

March 26, 1957

I. BENKOE
MOLDED TOY LUGGAGE
Filed June 1, 1955

2,786,558

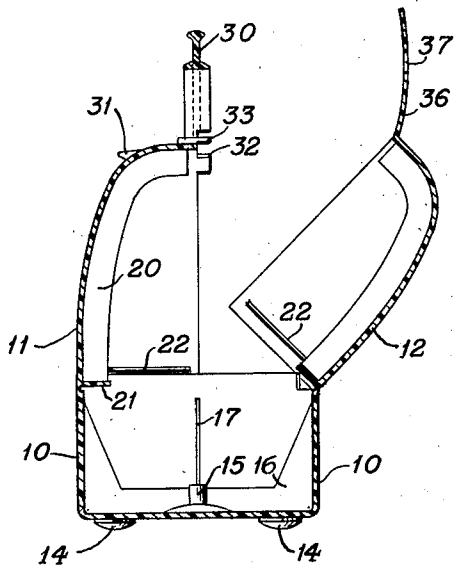


Fig. 1.

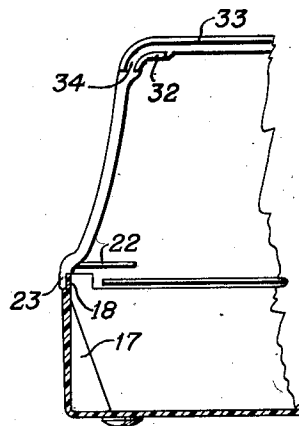


Fig. 2.

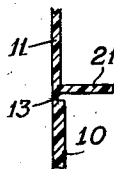


Fig. 3.

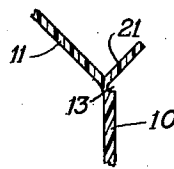


Fig. 4.

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1

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Application June 1, 1955, Serial No. 512,379

2 Claims. (Cl. 190—48)

This invention is concerned with toy cases made of molded plastic, and has as its object the production of such objects as toy doctors' kits, valises for dolls' clothes, and the like, characterized by low cost of manufacture, combined with sturdiness. Essentially, my invention comprises a box with a hinged cover made from a single molding, the hinge being produced by thinning out the mold at the hinge point to produce the hinge.

In the toy industry, it is necessary to produce small size duplicates of various products which are inexpensive and which will stand the abuse to which all toys are subjected. Where passive models are being produced, simple molding will do. But when small size replicas of working objects are concerned, the problem can be most difficult. This has been particularly true with such toys as doctors' kits, luggage for dolls' clothes, etc. The problem of producing inexpensive hinged lids which will stand abuse has always plagued the industry. Ordinary hinges, when reduced in size, are more difficult to apply, and are not as serviceable. A great many expedients have been resorted to, without solving the problem.

According to the present invention, I solve this problem by molding toy luggage from a flexible plastic with the body and lid as a single piece, thinning out the molded material at the line of contact between the body and the lid to a point where the plastic is easily bendable. This produces an integral sheet of plastic with a weakened line which acts as the hinge. Preferably, I reinforce the body and lid so that the normally yieldable plastic is made more rigid. The resultant product is inexpensive, and unusually sturdy.

The invention can be best understood by referring to the accompanying drawings, in which

Fig. 1 is an elevation, in section, through a toy doctor's kit, looking at it from its side.

Fig. 2 is a partial front elevation, in section, showing the reinforcement of the sides.

Fig. 3 is a broken away section through the hinge in closed position.

Fig. 4 is a broken away section through the hinge in open position.

The toy doctor's case shown in the drawings is a single piece molding made from a flexible plastic, preferably a flexible thermoplastic like polyethylene, Teflon (polyfluoroethylene) plasticized polyvinyl chloride, plasticized polyvinylidene chloride, etc. It comprises essentially a body portion 10 and lid portions 11 and 12. The mold is thickened at the lines of contact between the body and top portions to produce a thinned out line 13 of material, which acts as a hinge. The thickness of the material at this point depends on the plastic used—with polyethylene, for example, the body of the case may be of the order of .100 inch in thickness, the hinge portion about one-fifth as thick.

2

The base portion of the case has molded into it projecting knobs 14 which serve to lift the bottom of the kit from the surface on which it rests. A central reinforcing knob 15 connects reinforcing ribs 16 across the middle of the base dividing it into two compartments; together with triangular ribs 17 set in the middle of the ends of the base, they give the bottom structure rigidity.

The ends of the base beyond the hinge line have their tops cut away at the outside to provide shoulders 18, into which the ends of the top sections fit.

Both top sections 11 and 12 have central reinforcing ribs 20 and a ledge 21 projecting inwardly from the hinge, to act as further reinforcement. At the ends of the lids, just overlapping the ledges 21 ledges 22 are provided which act as reinforcing, sealing and stop pieces. They cooperate with portions 23 of the lids, which fit into the shoulders 18, to seal the ends of the bag.

The tops of the lid section 11 and 12 are constructed to fit into each other. The lid 11 carries a molded handle 30, a projection 31 on the outside of the lid, and curved projections 32 at its end which, with the edge 33 of the lid, form channels 34. The lid section 12 carries an integral hasp 36 with a hole 37 in it. On closing the bag, the edge of the lid section 12 fits under the edge 33 of the lid section 11, in the channels 34. The hasp overlies the section 11 and the assemblage is locked by hooking the projection 31 through the hole 37.

Obviously, the details of construction can be easily changed to provide other forms of toy valises and kits, without departing from the spirit of the invention, as defined in the claims.

I claim:

1. A toy doctor's case comprising a unitary molding of flexible thermoplastic material comprising a body portion and a pair of lid portions adapted to completely close the case when butted together and each comprising a curved top section and a pair of end sections, reinforcing ribs in the body portion and both lid portions, whereby a relatively rigid structure is obtained, the body portion being connected to both lid portions by integral connecting lines of the same material, of such minor thickness relative to the body portion and the lid portions that the material is sufficiently deformable to serve as hinges for the lid portions, downward projections at the ends of the top edge of one of the lid portions, separate projections formed on this lid portion just below the top edge and extending both horizontally and vertically at each end thereof, and spaced from the top edge to form channels into which the top edge of the other lid portion will fit and be held from sidewise movement, and means to lock the case with the lid portions in closed relationship.

2. The case of claim 1, in which the locking means comprises a projection on one lid portion which engages a hasp on the other lid portion.

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