April 15, 1941.

W. STEINHILBER

2,238,455





PATENT OFFICE UNITED STATES

2,238,455

MARIONETTE

Walter Steinhilber, New York, N. Y.

Application October 4, 1939, Serial No. 297,787

15 Claims. (Cl. 46-126)

This invention relates to marionettes and has for its primary object the provision of a marionette which can be easily constructed of cardboard, paper or similar inexpensive sheet material; which can, because of its construction, as-5 sembly and material, be sold in dissembled or "knock-down" condition for subsequent assemblage by the purchaser, and which through the simple, articulated connections between the parts, will operate in a fascinating, natural and amusing 10 manner.

Another object of the invention is to provide a marionette which can be easily assembled from sheet material without requiring extraordinary effort or skill; in which most of the parts of the 15 marionette constitute cut-outs which may be supplied in sheet form, cut-out or otherwise detached from the sheet and assembled with a minimum of effort.

Still another object of the invention consists 20 in the provision of a marionette of the character mentioned, wherein simple but freely flexible joints are provided to thereby enable the marionette to be easily manipulated by persons with no or little experience in marionette opera- 25 tion.

These and other objects are accomplished by the invention, a more particular description of which appears hereinafter and is set forth in the annexed claims.

In the annexed drawings forming a part hereof, Fig. 1 is a perspective view of a marionette constructed in accordance with the invention; Fig. 2 is a sectional view on the line 2-2 of Fig. 1, lookin the direction of the arrows; Fig. 3 is a rear 35 view of the head of the marionette with parts broken away to disclose construction; Fig. 4 is a sectional view on the line 4-4 of Fig. 2, looking in the direction of the arrows; Fig. 5 is a perspective view from the rear of the marionette, 40. with parts of the trunk broken away; Fig. 6 is a face view of the trunk in an unfolded or flattened condition; Fig. 7 is a similar view of the combined trunk stiffener and legs of the figure; Fig. 8 is a vertical sectional view of a modified structure 45 wherein an articulated hip or waist-line joint is provided; and Fig. 9 is a sectional view on the line 9-9 of Fig. 8, looking in the direction of the arrows.

In the construction of the improved marionette, 50it is preferable that the major portions of the same, if not all of it, be constructed of inexpensive sheet material such as relatively thin cardboard or the like. When constructed of such material, the parts of the body of the marionette may be 55 ing a supplemental or transverse stiffener, as well

lithographed, printed or otherwise embellished in sheet form so that the same may be packed in relatively small space, can be easily assembled and possess the necessary flexibility and toughness to withstand the rough handling to which marionettes are sometimes subjected.

The backbone of the body structure of a marionette constructed according to the present invention, comprises a stiffening element I which is preferably composed of a substantially thick, tough cardboard, fibre or the like. The member is formed with a wider lower end portion 2 which serves to lend shape to the trunk portion 3 that is rolled or wrapped around it to form a cylinder or cone. The trunk portion 3 is shown in flattened condition in Fig. 6 where it will be seen that the same is formed with locking lugs 4 extending from one of its ends for interengagement with the slots 5 near its opposite end. The trunk portion 3, when rolled or curled around the stiffening member 1, has the lugs 4 engaged with slots **5** as shown in Fig. 5 whereby the trunk portion is formed into roughly conical shape and

provides a body part of seeming thickness. Provided on the upper end of the trunk portion 3 is a pair of flaps 6, each of which is provided with a locking tongue 7 adapted to engage with one of the slots 8 formed in the trunk portion near its upper edge. When the trunk portion is wrapped around the stiffening member I in the 30 manner illustrated in Fig. 5, the flaps 6 are folded down as shown to permit interengagement of the tongues 7 with slots 8 and thus form shoulder portions on the trunk of the figure. Flaps 6 are also provided with tongues 9, which are folded downwardly upon the dotted lines 10 (Fig. 6) to form abutments against the opposite faces of the stiffener I and generally reinforce the construction.

The trunk 3 is also provided with triangulated tabs 11 which are distended outwardly on the dotted lines 12 to form the appearance of pro-jecting lapels on the "coat" of the figure. The curved slits 13, formed in and extending upwardly in the trunk portion of the figure, cooperate in the formation of the "coat" so that when the trunk 3 is rolled around the stiffening member 1, these coat portions, shown at 14, will project outwardly from the body of the marionette, as shown in Figs. 1 and 2, and lend naturalness to the figure.

Co-operating with the stiffener | in adding rigidity to the trunk structure, is the member shown at 15 in Fig. 7. Said member, constitut-

as forming the arms and legs of the figure, is preferably composed of relatively thin and flexible cardboard, preferably of lighter weight and of greater flexibility than the stiffener 1. It includes a body portion 16 provided with a vertical slot 17 with which the stiffener | engages, said stiffener I being formed with an elongated slot 18 enabling it to fit over or straddle the portion of the body part 16 above the upper end of the slot 17. Thus, when the two parts | and 15 are interlocked in 10 the manner described, the plane of one of said members extends at right angles to that of the other, so that the trunk portion 3 enclosing both of said members is stiffened at the front and back as well as at the sides.

Member 15 is provided with integrally formed arms 19, which in the assembled structure, project out of the trunk 3 under the flaps 6, said arms being transversely folded at the points 20, 21 and 22 to provide flexible, freely pivotal 20 shoulder, elbow and wrist joints. Hands 23 of any suitable material, such as heavy cardboard, wood, plastic substance such as papier-mâché or the like, are attached to the flaps 24 on the ends of the arms by any suitable attaching means such 25 as by an adhesive substance with which these flap portions are coated and which requires merely the application of water to render it adhesive and thus facilitate the attachment of the hands to the flaps. The hands constitute 30 weighted members normally tending to hold the arms down.

Dependent from the lower end of the body portion 16 of member 15 are the legs 25 which are preferably formed integrally with the body 35 portion, the legs having the transverse folds 26, 21 and 28 providing the articulated, freely flexible, hip, knee and angle joints. At the lower end of the legs, flaps 29 are provided to which feet 30 may be attached, the feet consisting of 40 weighted foot-shaped sections of heavy cardboard, wood or plastic material. Flaps 29 may be coated with an adhesive material rendered sticky by the application of water, so that these flaps may be easily adhesively attached to the feet 30 without the use of tools or fastening elements. At its lower end, the trunk portion 3 is formed with a pair of locking tabs 31 which enter the slots 32 formed in the member 15 at the junction of the trunk portion 16 and legs thereof. 50

With the arrangement of tabs and slots heretofore described, it will be seen that the entire body of the marionette may be assembled by anyone without the use of tools and without the use of adhesive except that provided on the 55 tabs 24 and 29 for the attachment of the hands and feet. At the same time, the body of the marionette is stiffened by the reinforcing or stiffening members so that a rigid, sturdy structure is provided. 60

At its upper end the stiffening member 1 is formed with a hook 33 which projects above the top of the trunk of the marionette and is adapted to engage with the eye or loop portion 34 formed on the lower end of a head stiffener 35. The head 65 are required to assemble the device. In spite stiffener 35 consists of a section of relatively stiff cardboard or the like and a section of flexible material such as light-weight cardboard, shown at 36, is rolled around the stiffening member 35 to form a cylindrical head for the marionette. 70 The outer surface of the head portion 36 is printed, embossed or otherwise embellished with features such as shown in Fig. 1. The stiffening member 35 is provided with a pair of lugs 37

15

portion 35 and are printed or otherwise embellished to represent ears on the head. A stiffening member 38 extends transversely of the stiffener 35 and engages therewith by means of slot 39. Member 33 is provided with a projecting lug 40 which bears against a tongue 41 forced out of the body of the head 36, said tongue 41 constituting the nose of the figure and, being extended forwardly in the manner described. lends realism to the figure.

The head portion 35 is curled or rolled around the crossed stiffening members as clearly shown in Fig. 4, and is maintained in such rolled or curled position by means of the locking lug 42 on one end of the head portion engaging in the slit 43 provided near the opposite end of the head portion. Various parts of the figure, such as the feet 30, hands 23, ears 37 and back of the trunk 3 are attached to the operating cords 44, said cords extending to the conventional animating stick used for marionette manipulation.

From the foregoing, it will be seen that a marionette is provided, which may be constructed wholly out of cardboard, and which may be completely assembled without the use of tools, fastening members or other means tending to render the assembly difficult. The hook-and-eye connection between the head and body of the figure is such as to provide a loose, articulated joint which enables the head to be moved humorously on manipulation of the marionette. The transverse folds in the arms and legs provide loose joints which enable the limbs of the marionette to bend freely and flexibly at these points so that very natural movements can be imparted to the figure by manipulation of the operating cords.

In Figs. 8 and 9 is shown a slightly modified structure particularly adapted for example, for the production of female figures. The general structure of this marionette is similar to that previously described, except that the stiff member I is formed at its lower end with a hook portion 45 which loosely engages in an eye 46 formed on the upper end of the legs 49 of the figure. The leg portions 49 of the figure are surrounded by a conical element 50 of flexible cardboard or similar material, this element representing the skirt on the figure. The same is held in position by the projections 43 on the leg portion 49, said projections entering into slots 47 at the upper end of the skirt portion 50. In this type of figure, the provision of an articulated joint at the waist of the marionette enables animation to be imparted to the lower part of the figure at the waist to simulate the movement of a female dancer.

The construction of the marionettes herein described is such that many interesting and humorous figures may be produced, as will be clearly understood. The materials employed permit the marionette to be sold in knock-down form and the assembly of the same is so simple that the task of fitting the parts together is one which can be successfully undertaken by children, since no tools, fasteners or similar devices of the fact that the entire marionette may be constructed from sheet material, the elements thereof are so folded and stiffened at the necessary points that a sturdy structure, capable of withstanding rough handling results. At the same time, the folding and assembly of the various parts is such that a third dimensional effect is produced and the marionettes compare favorably in appearance with those constructed which project through slots formed in the head 75 of other and more expensive materials.

What I claim is:

1, In a marionette, a stiffening member composed of relatively stiff sheet material, a trunk portion composed of flexible sheet material rolled around and secured about the stiffening member, 5 said stiffening member having a portion projecting above the upper end of the trunk portion, a head articulatively connected to the projecting portion of the stiffening member, said articulated connection comprising a hook-and-eye engage- 10 said stiffening members being upwardly extended ment between the head and projecting portion of the stiffening member.

2. In a marionette, a stiffening member composed of relatively stiff sheet material forming a backbone for a trunk, a trunk portion composed 15 the trunk portion, said arms and legs having of a sheet of flexible material rolled around said backbone to enclose the same, the upper end of said backbone being formed with a hook portion projecting above the top of the trunk, a head having a downwardly extending eye por- 20 tion on one of the stiffening members. tion for articulative engagement with said hook portion, and legs of flexible sheet material attached to the trunk.

3. In a marionette, a stiffening member composed of relatively stiff cardboard, a trunk con- 25 sisting of a sheet of relatively thin and flexible paper rolled around the stiffening member to thereby enclose the same, the stiffening member being provided with an integrally formed hook at its upper end projecting out of and above 30 the trunk, a head comprising a rolled section of paper, a head stiffener enclosed in the head and formed with an eye portion for detachable, articulative connection with the hook, and flexible paper legs attached to and dependent from 35 the trunk, said legs being provided with transverse folds forming knee joints.

4. In a marionette, a stiffening member composed of relatively stiff cardboard, a trunk consisting of a sheet of relatively thin and flexible 40paper rolled around the stiffening member to thereby enclose the same, the stiffening member being provided with an integrally formed hook at its upper end projecting out of and above the trunk, a head comprising a rolled sec- 45 tion of paper, a head stiffener enclosed in the head and formed with an eye portion for detachable, articulative connection with the hook, flexible paper legs attached to and dependent from the trunk, said legs being provided with 50 transverse folds forming knee joints, and weights attached to the lower ends of the legs, said weights simulating feet.

5. In a marionette, a trunk portion composed of a sheet of cardboard rolled into cylindrical 55 form, a pair of stiffening members within said trunk portion, the plane of one of said stiffening members extending at an angle to that of the other, one of said stiffening members being formed with downward extensions comprising 60 legs for the marionette, means on the upper end of the other stiffening member constituting a connection for a head, and a head having an element adapted for engagement with said means, the engagement between said head and 65 means being in the form of an articulated joint.

6. A marionette having a trunk portion of rolled sheet material, a stiffening member of sheet material disposed within said trunk portion, said stiffening member having arms extend- 70 ing outside of the trunk portion, said arms having transverse folds to form shoulder, elbow and wrist joints, the stiffening member having extensions disposed below the trunk and forming iegs, said legs being integrally formed with the 75 the interior of the rolled sheet and formed with

stiffening member and having transverse folds forming hip, knee and ankle joints, weights constituting feet and hands attached to the legs and arms respectively, and a head articulatively attached at the upper end of the trunk.

7. A marionette having a trunk portion of rolled sheet material, crossed stiffening members composed of sheet material, disposed within the trunk portion and adding rigidity thereto, one of above the upper end of the trunk, said upwardly extended portion being hook-shaped, the other of said stiffening members being formed with sheet material arms and legs projecting out of transverse folds constituting hinged joints, hands and feet attached to the ends of the arms and legs respectively, and a head having an eye portion for loose connection with the hook por-

8. A marionette having a trunk composed of sheet material such as cardboard, said trunk being curled into substantially cylindrical form, stiffening means within the trunk to hold the same in such form, said stiffening means being provided at one end with an element for the articulative attachment of a head, and a head composed of a cylindrical section of sheet material having internal stiffening means, the stiffening means for the head having an element for engagement with the head-receiving element on the stiffening member.

9. A marionette comprising a trunk portion of sheet material in substantially cylindrical form, a stiffening member of flat sheet formation extending through the trunk and having hooked elements at its upper and lower ends, a leg portion including a cylinder of sheet material enclosing a stiffener, said stiffener having an eye portion at its upper end for engagement with the lower hooked element on the stiffening member, and a head having an eye portion for engagement with the upper hooked element on the stiffening member.

10. A marionette having a trunk of rolled cardboard, legs of flat cardboard, arms of flat cardboard and a head of rolled cardboard, the legs and arms being transversely folded to form hinged joints, and the head being articulatively connected to the trunk.

11. In a marionette, a trunk portion composed of a sheet of flexible material rolled into substantially cylindrical form, a pair of stiffening members within said trunk portion, the plane of one of said stiffening members extending at an angle to that of the other, one of the stiffening members being formed with downward extensions comprising legs for the marionette.

12. In a marionette, a trunk portion composed of a sheet of flexible material rolled into substantially cylindrical form, means within the rolled sheet for stiffening the same and maintaining it in cylindrical formation, said stiffening means including a flat member disposed across the interior of the rolled sheet and formed with downward extensions comprising legs for the marionette.

13. In a marionette, a trunk portion composed of a sheet of flexible material rolled into substantially cylindrical form, means within the rolled sheet for stiffening the same and maintaining it in cylindrical formation, said stiffening means including a flat member disposed across lateral and downward extensions forming respectively arms and legs for the marionette.

14. In a marionette, a trunk portion composed of a sheet of flexible material rolled into substantially cylindrical form, a pair of stiffening members within said trunk portion, the plane of one of said stiffening members extending at an angle to that of the other, one of said stiffening members being formed with an upward extension for the attachment of a head, and the other 10 stiffening member being formed with downward extensions comprising legs for the marionette.

15. In a marionette, a trunk portion composed of a sheet of flexible material rolled into sub-

 $\mathbf{5}$

stantially cylindrical form, a pair of stiffening members within said trunk portion, the plane of one of said stiffening members extending at an angle to that of the other, one of said stiffening members being formed with an upward extension projecting above the cylindrical body for the attachment of a head, the other stiffening member having lateral extensions projecting out of the body and forming arms, said last-mentioned stiffening member being also formed with downward extensions comprising legs for the marionette.

WALTER STEINHILBER.