

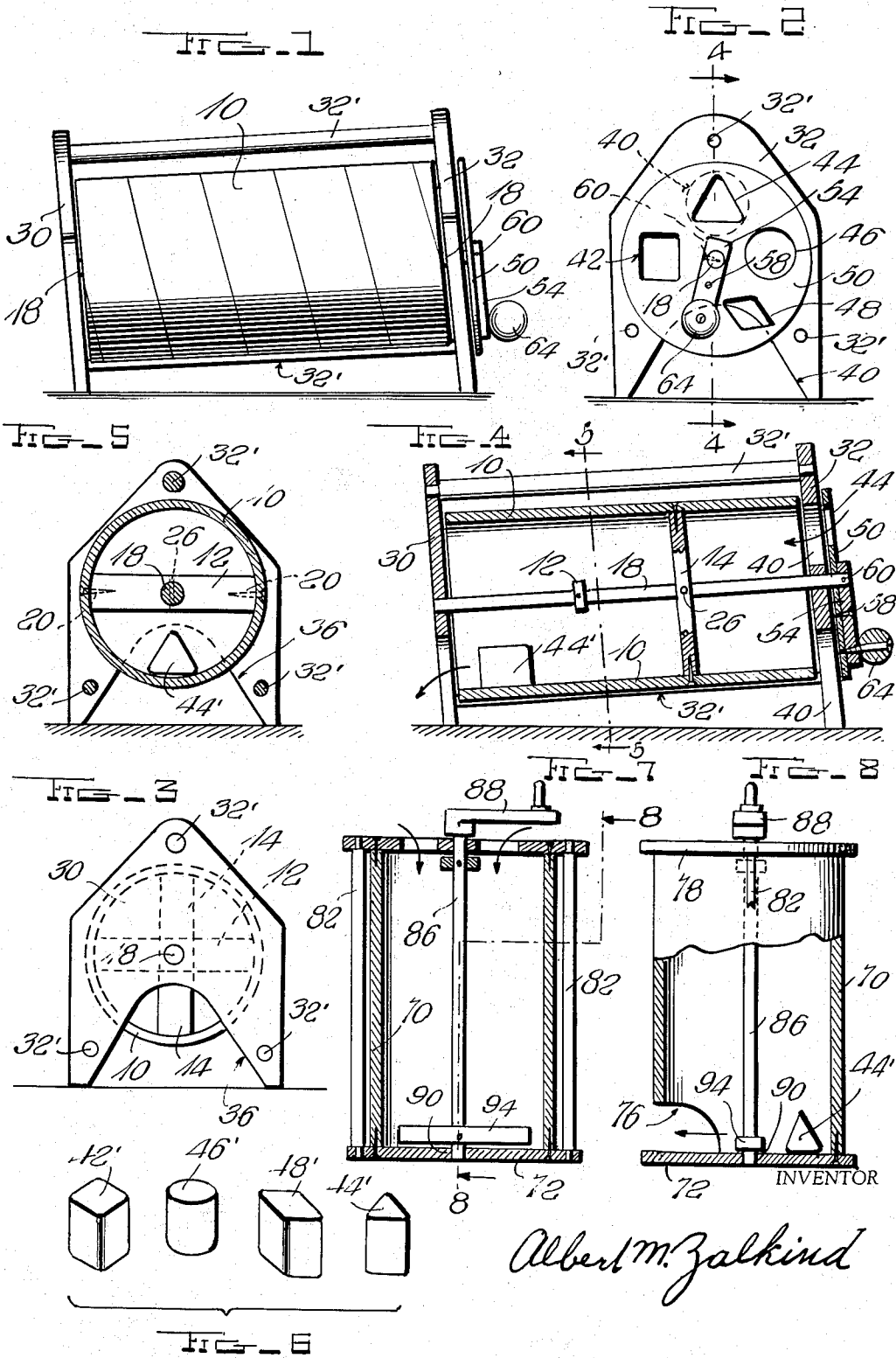
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PROFILE BLOCK TOY

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**PROFILE BLOCK TOY**

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2 Claims. (Cl. 35—8)

This invention relates to profile block toys and more particularly to a toy wherein the blocks are placed within a receptacle and expelled therefrom by a manually manipulative means.

It is an object of the invention to provide a structure simple in nature, easily operated, and rugged in construction. It is a further object of the invention to provide an economically manufacturable structure. It is an additional object of the invention to provide a toy which couples action and sound with the educational aspect of fitting shaped blocks into apertures of corresponding shape.

The basic concept of the invention comprises providing a receptacle having an end fashioned with an apertured closure where in the apertures are of varying geometric pattern through which profile blocks of corresponding pattern may be dropped. The structure further provides means for expelling the blocks from the receptacle by turning a crank. A detailed description of the invention will now be given in conjunction with the appended drawing in which:

Fig. 1 is an elevation of one form of the invention.

Fig. 2 is a view of one end of the form shown in Fig. 1.

Fig. 3 is a view of the opposite end of the form shown in Fig. 1.

Fig. 4 is a section taken through 4-4 of Fig. 2.

Fig. 5 is a section through 5-5 of Fig. 4.

Fig. 6 is a group perspective of the various blocks used in conjunction with the toy.

Fig. 7 is an elevation and section of a modification of the invention, and

Fig. 8 is a view on the section 8-8 of Fig. 7.

Referring to Figs. 1 through 6, the device comprises a cylinder 10 of fiberboard or other suitable material, having a pair of internal struts 12 and 14 disposed at right angles to each other on a dowel rod 18. The cylinder is supported on the struts and secured thereto as by nails 20, the struts in turn being supported on the dowel rod and non-rotatively secured thereto as by nails 26.

The ends of the dowel rod are rotatively supported in suitable bores in a pair of end plates such as the end plate 30 and the end plate 32, which form walls closing the otherwise open ends of the cylinder 10. The walls are dimensioned at their lower regions so as to provide a pronounced tilt to the cylinder as best shown in Figs. 1 and 4. Three dowel rods such as the rods 32' are fixedly disposed intermediate the walls externally of the cylinder so as to maintain the walls in fixed spaced relation. The wall 30 is cut with a large notch 36 upwardly from the bottom so as to expose the lower portion of the corresponding end of the cylinder while the wall 32 is provided with an aperture 40 of sufficient diameter to accommodate any block passed through the geometrically shaped apertures 42, 44, 46, and 48 provided in a plate 50. Plate 50 is mounted on shaft 18 and is rotative therewith by virtue of being secured to a crank arm 54 as by a screw 58 wherein said crank arm is keyed to the shaft 18 as by a screw 60.

A ball handle 64 is secured to the crank arm by a screw as shown. Thus it will be appreciated that by virtue of

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rotation of the crank handle, the plate 50 will rotate along with the shaft 18, struts 12 and 14, and cylinder 10.

In operation a child rotates the crank handle to align the various apertures 42 to 48 successively with the aperture 40 while dropping through the apertures various correspondingly shaped blocks, such as 42', 44', 46' and 48', as shown in Fig. 6. When all the blocks have been inserted, continued rotation of the crank handle causes the blocks to gravitate toward the lower end of the cylinder and to drop outwardly therefrom as will be evident from consideration of Figs. 3 and 4.

In the form of the invention shown in Figs. 7 and 8, a vertical receptacle 70 is utilized, which may be of cylindrical shape and which is disposed on a base plate 72 and is provided with an outlet opening 76 at the bottom. A top closure plate 78 having a plurality of geometrically shaped apertures therethrough, similar to the plate 50 of Fig. 2, is utilized. The plates 72 and 78 are secured in fixed spaced relation as by dowels 82, the cylinder 70 being secured in non-rotative relationship between the plates in any suitable manner as by cementing, nailing, etc. Disposed through the plate 78 is a shaft 86 terminating at its upper end in a crank handle 88 and at its lower end in a socket 90 in plate 72. An ejecting element 94 is secured to shaft 86 and disposed so as to rotate therewith with sliding clearance above the top surface of plate 72. Thus, when the crank handle 88 is rotated, any blocks which repose on plate 72 will be engaged by element 94 and whirled about and propelled outwardly of the receptacle through the opening 76 in a readily understandable manner. If desired, the element 94 may be in the form of a disc of substantially the inside diameter of cylinder 70. Thus, the blocks would fall onto the disc and upon rotation of the crank, the blocks would be propelled by centrifugal force through the opening 76.

It will be appreciated by persons skilled in the art that the concept described herein is subject to many variations and I do not seek to be limited to the specific embodiment herein disclosed, except as set forth in the appended claims.

I claim:

1. A profile block toy comprising a plate having a plurality of apertures therethrough of varying geometric pattern, means for rotatively supporting said plate, a relatively fixed wall having an aperture alignable with the apertures in said plate as said plate is rotated, a receptacle disposed to receive objects passed through said aperture in said wall, a plurality of blocks shaped to fit respective apertures in said plate so as to be insertable therethrough and through the aperture in said wall and into said receptacle, including means for rotating said plate to bring the apertures thereof into selective alignment with the aperture in said wall.

2. A profile block toy comprising a receptacle having a plurality of apertures at the top side thereof, said apertures varying in geometric pattern, a plurality of blocks shaped to be dropped through said apertures so as to fall to the bottom of said receptacle, a side opening disposed at the bottom of said receptacle, and rotative means within said receptacle for propelling said blocks radially outward thereof, a vertical shaft having an exterior crank and being connected to said rotative means and extending downwardly within said receptacle for actuating said rotative means whereby said blocks are propelled through said side opening by rotation of said crank.

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