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LOUVERED AIR CONDITIONER COVER

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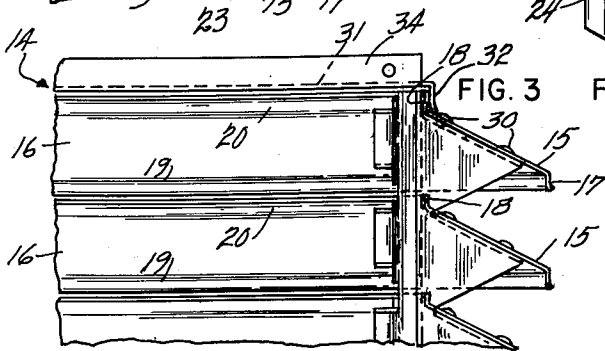
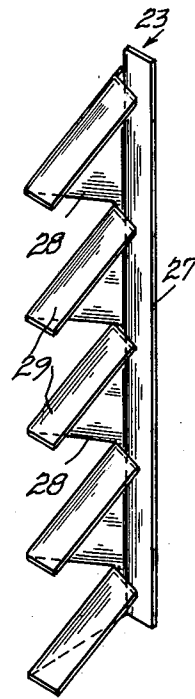
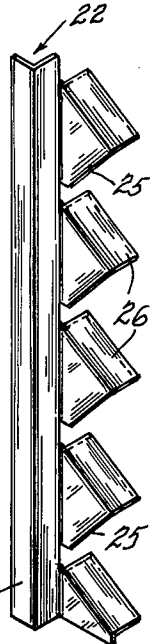
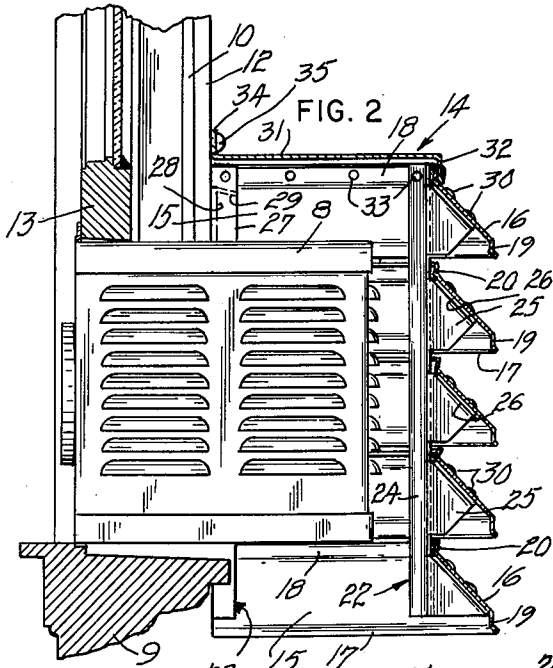
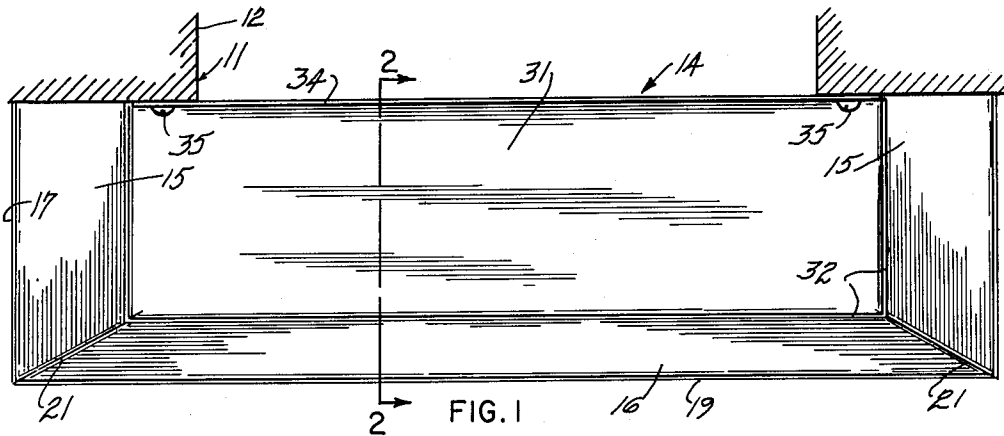


FIG. 4

FIG. 5

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LOUVERED AIR CONDITIONER COVER

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4 Claims. (Cl. 98—94)

The present invention relates to means removably attachable to the outer face of a building wall for covering a disfiguring and unsightly object protruding from the wall. Such an object is a room air conditioning unit, and the invention has particular relation to a louvered cover of sheet metal for the protective housing of the otherwise exposed portion of the unit which overhangs its support in the wall and extends outwardly into space.

A main object of the invention is the provision of a louvered cover of the character and for the purpose set forth, which is of simple and durable construction, and so designed from an architectural point of view as to enhance the property.

In many instances a room air conditioning unit is supported upon and overhangs a window sill, and it is another object of the invention to provide a louvered cover for this overhanging portion, which is of such dimensions as to span the wall opening in which the window frame is set and be anchored against the face of the wall, the cover being separate and independent of the unit and all parts of the window per se so that the sash may be raised and louvered and the unit moved in or out at will without contact with or hindrance by the protective cover.

The cover is of general rectangular shape, open at the bottom and across its rear wall engaging face, and it is a further object of the invention to provide a structure of this character in which the front and two opposing sides are formed by superimposed louvers of such novel design, arrangement and slope as to withstand severe storms, keep out driving rain and salt spray, and prevent the development of air currents that would interfere with the proper functioning of the unit in the intake and exhaust of air.

And a still further object of the invention is, in providing a cover of the character described, to cause reflection of solar heat before it touches the unit. Thus the unit is kept shade cool, absorbs cool shaded air and operates with greater efficiency.

To these and other ends the invention consists of a louvered cover as will be fully set forth in the following more detailed description, and particularly defined in the appended claims.

The accompanying drawings, illustrating the invention and forming a part of the specification, are as follows:

FIG. 1 is a plan view of the cover or hood shown attached to the outer face of a building wall and spanning a window opening.

FIG. 2 is a vertical section on line 2—2 of FIG. 1. In this view, the invention is shown as a cover for an air conditioner supported upon a window sill and extending outwardly from the sill.

FIG. 3 is a fragmentary view in elevation of the invention, as seen from its open rear face.

FIGS. 4 and 5 are perspective views of front and rear upright members, respectively, which support the louver plates.

FIG. 6 is a view of the invention as seen in front elevation.

FIG. 7 is a sectional plan taken on line 7—7, FIG. 6, and looking in the direction of the arrows.

In the illustrated embodiment of the invention, see FIG. 2, there is shown in side elevation at 8 a typical room air conditioning unit supported upon the sill 9 of a window frame 10 set in an opening 11, FIG. 1, of a building wall 12. Also seen in FIG. 2 is a fragmentary

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portion of the lower window sash which is raised so that the bottom rail 13 rests upon the inner portion of the unit 8, spaces between the box-like unit 8 and the side rails of the window frame 10 being closed in the usual manner by adjustable plates not shown. That part of the unit 8 to be covered by the invention is the portion protruding beyond the outer face of the wall 12.

The cover, indicated generally by numeral 14, is, as hereinabove stated, a hood-shaped housing of rectangular formation open at the rear and with the front and two sides comprising a plurality of superimposed horizontally extending louvers.

The side louvers are formed by sheet metal plates 15 and the front louvers by similar but longer plates 16. Each plate 15 is formed along its front edge with a downwardly turned skirt forming flange 17 and along its rear edge with an upturned flange 18. The corresponding edges of the plates 16 are similarly formed with front and rear flanges 19 and 20, respectively.

The side plates 15 terminate at one end in the plane of the open rear face of the cover 14 and each of such plates 15 at its outer end has miter joint connection at 21 with a corresponding front plate 16. Thus the plates 15 and 16 of each louver are continuous along the sides and across the front of the cover 14.

Supporting the louver plates 15 and 16 is an inner frame structure comprising uprights 22 and 23 shown in detail in FIGS. 4 and 5, respectively, the uprights 22 being located at the front corners of the rectangular cover 14 and the uprights 23 at the rear corners. These uprights are preferably die-cut blanks shaped as shown by punch press or other suitable forming tools.

Each member 22 has an elongated flat portion 24, in this instance angular in cross section and from one longitudinal edge of which regularly spaced portions of the blank are turned laterally outward to provide brackets 25. The free upper parts of these bracket portions 25 are in turn bent laterally on the bias, and in the direction away from the part 24, to form downward sloping supporting surfaces 26 for the louver plates 16.

Each upright 23 has an elongated flat portion 27 along one edge of which regularly spaced portions of the blank are bent laterally outward to provide brackets 28 the upper free parts of which, like the parts 26 of brackets 25, are laterally turned along bias lines, but in this instance in a direction toward the elongated part 27, to provide downward sloping supporting surfaces 29 for the louver plates 15.

The louver plates 15 and 16 are secured to their inclined supporting surfaces 29 and 26 by any suitable fastening devices but preferably by non-rust rivets indicated at 30.

The angle of inclination of the bias lines along which the parts 26 and 29 are bent determines the slope of these parts and that of the louver forming plates 15 and 16.

Covering the inner frame structure comprising the uprights 22 and 23 is a top plate 31. This plate 31 has a continuous depending flange 32 along its front and side edges which fits snugly over and is secured by rivets 33 to the upturned inner flanges 18 and 20 of the plates 15 and 16 of the uppermost louver.

Along the rear edge of the top plate 31 is an upstanding flange 34 which by suitable anchor bolts 35 is secured to the face of the building wall 12 and is the means whereby the cover 14 is mounted with its open face flush with the wall.

It will be observed from the illustrated embodiment of the invention that the side louvers are of greater extent outwardly from the uprights 22 and 23 of the supporting frame structure than that of the front louvers from the front uprights 22—22. Consequently the slope

of the front louvers is steeper than those on the sides of the cover, a structural feature to be desired.

The downwardly turned outer flanges 17 and 19 and upwardly turned inner flanges 18 and 20 of the louvers provide baffles for keeping out rain and salt spray, and the openings between the louvers permit circulation of plenty of air so that there is no interference with the intake and output of air from the enclosed air conditioning unit 8.

The cover 14 is preferably made of a special aluminum alloy coated with a baked in enamel and an application of Turkish lacquer is included as an armored protection against salt spray.

It may also be stated that light-colored baked aluminum reflects 95% of solar heat before such heat touches the enclosed unit. Therefore the air conditioning unit is kept shade cool and by absorbing shaded air, the unit operates with maximum efficiency and with longer life.

It is to be understood that the specific embodiment of the invention, as described and shown in the drawings, in a window frame installation, is merely for the purposes of illustration, and that other installations are contemplated, such as through openings formed in the wall of the building apart from the window, such as are well known in the art.

What I claim is:

1. In a cover of general rectangular shape for housing that portion of an air conditioning unit protruding from a window opening in the side wall of a building, an inner frame structure including an upright at each corner of the cover, a plurality of brackets regularly spaced longitudinally of and extending laterally outward from said uprights and downward sloping flanges turned laterally from the top edges of said brackets, each of said uprights, its brackets and flange portions being integrally formed from a single blank of sheet metal, a plurality of superimposed longitudinally extending louvers forming the front and two sides of the cover, the rear side of the cover being open and said louvers being sheet metal plates supported upon and riveted to the said sloping flanges, downwardly turned flanges and upwardly turned flanges along the outer and inner longitudinal edges, respectively, of said louver plates, a top plate for said cover, a continuing flange turned downward from the front and side edges of said top, such top flanges engaging over the corresponding upturned inner flanges of the uppermost one of said louver plates and riveted there-

to, an upturned flange along the rear edge of said top and anchoring means for securing said flange to the building wall with the open rear face of the cover flush with the wall.

2. In a cover of general rectangular shape for housing that portion of an air conditioning unit protruding from an opening in the side wall of a building, an inner frame structure including an upright at each corner of the cover, a plurality of brackets regularly spaced longitudinally of and extending laterally outward from said uprights and downward sloping flanges turned laterally from the top edges of said brackets, a plurality of super-imposed longitudinally extending louvers forming the front and two sides with a cover, the rear side of the cover being open and said louvers being supported upon and fixed to the said sloping flanges, downwardly turned flanges and upwardly turned flanges extending along the outer and inner longitudinal edges, respectively, of said louver plates, a top plate for said cover, a continuing flange turned downward from the front and side edges of said top, at the top flanges engaging over the corresponding upturned inner flanges of the uppermost one of said louver plates and fixed thereto, an upturned flange along the rear edge of said top and anchoring means for securing said flange to the building wall with the open rear face of the cover flush with the wall.

3. In a cover of general rectangular shape for housing that portion of an air conditioning unit protruding from an opening in the side wall of a building, as described in claim 2, wherein, the plurality of super-imposed longitudinally extending louvers forming the front of said cover are of lesser width than the louvers which form the two sides of the cover.

4. In a cover of general rectangular shape for housing that portion of an air conditioning unit protruding from an opening in the side wall of a building, as described in claim 2, wherein the width of the two sides of the plurality of superimposed longitudinally extending louvers are wider than the front plurality of longitudinally extending louvers.

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