June 30, 1964 L. J. GONNELLO 3,138,832

AWNING

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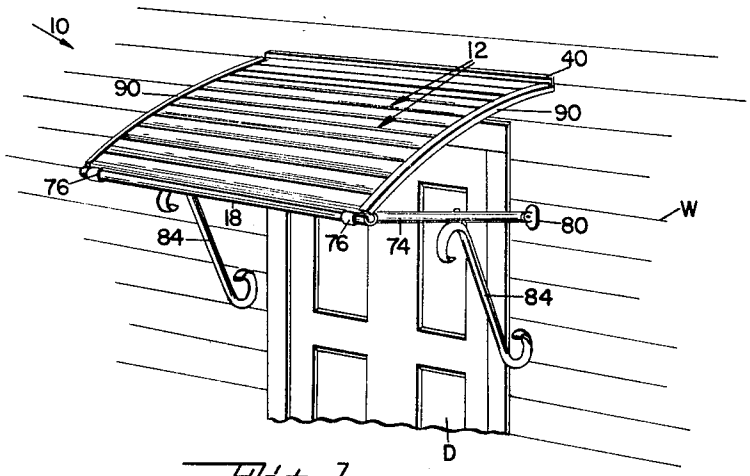


Fig. 1.

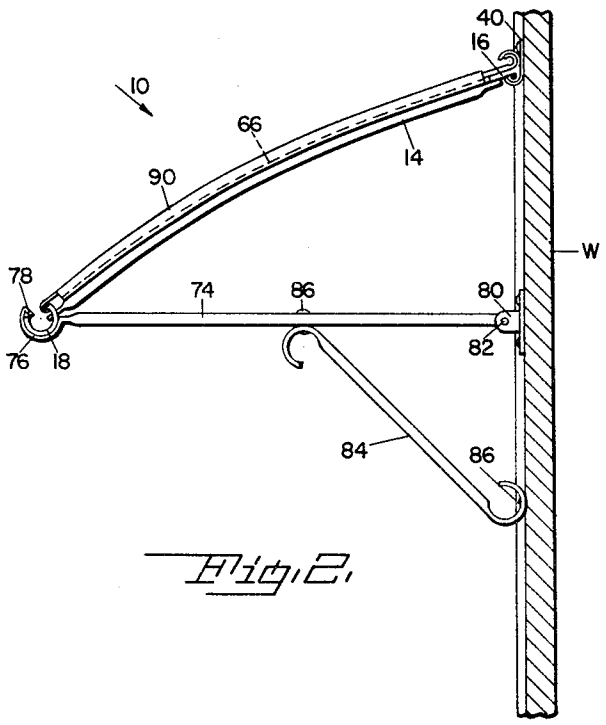


Fig. 2.

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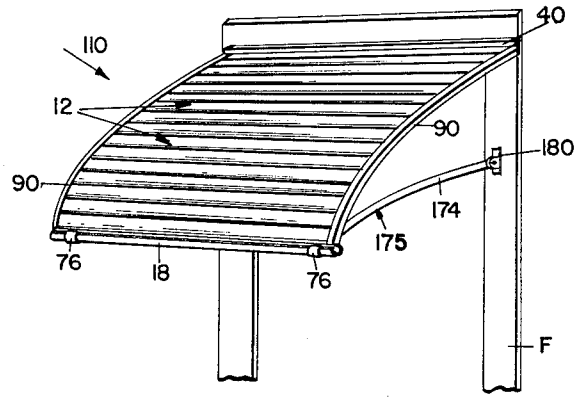


Fig. 3.

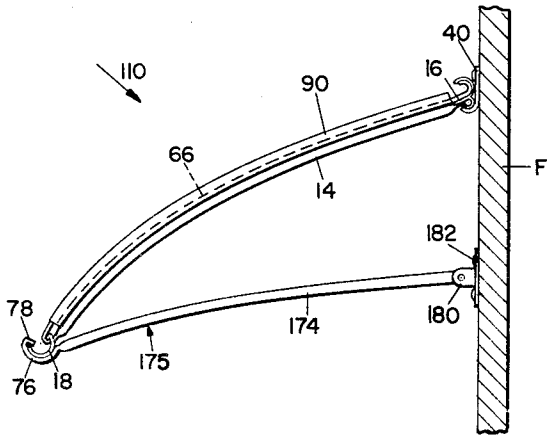


Fig. 4.

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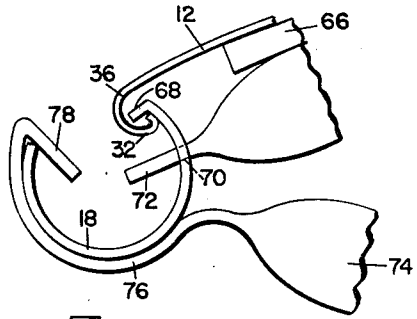


Fig. 5.

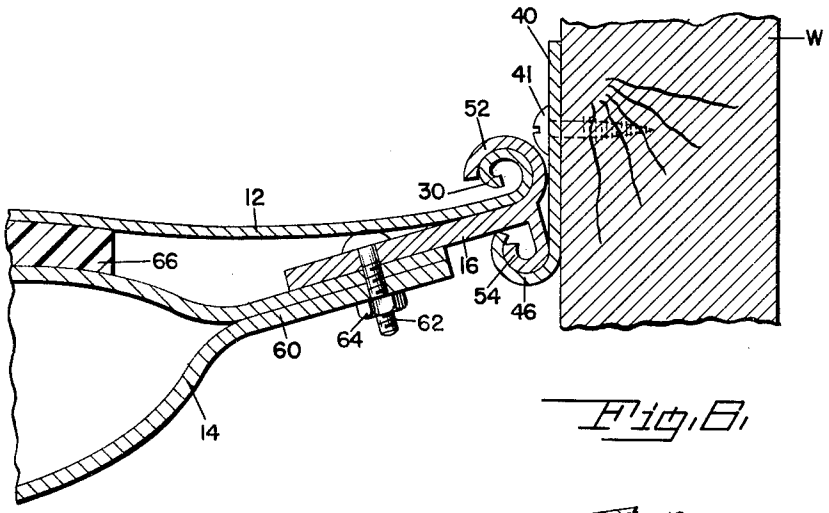


Fig. 6.

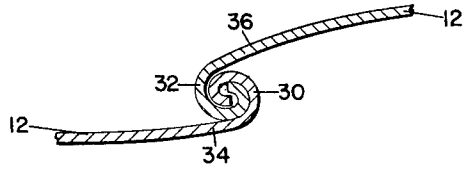


Fig. 7.

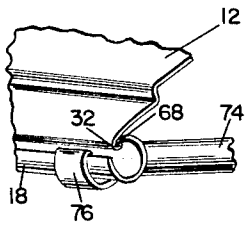


Fig. 8.

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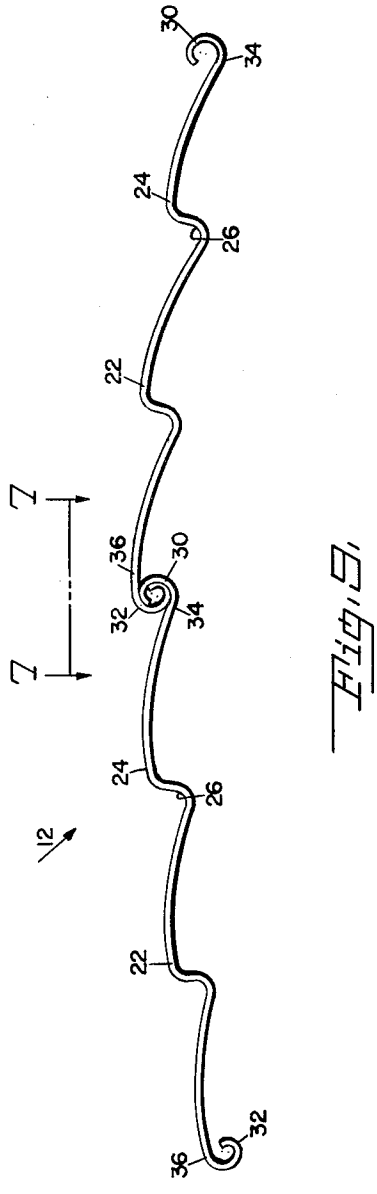


Fig. 5

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United States Patent Office 3,138,832 Patented June 30, 1964

3,138,832

AWNING

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Filed Sept. 6, 1962, Ser. No. 221,760
4 Claims. (Cl. 20—57.5)

This invention relates generally to new and useful structural refinements and improvements in awnings or canopies which may be used for windows, doors and porches or the like of homes, apartments, and/or other types of buildings, and comprehends more particularly awnings or canopies of the nonfolding, relatively rigid, multi-slatted, type which are familiarly adapted for more or less permanent attachment to a building wall adjacent a door frame or window frame or other building opening.

Without intending to place undue limitations upon the scope of the invention beyond what may be required by the state of the prior art, the particular embodiment may be briefly described as a window awning or door canopy of the permanent type wherein a plurality of horizontally-disposed angularly-inclined roof panels or blades or slats are fixed or rigidly maintained in respective spaced overlapping positions as to each other when in assembled operative position and are of a design, configuration and dimension as to be compactly packaged with the other related components of the structural unit for shipping or storing purposes when in disassembled non-operative position.

It will be helpful to an understanding of the invention to consider some of the more essential features and aspects of the prior art and of the present invention, wherefore same may be kept in mind during subsequent reading of the detailed description of the practical embodiments of my improvements and illustrations thereof in the hereinto annexed drawings.

As known, awnings for windows of homes take many forms, one of the earliest and still popular form being the canvas awning of the folding variety with the frame thereof being lifted by ropes or the like to furl the awning closely against the window or door frame being served. Such are classifiable as of the impermanent type due to the relatively short life of their canvas parts and the omnipresent possibility of their being torn away from their moorings by high winds, not to mention their being faded and weather beaten by the elements.

Of the more permanent type, awnings have been heretofore known and made from wooden slats or the like and more recently from metal, but same have been generally cumbersome and have hardly loaned themselves to assembly from, and dissassembly into, kit form by the average home owner.

I have long been aware of a paucity of suitable instrumentation among existing practices in the trade for solving the problem of providing the ultimate consumer with a reasonably priced kit of components which he could readily and quickly assemble into an awning which, appearancewise and otherwise, would be marketably acceptable. Such prior art structures as have appeared have been attended with certain serious disadvantages and limitations which have militated against their more general use. In contradistinction, I have discovered that the prior art difficulties and disadvantages are overcome and new advantages accrue when and as the structure of

my invention is employed. Until now, no satisfactory construction has been forthcoming which combines in a unique manner the multiplicity of desirable features in a construction of this type.

Accordingly, it is a principal object of the invention to provide an inventively novel awning construction of the type wherein a multiplicity of interconnectible roof panels or slats, each being slightly arcuate in cross-section and being provided with suitably-rolled opposite longitudinal edges, are jointed in overlapping and interlocking manner at their adjacent mating edges to allow a composite structure comprised of resiliently-interconnected units and obviating the necessity for other supplemental securing means so common to prior art constructions.

Same offers an improvement over known prior art constructions of a kindred nature in that the awning is made of materials which are strong and light, easily fabricated, assembled and installed, and allowing a smart appearance when in operative position, with the slats extending transversely of the structure and with one endmost or inboard slot being articulately jointed to a means stationarily secured to a building wall, door, window casing or the like, and with the other endmost or outboard slat being articulately joined to a rain gutter means.

The invention envisions an awning with components which are so designed as to be adapted to be fabricated from aluminum or other light and fairly strong material, so as to be transversely-flexible and longitudinally-rigid to form a unique, highly durable, structure simple in design and easily and readily assembled and/or disassembled so as to lend itself for service in do-it-yourself kits wherefore even the most inexperienced and non-mechanically inclined persons can install same.

For further comprehension of the invention, let it be stated that another salient object hereof is the provision of an awning which may be sold in unassembled form, within a conveniently-handled package, and readily and quickly assembled and mounted in place by the purchaser thereof for use selectively as an awning for a window or the like or a canopy for a door or the like at the will of the user.

As another refinement hereof, I teach the use of slats which preferentially, though not obligatorily will be multi-colored so as to lend a pleasing appearance to the assembled structure, which slats may be of metal or of translucent material, such as plaster reinforced with fiberglass or equivalent material.

Another particular object worthy of notice resides in the provision of connecting frame instrumentalities whereby novel fitting means between the slats and frame components, heretofore unrealizable, are achieved.

Another dominant aim hereof is to provide a structure serving alternatively as an awning or canopy and incorporating return arms having outer extremities configured for novel releasable embracement with a longitudinally-slotted rain gutter, and inner extremities novelly interengaged with a unique hinge mounting strip having means for a unique articulated connection with a house mounting strip in manner whereby the uppermost slat of the plurality thereof serves a shielding or guarding function providing against unwanted entry of light and/or rain at the junction between building and awning or canopy.

The organization of structure hereof offers a simple and easily installed aggroupment of parts that includes in-

cross-section, to allow a main body portion to be fixedly secured to building wall W adjacent door D or window frame F or other opening as by anchor screws 41 or equivalent through suitable apertures provided therein or by other suitable means and a lowermost, longitudinally-extending, outwardly projecting lip portion 46. See FIG. 6.

To allow the canopy or awning to be sold in unassembled form and to be easily and quickly assembled by the purchaser thereof, anchor screws 41 and other hardware would be included with the packaged kit.

House mounting strip 40 will be observed to extend throughout the full width of the canopy or awning to be formed.

Hinge amount 16, alternately denominated as the top of the frame, will be observed to be generally T-shaped in cross section defining a pair of curved lips 52 and 54 projecting outwardly from its main body portion in oppositely facing manner, curved lip 52 being delineated the upper lip and curved lip 54 being delineated the lower lip.

Lower lip 54 will be telescopically receivable within curved lip portion 46 of house mounting strip 40 so as to allow articulation of hinge mount 16 relative to house mounting strip 40. That is, lower lip 54 and curved lip portion 46, both constituting rolled, longitudinally-extending, edges of their respective components and being complementally configured, may be telescopically interengaged by sliding one within the other thereby forming an articulatable joint therebetween.

In assembled form, inboard flange or upper rolled edge 30 of uppermost or topmost roof panel 12 will be similarly interconnected with the complemental upper lip 52 of hinge mount 16.

As will hereinafter appear, roof panels 12 of the plurality thereof are interengaged to form a unitary structure and are tightly and tautly held relative to and between hinge mount 16 and rain gutter 18.

The inboard terminals of each of the rafters 14 are flattened as webs 60 are otherwise configured to facilitate securement to the hinge mount 16, extending transversely relative thereto, bolts 62 being extended through aligned apertures in said webs 60 and hinge mount 16 and nuts 64 being threaded thereon.

Preferentially, though not obligatorily, rafters 14, of identical configuration so as to be interchangeable, will extend outwardly from hinge mount 16 in laterally-spaced relation to each other, one adjacent each side edge of the composite structure.

Rafters 14 will be of generally smoothly arcuate form so as to project outwardly from and downwardly of hinge mount 16 when installed, and being articulatable relative thereto, may be disposed at any desired angle relative thereto, it being appreciated that one angle is a desideratum in the case of a door canopy and another angle is a desideratum in the case of a window awning.

A buffer or gasket member 66 will be adhesively secured to the upper side of each of the rafters so as to allow a yielding means to reasonably closely engage and support the under surfaces of the roof panels resting thereon.

To improve the overall appearance and to facilitate supporting the inclined portion of the awning, the slats which are arranged on the rafters preferably will extend a distance laterally therebeyond to provide an overhang.

Rain gutter 18 will be U or channel-shape in cross-section, with its open side normally facing upwardly for the normal rain-receiving function, extending in the direction of the longitudinal axis of the adjacent outermost roof panel and with which it is engaged in manner to be explained in due course.

The inboard longtiudinal edge of rain gutter 18 will be provided with an inwardly-projecting panel-engaging ledge 68 for purposes subsequently to be observed.

The rain gutter will be suitably apertured along its inboard side at 70 to receive the complementally-configured

outboard lowermost terminals 72 of rafters or stringers 14, thereby to constrain the rain gutter from longitudinal movement relative thereto.

The outboard flange or curled or rolled edge 32 of outermost roof panel 12 will be observed to be engaged around the longitudinally-extending panel-engaging ledge 68, as best shown in FIG. 5.

It is to be appreciated that the aforedescribed engaging means, first of innermost roof panel 12 with hinge mount 16, and second, of outermost roof panel 12 with rain gutter 18, provide the only fastening means between the complex or roof panels and the unitary frame, the use of supplementary fastening means thereby being dispensed with.

The respective roof panels are held tautly and firmly in position in their overlapping relationship with an arcuate or bowed curvature being imparted thereto upon assembly, as will appear.

The materials of the structure are such that, after having been sprung into position, the slats are so tightly grasped and held by the cooperating means that there is no possibility of any rattle or vibration of any of the individual slats or portions thereof, so that the awning is quiet in high winds.

With no parts to move relative to each other, there is no wear so that the life of the structure is considerably prolonged.

With particular reference to door canopy 10 (FIGS. 1 and 2), a means for maintaining rain gutter 18 and the outboard side of the roof panel complex in proper outwardly-projecting relation is shown to comprise a pair of laterally-spaced, parallel-disposed return arms 74 extendable in a generally horizontal plane between house wall W and their related rain gutter 18.

The outboard extremities of the return arms will each be of flattened web shape and configured in a hook shape as at 76 to complement the outer portion of the U-shaped outer configuration of the rain gutter in conforming manner serving to embrace and support same, said hook shaped portion terminating in an inwardly and downwardly directed lip 78 extendable over the outboard longitudinal edge of the rain gutter 18, serving positively to engage the rain gutter.

The inboard extremities of the return arms may likewise be of flattened or web form and be suitably apertured to facilitate ready attachment to conventional brackets 80 by known means such as screws 82.

In the case of said door canopy of FIGS. 1 and 2, a scroll member 84 such as of S-shaped or other pleasing configuration extends between and is secured to house wall W and each return arm 74 in a generally angular disposition, preferably being of flattened weblike form at suitable locations therealong to facilitate securement to wall W and its related return arm 74 as by screws 86.

The scroll members will provide additional support means for the door canopy and additionally will add a measure of beauty to the composite structure.

In the case of said window awning of FIGS. 3 and 4, scroll members 84 will preferentially be omitted and return arms 174 will be substituted for the aforedescribed return arms 74, said return arms 174 each having an inboard terminal secured in conventional manner to brackets 180 stationarily fixed to the window frame as by screws 182 and extending generally horizontally forwardly toward a smoothly downwardly curving portion 175 and having an outboard terminal as previously described.

In the cases, both of door canopy 10 and window awning 110, a channel member 90 of generally U-shaped configuration and constituting side trim may be engaged in accommodating and holding manner with the vertical edges of the slats at each side of the structure as by being snapped thereover so as to conceal the said edges and to lend beauty to the composite structure.

pair of scroll members arranged in laterally spaced relation, each scroll of the pair thereof being fixed to the building and to one of said return arms.

3. In an awning as set forth in claim 1 including resilient buffer means disposed between said roof panels and said rafters.

4. In an awning as set forth in claim 1 wherein said roof panels of the plurality thereof comprise a multiplicity of interconnectible slats, each slat being slightly arcuate in cross-section and being provided with rolled opposite

longitudinal edges, said slats being jointed in overlapping and interlocking manner at their adjacent mating edges to provide a composite structure of resiliently interconnected units.

References Cited in the file of this patent

UNITED STATES PATENTS

2,785,445	Phillips	Mar. 19, 1957
2,822,586	McNeil	Feb. 11, 1958
2,949,649	Macy et al.	Aug. 23, 1960

June 30, 1964 R. C. NEUMAN 3,138,833

RESILIENT GASKET

Filed June 21, 1962

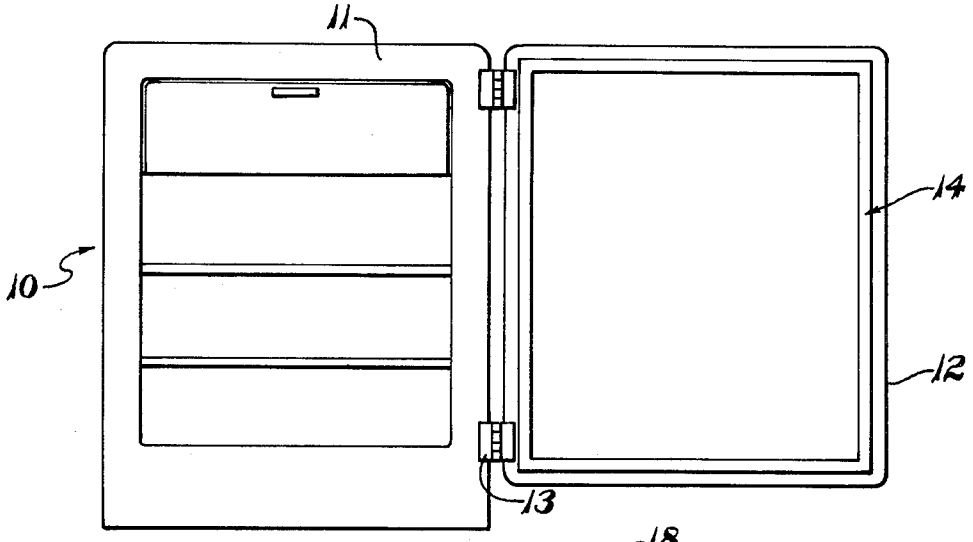


FIG. 1

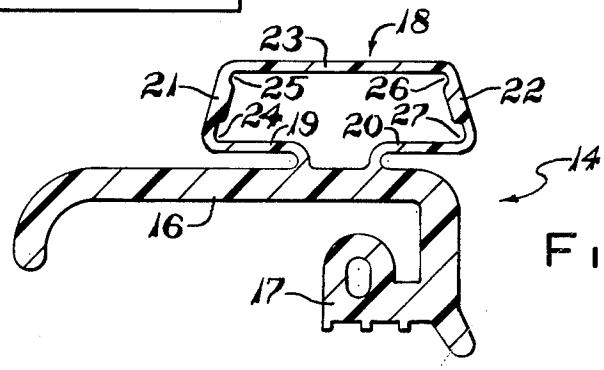


FIG. 2

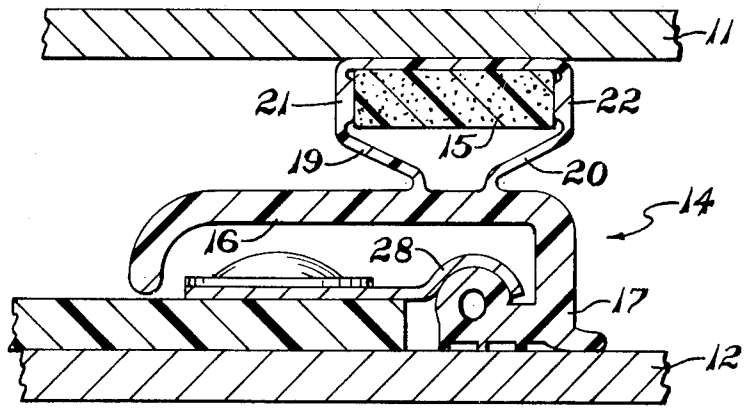


FIG. 3

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