Feb. 12, 1957 H. C. WELLS 2,780,848

ADJUSTABLE PITCH AWNING

Filed Sept. 1, 1955

Fig. 1.

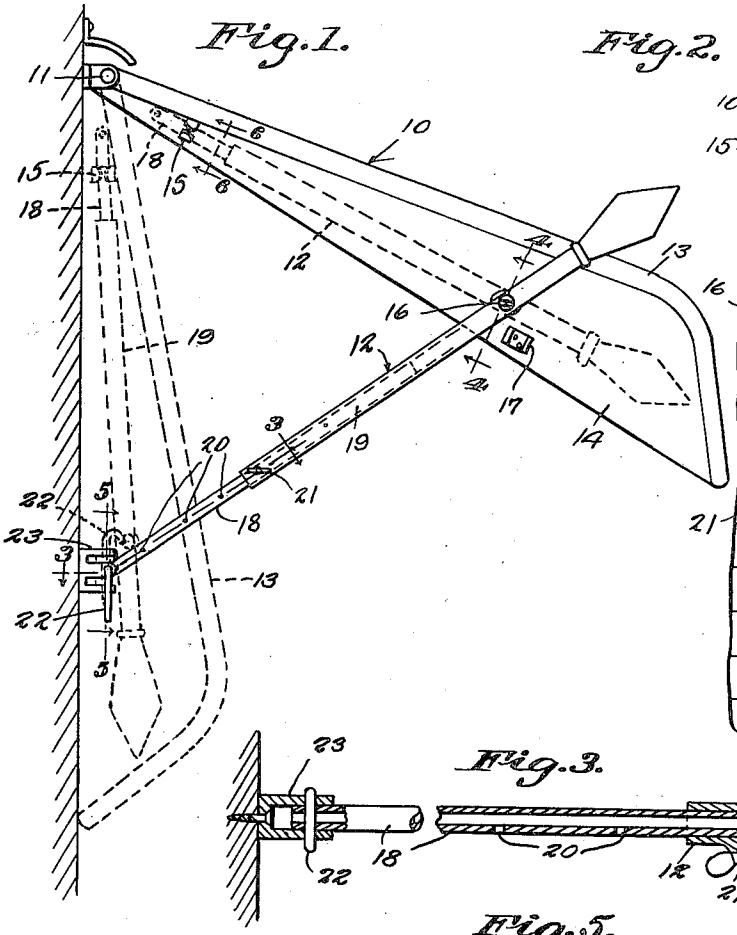


Fig. 2.

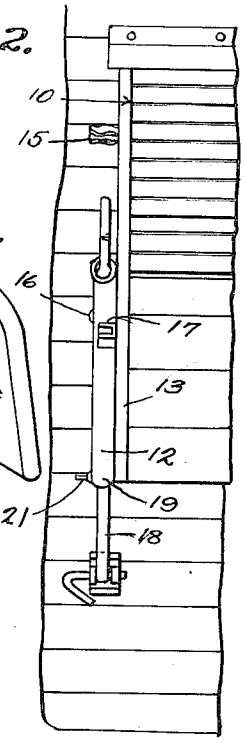


Fig. 3.

Fig. 4.

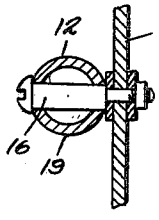


Fig. 5.

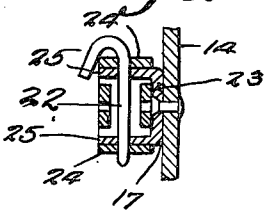


Fig. 6.

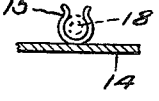


Fig. 7.

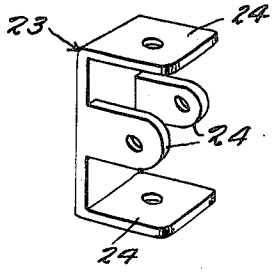
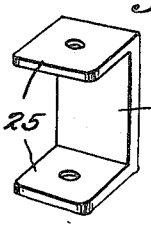


Fig. 8.



H. C. Wells
INVENTOR

BY C. A. Snow & Co.
ATTORNEYS.

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ADJUSTABLE PITCH AWNING

Harry C. Wells, Lake Worth, Fla., assignor to Seaview Industries, Inc., Miami, Fla., a corporation of Florida

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1 Claim. (Cl. 20—57.5)

This invention relates to an adjustable pitch awning, and to certain novel features therein. This device is particularly adapted for use in areas subject to storms, hurricanes, blizzards or high winds to give assured protection to windows from the elements.

Heretofore, much difficulty has been experienced with the use of conventional awnings, canopies and marquees, due to damage in inclement weather, to the tedious effort needed for frequent adjusting and lifting, and to the labor and danger occasionally involved in the seasonal task of installing and taking them down.

An object of this invention is to provide a reliable awning structure which avoids these difficulties, can be retained in place throughout the year, and used as needed as a shutter and storm cover.

Another object is to provide such an awning, which is durable, simply constructed, and of moderate cost.

A further object is to design this awning structure so that it can be easily and securely installed and adjusted and so retained without destructive movement or loosening in high winds or bad weather.

Other objects and advantages of the invention will become apparent in the body of the specification and claim.

One embodiment of the invention is herein described and illustrated.

In the drawings:

Fig. 1 is an elevation of my awning structure;

Fig. 2 is a side view of the end of the structure, as seen in Fig. 1;

Fig. 3 is a plan view, enlarged and partly in section, of the telescoping arm, taken along line 3—3;

Fig. 4 is an enlarged detail side view in section of the telescoping arm and adjacent side shield along line 4—4 of Fig. 1, showing the pivot pin connection;

Fig. 5 is an enlarged detail side view in section, along line 5—5 of Fig. 1, of the shutter clip and wall attachment engaging the retaining pin;

Fig. 6 is an end view of the spring clip;

Fig. 7 is an enlarged isometric view of the wall attachment; and

Fig. 8 is an enlarged isometric view of the shutter clip.

Various products have been put on the market which have been compensations for some of the difficulties heretofore encountered, but none is known which has solved the entire problem with the reliability, simplicity, and reduced cost of my invention.

The awning structure which is the preferred embodiment of my invention is seen in Figs. 1 and 2.

The awning 10 is of rigid construction, composed of metal such as aluminum or steel, or of fiber glass or other suitable tough, rigid material. Supporting hinges 11 are attached horizontally to a vertical wall above a window or other opening therein. Hinge pins attach the awning pivotally, to these hinges along the upper horizontal back side of the awning as seen in Fig. 1. The awning 10 is supported and held in adjusted position by telescoping arms 12. The hinge pins are close to the wall and may be shielded from above as shown, to avoid dripping of water below.

No canvas is used in the construction of this awning, as it is too flimsy. The surfacing material is tough, rigid, but thin and is attached to a sturdy frame. The top of this awning is flat and at the highest adjustable position slopes gently outwardly as a roof top. It has a cambered outer, downwardly curved edge which merges into a downwardly sloping, short, front section. Frame bars 13 follow this configuration and holds side shields 14, which are approximately triangular in shape, in position. This curved structure further adds to the strength and rigidity of the awning. The dotted line position of the frame bars 13, Fig. 1, indicate the position of awning 10, when lowered and attached to the wall as a shutter or storm cover. As is apparent in this showing the center of gravity is considerably further out from the wall than are hinge pins 11. This causes awning 10 to snugly hug the wall in closed position.

Each side shield 14 has mounted thereon a spring clip 15 near the upper inner end, for attaching telescoping arms 12, and a shutter clip 17 is secured to each shield 14 adjacent pivot pin 16. Pivot pin 16 has the form of a special bolt, with enlarged shank adjacent the head, as a pivot journal, and a short small outer shank threaded at the end. The short shank is mounted on side shield 14 with a nut and two wide washers to distribute the load. The telescoping arm 12 is composed of two hollow tubular parts, the inner one 18 shown nearest the wall slides smoothly within the outer tubular part 19.

The inner tubular part 18 has a series of transverse horizontal holes 20 to selectively receive the adjusting pin or bolt 21, which is mounted near the inner end of tubular part 19, as seen in Fig. 3. This adjusting pin or bolt 21 is of suitable construction for the purpose, but is shown with a winged head and threaded shank, for ease in adjusting the awning and holding it in adjusted position. A longer smooth shank, outer threaded end and a winged nut could be used if desired. The outer tubular part 19 of the telescoping arm 12 is pivotally attached to the awning 10 on the side shield 14 by means of pivot pin 16. This pivot pin 16 is passed through a horizontal bore in tubular part 19 before it is attached with the washers and nut to the side shield 14. As seen in Fig. 4 the enlarged shank of pivot pin 16 is in smooth bearing engagement with the bore of tubular part 19. The inner lower end of inner tubular part 18 has a transverse horizontal hole therethrough to receive a retaining pin 22 for pivotal attachment of the telescoping arm 12 to the wall. A retaining pin 22 is mounted in a wall bracket 23 for pivotally holding the inner end of telescoping arm 12. One bracket 23 is used for each telescoping arm 12. These are horizontally spaced as are the arms 12. The wall bracket 23 is rectangular in shape and has an outwardly extending lug 24 on each of the four sides as seen in Fig. 7. Each lug 24 has a center hole therethrough to receive retaining pin 22. The two lugs with the horizontally aligned holes receive retaining pin 22 to hold the awning 10 in properly adjusted outward position. The two remaining lugs 24 with vertically aligned holes are used with retaining pin 22, Fig. 5, to hold the awning 10 in closed or shutter position, as seen in dotted lines Fig. 1.

When it is desired to place awning 10 in closed or shutter position, arm 12 is telescoped to its shortest position, the adjusting pin or bolt 21 is tightened and telescoping arm 12 is pivoted to the dotted line position of Fig. 1. The inner end of the inner tubular part 18 is then nested into spring clip 15 as shown. The shutter

clip 17 has two outwardly extending lugs 25 with vertically aligned holes, Fig. 8. The shutter clip 17 inter-engages with wall bracket 23, Fig. 5, when awning 10 has been lowered to shutter position. Retaining pin 22 is then passed vertically downward through the holes in the four aligned lugs, which now hold the shutter clip 17 and wall bracket 23 together.

One embodiment of the invention has been disclosed herein, in detail. However, various modifications of the disclosed device may be made within the scope of the appended claim.

I claim:

An adjustable awning structure comprising a sheet metal body, right angularly disposed side members secured to said body, means hingedly mounting the inner end of said body on a vertical wall, a pair of extensible supporting arms, means pivotally securing the outer end of each arm to a side member, a pair of bracket members for attachment to the wall below said hinged means, each bracket being formed of a vertical base plate, upper and lower apertured ears extending from said plate,

and a second pair of apertured ears extending from the vertical edges of said base plate and disposed at right angles to said upper and lower ears, a U-shaped clip fixed to each side member adjacent said pivot means, the parallel legs of said clip being apertured and said legs being engageable in the collapsed position of said body between said upper and lower ears with the apertures on said ears and legs registering, a locking pin engageable through said registering apertures, the inner end of each arm being apertured and engageable between said second named pair of ears with said pin extended horizontally through said latter ears and the inner end of said arm to hold said body in extended position.

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