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MOLDING TOY

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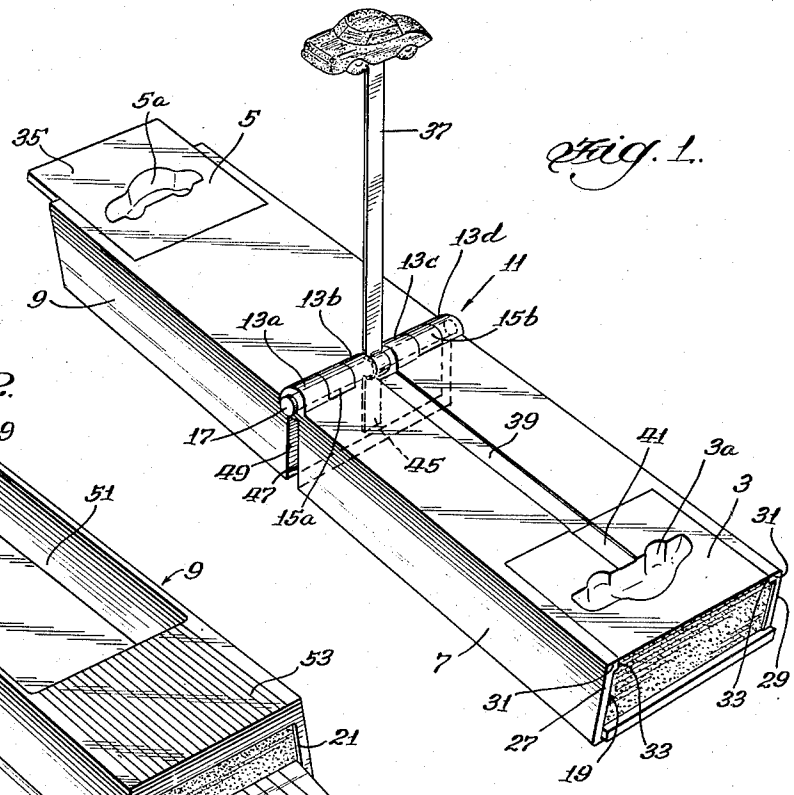


Fig. 1.

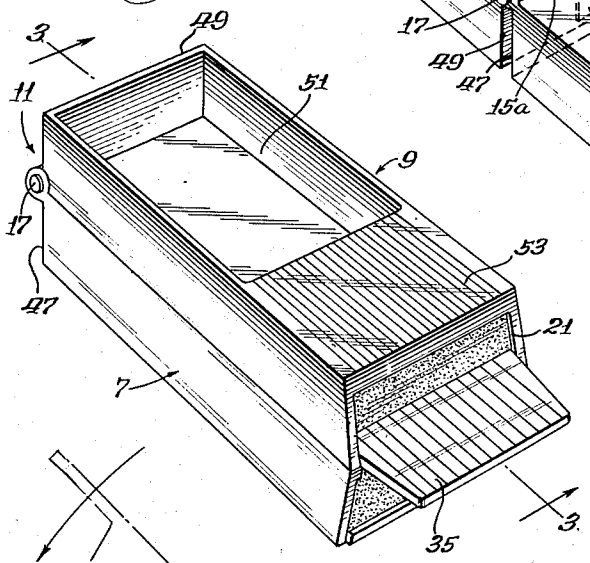


Fig. 2.

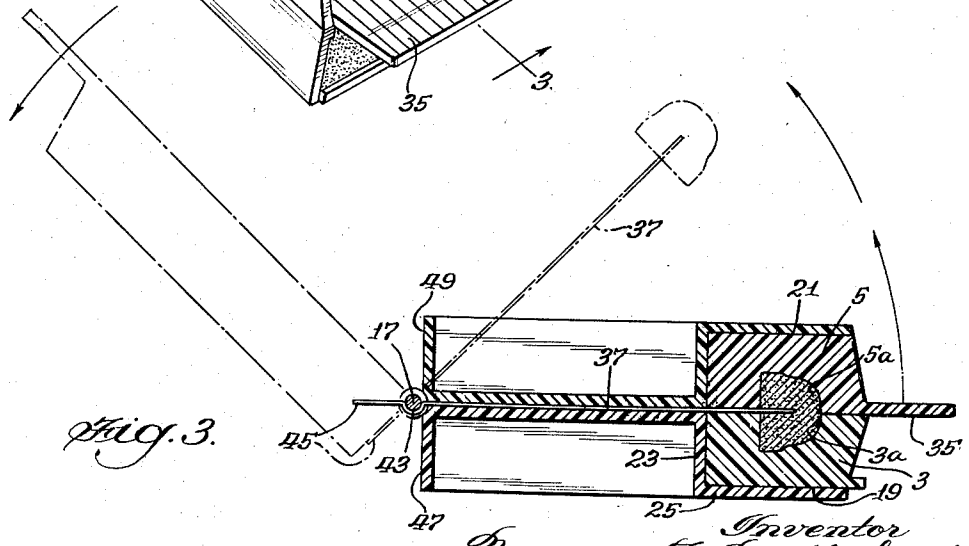


Fig. 3.

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MOLDING TOY

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The present invention relates generally to a molding toy and, more particularly, to a molding toy which can be readily operated by a child to mold articles from a moldable material or molding compound.

Various molding toys have been constructed to mold articles resembling animals, soldiers, Indians, cowboys, and other similar objects from a pliable molding compound. The present invention is adapted to provide a simple, inexpensive and easily operable molding toy which may be used to mold articles from plastic molding materials such as, for example, children's molding clay, molding compounds, etc. The toy is preferably designed so that it may be used to make a variety of articles. It is also designed to have a pleasing and attractive physical appearance.

Accordingly, the principal object of the present invention is to provide a molding toy which may be employed in molding a variety of articles, the toy being simple and inexpensive in construction and rugged and durable in use.

Further objects of the present invention will become known from the following description and the accompanying drawings of a preferred embodiment of the invention.

In the drawings:

Figure 1 is a perspective view of a molding toy embodying various features of the invention, the toy in Figure 1 being shown with the molds in the open position;

Figure 2 is a perspective view of the molding toy illustrated in Figure 1, showing the molds in the closed position; and

Figure 3 is a sectional view showing the manner in which the molding elements are opened and closed to produce the molding article.

The molding toy illustrated in the drawings includes a pair of cooperating molding members which include molds 3 and 5, each of which has a cavity 3*a* and 5*a*, respectively, therein. Each of the mold cavities 3*a* and 5*a* is, of course, shaped so as to provide a section of the object or article to be produced by the mold. As illustrated in the drawings, each of the molds 3 and 5 are supported at one end of an elongated mold support member, the mold 3 being supported in the mold support member 7 and the mold 5 being supported in the mold support member 9. The mold support members 7 and 9 may be formed from a suitable material as, for example, from plastic, metal, or the like. The mold support members 7 and 9 are hinged together at one of their ends, as illustrated at 11, so that the co-acting surfaces of the molds 3 and 5 may be brought together to form the object being molded. In this connection the mold support 7 is provided with hinge rings 13*a*, 13*b*, 13*c*, and 13*d*, and the mold support 9 is provided with hinge rings 15*a* and 15*b*. A hinge pin 17 is positioned in the hinge rings 13 and 15, as illustrated, to provide the hinge axis and the hinge action desired.

The end of each of the mold supports 7 and 9 opposite

the hinge 11 is provided with guideways 19 and 21, respectively, for receiving the molds 3 and 5. Each of the guideways 19 and 21 in the illustrated toy are similar. In order to provide the guideway 19, the mold support 7 is constructed to define a forward wall 23, a bottom wall 25, and a pair of side walls 27 and 29 for the guideway 19. The upper edge of each of the side walls 27 and 29 is provided with an overhanging ledge or channel 31 which is adapted to key the mold 3 in the guideway 19. The upper edge of the mold 3 is provided with grooves 33 to receive the channels 31 so as to key the mold and mold support together. The mold 5 is supported in the guideway 21 in the mold support 9 in the same manner. In order to provide a hand grip for applying pressure to the mold and to facilitate opening and closing the mold, one of the molds, in the illustrated toy, the mold 5, is provided with an extension 35, which is proportioned to extend beyond the end of the mold support 9. The extension 35 is desirably proportioned to be readily held by the hand and may be decoratively formed, as illustrated. Of course, the hand grip may also be provided integrally with one of the mold supports 7 or 9.

Preferably, as will hereinafter appear, the mold which is provided with the hand grip, i.e., the mold 5 is the top mold when the units are put together. In order to facilitate removing the molded article from the molds, a finger 37 is provided which is fabricated from a strip of metal or the like. The finger 37 is adapted to project into the mold cavity 3*a*—5*a*. The finger 37 is located, in the illustrated embodiment of the invention, between the hinge loops 13*b* and 13*c* of the hinge construction and is adapted to fit into a channel 39 along the parting line of the molds. In the illustrated structure, the channel 39 is formed in the mold support 7 and, in addition, the mold 3 which fits into the mold support 7 is provided with a similar channel 41 which extends into the mold cavity 3*a* so that the end of the finger 37 can project into the mold cavity 3*a*—5*a*.

The finger 37 is provided with a semi-circular section 43 which is adapted to fit around the hinge pin 17 and is provided with an extension 45 which is adapted to provide a camming action to move the finger 37 into and out of the mold cavity 3*a*—5*a* incident to the opening and closing of the hinged mold support members 7 and 9.

In operation, the mold supports 7 and 9 are opened into the position shown in Figure 1 which causes the camming end 45 of the finger 37 to be engaged by the ends 47 and 49, respectively, of the mold supports 7 and 9 so as to cause the finger 37 to assume a generally vertical position as illustrated. At that time the child can put the glob of molding material on the end of the finger 37 preparatory to making the molded object. The child then can by using the convenient handle provided by the extension 35 on the mold 5 raise the mold support member 9 and associated mold 5 which causes the finger 37 and the glob of molding compound to be lowered toward the mold 3 (see Fig. 3). At the point when the mold support 9 is in a generally vertical position, the material on the end of the finger 37 will lie in the mold cavity 3*a*. The mold support 9 is then moved downwardly to put the molds 3 and 5 into molding engagement and pressure is applied to the mold support member 9 so as to effect the molding of the article in the cavity 3*a*—5*a*. After the pressure has been applied and the molding material fills the cavity the mold is opened and the action of the end 49 of the mold support 9 as it is opened, engages the camming end 45 of the finger 37 and lifts the molded object out of the mold cavity 3*a* (Fig. 3). This then results in the molded article being presented to the child above the mold on the finger 37 as illustrated in Fig. 1.

The child can then lift the molded article from the finger for use as desired.

Of course, when the toy is distributed a number of sets of molds 3 and 5 having cavities which define a number of different objects would be made available to a purchaser so that the child can mold a number of different articles.

As illustrated in the drawings, the mold support members may be cut away to provide hollow sections 51 or the like which add to the decorative effect of the unit. Further, the surface of the unit over the molds where pressure is applied may be provided with serrations 53 which provide a better grip on the unit.

Various features of the invention are set forth in the appended claims.

I claim:

1. In apparatus of the class described for molding objects from a moldable material, a pair of mold members having mating surfaces which co-act to define a cavity which is adapted to mold a moldable material into the shape of said cavity under the influence of pressure applied to said mold members, hinge means at one end of said mold members for hingedly supporting said mold members for movement toward and away from one another said hinge including a hinge pin, one of said mating surfaces having a channel therein which extends from said hinge pin into said cavity, a finger which is pivotally connected to said hinge pin and one end of which lies in said channel and extends into said cavity whereby the article being molded is molded about the end of said finger and whereby the molded article may be removed from said cavity by means of said finger, and means connected to said finger for pivoting said finger into and out of said cavity, said means being actuated by said mold members as said mold members are pivoted toward and away from one another.

2. In apparatus of the class described for molding objects from a moldable material, a pair of mold members having mating surfaces which co-act to define a cavity which is adapted to mold a moldable material into the shape of said cavity under the influence of pressure applied to said mold members, hinge means at one end of said mold members for hingedly supporting said mold members at one end for movement toward and away from one another said hinge means including a hinge pin, one of said mating surfaces having a channel therein which extends from said hinge pin into said cavity, a finger which is pivotally connected to said hinge pin and one end of which lies in said channel and extends into said cavity whereby the article being molded is molded about the end of said finger and whereby the molded article may be removed from said cavity by means of said finger, and means for pivoting said finger into and out of said cavity incident to moving said mold members toward and away from one another which includes a camming member which is attached to said finger and which extends beyond said molding members and which is proportioned to be engaged by the hinged ends of said mold members as they are hinged about said hinge pin.

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