June 18, 1946. C. E. GARDNER 2,402,390

TOY

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Fig. 1.

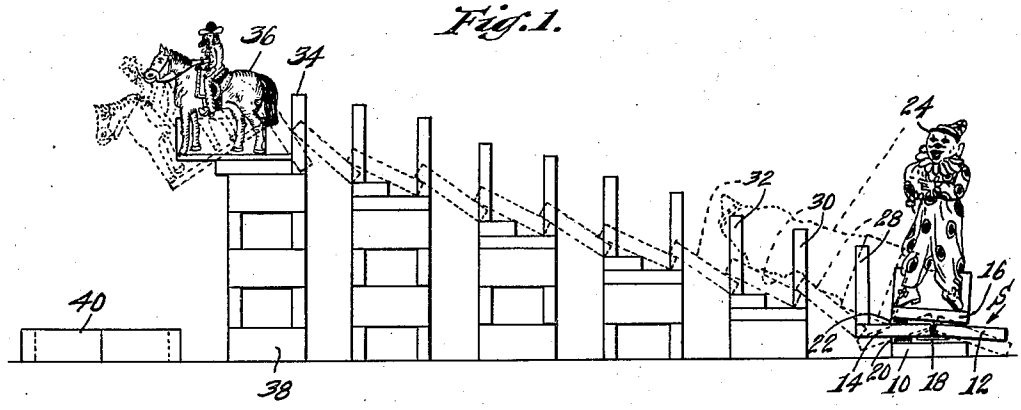


Fig. 2.

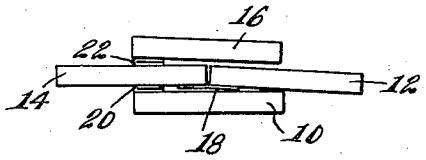


Fig. 3.

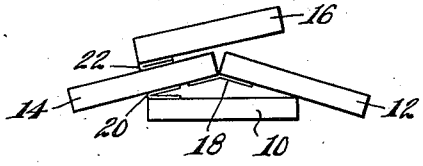


Fig. 4.

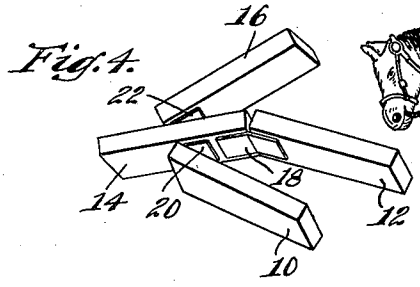
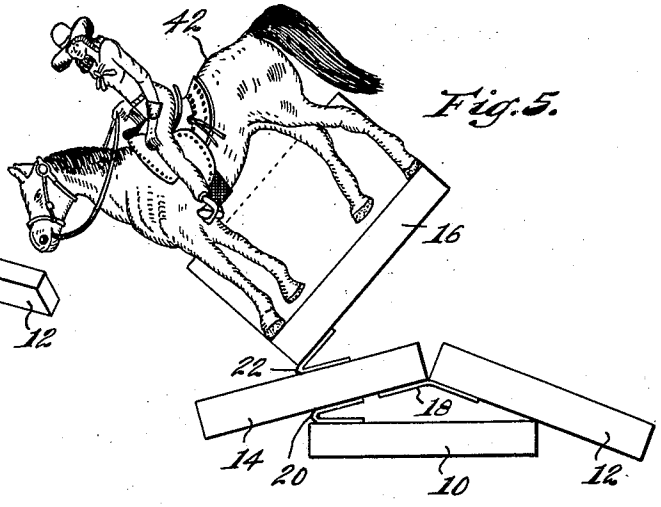


Fig. 5.



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TOY

Clark E. Gardner, Osage, Iowa

Application January 20, 1945, Serial No. 573,649

6 Claims. (Cl. 46—1)

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My present invention relates to a toy and particularly to one which I call a "switch block" to produce animated and sound effects of toy figures or the like.

One object of the invention is to provide a number of building blocks so connected together that they can support a toy figure and can be manually manipulated to produce animation of the figure as well as sound effects such as the galloping of a horse.

Another object is to provide a switch block which includes a base block and a supporting block, between which a pair of actuating blocks is mounted, hinged connections being provided between the ends of the actuating blocks and between the ends of the base and supporting block and one of the actuating blocks to produce the desired movement resulting from depressing one of the overhanging ends of one of the actuating blocks.

With these and other objects in view, my invention consists in the construction, arrangement and combination of the various parts of my toy whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims and illustrated in the accompanying drawing, wherein:

Figure 1 is a side elevation of a switch block embodying my invention and showing it associated with a row of "tumbling blocks."

Figure 2 is a side elevation of the switch block per se in the normal position.

Figure 3 is a similar side elevation showing the switch block in actuated position.

Figure 4 is a perspective view of the switch block to show how the different portions thereof are assembled together and

Figure 5 is a view similar to Figure 3 showing the switch block in operation and having a toy figure mounted thereon to be animated thereby.

On the accompanying drawing I have used the reference character S to indicate generally a "switch block" or an arrangement of blocks connected together for producing movement and sound. The switch block S comprises a base block 10, a pair of actuating blocks 12 and 14 and a supporting block 16. These may be formed of wood or suitable material and colored to be of interest to children preferably with a non-poisonous dye.

The actuated blocks 12 and 14 are hinged together as by a hinge 18 which is merely a strip of gummed paper stuck to the marginal ends of the blocks. The forward ends of the base block 10 and the supporting block 16 have similar hinges

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20 and 22 which, as shown in Figure 2, are in the folded position with the gummed side out.

When the blocks are connected by means of the hinges 18, 20 and 22, a so-called switch block results and may be operated as shown in Figure 3. By depressing the rear end of the actuating block 12, its forward end rises and tilts the actuating block 14 forwardly and downwardly. The supporting block 16 tilts with it and tilts anything that is mounted on the supporting block. In Figure 1, for example, I show a toy figure 24 in the form of a clown secured to the edge of the supporting block 16 as by glue or cement.

The switch block may be used as in Figure 1 for the purpose of tilting a tumbling block 28 to an inclined position where it engages the second tumbling block 30 and it engages a third one 32 etc. until finally a block 34 is engaged and tipped (all to the dotted position as shown). The tipping of the block 34 may cause a figure 36 to topple from the tower 38 into a simulated water tank 40 built of blocks. Obviously the blocks may be arranged in many different forms and the arrangement shown in Figure 1 is merely an example of one use for the switch block.

Another use may be the moving of the clown 24 along a table top or the like by alternately depressing and raising the rear end of the actuating block 12 and at the same time advancing the clown along the table which gives him the animated effect of trotting, and also produces a sound effect as the blocks engage each other and the table.

Another suggestion is shown in Figure 5 where the toy figure 42 is a horse and rider and the animated effect of galloping is produced together with the sound effect of horses hooves. By depressing the block 12 violently the block 16 will be tilted by momentum beyond the inclined position of the block 14 which results in additional sounds that more nearly approach that produced by a galloping horse.

The specifically suggested uses and many other will be found for the switch block. This is particularly so in connection with toy figures which it is desired to manually animate and for which sound effects are desired. The switch block is simple to fabricate and considerably heightens the interest in a set of building or tumbling blocks of the character illustrated on the drawing.

Some changes may be made in the construction and arrangement of the parts of my device without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims any modified forms of struc-

tures, or use of mechanical equivalents, which may be reasonably included within their scope.

I claim as my invention:

1. In a toy of the character disclosed, a switch block comprising a base block, forward and rearward actuating blocks supported end to end thereon and their outer portions overhanging the ends of said base block, a supporting block on said actuating blocks and spanning the adjacent ends thereof, said ends of said actuating blocks being hinged together, the forward end of said supporting block being hinged to the forward actuating block adjacent the center thereof whereby depressing the rear end of said rear actuating block tilts said forward actuating block and said supporting block forwardly and downwardly.

2. In a toy, a switch block comprising a base block, forward and rearward actuating blocks supported end to end thereon and their outer portions overhanging the ends of said base block, said ends of said actuating blocks being hinged together, and the forward end of said base being hinged to the forward actuating block adjacent the center thereof whereby depressing the rear end of said rear actuating block tilts said forward actuating block forwardly and downwardly.

3. In a switch block, a base block, forward and rearward actuating blocks supported end to end thereon and their outer portions overhanging the ends of said base block, a supporting block on said actuating blocks and spanning the adjacent ends thereof, said ends of said actuating blocks being hinged together, the forward ends of said base and supporting blocks being hinged to the forward actuating block whereby depressing the rear end of said rear actuating block tilts said forward actuating block and said supporting block forwardly and downwardly, and a toy figure supported on said supporting block.

4. In a switch block, a base block, forward and rearward actuating blocks supported end to end thereon and their outer portions overhanging the ends of said base block, said ends of said actuating blocks being hinged together, and the forward end of said base block being hinged to the forward actuating block.

5. A toy of the kind described comprising a switch block including a base block, a pair of actuating blocks and a supporting block, said actuating blocks being arranged end to end with their outer ends overhanging the ends of said base block, and said base and supporting blocks spanning the adjacent ends of said actuating blocks and located below and above the actuating blocks respectively, means for hinging the ends of said actuating blocks together, one end of said supporting block and one end of said base block being hinged to one of said actuating blocks intermediate its ends whereby depression of the overhanging end of one actuating block tilts the other one and the supporting block and permits the supporting block to move by momentum into a tilted position angularly spaced from the actuating block to which it is secured.

6. A toy of the kind described comprising a switch block including a base block, and a pair of actuating blocks, said actuating blocks being arranged end to end and said base block spanning said ends and located below the actuating blocks with the outer ends of the actuating blocks overhanging the ends of the base block, means for hinging the ends of said actuating blocks together, and one end of said base block being hinged to one of said actuating blocks intermediate its ends whereby depression of the overhanging end of one actuating block tilts the other one.

CLARK E. GARDNER.