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Schoeman et al.

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[54] **PUPPET AND FASTENER FOR CONNECTING THE ARTICULATED MEMBERS THEREOF**

[76] Inventors: **Stephen Schoeman,** 271 North Ave., New Rochelle, N.Y. 10801; **William Gow,** 9 Clinton St., Newark, N.J. 07046

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[52] **U.S. Cl.** **46/126;** 46/157; 46/161; 46/173

[51] **Int. Cl.²** **A63H 7/00**

[58] **Field of Search** 46/126, 157, 161, 173

[56] **References Cited**

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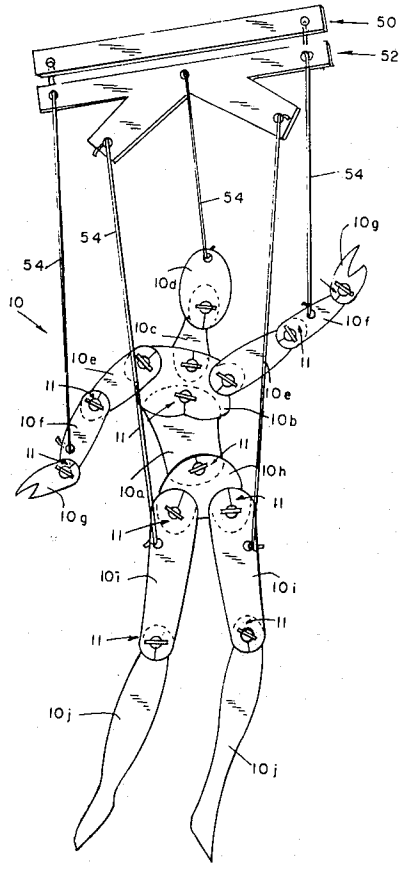
Primary Examiner—Hugh R. Chamblee
Assistant Examiner—J. Q. Lever
Attorney, Agent, or Firm—Friedman & Goodman

[57] **ABSTRACT**

A puppet is described which has a plurality of planar members respectively representing different parts of a human body. Each member is articulately connected to at least one other member to form a pair of jointed members. At least one of the members of each connected pair is provided with an aperture and a fastener is provided which is connected to an other member of each connected pair. The fastener has an elongate portion adapted to pass through a respective aperture with an enlarged free end which is dimensioned to prevent free passage thereof through the aperture. In this manner, the two connected members can move relative to one another by pivotally moving about the elongate portion of the fastener without separating due to the restraining effect of the enlarged free end. According to one described embodiment, the fastener is die cut in the other member with a weakened fold line being provided at the end of the elongate portion opposite to the enlarged free end to facilitate bending of the fastener out of the plane of the other member. According to another described embodiment, each member is provided with an aperture at the point of articulation, an elongate portion being adapted to pass through two apertures of the respective articulated members and being provided with enlarged free ends dimensioned to prevent passage through the apertures.

8 Claims, 8 Drawing Figures



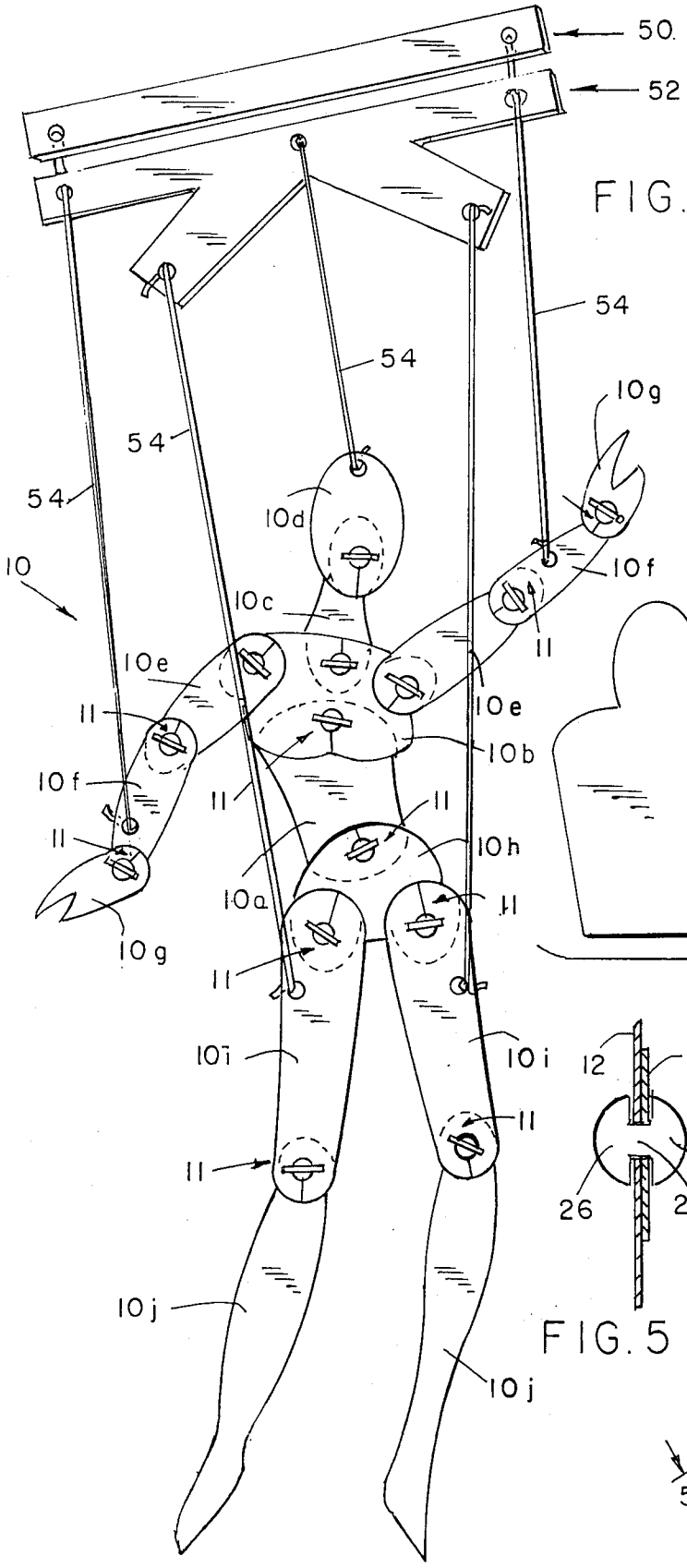


FIG. 1

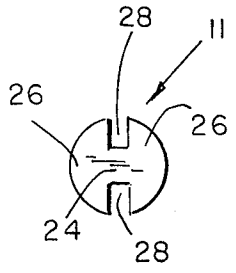


FIG. 3

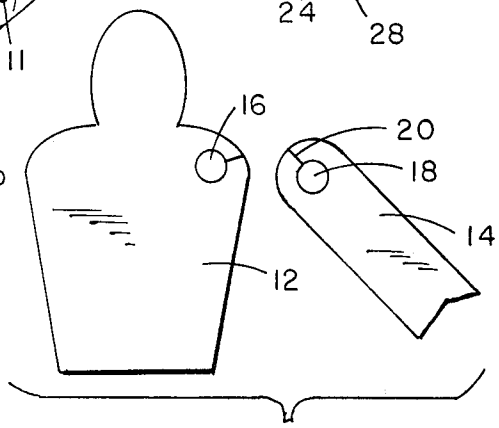


FIG. 2

FIG. 5

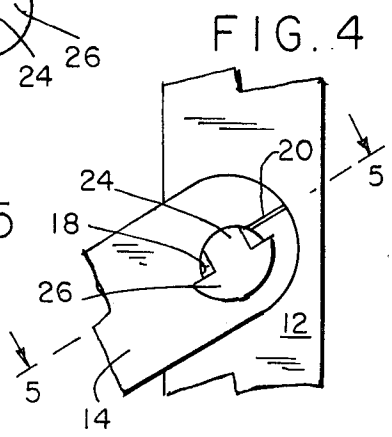


FIG. 4

FIG. 6

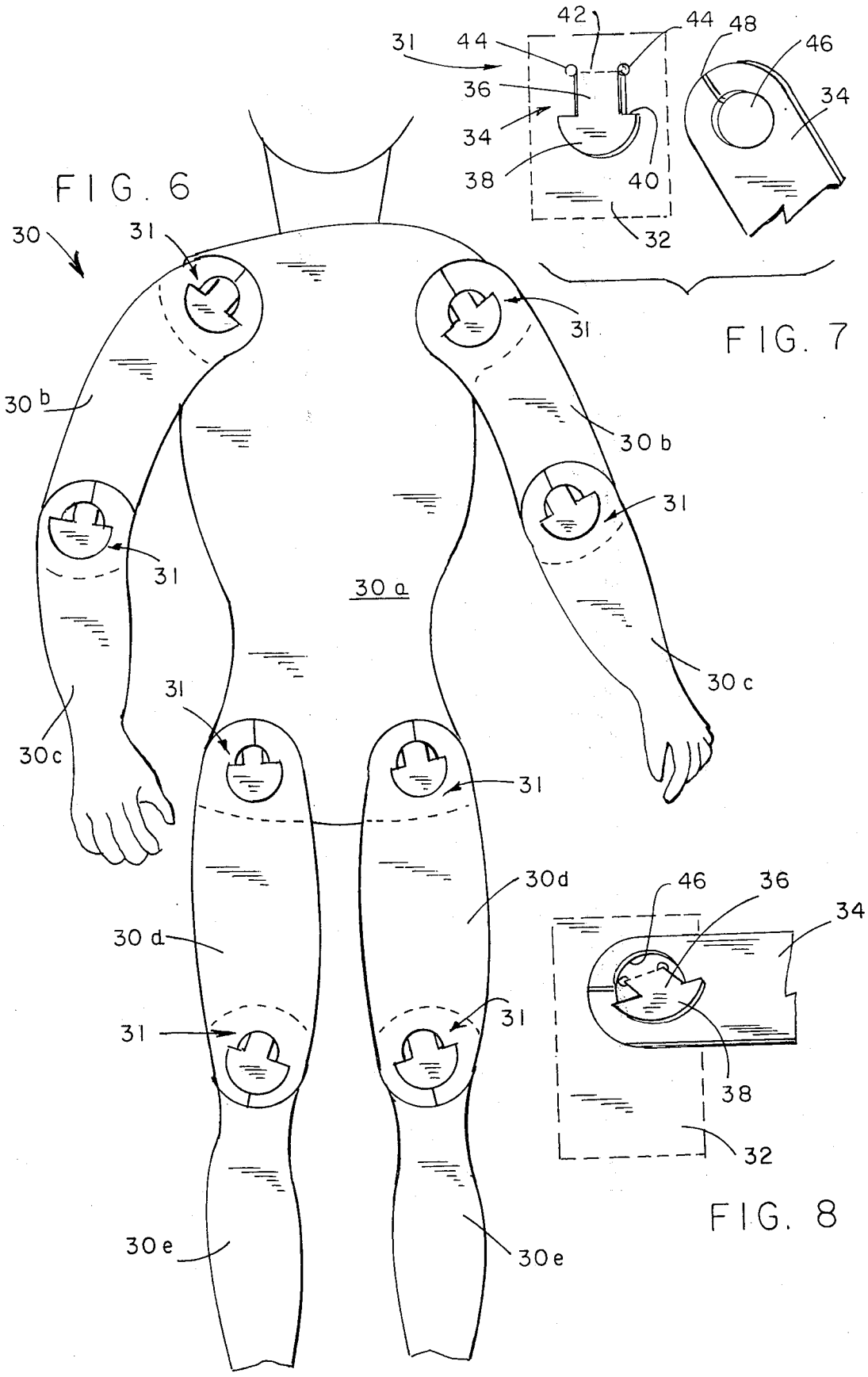


FIG. 7

FIG. 8

PUPPET AND FASTENER FOR CONNECTING THE ARTICULATED MEMBERS THEREOF

BACKGROUND OF THE INVENTION

Various puppets are already known which permit selective movements of different parts thereof which represent parts of a human or animal body. Some of the puppets available are die cut from flat or planar sheets of material, such as paper. However, suitable connecting means for articularly connecting two body members to one another has either been time consuming during the assembly of the puppet or has been too costly to be practical in the manufacture of inexpensive puppets.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide a puppet and fastener means for interconnecting articulated members thereof which are not possessed of the above described disadvantages.

It is another object of the present invention to provide a puppet which is simple in construction and economical to manufacture.

It is still another object of the present invention to provide a puppet made of planar members which are articularly connected to one another and which are provided with inexpensive fastener means which facilitate the assembly of the puppet and which are inexpensive to manufacture.

It is yet another object of the present invention to provide a puppet, including a plurality of planar articulated members, and fastener means in the form of planar tabs having enlarged ends which retain two articulated members in proximity to one another while permitting free pivotal movement of one member relative to the other about the fastener.

It is a further object of the present invention to provide a puppet wherein each joint or point of articulation is formed by an aperture in each cooperating puppet member and a tabular fastener which has two enlarged free ends and an elongate portion which extends through the apertures, means being provided in the form of a slit in at least one of the members for facilitating the insertion of an enlarged end of a fastener through a respective aperture.

It is still a further object of the present invention to provide a fastener which may be die cut from a planar sheet material, such as paper or cardboard, and which permits free articulation of two puppet members while preventing the latter from separating from one another.

To achieve the above objects, as well as others which will become apparent hereafter, a puppet in accordance with the present invention comprises a plurality of members, each member being articulately connected to at least one other member to form a pair of jointed members. At least one of the members of each connected pair is provided with an aperture. A fastener is connected to the other member of each connected pair. Each fastener has an elongate portion adapted to pass through a respective aperture. Each fastener is further provided with an enlarged free end dimensioned to prevent free passage through said aperture. In this manner, each two connected members can move relative to one another by pivotally moving about an elongate portion of said fastener without separating due to the restraining effect of the enlarged free end. Advantageously, said fastener is a planar member.

In the presently preferred embodiment, said enlarged free end is in the form of a semi-circular flat portion having a diametrically extending straight edge. The elongate portion in this embodiment is connected to said straight edge.

In accordance with one version of the present invention, said other member is flat and said fastener is die cut in said other member. Here, a weakened fold line is provided at the end of said elongate portion opposite said enlarged free end, said fold line facilitating bending of said fastener out of the plane of said other member.

According to another version of the present invention, each member is provided with an aperture at the point of articulation. Here, said elongate portion is adapted to pass through two apertures of two respective articulated members and are provided with enlarged free ends each dimensioned to prevent passage through said apertures.

A fastener in accordance with the present invention suitable for interconnecting articulated members of a puppet, wherein each member is provided with an aperture at the point of articulation, comprises an elongate portion adapted to pass through two apertures of two respective articulated members. Enlarged means are provided at each end of said elongate portion, each enlarged means being dimensioned to prevent free passage through the apertures. In this manner, two members can move relative to one another, as with the second above described version of the present invention, by pivotally moving about the elongate portion of a respective fastener without separating due to the restraining effect of the enlarged means.

BRIEF DESCRIPTION OF THE DRAWINGS

With the above and additional objects and advantages in view, as will hereinafter appear, this invention comprises the devices, combinations and arrangements of parts hereinafter described and illustrated in the accompanying drawings of a preferred embodiment in which:

FIG. 1 is a front elevational view of a puppet in accordance with the present invention, showing the component members of the puppet articulately connected to one another with connecting means in accordance with the present invention;

FIG. 2 is a front elevational view of a supporting member and a supported member of a puppet prior to connection at an articulation point or joint by the fastener means of the present invention;

FIG. 3 is a top plan view of a connecting tab or fastener in accordance with the present invention shown in FIG. 1 and insertable through the apertures shown in FIG. 2;

FIG. 4 is a fragmented view of a supported and supporting member similar to that shown in FIG. 2, further showing the connecting fastener extending through the respective apertures of the supported member;

FIG. 5 is a cross section of the members shown in FIG. 4, taken along line 5—5;

FIG. 6 is a front elevational view of another puppet including a plurality of moving parts or members which are articulately interconnected by means of a second embodiment of the fastener means in accordance with the present invention;

FIG. 7 are fragmented views of a supporting and supported puppet members provided with the fastener

means utilized in FIG. 6, shown prior to assembly; and

FIG. 8 is similar to FIG. 7 but shown subsequent to assembly wherein the connecting or fastener tab formed in one of the members is extended through an aperture in the other of the members.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings, in which identical or similar parts have been designated by the same reference numerals throughout, and first referring to FIG. 1, a puppet in accordance with the present invention is shown and generally designated by the reference numeral **10.**

The puppet **10** is formed of a plurality of members each corresponding to another part of a human body. The actual number of parts is not critical for the purposes of the present invention, and as many or as few parts may be provided as desired. Clearly, the more segmented the puppet is made or the more movable parts which are provided, the more complex the puppet becomes and the more intricate the movements which the puppet can be made to simulate.

In the puppet of FIG. 1, a torso **10***a* is shown connected to an upper chest portion **10***b*. A neck member **10***c* and a head member **10***d* are connected to the chest member **10***b*, the latter also acting as a supporting member for the arms of the puppet which are respectively made of members **10***e*, 10*f* and **10***g*. A pelvic member **10***h* is connected to the torso **10***a*, the member **10***h* supporting the legs of the puppet which respectively include members **10***i* and **10***j*. As will become clear from the description of the puppet shown in FIG. 6, fewer members can be provided by combining several of the above members such as, for example, combining the torso and pelvic members. While the combination of such members limits the type of movements which the puppet can be made to simulate, puppets with fewer members are easier to construct and are also easier to operate.

The above described members or parts of the puppets are advantageously made from planar sheet material, such as cardboard or paper. The members **10***a*–**10***j* above described are, in accordance with the presently preferred construction, die cut segments formed of a stiff sheet of paper or cardboard.

An important feature of the present invention is the provision of inexpensive and effective connecting means **11**, at each point of articulation or joint between two body or puppet members. Referring to FIG. 2, the present invention will be described in terms of a supporting member **12** and a supported member **14.** Clearly, in the construction shown in FIG. 1, each two associated or cooperating puppet members define a supporting and a supported member. For purposes of illustration, the supporting member **12** is in the form of a torso while the supported member **14** is in the form of an arm to be articulately mounted at a joint in the shoulder region of the torso. According to one embodiment of the present invention, an aperture **16** is formed at the desired point of articulation in the supporting member and a corresponding hole **18** is formed at the desired articulation point of the supported member **14.** For reasons to be described hereafter, a slit **20** is provided which extends between the hole **18** and an outer peripheral edge of a respective puppet member. Such a slit, when separated or enlarged, permits the passage of an object therethrough, as to be described hereafter.

The connecting means **11** is shown in FIG. 3 and is in the form of a connecting tab or fastener including an elongate portion **24** having enlarged free ends **26.** The spaced free ends **26** form cutout regions **28.**

In accordance with a presently preferred embodiment of the present invention, the connecting tab or fastening tab **11** is die cut from a planar sheet of material such as paper or cardboard. However, the tab **11** can equally be made from any material such as plastic or metal. The enlarged free ends or enlargements **26** are shown to be each in the form of a semi-circular portion having a diametrically extending straight edge. The elongate portion **24** extends between the two opposing diametrically extending straight edges of the two semi-circular portions **26.** The resulting cutouts **28** are rectangular in shape. As will become evident from the description that follows, the particular shape of the free end portions **26** or of the cutouts **28** is not critical for the purposes of the present invention. It is only important that the elongate portion **24** is dimensioned to extend through the holes or apertures **16** and **18** with clearance and that the free end portions **26** be dimensioned to prevent free passage through the apertures. In the embodiment shown in FIG. 2, the latter requirement is achieved by selecting the length of the diametrically extending straight edges greater than the diameters of the holes **16** and **18.** In this manner, the elongate portion **24** acts as a pivot pin about which the connected members can move relative to one another while not being permitted to separate due to the restraining effect of the enlarged free end **26.** This function of the connecting or fastening tabs **11** is depicted in FIG. 5.

Since the planar dimensions of the enlarged free ends **26** are greater than the transverse dimensions of the holes **16** and **18,** initial assembly or insertion or passage of the free ends **26** through the holes **16** and **18** can be achieved in one of two ways. Since, in the presently preferred embodiments, the connecting or fastening tabs **11** are made from a flexible yet stiff material such as paper or cardboard, the enlarged free ends **26** can be temporarily deformed or bent to result in a decrease in overall transverse dimensions to permit passage through one of the holes of the puppet members. However, in accordance with another feature of the present invention, a slit **20** is provided in one or both of the articulated members which provides a passageway to permit the connecting or fastening tab **11** to be inserted into a respective hole. This is achieved by separating the opposing edges of the slit **20** to form a path extending between an external edge of a member and a respective hole. The path defined by the slit **20** need only be sufficiently wide to receive the thickness of the fastening tab **11.** By deforming the member at the slit in this manner, an elongate portion **24** of a tab **11** can be moved through the slit and moved internally into a hole formed in a member. Once disposed within a pair of holes, the opposing slit edges are again aligned into the plane of the planar member to again close the hole and prevent the tab **11** from moving externally thereof. In a broad sense, the fastener is connected to one of the members with the elongate portion thereof passing through an aperture of another of the members. In the embodiment shown in FIGS. **1–4,** the fastening tab **11** is connected to both members in the same fashion,

namely by means of a corresponding enlarged portion **26** abutting against each member.

Referring to FIGS. **6–8,** a second embodiment of the present invention is shown wherein the connecting tabs are permanently connected to a member of each connected pair of members. In FIG. **6,** a puppet **30** generally of the type described in connection with FIG. **1** is shown comprising puppet members or segments **30***a*–**30***e*. The construction in each case is generally similar except that fewer segments or members are provided in the puppet **30,** as suggested above. Thus, the torso and pelvic members have been combined to form a member **30***a* and the hands and lower arm members have been combined to form members **30***c*.

Referring to FIG. **7,** the connecting means is generally designated by the reference numberal **31.** This modified connecting means is permanently connected to and is advantageously integral with a supporting member **32.** In this embodiment, the supported member **34** corresponds to the supported member **14** shown in FIGS. **2–4.** The fastener tab includes an elongate portion **36** which is provided at the free end thereof with an enlarged semi-circular portion **38** having a diametrically extending straight edge **40** to which the elongate portion is connected.

In the second embodiment, the connecting means **31** is preferably die cut from the supporting member **32.** Advantageously, a weakened fold line **42** is provided at the end of the elongate portion **36** opposite to the end provided with the enlargement **38.** The weakened fold line **42** facilitates bending of the fastener **31,** including the elongate portion **36** and the enlargement **38,** out of the plane of the supporting member **32.** Advantageously, relatively small holes **44** are die cut or punched in the supporting member **32** at each end of the fold line **42.** Such small holes **44** tend to retard tearing of the elongate portion **36** from the supporting member **32** along the fold line **42.**

As with the supported member **14,** the supported member **34** is provided with an aperture or hole **46** whose diameter is smaller than the length of the edge **40.** A slit **48** is similarly provided which is similar to the slit **20** and serves the same function.

Assembly of the puppet **30** entails the lifting of each die cut tab of each supporting member out of the plane of the latter. In the presently preferred embodiment, each fold line is disposed substantially normally to the longitudinal extent of the elongate portion **36.** In this manner, the elongate portion can pivot about the fold line in a plane defined by the elongate portion and a direction normal to the same. Although the tab **31** can be pivoted to any desired angular orientation about the weakened fold line **42,** the tabs tend to revert to positions coextensive with the planar members in which they are formed due to the restoring forces of the material. In each instance, a supported member has the opposing edges of a respective slit opened to provide a path for a corresponding elongate portion **36.** Once the elongate portion **36** is fully received within a hole or aperture **46,** the opposing edges of the slit **48** are again aligned to close or eliminate the path. This is illustrated in FIG. **8.**

While the embodiment **10** shown in FIGS. **1–5** has separable or removable connecting tabs **11** which permit simple replacement of damaged connecting tabs, the puppet **30,** including the connecting tabs **31,** has the advantage that the tabs are integrally formed with members of the puppet and, for this reason, facilitate and speed up assembly thereof.

As evident from the drawings and the above description, the puppets in accordance with the present invention, formed of planar sheet material, are particularly simple in construction and economical to manufacture. Both the segments or members of the puppet, as well as the fastening tabs or connecting tabs thereof, can be die cut from the planar sheet material. The connecting tabs in accordance with both embodiments shown and described are inexpensive and effective for permitting selective movement of the puppet members relative to one another. By providing sufficient clearance between the elongate portions and the holes or apertures through which they pass, the articulated members can freely move relative to one another. For this purpose, a manipulating board **50,** for manipulating the hand, and a manipulating board **52,** for manipulating the head and legs, are provided and attached by means of strings **54** to selected segments or members, as well known to those skilled in the art, as shown in FIG. **1.** The shape of the manipulating boards and the number of strings is not critical insofar as the present invention is concerned. By tilting the boards **50** and **52,** the strings **54** are moved relative to each other and the puppet simulates human movements.

With reference to the connecting tabs **31,** shown in FIGS. **6-8,** these further facilitate shipment of assembled puppets since the tabs **31** tend to revert to the planar extents of the members out of which they are formed. Thus, while the articulated members can continue to pivot about the associated elongate portions, the restoring forces developed by the bending or movement of the tabs out of the planes of the corresponding members tend to revert the tabs into those planes. Accordingly, as best shown in FIG. **6,** the assembled puppet is substantially contained within a single plane and can easily be enclosed in and shipped in an envelope.

Numerous alterations of the structure herein disclosed will suggest themselves to those skilled in the art. However, it is to be understood that the present disclosure relates to a preferred embodiment of the invention which is for purposes of illustration only and is not to be construed as a limitation of the invention.

What is claimed is:

1. A puppet comprising a plurality of members, each member being articulately connected to at least one other member to form a pair of jointed members, at least one of the members of each connected pair being provided with an aperture and a slit extending between said aperture and an external edge of the respective member; and a fastener connected to the other member of each connected pair, said fastener having an elongate portion adapted to pass through a respective aperture, and further having an enlarged free end dimensioned to prevent free passage through said aperture, whereby said aperture can be temporarily enlarged by separating opposing edges defining said slit to permit passage of said enlarged free end of said fastener therethrough and whereby each two connected members can move relative to one another by pivotally moving about the elongate portion of said fastener without separating due to the restraining effect of the enlarged free end.

2. A puppet as defined in claim **1,** wherein said fastener is a planar member.

3. A puppet as defined in claim 2, wherein said enlarged free end is in the form of a semi-circular flat portion having a diametrically extending straight edge, said elongate portion being connected to said straight edge.

4. A puppet as defined in claim 1, wherein said other member is flat, said fastener being die cut in said other member, and further comprising a weakened fold line provided at the end of said elongate portion opposite to said enlarged free end, said fold line facilitating bending of said fastener out of the plane of said other member.

5. A puppet as defined in claim 4, wherein said fold line is disposed substantially normally to the extent of said elongate portion, whereby said elongate portion can pivot about said fold line in a plane defined by said elongate portion and a direction normal to the latter.

6. A puppet as defined in claim 4, further comprising a hole disposed at each end of said fold line and adapted to retard tearing of said elongate portion from said other member.

7. A puppet as defined in claim 1, wherein each member is provided with an aperture at the point of articulation, said elongate portion being adapted to pass through two apertures of two respective articulated members and being provided with enlarged free ends dimensioned to prevent free passage through said apertures.

8. A puppet as defined in claim 1, wherein said members and said fastener are planar.

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