Oct. 26, 1937. D. M. WARREN 2,097,267

TOY FIGURE

Filed March 30, 1936

Fig. 1

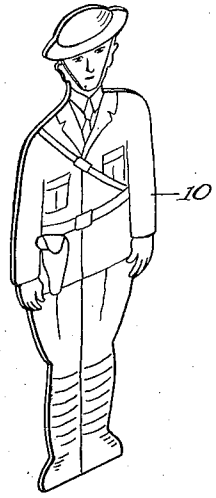


Fig. 4

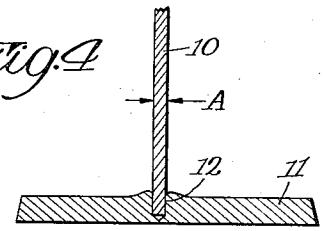


Fig. 5

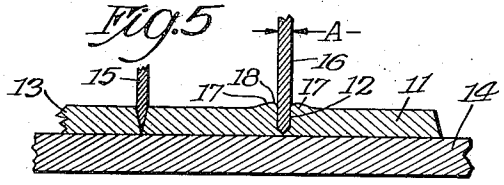


Fig. 2

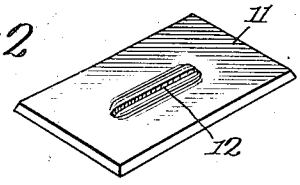


Fig. 6

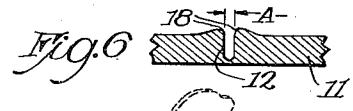
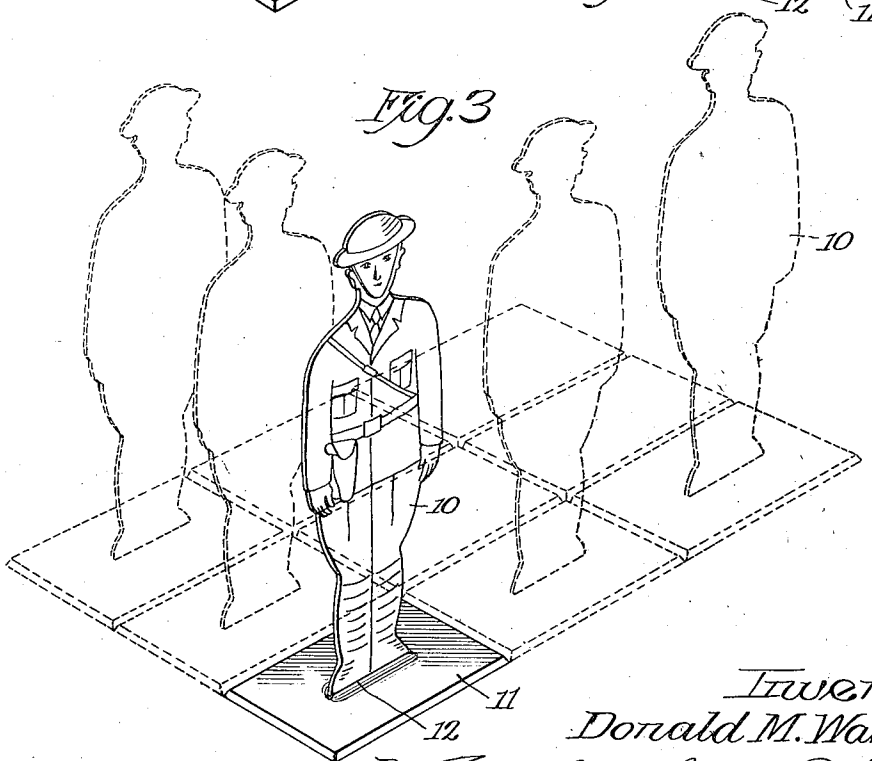


Fig. 3



Inventor:
Donald M. Warren
By Fisher, Clapp, Sears & Pond
Attys.

Patented Oct. 26, 1937

2,097,267

UNITED STATES PATENT OFFICE

2,097,267

TOY FIGURE

Donald M. Warren, West Lafayette, Ind.

Application March 30, 1936, Serial No. 71,602

2 Claims. (Cl. 46—157)

This invention relates to toy articles such as figures representing soldiers, Indians, and other characters with which children enjoy playing.

Toy figures of the general character herein contemplated have conventionally been made of metal, rubber, and other materials molded to the desired form, but such figures are objectionably expensive.

The main objects of the present invention are to provide a toy figure of the type indicated which will adequately represent the character intended, but which may be manufactured economically and at cost low enough to permit commercial selling of the articles at retail at a much lower price than is required for figures made of metal, rubber and other materials such as heretofore used.

Other objects and advantages will be understood by reference to the following specification and accompanying drawing, wherein there is illustrated a toy soldier embodying a preferred form of the invention.

In the drawing:

Figs. 1 and 2 are perspectives, respectively, of a toy soldier and a base therefor.

Fig. 3 is a perspective showing the figure assembled on a base and associated with other like figures.

Fig. 4 is a section through the base and the lower portion of the figure, illustrating the connection between the parts.

Fig. 5 is a sectional illustration showing the method of producing the base, and

Fig. 6 is a fragmentary section through a base as it appears before a figure is assembled therewith.

Referring now to the drawing, the figure, such as a toy soldier represented at 10 in Fig. 1, is stamped or cut from a sheet of fibrous material such as a fairly stiff and hard grade of paper board. Such figures may conveniently be produced in sheets containing any desired number of figures, the outline of the figure being cut in the sheet almost but not quite completely through the sheet, so that the set of figures will remain in sheet form until they are definitely separated. In sheet form they may conveniently be sold in sets of the desired number while occupying only the space necessary to receive a flat sheet of card board.

The base indicated at 11 in Fig. 2, also preferably comprises a fibrous material element such as card board. Like the toy figure, the base may also be made by cutting a sheet not quite completely through along the outlines of the base, so that sheets of bases may be sold in connection with sheets of figures in the same number. The base is provided with a slot or opening 12 which is adapted to receive the lower end portion of the figure 10, as clearly shown in Fig. 4.

In the production of the base 11, a sheet 13 of card board of the desired size and thickness is placed on a bed or platen 14 which is preferably of metal or other hard material. Suitable knives, such as indicated at 15 and 16, carried by a suitable form, are pressed downwardly into the sheet 13 to cut the same substantially as shown in Fig. 5. The knife 15 is a relatively sharp-edged knife which is operative to cut the sides with a fairly clean but slightly inclined edge as indicated. Knives such as 15 are arranged in the holder to correspond with the edges of the base which, in this instance, are shown as of rectangular form. Thus, all of the edges of the base are slightly beveled so that a neat appearance is obtained. The knife 16 which corresponds in length to the length of the opening 12 formed in the base, is a relatively blunt-edged knife which, in cutting its way into the base, has a definite tendency to displace the material of the base, such displaced material producing bulges indicated at 17, 17, on opposite sides of the slit or opening 12. Such bulges serve to increase the effective thickness of the base 11 on opposite sides of the opening 12, whereby firmness of the connection between the figure 10 and base is correspondingly increased. Also, by reason of the blunt-edged rule used for forming the opening 12, the bulged material 11, 17, is given a more or less rounded surface which merges into the inside surfaces of the opening so that insertion of the lower end of the figure is more easily effected. In Fig. 4, the thickness of the figure 10 is designated A. In Fig. 5, the thickness of the rule 16 which forms the opening 12 is designated A+ to indicate that the thickness of the rule is preferably slightly greater than the thickness of the figure. When the rule 16 is withdrawn, the opening 12 formed thereby closes up slightly so that when the rule is entirely removed the width of the opening becomes slightly less than the thickness of the figure and may be designated A— as shown in Fig. 6. By inspection of Fig. 6, it will be seen that rounded edges designated 18, 18 have an important function in guiding the lower end of the figure 10 into the narrow opening 12. Because of the inherent resiliency of fibrous material such as paper board or cardboard, the material of the base on opposite sides of the opening 12 will yield sufficiently to receive the lower end of the thicker figure.

Hence, the base will resiliently grip the lower end of the figure to effectively retain it and hold it in upright position.

It will be noted that no material is removed in forming the opening 12. Instead the material is displaced to form the bulges as already explained and to some extent the material on opposite sides of the opening is slightly compressed and thereby hardened, so that its durability for the purpose indicated will be increased. This is, of course, a highly desirable feature in connection with a toy figure such as that herein described which may be assembled and disassembled from time to time.

As shown in Fig. 5, the cutting knives 15 and 16 are not quite completely pressed through the cardboard sheet so that a very thin bond remains between the material of the sheet on opposite sides of the respective cuts formed by the knives. Hence, the cuts formed by the knives 15 do not serve to immediately separate the sheet into independent base units, but such units remain connected in sheet form by a very thin web which may be easily broken by the child when assembling the figures and bases. The toy figures 10 are cut in a sheet by knives such as 15 so that such figures also remain in sheet-like form until torn apart by the child. The length of the opening formed by the knife 16 is less than the corresponding dimension of the base 11, so that the opening 12 is spaced at all points from the periphery of the base.

In Fig. 3, one of the assembled figures is shown and the normal location of the other figures of the same set indicated in broken lines. It will be observed that the length and breadth of the bases are such that the edges of the bases are adapted to engage the edges of other adjacent bases to thereby properly space the figures. The broken line representation of a plurality of bases in Fig. 3, in connection with the one base illustrated in full lines, also serves to illustrate the appearance of a sheet of bases before the same is separated along the cuts made by the sharp-edged knives such as 15.

Toy figures such as above described may be produced at a cost which will permit retail selling at ten cents for a set of 36 figures and bases enclosed in an attractively lithographed box. Toy soldiers made of metal, rubber and other materials are commonly sold at a cost of ten cents per soldier for figures of approximately the same side as that contemplated in the paper sets of 36 above referred to. A recent innovation in toy figures of this type was the introduction of molded rubber figures of slightly smaller size than contemplated in the sets of 36 herein referred to. Such rubber figures were retailed at a cost of five cents each. It will be evident that the cost of such prior art structures makes the purchase thereof decidedly unattractive, especially in view of the normal requirement of a large number of such figures to provide any reasonable amount of play value.

In the drawing, the figure represents a soldier, but it will be apparent that other representations may be made.

Changes in the described details may be made without departing from the spirit of the invention, the scope of which should be determined by reference to the following claims, the same being construed as broadly as possible consistent with the state of the art.

I claim:

1. A toy article comprising a normally flat, rigid, and solid fibrous material base having a slot therein spaced in all directions from the periphery of the base and so formed that at least some of the material of the base normally occupying the space of said slot is piled up on the opposite sides of the slot to thereby increase the thickness of the base adjacent the sides of said slot, and a sheet material figure disposed in upwardly extending relation to said base and having a lower end portion inserted in said slot, the thickness of said figure being such that said lower end portion snugly fits between and frictionally engages the side walls of said slot, whereby said base is detachably secured to said figure, the base being of sufficient area to support said figure in predetermined upright position on a surface.

2. A toy article comprising a normally flat, rigid, and solid fibrous material base having a slot therein spaced in all directions from the periphery of the base and so formed that at least some of the material of the base normally occupying the space of said slot is piled up on the opposite sides of the slot to thereby increase the thickness of the base adjacent the sides of said slot, and a sheet material figure disposed in upwardly extending relation to said base and having a lower end portion inserted in said slot, the thickness of said figure being such that said lower end portion snugly fits between and frictionally engages the side walls of said slot, whereby said base is detachably secured to said figure, the base being of sufficient area to support said figure in predetermined upright position on a surface, said slot being provided with a flaring mouth to facilitate insertion of said snugly fitting figure portion.

DONALD M. WARREN.