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T. S. SMITH

2,013,192

JOINT FITTING FOR SUN UMBRELLA POLES

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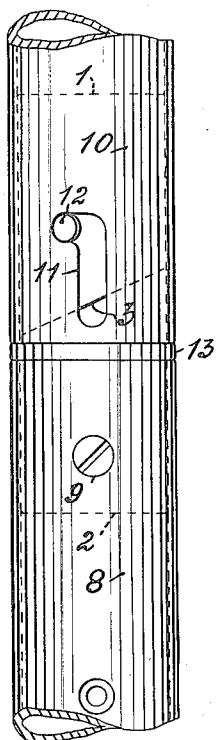


Fig. 1.

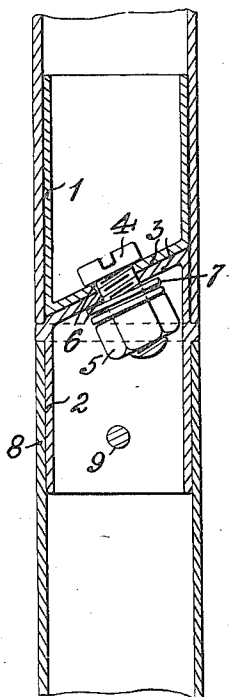


Fig. 2.

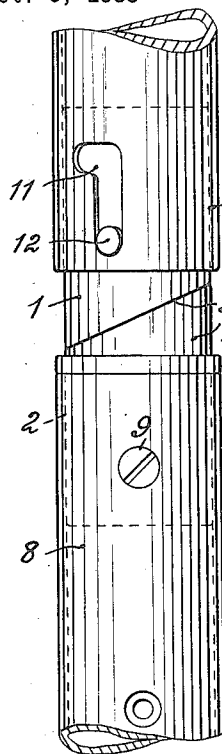


Fig. 3.

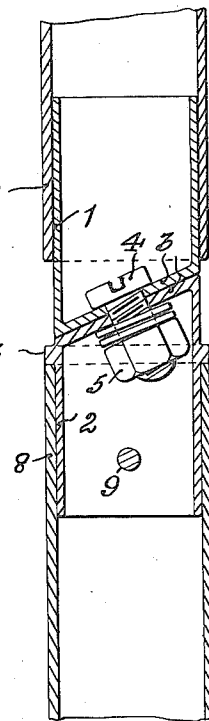


Fig. 4.

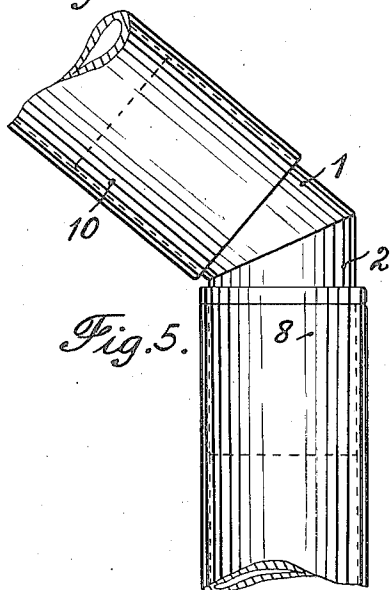


Fig. 5.

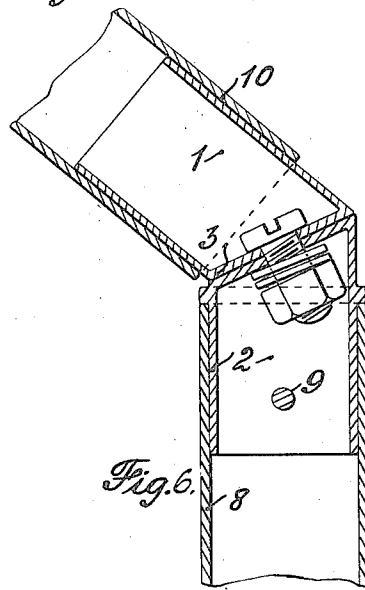


Fig. 6.

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JOINT FITTING FOR SUN UMBRELLA POLES

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Application October 5, 1933, Serial No. 692,231

In Great Britain November 23, 1932

1 Claim. (Cl. 287—98)

This invention relates to a joint fitting for the supporting pole of a sun or other umbrella extensively used on beaches and in gardens, of the kind in which a pair of hollow plugs, adapted to receive pole portions, have inclined contacting faces pivotally connected together at their opposed ends to enable the axis of one plug to be set at an angle to the other plug by a relative pivotal movement. Spring plungers have been employed for frictionally holding the plugs both co-axially and inclined to each other.

The object of the invention is to provide an improved joint of the kind referred to, and according to the invention, a telescopic sleeve is combined with one plug and is adapted to receive the pole portion of the umbrella and to slide over the other plug to cover the joint and to positively hold the plugs in axial alignment, in which position the runner of the umbrella sliding on the pole portion can slide over the sleeve, and the one plug is adapted to be inclined relatively to the other by pivotal movement when the sleeve uncovers the joint.

A further feature of the invention consists in applying the pivot pin from open ends of the hollow plugs and in combining a tubular pole portion of the same diameter as the telescopic sleeve with the other plug so that when the joint is covered by the telescopic sleeve the fitting has a common diameter over which the runner of the umbrella can slide, thereby enabling the umbrella to be closed or collapsed without detaching it from the fitting.

The preferred construction of the invention is represented by Figs. 1 to 6 of the accompanying drawing on which similar numerals of reference denote corresponding parts throughout the several views.

Fig. 1 is an elevation of the joint fitting and which is fixed in a vertical position.

Fig. 2 is a vertical section of Fig. 1.

Fig. 3 is an elevation of the joint fitting after the telescopic locking sleeve has been moved to permit of the one plug being pivoted with respect to the other.

Fig. 4 is a vertical section of Fig. 3.

Fig. 5 is an elevation of Fig. 3 after relative rotation has taken place between the plugs.

Fig. 6 is a vertical section of Fig. 5.

Referring to the drawing, the joint comprises a hollow cylindrical plug 1 and a hollow cylindrical plug 2 having opposed closed abutting ends 3 set at an angle to the axis of the plugs so as to present a pair of contacting faces by which the

plugs are pivotally connected by the pin and nut 4, 5, the pin passing through concentric holes 6 in the inclined closed ends 3 so that the disposition of the pin 4 which is concealed is at right angles to the plane of said inclined abutting ends. A spring 7 is preferably included at the pivotal joint so as to provide a frictional resilient joint. A sleeve 8 is secured to the plug 2 by the diametrically arranged pin 9, the sleeve 8 in combination with the plug 2 forming a socket for the reception of the lower pole portion (not shown) either of wood or metal adapted to support the umbrella either from a pedestal or by being stuck by force into the ground.

A sleeve 10 of substantially the same diameter as the sleeve 8 is telescopically mounted on the plug 1, the sleeve being slotted at 11 to co-operate with a peg 12 secured on the exterior of the plug 1 so as to form a bayonet joint. The sleeve 10 in combination with the plug 1 also forms a socket within which the upper pole portion carrying the umbrella or the like (not shown) is secured.

In Figs. 1 and 2 the telescopic sleeve 10 embraces both plugs 1 and 2, the bayonet joint 11, 12 maintaining the engagement fixed against inadvertent movement so that the respective plugs are positioned in axial alignment, thus the runner of an umbrella can pass over the joint thereby allowing the umbrella to completely close without being detached. By sliding upwardly the sleeve 10 both plugs are uncovered whereby the plug 1 when pivotally moved with respect to the plug 2 within 180° inclines the upper portion of the socket 10 with respect to the socket 8, as particularly shown in Figs. 5 and 6.

The provision of the sleeve 10 ensures that the joint is maintained vertically against inadvertent movement, whereas when it is desired to incline the upper portion of the pole the lower edge of the sleeve 10 may abut against the periphery of the plug 2 for support.

Preferably the plug 2 fixed to the socket 8 is provided with a collar 13 against which the socket 10 abuts when the pole is straight. The pivot pin and spring provide considerable friction between the opposed inclined faces of the abutting ends 3 of the respective plugs, but it may be desirable to serrate the inclined faces in order to create additional friction.

It will be observed that when the telescopic sleeve 10 covers the inclined joint 3, positively holding the plugs in alignment, the external diameter of the sleeves is substantially the same so that the runner of an umbrella frame may slide over the joint.

Having now described my invention, what I claim and desire to secure by Letters Patent is:

- In a joint fitting for sun umbrella poles and the like, the combination with a pair of hollow plugs
5 having terminal faces contacting with each other and being inclined at less than 45° to the axis of the plugs, a pivotal connection between said plugs one of said plugs having a peripheral flange of greater diameter than the plug, a sleeve em-
10 bracing the last mentioned plug and having one end thereof in engagement with said flange,

means rigidly interconnecting said sleeve with its embraced plug, a second sleeve slidable over the second plug and the edges of said terminal faces and into contact with said flange, and means associated with the movable sleeve and its plug to
5 retain the sleeve in lowered position and embrace and hold said plugs alined, said movable sleeve being capable of being raised to permit the said plugs to be turned on their pivotal connection to
10 inclined position.

THOMAS SIDNEY SMITH.