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FIXED LOUVERED AWNING ASSEMBLY

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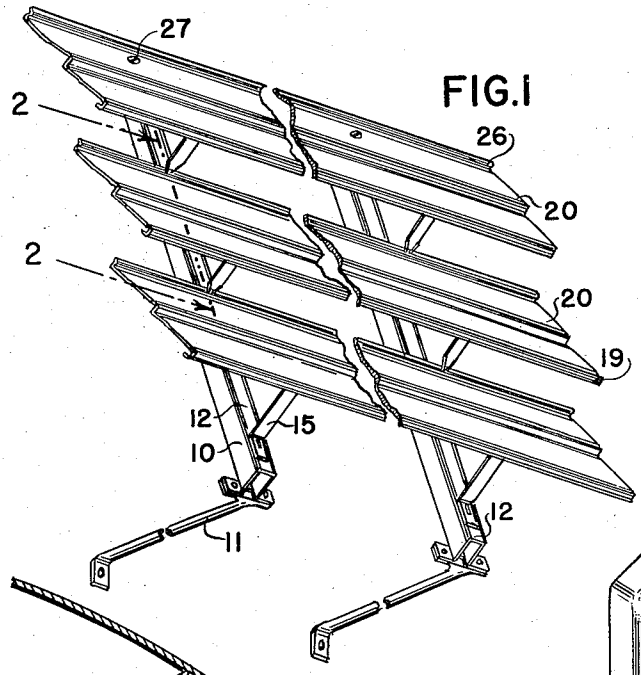


FIG.1

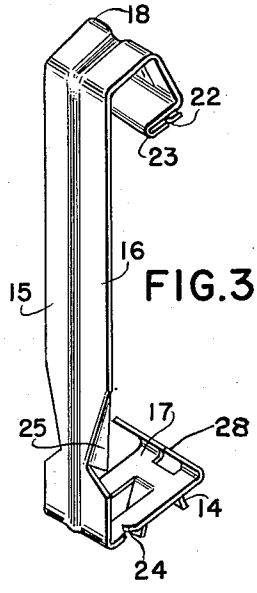


FIG.3

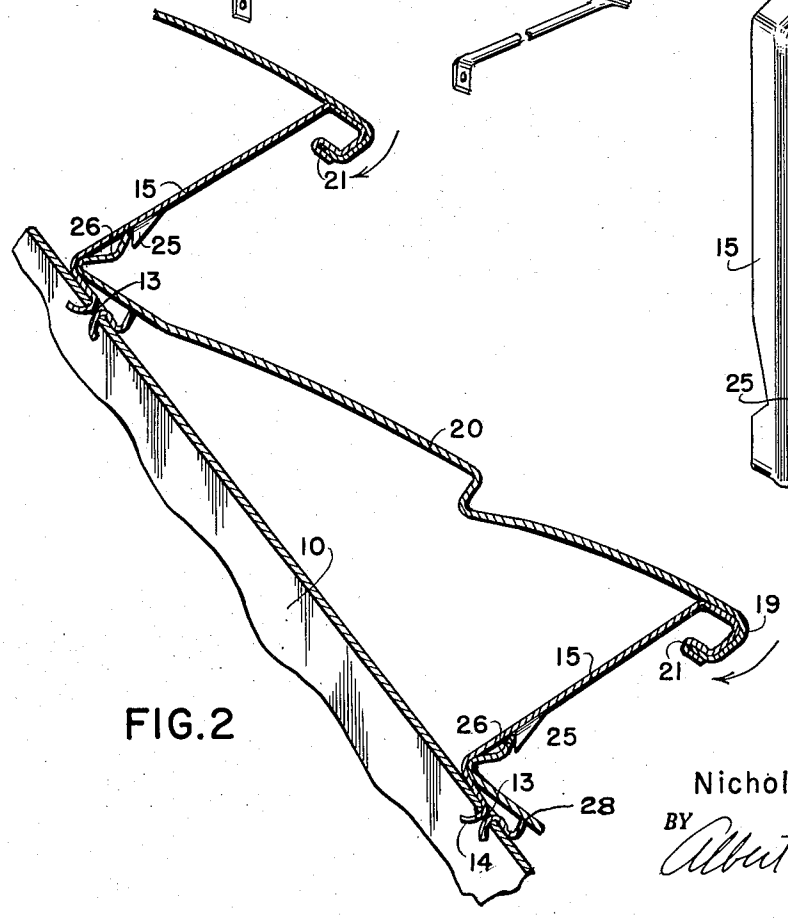


FIG.2

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FIXED LOUVERED AWNING ASSEMBLY

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3 Claims. (Cl. 20—57.5)

This invention relates to awnings, and more particularly, metal awnings which are adapted to permit the free ventilation of air therethrough, while providing shade.

Previously known awnings which were formed of a plurality of slats held together in a partially opened relationship, are of highly complicated structure and require specialized tools and jigs for assembly. Such awnings could be assembled only at the factory or place of manufacture and had to be shipped in an assembled condition, as a result of which they required a large amount of shipping space.

Accordingly, it is an object of the present invention to provide an awning structure which may be assembled with a minimum amount of difficulty and through the use of ordinary hand tools.

Another object of the present invention is to provide an awning assembly which may be shipped in a "knocked down" state so as to occupy a minimum amount of shipping space.

A further object of the present invention is to provide a metal awning which will be rigid enough to withstand the rigors of weather and high winds.

A still further object of the present invention is to provide a metal awning which may be assembled by inexperienced workmen.

A feature of the present invention is its interlocking stay construction which grasps the leading edge of one awning slat and secures the trailing edge of the next adjacent slat.

Another feature of the present invention is its stay gripping means for preventing slat slippage.

A further feature of the present invention is the interchangeability of parts.

The invention consists of the construction, combination and arrangement of parts as herein illustrated, described and claimed.

In the accompanying drawings forming a part hereof, is illustrated one form of embodiment of the invention, in which drawings, similar reference characters designate corresponding parts, and in which:

Figure 1 is an isometric view of a complete embodiment of the present invention in an assembled form.

Figure 2 is a sectional view taken on line 2—2 of Figure 1, somewhat enlarged.

Figure 3 is an isometric view of a stay member made in accordance with the present invention, somewhat enlarged.

Referring to the drawings, **10** indicates a frame formed of spaced members which may be made of extruded aluminum, sheet iron or the like and which is secured at its upper end to a building (not shown) and anchored at its lower end to said building by means of struts **11** in such a manner that the said frame **10** is angularly disposed with respect to said building.

The upper faces **12** of the frame **10** are provided with a plurality of openings **13**, best shown in Figure 2. Each of the openings **13** is adapted to receive therein, the clip portion **14** of a stay member **15**.

The stay member **15**, best shown in Figure 3, consists of an upright portion **16** which, when the said stay member is secured to the frame **10** by means of the clip **14**, is in a substantially normal position with respect to the upper surface **12** of said frame **10**.

The stay member **15** has a base portion **17** extending from the bottom of the upright portion **16** so as to lie parallel to the upper surface **12** of the frame **10** to which it is attached. The clip member **14** is struck from the base portion **17**, as best shown in Figure 3, and is bent downwardly so as to slip within the openings **13** in the frame **10**.

The upper end of the stay member **15**, generally indicated at **18** in Figure 3, is bent to conform to the shape of the forward lip **19** of a slat member **20** which is secured to the frame **10** by the said stay member **15**.

The upper portion **18** of the stay member **15** slides beneath the leading portion **19** of the slat **20** and grasps the edge **21** of said slat **20**.

The stay member **15** is provided with gripping teeth **22** whereby the slat **20** may be prevented from sliding out of engagement with the said stay **15**. Two such teeth **22** are provided in the upper portion **18** of the stay member **15** and are formed by being inwardly struck from the edges **23** of the stay **15** in the area where the upper portion of the stay **15** grasps the edge **21** of the slat **20**.

Another pair of grasping teeth **24** are provided in the bottom portion **17** of the stay **15** and are formed so as to extend upwardly in the direction of the slat **20** which is engaged by the stay **15** and an upwardly bent lip **28** at that point.

Locking ears **25** complete the construction of the stay member **15**. The locking ears comprise inwardly bent portions of the upright body **16** of the stay **15**, said ears **25** being located at a point on the stay **15** so that they will overlie the trailing edge **26** of the slat **20**.

When it is desired to assemble the awning into the form shown in Figure 1, the first slat **20** may be secured to the frame **10** by means of screws **27** so as to locate the trailing edge **26** of the slat **20** adjacent the building. The leading portion **19** of the slat **20** is then engaged by the stay **15** in the manner indicated above.

The leading portion **19** of the slat is so constructed that after the stay **15** is slipped into engagement with the said leading portion **19**, it will require a certain amount of bending in the direction indicated by the arrow in Figure 2 before the clip portion **14** of the stay **15** can be inserted into the openings **13**.

By reason of this bending, the slat **20** is put under tension and operates to spring load the assembly into a permanently held awning. The spring loading action further causes the teeth **22** to bite into the metal of the slat **20** and prevent any lateral slipping of the slat within the stay **15**. The next slat **20** is then inserted in the stay member **15** in the manner shown in Figure 2 so that its trailing edge **26** slips beneath the ears **25** and its leading portion **19** is disposed outwardly and in a general direction away from the building. The portion of the slat **20** near the edge **26** rests upon the lip **28** as a fulcrum in spring loading the slat.

When the second slat **20** is spring loaded by the insertion of the succeeding stay member **15** in the manner previously described, the teeth **24** provided in the base of the stay **15** with which it is engaged, are caused to bite into the metal of the said second slat **20** to prevent lateral slippage thereof.

By repeating the foregoing operations, a complete awning assembly can be constructed by workmen of little skill and by use of no other tool than a screwdriver which is employed for the purpose of securing the screws **27** and spreading the portions of the clip **14** which extend through the openings **13** in the frame members **10**.

From the foregoing it will be seen that there has been provided a novel awning assembly which lends itself to great economies in shipping, assembly and materials. The parts of the awning are interchangeable and only a few parts are required to complete the entire structure.

Having thus fully described the invention, what is claimed as new and desired to be secured by Letters Patent of the United States, is:

1. A metal awning structure comprising, spaced frame members, a plurality of upstanding stay members, a hook-shaped portion on one end of said stay, a base portion formed on the other end of said stay and disposed at right angles to the upstanding portion, an upwardly bent lip on the outer end of the base, a depending clip struck from the base portion and insertable within the frame openings whereby the stays are secured at their lower ends to said frames, a plurality of slats on the frame members, each of said slats being engaged at its trailing edge by a stay at a point near the base of said stay and at its leading edge by the hoop-shaped portion of the next adjacent stay whereby said slats are locked to the frames in open louvered relationship to one another.

2. A metal awning structure comprising, spaced frame members, said frames having a series of openings in the upper surfaces thereof, a plurality of upstanding stay members, a base portion formed on the stay and disposed at right angles to the upstanding portion, a depending clip struck from the base portion and insertable within the frame openings whereby the stays are secured at their lower ends to said frames, a toothed hook-like member extending in a generally outward direction from the free end of each stay, a plurality of slats on the frame member, each of said slats being engaged at its

trailing edge by a stay at a point near the base of said stay and at its leading edge by the said hook-shaped portion of the next adjacent stay whereby said slats are locked to the frames in open louvered relationship to one another.

3. A metal awning structure comprising, spaced frame members, said frames having a series of openings in the upper surfaces thereof, a plurality of upstanding members, a base portion formed on the stay and disposed at right angles to the upstanding portion, a depending clip struck from the base portion and insertable within the frame openings whereby the stays are secured at their lower ends to said frames, a toothed hook-like member extending in a generally outward direction from the free end of said stay, a pair of ears on the upstanding portion of the stay spaced from the bottom thereof, a plurality of slats on the frame members, each of said slats being engaged at its trailing edge by a stay at a point near the base of said stay by means of the ears and at its leading edge by the hook-like member at the outermost end of the next adjacent stay whereby said slats are locked to the frames in open louvered relationship to one another.

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