

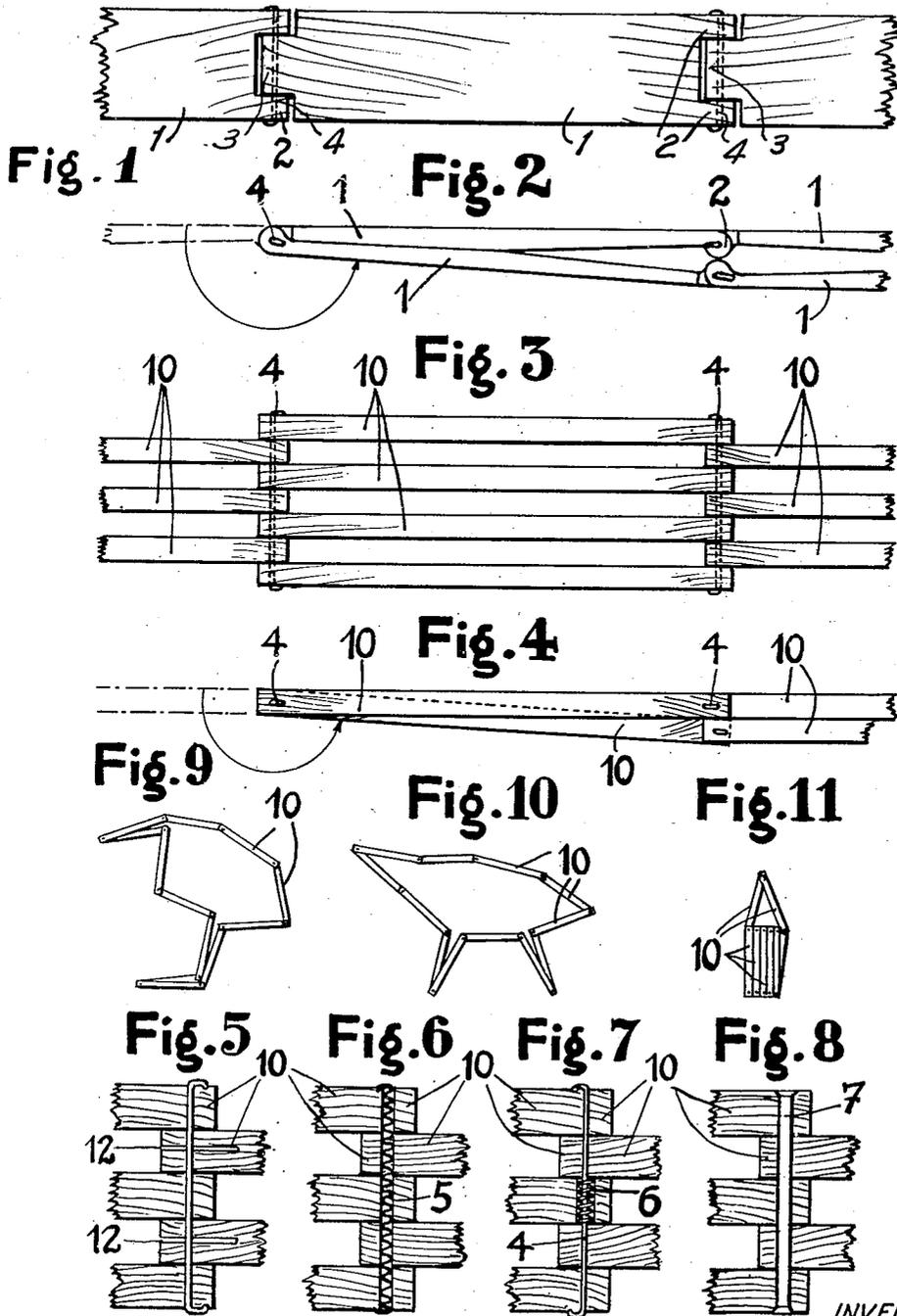
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TOY CHAIN

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TOY CHAIN

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1 Claim. (Cl. 46-1)

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The present invention relates to a toy. The toy according to the invention is essentially composed of pivot-jointed members the width of which is a multiple of their thickness, and which are designed in such a way that two adjacent members can be folded closely together.

Each member can consist of a single plate, but preferably each member is composed of a number of parallel bars, which are connected to each other by means of a pivot-pin and interlock with the bars forming the adjacent members. The whole is formed as a closed ring, and, according to the imagination of the user, allows a great number of permutations in the position of the various members so as to form the outlines of a multitude of figures such as ornaments, houses, animals, etc. This device can also be used as an object for demonstrations of geometrical conceptions.

It is an object of the present invention to provide a device of the type outlined above in which the width of the members, i. e. their extension in the direction of the longitudinal axis of the pivots or of the axis of rotation of the hinges, is greater than their thickness and in which the hinges have sufficient friction to hold the formed shapes, whereby the shapes can be stood in upright position.

Two embodiments of the object of toy according to the invention are shown schematically by way of example only in the accompanying drawing, in which:

Fig. 1 is a plan view of a first embodiment of the toy and

Fig. 2 a modified view thereof;

Fig. 3 is a plan view of a second embodiment of the toy and

Fig. 4 a modified side view of same;

Figs. 5-8 show, at a larger scale, four alternatives of the pivoted joint of the second embodiment of Figs. 3 and 4 in section;

Figs. 9 and 10 show, on a smaller scale, two examples of figures which can be built, and

Fig. 11 the toy folded together.

In the first embodiment, shown in Figs. 1 and 2, each member 1 is designed as a rectangular plate, which has a projection 3 at one end and two projections 2 at the other end, which are arranged in such a manner that the projection 3 fits exactly between the projections 2 of the adjacent member and together with the two latter forms a hinge which is held together by a wire-pin and thereby allows any desired pivoting motion of the members. On the inner side each member is tapered off from the middle portion

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towards each end so that, as can best be seen in Fig. 2, each two adjacent members can be folded closely together. All the members are joined together to form a closed ring, which can have five or more members. The larger the number of members is, the greater the variety of representable figures will be, and the large width of the members allows the figures to be stood upright.

In the embodiment shown in Figs. 3 and 4, each member consists of a number of parallel bars 10, which interlock and are joined together by the hinge-pin 4 so that they may be turned as desired. The members consist alternately of 3 and 4 bars respectively, but each member could have the same number of bars. When folding together, the bars of one member come to lie between the bars of the adjacent member so that, as can be seen in Fig. 4, each two adjacent members can be laid closely together.

With larger numbers of members it is desirable to provide a resilient friction pressure at the joints, in order to obtain a greater stability of the whole. This can be realised in different manners. As shown for example in Fig. 5, two bars of a member can have longitudinal slots 12 arranged at their ends so that when the wire-pin 4 is tightened the ends produce a springlike action. As is shown in Fig. 6, a coil spring 5 under tension could be fitted into a bore traversing through all the bars at the pivot, or, as is illustrated in Fig. 7, a coil spring 6 under compression could be inserted into a bore passing concentrically with the wire-pin through only one of the bars. As a further arrangement, as shown in Fig. 8, a metal tube 7 could be inserted at each pivot and the ends of said metal expanded by means of a centre-punch thereby pressing the bars 10 closely together. Another way would be to fit spring washers between each individual bar.

In Figs. 9 and 10 two examples of figures of animals are shown, which can be represented with the embodiment shown in Fig. 3 having thirteen members, and Fig. 11 shows how little space the folded toy requires, so that, for example, it can easily be taken along on a journey by children.

The toy has no delicate parts nor any parts which might cause injuries.

The members or bars may be made of wood or any plastics and, when produced in large quantities, the whole can be manufactured cheaply.

The individual members can all be of the same

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length, or can also be alternately longer and shorter.

As the toy stimulates the imagination of the child better than finished figures, it also has an educative value.

We do not limit our invention to the structure shown and described as modifications; within the scope of the appended claim, changes may be made without departing from the spirit of our invention.

Having thus described the invention, what we claim as new and desire to secure by Letters Patent is:

A foldable toy chain adapted to be manipulated into a great number of different shapes, comprising, in combination, at least five link means pivoted together at their ends to form a closed ring, each of said link means being composed of a plurality of bars spaced apart and disposed parallel to one another and with the bars of one link means extending between and overlapping the ends of the bars of the link means pivoted thereto, and pivot means consisting of a spiral spring extending transversely through all of said bars at each pivotal point between adjacent link means and fastened at its ends to the outermost bars at said pivot point, said spring being so tensioned as to produce a tight but manually adjustable fit between all of

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said bars at the pivotal point to resist pivotal action between adjacent link means one with respect to the other, whereby each link means may be readily held in a fixed position with respect to an adjacent link means in the forming of various shapes and figures.

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