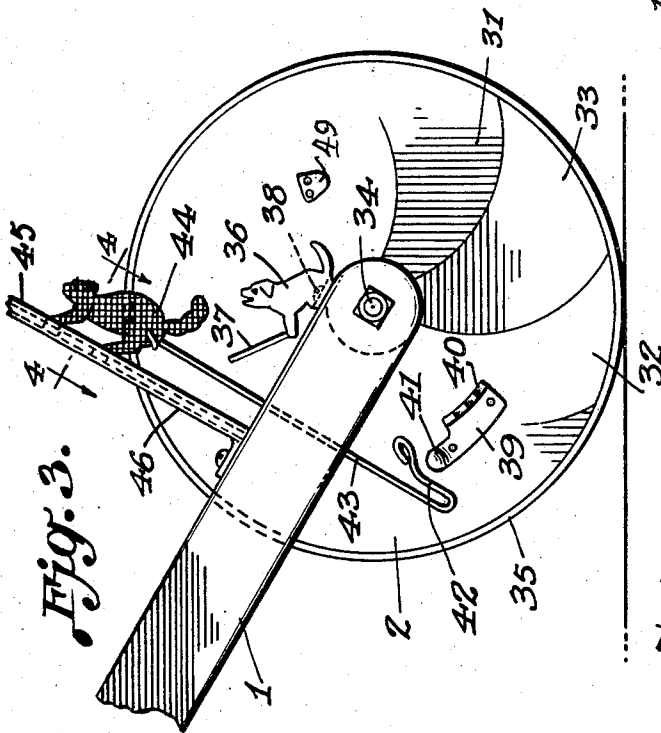
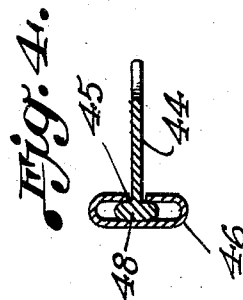
**B. G. JEFFRIES**

**2,253,030**

PUSH TOY

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2 Sheets-Sheet 2



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## UNITED STATES PATENT OFFICE

2,253,030

PUSH TOY

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Application February 16, 1940, Serial No. 319,347

3 Claims. (Cl. 46—107)

The object of my invention is to provide a novel push toy having a wheel bearing contrasting colors, to provide a rubber tired wheel on such a toy, to provide various manikin figures arranged to be operated by the movement of the wheel, to provide various audible devices such as a bell, etc., which are sounded by the movement of the wheel when the toy is pushed along; to provide means for interchangeably mounting any of a multiplicity of different manikin figures on the rod of the push toy; and to provide particular arrangement and combination of devices operated by the single wheel of the push toy; to provide various unusual devices for a push toy such as a popgun member, whistle, or automatically inflatable balloon. I attain these and other objects of my invention by the means illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my invention;

Fig. 2 is a top plan view of same;

Fig. 3 is an enlarged detail side elevation of a portion of the toy showing the wheel from the reverse side of that shown in Figure 1;

Fig. 4 is a detail sectional view on line 4—4 of Fig. 3;

Fig. 5 is a detail perspective view of one of the manikin figures of the push toy and also of the means for removably mounting same on the rod of the push toy;

Fig. 6 is a detail view partly in side elevation and partly in section of the popgun member which is arranged for operation by the movement of the push wheel of the toy; and

Fig. 7 is a detail view partly in side elevation and partly in section of the automatically inflatable balloon device which may be operatively connected with the wheel of the push toy.

Like numerals designate like parts in each of the several views.

Referring to the accompanying drawings, I provide a push rod 1 at one end of which is mounted the diversely colored wheel 2 by means of the axle 34. I provide a pin 3 mounted in the wheel in a position off-set from the center or axle of the wheel and to which a rod 4 is pivotally connected for reciprocating movement as the push toy wheel is rotated. I provide a bell 5 affixed to the under side of the push rod 1 by means of a suitable metal arm 6. I provide a suitable tongue or bell clapper 7 affixed to the rod 4 and suitably positioned to sound the bell with each reciprocation of the rod 4.

I provide a wire attached to the rod 4 at one end and attached at the other end to a spring

plate or base 9 on which is mounted any desired manikin figure 10.

I provide a whistle plunger 11 on the end of reciprocating rod 4 and which operates a piston 51 in the cylindrical tube 12 to sound the whistle 13 at the end of the tube with each reciprocation of the rod 4. The whistle member is shown in Figs. 1 and 2 and the piston member 51 is shown in dotted lines in Figs. 6 and 7.

As shown in Fig. 1, I provide an upstanding rod 14 pivotally mounted on pin 3 and in turn pivotally connected at its upper end at 14' to a link 15 which in turn is pivotally connected at 15' to the push rod 1. I provide a manikin figure 17 such as the figure of a blacksmith shown in Figs. 1 and 5, having one of its arms 16 pivotally mounted to the body of the manikin and operatively connected by a suitable wire 18 to the link 15 the movement of which in turn operates the arm 16 of the manikin figure. This manikin figure, as shown in Fig. 5, is preferably attached to the push rod by a screw 25 and thumb nut 50 by means of which it may be detachably mounted to permit of the substitution of any other desired manikin figure interchangeably with this manikin figure by removing the thumb nut 50 and either disconnecting the wire 18 or arm 16.

I may provide an additional manikin figure 19 such as shown in Fig. 1 detachably mounted on the push toy rod 1 and having a pivoted arm 20 connected by a wire 21 to the link 15, by which it is actuated, the arm 20 in turn being pivotally connected to a miniature or facsimile saw 22 which reciprocates across a miniature or facsimile log 23 mounted on the miniature or facsimile sawhorse 24 which in turn is an integral part of the base of the manikin figure as shown. This figure also is detachably mounted on the push rod 1 by means of any suitable screw 25.

I provide a spring wire 26, as shown in Fig. 1, mounted or seated in the wheel end of push rod 1 and carrying a miniature airplane 27 on the upper end of said wire, a certain vibration being given the airplane by the operation of the toy. I also may provide any suitable ornamental head-piece such as the eagle 28 attached to the upstanding rod 14 and moving with that member.

I provide novel sounding means on the toy consisting of strips of sandpaper 29 affixed to the side of the wheel 2 and with which another strip of sandpaper 30 frictionally contacts thereby producing a scratching sound intended to imitate the sound of an automobile engine when it is not in first class condition or is laboring.

As shown in Fig. 1, the wheel 2 is provided or painted in sections of contrasting colors such as the sections 31 of red, section 32 of white and the section 33 of blue as illustrated in Figs. 1 and 3 of the drawings or any other desired contrasting or diverse colors whereby to arrest the attention and please the purchaser and user of the toy. The push wheel 2 is provided with a rubber tire 35 to afford the necessary traction or frictional engagement with the floor necessary for actuating the various attachments and figures which are actuated by the rotation of the wheel 2.

Referring to Fig. 3, there is illustrated an additional attachment which may be applied to the toy and actuated by operation of the wheel 2. It consists of a manikin dog 36 holding a wire rod 37, the dog 36 being secured to the end of the push rod 1 by a suitable, preferably loose mounting 38. Affixed to the side of the wheel 2 I provide a plate 39 having a series of teeth 40 disposed in position to be engaged by the wire rod 37 as the wheel is rotated and to vibrate that member and produce a clicking or barking sound as successive teeth are struck by the rod 37. The plate 39 is also provided with an off-set tongue 41 bent outwardly sufficiently to engage the off-set lower end or finger 42 of the wire rod 43 on the upper end of which is mounted a miniature or manikin cat 44 just out of reach of the manikin dog 36. I provide a hollow track 46 having a longitudinal slot 45 through which the feet of the manikin cat 44 stand, the feet terminating in the enlarged end elements 48 which are slidable in the track 46 as shown in Figs. 3 and 4 of the drawings. I may also provide a suitable projection 49 on push wheel 2 on the same side of the wheel but opposite to the plate 39 for engaging the off-set end 42 of the wire 43 for operating the cat 44.

Referring to Fig. 6 there is illustrated an alternative audible toy element which may be used in place of the whistle 13. This element consists of a cork 53 frictionally engaged in the end of the cylindrical tube 12 and attached by a cord or other flexible element 52 to the piston 51 and adapted to be popped out by the compression of air in the tube 12 when the piston is reciprocated.

In Fig. 7 there is illustrated another alternative attachment to replace the whistle 13 and consisting of a toy figure balloon 56 mounted on the nipple 55 which is screw-threaded at 54 to the end of the tube 12, the balloon 56 being automatically inflated and deflated by the reciprocation of piston 51 in the tube 12.

The operation of the mechanism has been indicated somewhat in the description of the elements. The rod 4 being pivotally connected by pin 3 in off-set relation to the axle 34 of the push wheel causes a reciprocatory movement of the push rod 4 thereby causing the bell clapper 7 to sound the bell 5 with each reciprocation of the rod and likewise to operate the manikin figure 10 by means of movement of connecting wire 8 and spring base 9 to cause a rocking movement of the figure with each reciprocation of rod 4, the plunger 11 connected to or integral with the push rod 4 also actuating the piston 51 in the cylindrical tube 12 to either sound the whistle 13 (when a whistle is affixed to the end of tube 12); or alternatively to cause a popping noise when a cork and flexible element attached to the piston is used in place of the whistle element; or alternatively to inflate a balloon when

a toy balloon is attached by means of a nipple 55 to the end of the tube 12, the reciprocation of the piston causing an alternate and automatic inflation and deflation of the toy balloon 56.

The rotation of the wheel 2 carrying the strips of sandpaper, 29 results in a frictional engagement with the cooperating strip of sandpaper 30 on the upstanding rod 14 to cause an intermittent scraping or scratching sound intended to delight children. The link 15 which is pivotally connected to the push rod and also to the upper end of rod 14 and which is actuated by the rotation of the wheel 2 due to the off-set connection of the lower end of 15 by pin 3 with the wheel causes a reciprocation of link 15 whereby to operate the wire 18 connected with the arm 16 of manikin figure 17, and likewise to actuate the wire 21 and arm 22 of another manikin figure (if both manikin figures are utilized on the toy) through the operatively connected means of the link 15, rod 14, pin 3 and push wheel 2.

Likewise the climbing cat 44 which is slidably mounted in the track 45 is actuated by spring rod 43 and its offset end 42 which is engaged by the laterally projecting finger 41 which is affixed or attached to the side of the push wheel 2 in an offset relation to the axle of the wheel to intermittently actuate the cat. Likewise element 49 performs a like function. Plate 39 having the teeth 40 performs an additional function in that the successive teeth engage the wire rod 37 of the manikin dog 36 to cause a clicking noise as the teeth pass that element with each rotation of the push wheel 2 thus making the dog appear to bark at the cat as it climbs the hollow pole or track 45.

The ornamental head-piece 28 being affixed to rod 14 moves with that rod which rod in turn is actuated by pin 3 and push wheel 2. Spring wire 26 and miniature airplane 27 are simply vibratory elements movement of which is produced by vibration of the push rod transmitted from the wheel 2 when movement over the floor is not absolutely level or if any uneven movement of the push rod is made by the operator to cause a vibration of this flexible wire 26.

What I claim is:

1. In a push toy, the combination of a push rod, an axle on the end of the push rod, a push wheel rollably mounted on the axle, a pin mounted on the push wheel in offset position to the axle of the wheel, an upstanding rod pivotally mounted on said pin, a link pivotally connected to the upper end of said upstanding rod at one end of the link and pivotally connected to the push rod at the other end of the link to cause a reciprocating movement of both the rod and link, a manikin figure having a base engaging over the push rod, means detachably securing the base of the manikin figure to the push rod, and a link directly connecting a moving element of the manikin figure with the aforesaid movable elements.

2. In a push toy, the combination of a push rod, an axle on the end of the push rod, a push wheel rollably mounted on the axle, a pin mounted on the push wheel in offset position to the axle of the wheel, an upstanding rod pivotally mounted on said pin, a link pivotally connected to the upper end of said upstanding rod at one end of the link and pivotally connected to the push rod at the other end of the link to cause a reciprocating movement of both the rod and link, a plurality of manikin figures detachably

and adjustably mounted on the push rod, said manikin figures having pivotally mounted arm members, means such as wire directly connecting each of the aforesaid pivotally mounted arm members with the aforesaid link for actuation of same with each reciprocatory movement of the link, and audible mechanism on the push wheel simultaneously actuated by its movement.

3. In a push toy, the combination of a push rod, an axle on the end of the push rod, a push wheel rollably mounted on the axle, a rod having one end pivotally attached to the wheel at a

point offset to the axle of the wheel and reciprocated by the rotation of the push wheel, a link pivotally connected to the push rod at one end and to the outer end of the first named rod at the other end, a manikin figure having its base engaging the push rod, the manikin figure having a pivotally mounted element such as an arm, a link attached at one end directly to said element and at the other end to the link, whereby to actuate the pivotally mounted element of the manikin.

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