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(54) Connection for foldable tubular members.

(57) The invention discloses a joint for connecting two tubes which fold one on the other, in particular for connecting tubes which form the folding legs of a clothes-horse. The joint is formed of a body (10) having on one side a part with a hole (11) open at least towards one end of the body and designed to hold one end of the elements (13) to be connected and, on the other side, a U-shaped part which delimits a channel (12) which is open on one side of said body and designed to hold an end of the other element (14) to be connected, the end of the first element (13) being blocked in said hole (12) whilst the second element (14) is pivoted (14a) in said channel so as to be foldable on the first element.

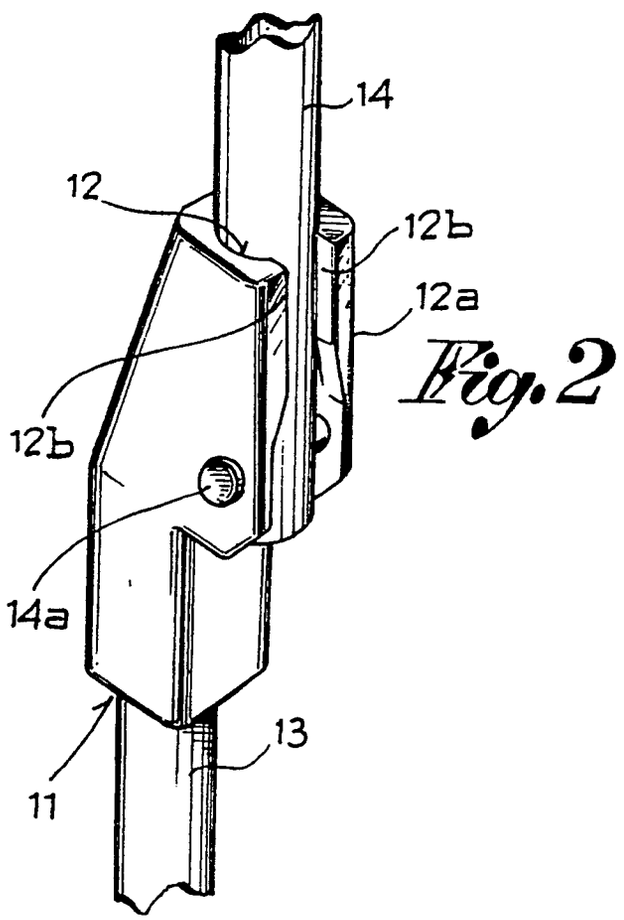

Fig. 2

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CONNECTION FOR FOLDABLE TUBULAR MEMBERS

The present invention generally relates to a joint for connecting tubular members designed to be folded one on the other, and more particularly a joint suitable for connecting tubes which form the folding legs of a space-saving clothes-horse.

Clothes-horses with a grid and possible extension grids held by two pairs of crossed legs which are pivoted to each other and in which the legs of a first pair have a central articulation which allows for them to fold so as to close the clothes-horse, are already known. In said clothes-horses, the folding of the legs with central articulation and subsequent accidental closure of the clothes-horse are possible in the case of knocks or incorrect movements. An uncontrolled closure of the clothes-horse can however be dangerous for people, especially children and it is therefore strongly advisable not to use.

For this reason, a way of blocking the articulation with the legs open has already been proposed. This method though requires the fitting of an extra element that interacts with the joint which connects the folding elements.

The object of the present invention is to propose a joint for connecting two foldable elements, one on top of the other, such as the tubular members which form the folding legs of a clothes- horse. The joint has safety means which block the elements connected to each other in an open position, that is to say aligned to each other.

A second object of this invention is to propose a joint made as a single piece advantageously achieved through moulding and with a new configuration which allows it to be easily fitted onto the elements to be connected.

A further object of the invention is to propose a joint made as a single piece which contemporarily connects the two folding elements and automatically blocks the elements so as to avoid an accidental folding when they are aligned to each other.

Said aims are achieved with a joint which is in accordance with claim 1.

An example of realization of the joint will however be described with references to the attached drawing in which:

Fig. 1 is a perspective view of the joint;

Fig. 2 is the joint connecting two elements;

Fig. 3 is a cross section of the joint in the blocking position ; and

Fig. 4 is a clothes-horse with a pair of legs which can be folded due to the joint which is in accordance with the invention.

The joint in question is made of a single piece (10) with a part which delimits a hole (11) open towards an end of the body and a U-shaped part which delimits a channel (12) open on one side of said body. On the inside of the facing tabs (12a) of the U-shaped part, protruding parts (12b) pointing towards the centre and designed to reduce the opening of the channel (12) are formed (Fig. 3).

The above described joint is used to connect two tubes (13, 14) which are foldable on top of each other due to the rotation of one of them. Said tubular elements (13, 14) can be made up of the two tubes which form the foldable legs (15) of a clothes-horse (16) like the one in Fig. 4 of the drawing.

The joint is fitted to the two tubular elements (13,14) to be connected by forcing, and/or through the use of adhesive, and/or with a pin, an end of the lower element (13) into the hole (11) of the body (10) and by pivoting the lower end of the upper element (14) into the channel (12) through the use of a tranversal pin (14a). In this way the joint is rigidly constrained to the lower element (13) whilst the upper element (14) is foldable on the first so as to rotate round the relative pin (14a). When the two elements (13, 14) have to be opened, in other words aligned, the upper element is rotated until it is blocked into the channel (12) of the joint.

The element (14) is then forced to clip into the channel (12) through a tight opening of the protruding parts (12b), making use of the elasticity of the tabs (12a) which define the hole itself. The element is then blocked into the hole and is therefore in position due to said protruding parts (12b) (Fig 3) which prevent the folding of the elements and therefore the accidental closing of a clothes-horse with folding legs.

Claims

1) A joint for connecting two tubes which fold one on the other, in particular for connecting tubes which form the folding legs of a space-saving clothes-horse, characterized in that it is formed of a body (10) having on one side a part with a hole (11) open at least towards one end of the body and designed to hold one end of the elements (13) to be connected and, on the other side, a U-shaped part which delimits a channel (12) which is open on one side of said body and designed to hold an end of the other element (14) to be connected, the end of the first element (13) being blocked in said hole (12) whilst the second element (14) is pivoted (14a) in said channel so as to be foldable on the first element, and in that the inside of the facing tabs (12a) of said channel (12) have protruding parts (12b) which are formed so as to tighten the opening of the channel (12) and to clip the second element (14) into place when it is aligned to the first.

2) A joint as claimed in claim 1, characterized in that: said body (10) is made of plastic; the end of the

first element (13) to be connected is fitted and blocked by pressure and/or with adhesive in said hole (11); the facing tabs (12a) which delimit the channel (12) are elastic so as to allow for a blocking and unblocking of the second element (14).

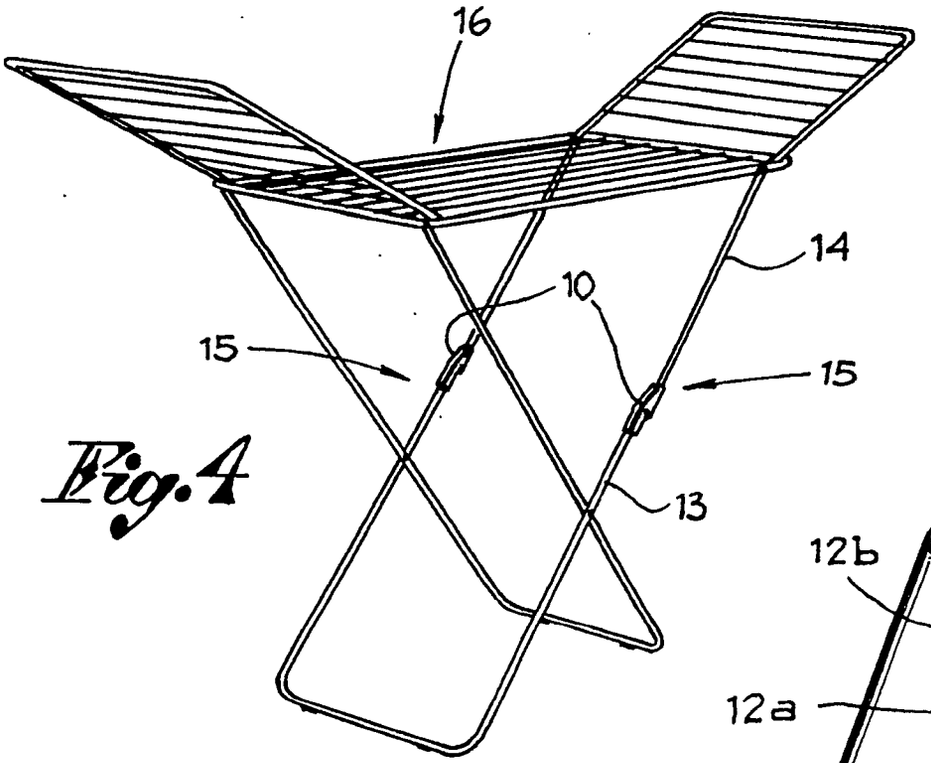

Fig.4

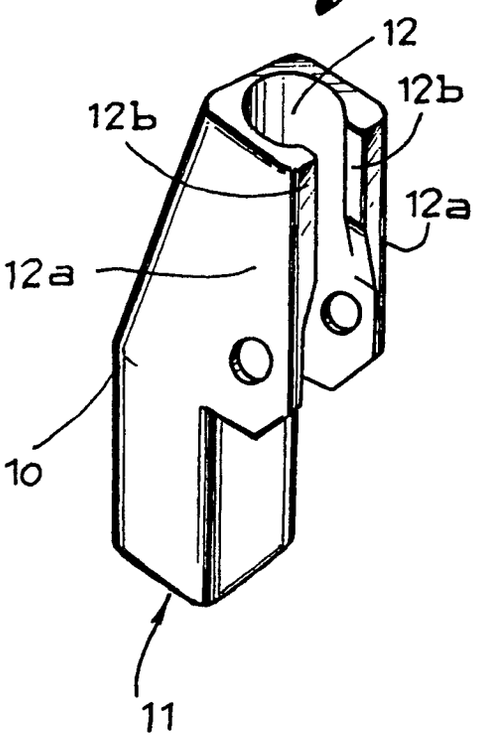

Fig.1

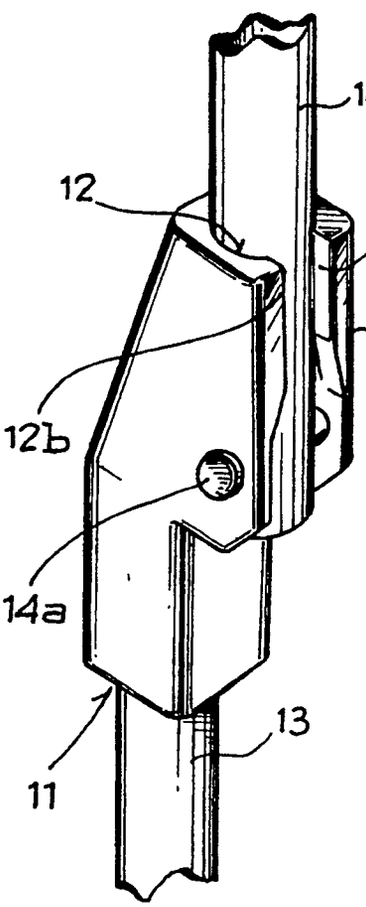

Fig.2

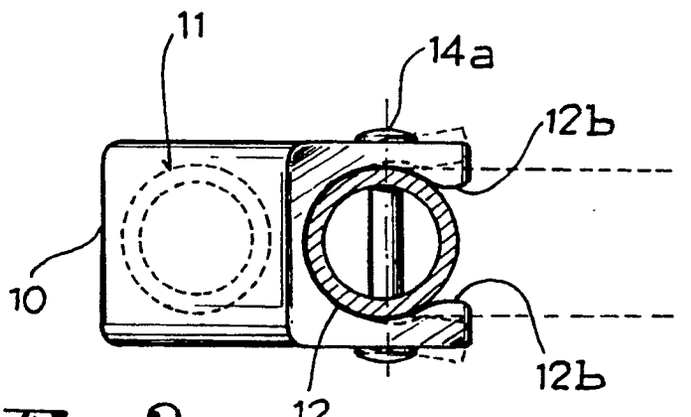

Fig.3