April 13, 1954 L. W. SCHAPER 2,674,827

TOY FIGURE BUILDING SET

Filed Aug. 3, 1950

2 Sheets-Sheet 1

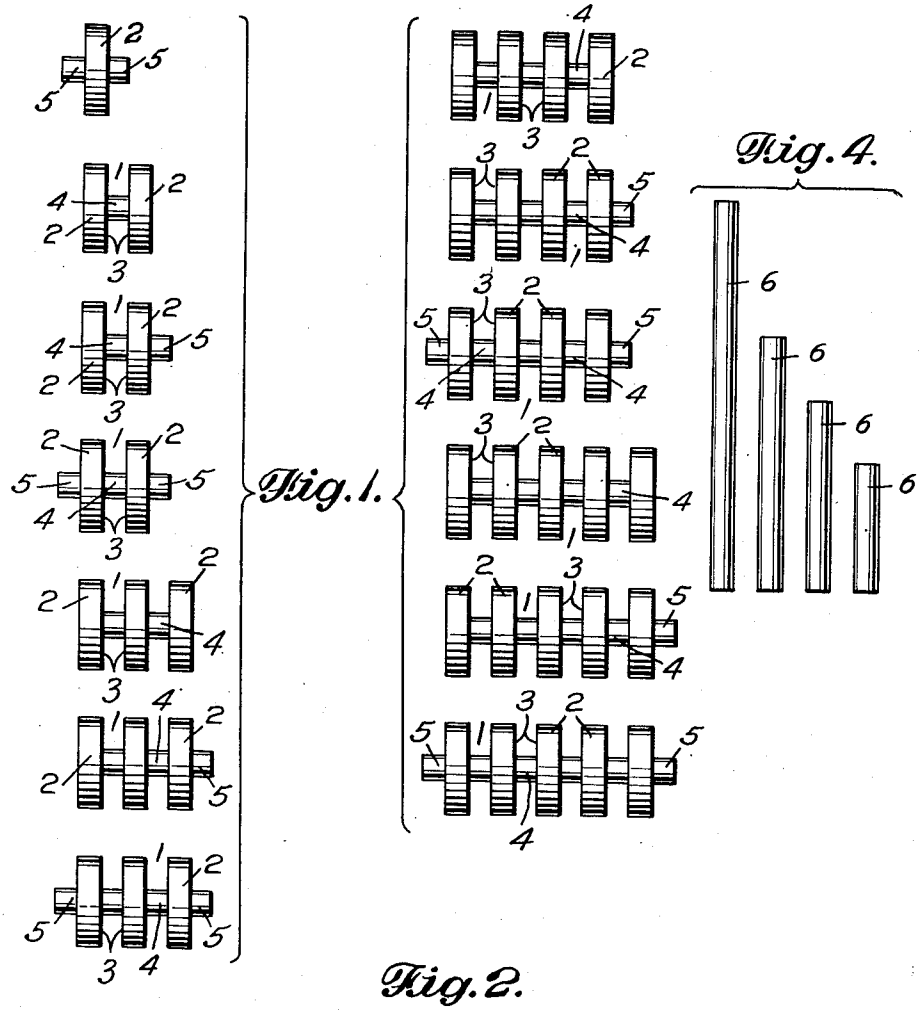
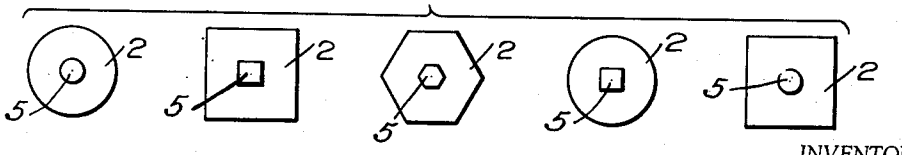


Fig. 1.

Fig. 4.

Fig. 2.



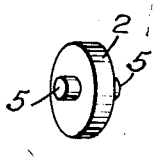


Fig. 3.

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TOY FIGURE BUILDING SET

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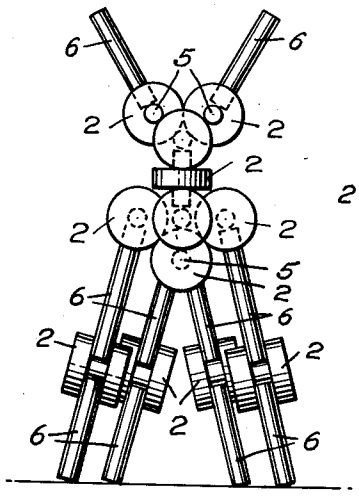


Fig. 6.

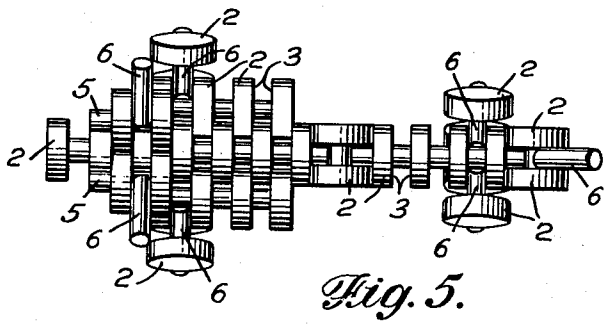


Fig. 5.

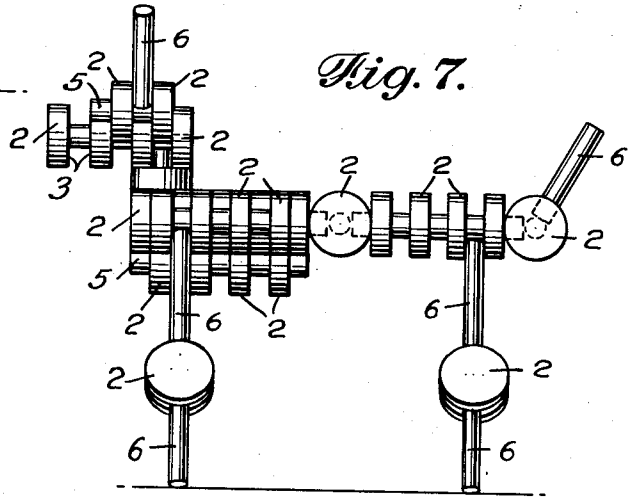


Fig. 7.

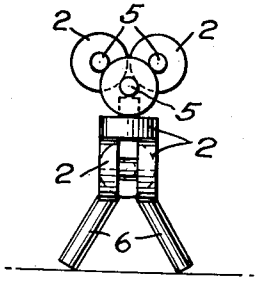


Fig. 9.

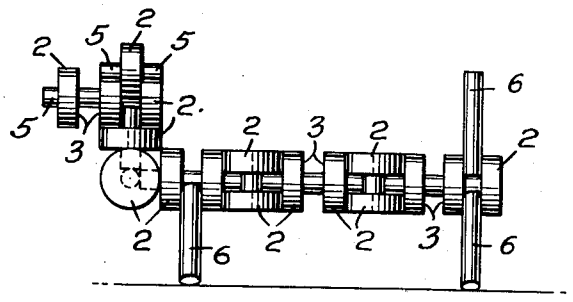


Fig. 8.

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UNITED STATES PATENT OFFICE

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TOY FIGURE BUILDING SET

Leonard W. Schaper, West Orange, N. J.

Application August 3, 1950, Serial No. 177,462

4 Claims. (Cl. 46—22)

1

The invention relates to toy figure building sets, an object of the invention being to provide such a set comprising a plurality of elongated units, each of which is provided with a continuous succession of duplicate transverse collars and duplicate transverse grooves between the collars, certain of the units having at the ends thereof duplicate axial tenons, any collar of any unit being tightly engageable within any groove of any other unit parallel thereto to form a joint, the tenon of any tenoned unit being tightly engageable within any groove of any other unit at right angles thereto to form a joint, the units varying with respect to the numbers of collars and grooves and consequently varying in length, whereby a plurality of toy figures of varying forms and dimensions may be built with the units alone, without the use of any other parts of a different nature. Other objects and advantages will appear hereinafter or will be obvious.

The invention consists in the novel construction and combinations of parts as hereinafter set forth in the claims.

In the accompanying drawings,

Figure 1 is a side view of thirteen individual units of the set.

Figure 2 shows end views of units having modified forms of collars and modified forms of tenons.

Figure 3 is a detail perspective view of the shortest unit of the set.

Figure 4 is a side view of different length straight rods that may be used with the set to provide legs, ears and tails of toy animal figures built with the set.

Figure 5 is a top plan view of one of the toy figures built with the set.

Figure 6 is a front view of the same.

Figure 7 is a side view of the same.

Figure 8 is a side view of another toy figure built with the set.

Figure 9 is a front view of the same.

In the drawings, Fig. 1 shows the elongated units of the set, comprising each a central shaft 4, and a continuous succession of duplicate transverse collars 2 forming rigid parts thereof and regularly spaced to provide duplicate transverse grooves 1 between the collars, said collars having their side walls 3 parallel to one another and being of the same width as that of said grooves, certain of the units having at the ends thereof duplicate axial tenons 5 forming extensions of said shaft and of the same width as that of said grooves. The set also comprises a shortest unit having one collar only and no groove and a next shortest unit having two collars and only one

2

groove. The units vary with respect to the numbers of grooves and collars thereof and consequently vary in length. The units of the set may be formed each integrally in a single piece. The units vary regularly with respect to the numbers of grooves and collars thereof and vary progressively in length to the extent of one collar and one groove from said shortest unit to each progressively longer unit.

Any collar 2 of any unit is tightly engageable within any groove 1 of any other unit parallel thereto to form a joint, and any tenon 5 of any tenoned unit is tightly engageable within any groove 1 of any other unit at right angles thereto to form a joint, whereby toy figures of varying forms and dimensions may be built with the units alone, without the use of any other parts of a different nature.

A plurality of straight rods 6 of different lengths may be used with the set, the end portions of said rods being tightly engageable within grooves of the units for the purpose of providing legs, ears and tails of toy animal figures built with the set.

In the toy figures built with the units shown in Figures 5–9 of the drawings, forward and rear units of the bodies of the toy figures have the grooves thereof located vertically transversely of the toy figures, so that two forward laterally spaced rod legs 6 and two rear laterally spaced rod legs 6 may be engaged with said grooves to support the toy figures in stable equilibrium. In the toy figure shown in Figures 5–7 of the drawings, the forward and rear units of the body of the toy figure are laterally spaced from each other, so that the rod legs 6 thereof are laterally spaced to a greater extent than are the rod legs 6 of the toy figure shown in Figures 8 and 9 of the drawings, and consequently better support the toy figure in stable equilibrium.

It is preferred to employ twelve units arranged in groups of three units to the group, each unit of the first group having two collars and only one groove, each unit of the second group having three collars and two grooves, each unit of the third group having four collars and three grooves and each unit of the fourth group having five collars and four grooves, a thirteenth unit having one collar and no groove. The units of each group have successively no tenons, one tenon and two tenons. There may be more or less than thirteen units, and the units of each successive group may have more than one additional collar and groove. A number of duplicates of each of the thirteen units stated may be provided to make up

a variable total number of units for a complete set.

The collars 2, the shaft 4 and the tenons 5 are all preferably cylindrical, but may be of polygonal form, as shown in Figure 2 of the drawings. The units of the set may be composed of any suitable material and may be machine made of wood or molded from plastic or the like.

The invention is subject to modifications coming within the scope of the claims.

I claim:

1. A toy figure building set, comprising a plurality of elongated units having each a central shaft and a continuous succession of duplicate transverse collars forming rigid parts thereof and regularly spaced to provide duplicate transverse grooves between the collars, said collars having their side walls parallel to one another and being of the same width as that of said grooves, certain of said units having at the ends thereof duplicate axial tenons forming extensions of said shaft and of the same width as that of said grooves, any collar of any unit being tightly engageable within any groove of any other unit parallel thereto to form a joint, any tenon of any tenoned unit being tightly engageable within any groove of any other unit at right angles thereto to form a joint, whereby figures of varying forms and dimensions may be built from the units alone.

2. A toy figure building set as claimed in claim 1, characterized in that the shaft, the collars and the tenons are all cylindrical.

3. A toy figure building set, comprising a plurality of elongated units each of which is formed integrally in a single piece, said units having each a continuous succession of duplicate transverse collars regularly spaced to provide duplicate transverse grooves between the collars, said collars having their side walls parallel to one another and being of the same width as that of said grooves, certain of said units having at the ends thereof duplicate axial tenons of the same width as that of said grooves, any collar of any unit being tightly engageable within any groove of any other unit arranged parallel thereto to form a joint, any tenon of any tenoned unit being tightly engageable within any groove of any other unit arranged at right angles thereto to form a joint.

4. A toy figure building set as defined in claim 3, characterized in that the collars and the tenons are cylindrical.

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