July 14, 1942. S. A. BAKALYAR 2,289,690

TOY

Filed June 8, 1939

Fig. 1

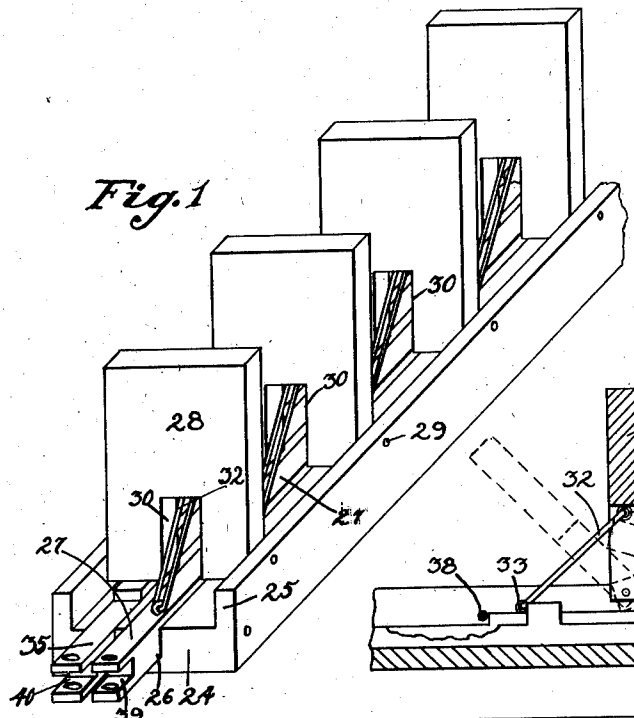
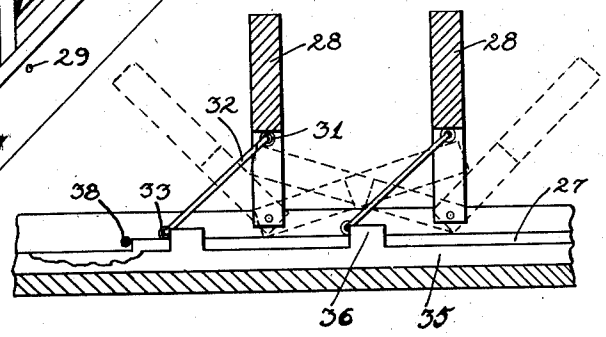


Fig. 2



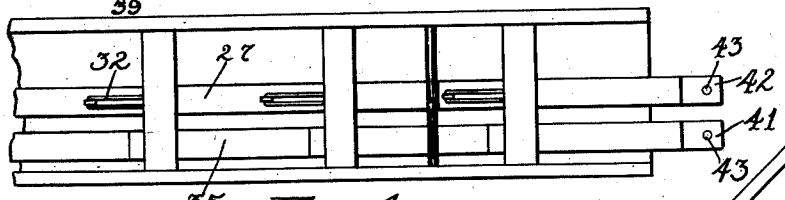


Fig. 4

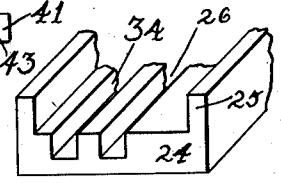


Fig. 5

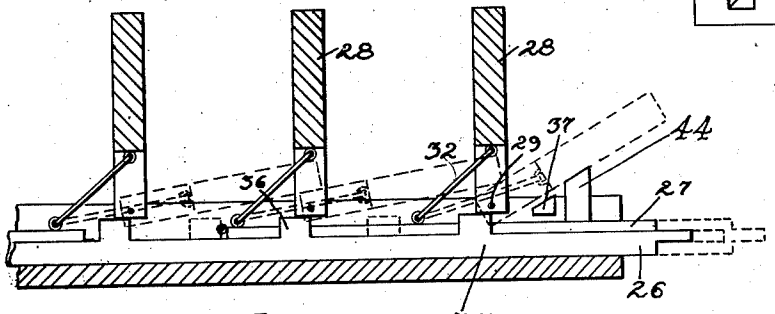


Fig. 3

Inventor
Stephen A. Bakalyar
by Owig & Hague Atty's

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TOY

Stephen A. Bakalyar, Des Moines, Iowa

Application June 8, 1939, Serial No. 278,109

6 Claims. (Cl. 46—174)

This invention relates to an improved toy which is particularly adapted to be used by small children for the purpose of amusement.

The object of my invention is to provide a toy formed in one or more base sections, each of which is provided with a series of pivoted upright blocks or figures so spaced apart that when one of the end figures of a row of figures is tipped over, it will engage an adjacent one, which in turn will engage the one adjacent to it and cause the whole row of figures to be moved in succession to substantially horizontal positions with the end of each figure overlapping an adjacent figure, the figures to be made of such substance or material that a sound will be created as one of the members engages another, and thereby produce a series of sounds simultaneously with the falling figures.

A further object is to provide in connection with toy units of the type above described, means whereby all of the fallen figures may be restored to their vertical positions by means of a single manipulated device and wherein the figures will be restored progressively from one end to the other.

A further object of my invention is to provide a more specific arrangement wherein the base is provided with a series of pivoted upright figures adapted to fall in either of two opposite directions, and to provide in connection therewith manually operated means whereby the figures may be supported in their upright positions against falling in either one of the two directions, and further in connection therewith, means for uprighting said figures when fallen to either of the two horizontally inclined positions.

My invention consists in the construction, arrangement and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawing, in which:

Figure 1 is a perspective view of a form of my improved toy employing a rigid base in which the upright figures are free to swing in either of two directions.

Figure 2 is a longitudinal vertical sectional view of the same showing the manner in which the means for locking the units in upright positions are moved to inoperative positions.

Figure 3 is another vertical sectional view showing the locking bar in operative position to lock the upright members against movement in one direction.

Figure 4 is a plan view of Figure 7.

Figure 5 is a perspective view of one end of the rigid base member.

On the drawings the numeral **24** indicates the body portion of a base section which may be formed of wood, Bakelite or any other like material having at each of its side edges an upwardly extending flange **25**, and in the central portion of the body a longitudinally extending groove **26** for receiving a slide bar **27**, each end of said bar being provided with a trip device **44**.

Supported between the flanges **25** is a series of upright figures **28**, each of which has its lower end pivoted between the flanges **25** by means of pivots **29**, said pivots being located centrally between the front and back edges of said blocks so that the blocks may be free to swing either forwardly or backwardly from upright positions. With said blocks **28** in an upright position with one lower corner resting on a respective lug **36**, it will be seen that if the left hand block **28** of Figure 1 is tilted to the right against the first adjacent block, the force thereof will cause the second block to be tilted over against a third block and in like manner all of the blocks supported by the base **24** to be moved substantially to a horizontally inclined position, with the right hand end block resting on a stationary support **37** carried by the flanges **25**. The engagement of one block against the other will cause a sound, and a series of sounds will result in close succession as the blocks are tilted over to their inclined positions, very much to the amusement of the player.

The bottom end of each of the blocks **28** has formed therein a notch **30**. Fixed to each of the blocks **28** in the upper edge of the notch **30** is an eyelet **31** from which is supported a rubber band or other flexible element **32**, which is also passed through an eyelet **33** on the upper edge of the slide bar **27**.

I have also provided in the body **24** a groove **34** for receiving a slide bar **35**, said slide bar **35** having on its upper surface lugs **36**, one to engage the lower end of each of the mmebers **28** when the slide bar is in one position of its movement, see Fig. 3, said slide bar being adapted to be so adjusted that the lugs **36** will engage only one edge of the lower end of the corresponding members **28** to prevent said blocks from swinging in an anticlockwise direction when in an upright position as illustrated in said figure. However, it will be seen that if the bar **35** is moved longitudinally to the right a slight distance, the upper edges of the lugs **36** will engage the opposite edges of the lower ends of the corresponding blocks **28**

and lock the blocks against tilting in a clockwise direction. It will further be seen that if the bar **27** is moved to the left, as viewed in Figure 3, the bands **32** will be stretched and the blocks **28** supported to their upright positions as illustrated in solid lines. However, if the bar **27** is moved to the right, tension will be released from said bands. If the bar **27** is then again moved to the left, with the blocks **28** in their inclined positions tension will be applied to the bands **32** and the movement of the said bar **27** limited by means of a pin **38**, with the bands **32** passing the pivot centers **29** or close thereto, at which time said bands may be considered as being on dead center and the tension of the bands will not at that time tend to raise the blocks to their upright positions to any appreciable extent, as shown by dotted lines in Figure 3. However, if the first block at the right hand end is elevated a slight distance by means of a trip device **44** carried by the right-hand end of the bar **27** as said bar is moved to the left just before the said bar reaches its limit of movement, then the right hand band **32** connecting the right hand block will move past its dead center position and impart lifting power to the block to move it to its elevated position. The upward movement of said block will then elevate the adjacent block to the left with the latter block supported on the former a slight distance, permitting the corresponding band **32** to pass its dead center position and the said block to be elevated to its upright position. In this manner the entire row of blocks will be elevated in a progressive manner from the right to the left.

If it is desired to reverse the direction of tilting of the blocks the bar **35** is moved to its reverse position of movement, or to the right, as illustrated in Figure 3, at which time the bar **27** is then moved to the right instead of the left, to elevate the blocks.

The ends of the bars **27** are provided with notches **39** and the bar **35** with a notch **40** for receiving tongue portions **41** and **42** formed on the opposite ends of the bars of another base section for connecting the bars of one section with the bars of another section by means of suitable pins and openings **43** in said members, whereby all of the slide bars of all of the base sections may be operated simultaneously, thus providing means whereby the blocks may be tilted from an upright position to an inclined horizontal position progressively from one end of the series of sections to another.

Thus it will be seen I have provided a toy of comparatively simple construction which may be formed principally of wood, if so desired, and which provides means whereby a various number of combinations of arrangement of the base sections may be had and wherein the blocks or figures may tip from an upright position to a substantially horizontal position progressively from one end to the other, at the same time making a series of sounds as the blocks engage each other.

If it is desired the bar may be moved to an intermediate position, as illustrated in Figure 2, wherein the lugs **36** are substantially midway between the blocks **28** and out of engagement with the corners of said blocks. Then it will be seen that if the bar **27** is actuated to the left the said blocks will be moved to their upright positions, after which they will fall by gravity to an inclined position toward the left hand end of the series, thus providing means whereby the blocks may be tilted either to the right or left by simply oscillating the bar **27**.

In the specification and claims I have used the term "blocks" to designate the upright members. However, it should be understood that the said term "blocks" as used in the claims would apply to any other shaped figure that might be substituted for the rectangular blocks illustrated. For instance, instead of such rectangular blocks a series of blocks shaped to indicate soldiers might be substituted or they might be shaped to represent numerals or other figures without departing from the inventive thought.

I claim as my invention:

1. A toy, comprising a base portion, a series of spaced upright blocks having their lower ends pivoted to said base to permit the upper ends of said blocks to swing to inclined positions in one direction, means for preventing said blocks from swinging in the opposite direction when in said upright positions, said blocks being spaced apart such a distance as to permit a falling block at one end of a row of blocks to engage an adjacent upright block and cause it to tip over, and means mounted to slide longitudinally of said base to return the fallen blocks progressively to their normal upright positions.

2. A toy, comprising a base portion, a series of spaced upright blocks having their lower ends pivoted to said base to permit the upper ends of said blocks to swing to inclined positions in one direction, said blocks being spaced apart such distance as to permit a falling block at one end of a row of blocks to engage an adjacent upright block and cause it to tip over, and with it successively all of the upright blocks of the row, means mounted to slide longitudinally to limit the blocks against falling over in either one of two opposite directions when in an upright position, and means mounted to slide longitudinally of said base to return the fallen blocks progressively to their normal upright positions.

3. In a device of the class described, a base having upturned flanges at each side, a central longitudinal groove in its upper surface, a series of upright blocks, each having a central vertical notch in its lower end, means pivoting the lower ends of said blocks to said upturned flanges at spaced intervals less than the height of the blocks, means limiting the blocks against swinging in one direction, a slide bar in said longitudinal groove, yieldable means connecting the upper ends of each of the notched portions of said blocks to said slide bar whereby movement of said slide bar will cause tension to be applied to all of the yieldable connecting means.

4. A toy, comprising an elongated base, a series of blocks having their lower ends pivoted transversely to said base to permit them to swing from said upright positions to substantially horizontal positions with the free end of each block overlapping the pivoted end of an adjacent block, means for supporting said blocks when in an upright position against falling over in one direction, manually operated means for applying longitudinal and yielding tension to each block while in its inclined position tending to hold them in their overlapping positions, also tending to elevate the free ends of said blocks when said free ends have been elevated a slight distance.

5. A toy, comprising a base portion, a series of spaced upright blocks having their lower ends pivoted to said base to permit the upper ends of said blocks to swing to inclined positions in one direction, means for preventing said blocks from swinging in the opposite direction when in said upright positions, said blocks being spaced apart

such distance as to permit the falling block at one end of a row of blocks to engage an adjacent upright block and cause it to tip over, and with it successively all of the upright blocks of the row, to produce a series of sounds in rapid succession by the engagement of blocks one with another, and manually operated mechanical means for progressively returning the fallen blocks to their normal upright positions.

6. A toy, comprising a plurality of base portions, a series of spaced upright blocks having their lower ends pivoted to corresponding bases to permit the upper ends of said blocks to swing to inclined positions in one direction, means for preventing said blocks from swinging in the opposite direction when in said upright positions, said blocks being spaced apart such a distance as to permit a falling block at one end of a row of blocks to engage an adjacent upright block and cause it to tip over, means slidably mounted in each of said bases to return the fallen blocks to their normal upright positions, and means for operatively connecting the slidable means of one base with the slidable means of an adjoining base.

STEPHEN A. BAKALYAR.