

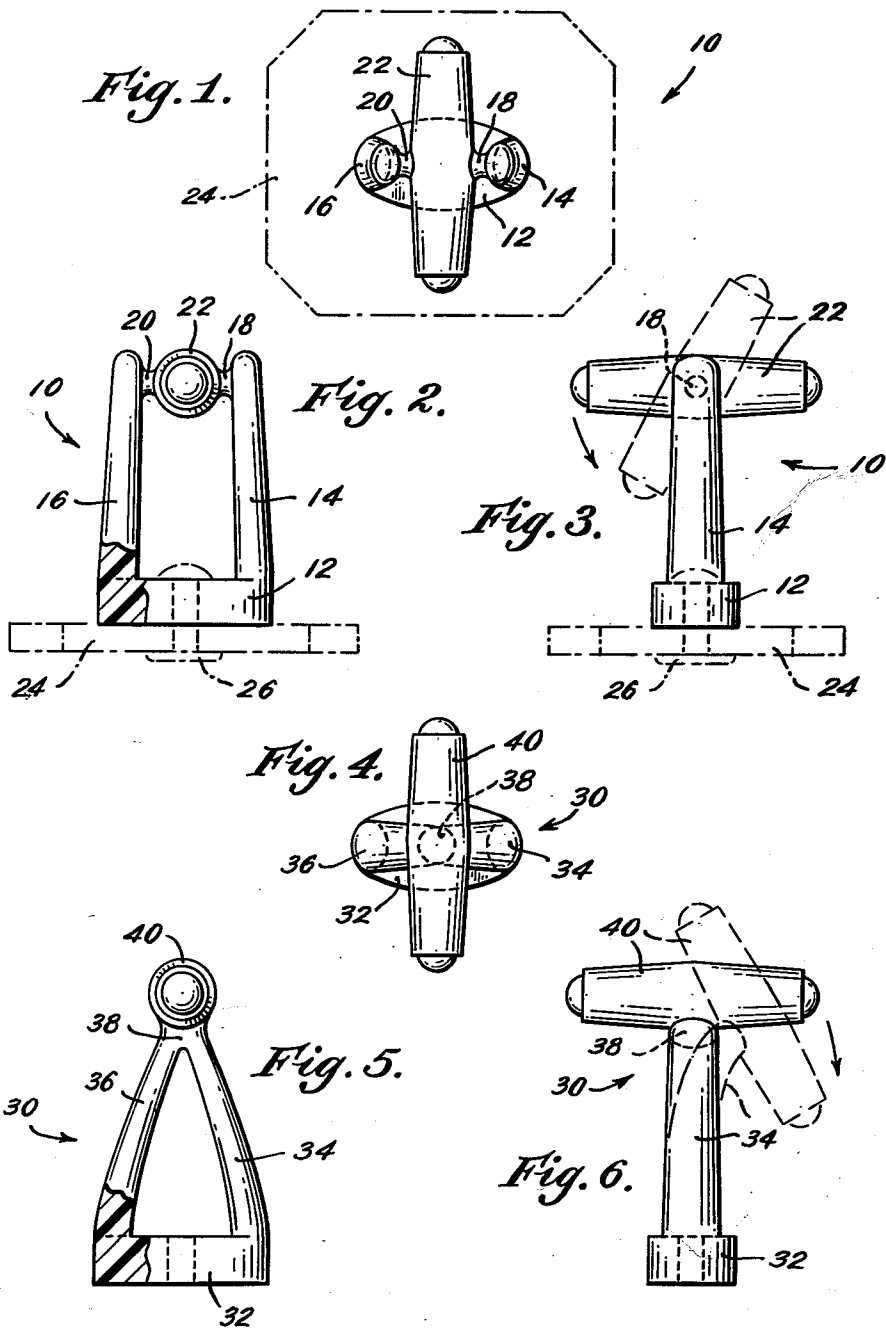
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FASTENER FOR USE AS A CUFF LINK

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FASTENER FOR USE AS A CUFF LINK
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The present invention relates to a fastener. More particularly, the present invention relates to a fastener that is formed in a unitary molded construction of plastic material and has particular application for use as a cuff link.

The usual type of fastener normally used as a cuff link for retaining shirt cuffs in cooperating relation was generally formed of a metallic material and included a body portion on which space parallel legs were formed. The cuff link was locked in position within the cuff openings in a shirt by means of a cross beam or member that was pivotally mounted between the legs of the body portion, the cross member being movable such that the axis thereof was either parallel or perpendicular with respect to the legs. When the cross member was parallel with the legs of the body portion, the cuff link could be inserted through the cuff openings. The cross member was then moved from its parallel position to the perpendicular position with respect to the leg thereby defining the locking position of the cuff link. A spring or cam device was usually associated with the cross member and the legs for locating the cross member in either the locking position or the position in which it was inserted through the cuff openings.

The present invention generally utilizes the principle of the pivotally moving cross member of the prior known cuff links, but departs from the usual structural relation in that the entire fastener or cuff link construction is molded in a unitary element from a flexible plastic material. The cross member of the fastener in the instant invention is joined to the body portion or the legs of the cuff link element and is adapted to be twisted or rotated with respect thereto. This twisting or rotating action of the cross member causes the cross member to be moved from a normally perpendicular position with respect to the cuff link legs to an aligned or parallel position with respect to the legs so that the cuff link element may be inserted through the cuff openings in the usual manner. Since the cross member is twisted with respect to the legs of the body portion, torsional stresses are set up that act to return the cross member to its original position when it is released after it has been inserted through the cuff openings. Release of the cross member as indicated causes it to return to the position wherein it is perpendicular with respect to the legs and thus defines a locking position of the cuff link construction. The unusual and novel aspect of the fastener embodied in the present invention is that the entire construction, with the exception of an ornamental element, is molded in a unitary element, thereby eliminating the necessity of assembling various independently constructed parts.

It is therefore an object of the present invention to provide a fastener that is formed of a plastic material and is molded in a unitary construction.

Another object of the invention is to provide a fastener that includes a cross member that is moved relative with respect to the body portion with which it is integrally molded to a biased position, the cross member being returnable to the normal position thereof upon release at the biased position.

Still another object is to provide a cuff link that is formed of a resilient plastic material and which includes a cross member that is twistable to a biased position when the cuff link is inserted through cuff openings, the cross member being returnable to its original position upon release thereof to lock the cuff link in the cuff openings.

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Still another object is to provide a cuff link construction that includes a movable link member that is integrally joined to the body portion of the cuff link construction.

Other objects, features and advantages of the invention will become apparent as the description thereof proceeds when considered in connection with the accompanying illustrative drawings.

In the drawings which illustrate the best mode presently contemplated by me for carrying out my invention:

FIG. 1 is a top plan view of one form of the fastener or cuff link construction embodied in the present invention, an ornament for the cuff link construction being shown in dotted lines;

FIG. 2 is a front elevational view of the cuff link construction shown in FIG. 1 with parts shown in section;

FIG. 3 is a side elevational view of the cuff link construction, the twisted position of the cross member being illustrated in dotted lines;

FIG. 4 is a top plan view of a modified form of the fastener or cuff link construction;

FIG. 5 is an end elevational view of the modified cuff link construction illustrated in FIG. 4, parts being shown in section; and

FIG. 6 is a side elevational view of the modified form of the invention, the twisted or pivoted position of the cross member being illustrated in dotted lines.

Referring now to FIGS. 1, 2 and 3, one form of the invention is illustrated and includes a one-piece fastener element generally indicated at 10 that is molded in an integral construction of a resilient plastic material such as polyethylene, annealed nylon or vinyl. The fastener element 10 comprises a body portion that is defined by a base 12 to which are joined legs 14 and 16. The legs 14, 16 and the base 12 thus in effect define a U-shaped yoke construction, the base 12 forming the bight portion of the yoke. Joined to the inside of the legs 14 and 16 at the end opposite the base 12 are reduced neck connections 18 and 20 to which is integrally joined a cross beam or member 22. The cross member 22 is formed in a generally cylindrical configuration having rounded ends in much the same manner as the pivotal cross beam of the cuff link construction known heretofore. If desired or required, an ornamental member indicated at 24 may be secured to the base 12 in any suitable manner. As shown in FIGS. 2 and 3, a rivet 26 extends through the base 12 and the ornamental member 24 and secures the ornamental member 24 to the base 12. However, it is understood that the ornamental member 24 may be secured to the base 12 by some other means such as an adhesive material or the like.

In use of the cuff link or fastener 10, the cross member 22 is rotated or twisted with respect to the legs 14 and 16 from its normal position wherein it is perpendicular with respect to the legs 14, 16 to a position wherein it is generally parallel or aligned therewith. Since the cross member 22 is integrally connected to the legs 14 and 16 through the reduced neck connections 18 and 20, a twisting action is effected, thereby introducing or subjecting the reduced neck connections 18, 20 to torsional forces. In effect, the cross member 22 is positioned in biased relation in the twisted position thereof and when it is released at the aligned position it will return to its normal position as illustrated in full lines in FIGS. 2 and 3. Thus it is seen that the inherent resiliency of the plastic material from which the element 10 is formed enables the cross member 22 to be twisted and returned to the normal position thereof.

The present invention takes advantage of the fact that the material from which the element is formed does have an inherent resilience that causes the cross member to return to its normal position. Thus the legs 14, 16 and cross member 22 in their aligned position may be pushed

through an opening such as that formed in a shirt cuff. This step is carried out in the same manner as when inserting a normal or prior known type of cuff link through aligned openings in a shirt cuff. When the cross member 22 has been inserted through the openings in the shirt cuff a sufficient distance to clear the cuff openings, it is released, and due to the twisting or torsional forces resulting from the twisting action thereof, it will return to its normal position wherein it is located perpendicular with respect to the legs 14 and 16. In this position, the cross member 22 is disposed in locking relation and will tend to hold the cuff members in cooperating relation as is well known in the usual type of cuff link construction of the prior art devices.

Referring now to FIGS. 4, 5 and 6, a modified form of the invention is illustrated, the modified fastener element being generally indicated at 30. The fastener element 30 is similar to the element 10 described hereinabove in that it is molded of a resilient plastic material in a one-piece construction. As shown in FIG. 5, the element 30 includes a base member 32 to which legs 34 and 36 are integrally joined. As contrasted with the form of the invention illustrated in FIGS. 1 through 3, the legs 34 and 36, although being spaced at the point of junction with the base member 32, are generally inclined and are joined at the other end thereof terminating in an integral portion 38. The integral portion 38 is formed centrally of the element 30, and joined directly thereto is a cross member or beam 40 that has a construction and design similar to the cross member 22. As hereinabove pointed out, if it is so desired, an ornamental member may be secured or attached to the base member 32 by any suitable means.

In use, the cross member 40 is adapted to be moved from a position where it is generally perpendicular with respect to the longitudinal axis of the element 30 to a position where it is generally parallel with respect thereto. This movement is carried out by twisting or rotating the cross member 40 to the position shown in dotted lines in FIG. 6, the twisting movement deforming the legs 34 and 36 at the outer ends thereof. With the cross member 40 located in the position as shown in FIG. 6, the element 30 may then be inserted through any suitable opening such as, an opening in a shirt cuff, and upon release thereof, the cross member 40 will return to its normal position to lock the element in the cuff openings.

The fastener embodied herein is unique in that all of the constructional parts thereof may be formed of a plastic material and are of an integral construction. The plastic material may be a polyethylene, annealed nylon or vinyl and is generally resilient in nature so as to enable the cross member to be twisted or rotated with respect to the legs of the element. Due to the inherent resiliency of the material from which the fastener is formed, the cross member 22 will tend to return to its normal position, and thus when the element is in the form of a cuff

link as illustrated in the drawings, the cross member will move from a generally aligned position with the legs of the body portion to a generally perpendicular position with respect thereto. In this latter position, the cross member defines a locking member for locking the fastener in an opening or openings of normally separable members that are adapted to be located in cooperating relation.

Although the present invention has been described for use as a cuff link it is understood that the fastener may be utilized to lock any separable members in cooperating relation without departing from the spirit of the invention.

While there is shown and described herein certain specific structure embodying the invention, it will be manifest to those skilled in the art that various modifications and rearrangements of the parts may be made without departing from the spirit and scope of the underlying inventive concept and that the same is not limited to the particular forms herein shown and described except insofar as indicated by the scope of the appended claim.

What is claimed is:

In a fastener, a one-piece element molded of a relatively resilient plastic material, said element including a body portion having a base, spaced legs joined to said base and projecting outwardly therefrom in perpendicular relation with respect thereto, and a cross member disposed between said legs adjacent the outer ends thereof and normally located such that the longitudinal axis thereof is parallel to said base, thereby defining the locking position of said cross member, reduced portions connecting said cross member to said legs adjacent the outer ends thereof and intermediate the ends of said cross member thereby providing for a twisting movement of said cross member with respect to said base, said reduced portions thereby defining a pivot axis for said cross member said cross member being twisted in biased relation with respect to said legs on said pivot axis until said cross member is substantially parallel to said legs, whereby it is located in an unlocking position, the longitudinal dimension of said cross member being such that when it is twisted to the biased position between said legs, the innermost end thereof spaced from said base member, said cross member being returnable to the locking position thereof due to the torsional forces set up when said cross member is twisted with respect to said legs.

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