Feb. 17, 1925. 1,526,735

W. C. ASTRUP

AWNING FITTING

Filed Sept. 19, 1923

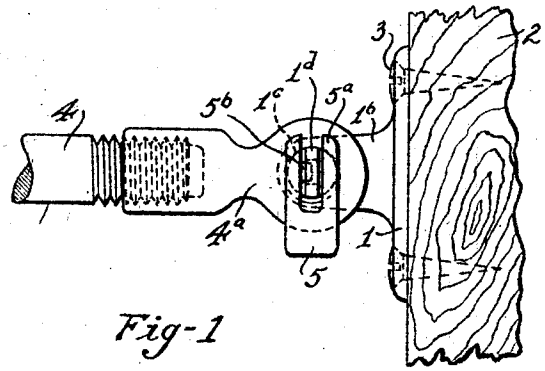


Fig-1

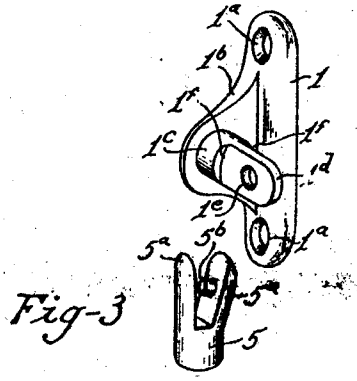


Fig-3

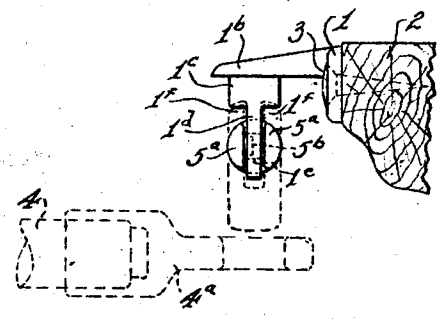


Fig-2

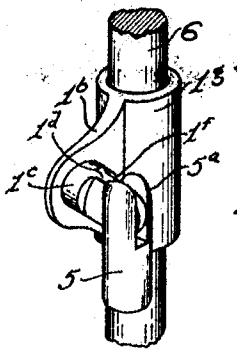


Fig-4

Inventor

Walter C. Astrup

By Odell Pillman

Attorney

Patented Feb. 17, 1925. 1,526,735

UNITED STATES PATENT OFFICE.

WALTER C. ASTRUP, OF CLEVELAND, OHIO, ASSIGNOR TO THE ASTRUP COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

AWNING FITTING.

Application filed September 19, 1923. Serial No. 663,548.

To all whom it may concern:

Be it known that I, WALTER C. ASTRUP, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Awning Fittings, of which the following is a specification.

My invention relates to improvements in awning fittings, and more particularly to improved hinge connections for awning frames or side arms whereby awnings may be quickly attached to or detached from window frames, or the like, without the use of tools, and particularly without inserting or removing bolts, screws, cotter pins, or other fastening devices.

The primary object of the invention is to provide a generally improved hinge connection or coupling of the class indicated which will be exceedingly simple in construction, cheap of manufacture, and efficient in use.

A further and important object is the provision of a hinge connection or coupling without the use of bolts, screws, or other threaded fastening elements, and in which the hinge or coupling members may be quickly assembled or disassembled in the act of putting up or taking down the awning.

A still further and important object is the provision of an improved gravity operated lock for the bearing portion of the hinge or coupling members in which the liability to damage or disarrangement of parts while in use will be reduced to a minimum.

With the above mentioned and other ends in view, the invention consists in the novel construction, arrangement and combination of parts, hereinafter described, illustrated in some of its embodiments in the accompanying drawings, and particularly pointed out in the appended claims.

Referring to the drawings, forming a part of this specification, Figure 1 is a side elevation of an awning fitting, constructed in accordance with this invention, embodying hinge or coupling members connected to a window frame and an awning frame side arm, taken from the inner side thereof, and showing the parts in their normal or connected positions.

Fig. 2, a top plan view of the relatively fixed bracket or hinge member and the pivoted gravity lock therefor, the dotted lines showing the relative position of the gravity lock and of the pivoted or eye end of the awning frame side arm preparatory to being placed upon the bearing portion of the hinge or bracket member.

Fig. 3, a perspective view of the relatively fixed bracket and of the gravity lock in disassembled relation, one of the prongs or bifurcations being bent outwardly preparatory to being assembled or pivotally connected to the hinge bearing of the fixed bracket through the integral bearing lug or projection forming the pivot connection of the gravity lock.

Fig. 4, a fragmentary perspective view of the improvement incorporated in a hinge or coupling member of the slide and rod type.

Similar numerals of reference designate like parts throughout all the figures of the drawings.

The improved fitting embodies hinge or coupling members adapted to be attached to window and awning frames in any suitable and convenient manner. In the present instance, I have shown my improvements applied to a relatively fixed hinge or coupling member of the bracket type, as illustrated in Figs. 1, 2 and 3 of the drawings, or to a hinge or coupling member of the relatively movable slide type adapted to operate on a guide lock, as shown in Fig. 4 of the drawings.

When applied to a coupling or bracket member, the latter preferably comprises a base or attaching bracket 1, having openings 1^a, for use in attaching the same to a window frame member 2, or other suitable means of support, by means of attaching elements or screws 3. In this specific form also the attaching base is provided with a bracket arm 1^b, terminating, in the present instance, in a laterally extending bearing member or element 1^c. The bearing element 1^c for connecting the hinge or coupling members is preferably formed integral with the bracket arm or member 1^b, as shown, and when used as a hinged connection for awning frames the brackets are preferably arranged in pairs with the bearing elements 1^c extending toward each other so that the awning side arms or rods 4 may be mounted upon or detached from such bearing elements from the inner sides thereof.

In the present instance, the second hinge

or coupling member 4^a is in the specific form of the usual frame or eye end for conveniently attaching the awning side arms 4 and forming a pivot support therefor.

The inner end of the bearing member 1^v preferably terminates in a reduced or flattened portion 1^d, adapted to extend or project through the inner sides of the hinge or coupling members 4^a, said reduced or flattened portion 1^d preferably extending vertically, as shown, and being provided with a transverse opening 1^e, for forming a part of the pivoted connection of the gravity lock, hereinafter described.

The flattened or reduced portion 1^d is preferably formed by means of inset or cut-away sides 1^f, and as a means of providing a gravity lock or retaining device to hold the hinge or coupling members 4^a on the bearing members 1^e when mounted and of demounting or detaching said hinge or eye end 4^a when it is desired to take down the awning, a bifurcated locking member 5, is provided, said member 5 preferably corresponding in cross section to the cross section of the base portion of the bearing element 1^b and being provided with a central recess adapted to receive and contain the flattened or reduced portion 1^d when the parts are connected.

As a means of detachably connecting the locking member 5 to the end portion 1^d of the bearing 1^e without the use of threaded elements, such as bolts, screws, or the like, the locking member 5 is preferably provided with bifurcations or arms 5^a, adapted to straddle the reduced portion 1^d and corresponding in dimensions to the dimensions of the cut-away sides or recesses 1^f when the locking member 5 is in its unlocked position, as shown by dotted lines in Fig. 2 of the drawings, preparatory to the insertion or removal of the eye or bearing members 4^a. As a means of providing a suitable bearing element or connection between the opening 1^e of the portion 1^d and the arms of the locking element, one of the arms 5^a is preferably provided on its inner side with a bearing lug or projection 5^b, adapted to extend into the transverse opening 1^e when the arms 5^a are closed, as shown in Figs. 1, 2 and 4 of the drawings.

The gravity lock 5 is preferably formed of suitable malleable or bendable material so that in the act of initially assembling the parts, as suggested in Fig. 3 of the drawings, one of such arms may be bent out slightly until the integral bearing member or projection 5^b is brought into registration with the transverse opening 1^e whereupon such arms may be bent to their closed assembled position, the parts being preferably assembled in loose relation to each other, as suggested in the drawings.

If desired, the improvements may be incorporated in a hinge or coupling member of the slide type, as illustrated in Fig. 4 of the drawings, and in which instance the base of the bracket may comprise a sleeve member 1^g, in lieu of the fixed attaching bracket 1, said sleeve 1^g being adapted to slide on the usual guide rod 6.

Having thus described some of the embodiments of my invention, without having attempted to set forth all the forms in which it may be made, or all the modes of its use, what I claim and desire to secure by Letters Patent is,—

1. An awning fitting, comprising a bracket hinge having a bearing member terminating in a reduced portion provided with a transverse opening, and a pivoted gravity lock having a pair of arms straddling said reduced portion, one of said arms having a bearing on its inner side extending into said transverse opening of said reduced portion forming a pivot connection.

2. An awning fitting, comprising a hinge member including an integral bearing carrying a complementary hinge member and having a reduced portion at one side of said complementary hinge member provided with a transverse opening, and a bifurcated locking member straddling said reduced portion, one of said bifurcations having a bearing portion extending into said transverse opening forming a pivotal connection between said locking member and said hinge bearing member.

3. A hinge for awnings, comprising a bracket hinge member having a bearing portion for a second hinge member and having cut-away sides forming a reduced vertically extending lug having a transverse bearing opening therein, a second hinge member on said bearing portion, and a pivoted section having spaced arms corresponding in dimensions to the dimensions of the cut-away sides forming said lug, one of said arms being provided with a projection on its inner side extending into said transverse opening of said vertically extending lug and forming a pivoted connection.

4. A hinge connection for awnings, comprising a hinge section having an arm provided with an integral laterally extending bearing element removably receiving and carrying a second hinge section and provided with a transverse opening at one side of said second hinge section, and a pivoted element having arms, one of said arms having a pivot forming element extending into said transverse opening, said pivoted element in one position extending in axial alignment with and forming a continuation of said bearing element for receiving or detaching the second hinge section and dropping by gravity forming a pendant lock on the side of said second hinge section when the latter is connected.

5. An awning fitting, comprising a bracket having a hinge bearing member and a pivoted gravity lock member, one of said members having a bearing lug having a transverse bearing opening therein and the other having a pair of arms straddling said bearing lug and having a bearing on the inner side of one arm extending into said transverse opening of said bearing lug forming a pivot connection between said members.

In testimony whereof I have affixed my signature.

WALTER C. ASTRUP.