

Dec. 30, 1941.

F. C. WELLINGTON

2,268,363

DRAIN BAFFLE

Filed Dec. 16, 1940

Fig. 1

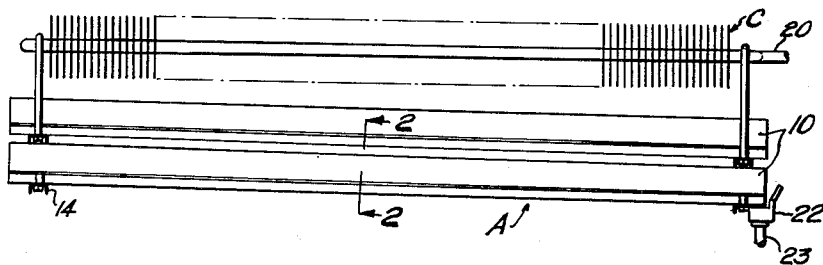


Fig. 2

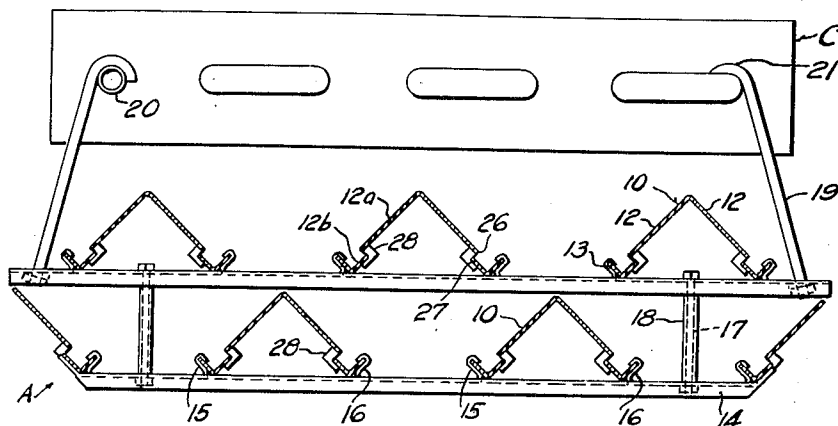
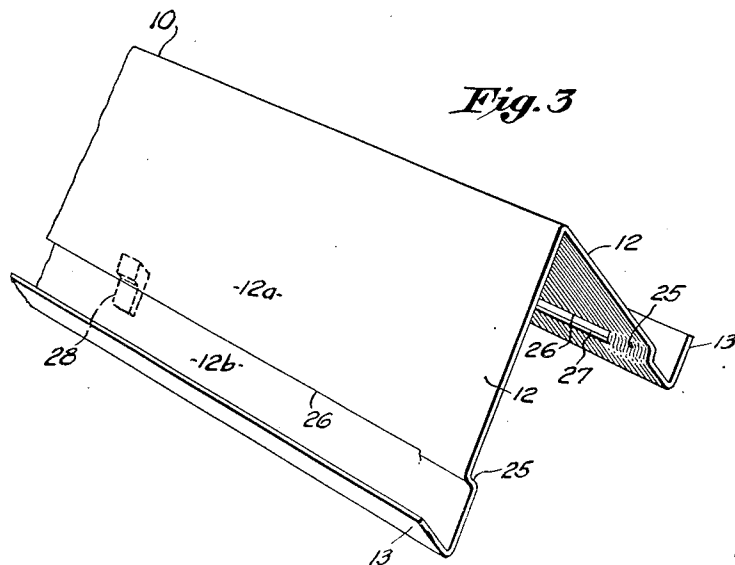


Fig. 3



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2,268,363

DRAIN BAFFLE

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Application December 16, 1940, Serial No. 370,343

3 Claims. (Cl. 62—103)

This invention relates to drain baffles which are to be used as condensate collectors for refrigeration coils.

The invention is directed particularly to drain baffle units of the type shown in the Lear Patent No. 2,095,219, where the baffles, in addition to collecting moisture, serve to distribute uniformly the cooled air which descends from the overlying coil. Under severe conditions, this baffle unit is itself subject to condensate deposit on its lower surfaces, and it is an object of the present invention to prevent the escape of such condensate by supplying the baffles with moisture traps in the form of integral offset portions.

Other features, and the more specific aspects of the invention, will be understood by reference to the specification and accompanying drawing, wherein:

Fig. 1 is a side elevation showing the drain baffles assembled with a cooling coil;

Fig. 2 is an enlarged section on the line 2—2 of Fig. 1 with the coil shown in elevation;

Fig. 3 is an enlarged perspective view of one end of a drain baffle.

The baffle unit A is devised to provide two rows of sheet metal deflectors 10, the deflectors being preferably, although not necessarily, of identical ridge formation, each having sides 12 terminating in angular flanges 13. The deflectors in each row are secured in spaced relation on supporting cross members 14, such cross members being formed with pairs of lugs 15, 16, which are bent about the margins of the flanges 13. The rows are connected by bolts 17 which extend through suitable holes in the opposed cross members 14 of each row. Pipe spacers 18, through which the bolts extend, serve to permit the rigid assembly of both rows by the bolts 17.

It will be observed that the deflectors 10 in the lower row are arranged to lie directly under the spaces between the deflectors of the upper row, so that, as viewed from above, the deflectors present a continuous shield for receiving water drainage from an overlying source. The unit A may be suspended beneath a refrigeration coil C in any suitable manner—for example, by means of suspension bolts 19 secured to the upper cross members 14 and formed with hook portions 21 which engage the tube portion 20 of the coil. As shown in Fig. 1, the unit A is disposed at a slight angle to afford drainage, and the low end of the unit is supplied with a transverse collecting trough 22 whence the water is directed into a drain pipe 23.

As thus far described, the unit A is similar to

that of the previously mentioned Patent No. 2,095,219. The improvement incorporated therein consists of providing an offset 25 (Fig. 3) in the angular sides 12 of each deflector 10. The sides 12 are longitudinally slit between the offsets 25, so that the upper lip 26 of the slit is spaced from and overlies the lower lip 27 thereof.

To add rigidity to the deflector structure, each side 12, which may now be considered as comprising divided sections 12a and 12b, is reinforced at spaced intervals by welding offset bars 28 to them, to reinforce the sections and to retain them in their proper spaced relation.

As will be seen in Fig. 2, the effect of this formation is to provide drainage traps for any condensate which may be deposited on the lower faces of the deflectors, whereby the water will drip off the upper lips 26 and deposit in the gutters formed by the lower sections 12b and the adjoining flanges 13.

It will be understood that the under surface drainage of the upper row may be permitted to drain directly on the lower row, in which event the deflectors in the upper row may be formed without the split sides 12a, 12b.

It is not intended that the invention be limited to the precise shapes and assembly method herein shown, as obviously the baffle unit may be adapted in various ways without departing from the inventive concept as set forth in the following claims.

I claim:

1. In a condensate collector comprising an upper row of deflectors disposed in spaced relation, a lower row having deflectors disposed beneath the spaces between the deflectors of the upper row, the deflectors of said lower row each comprising an elongated sheet metal member having a medial crest and downward sloping sides to provide a ridge, the extremity of each side being formed with a V-shaped gutter portion having a section contiguous with the side, said section being offset inwardly laterally with respect to such side, said offset being slit for a major portion of the length of the deflector to provide a terminal lip portion for each side which overlies its associated gutter portion.

2. In a condensate collector comprising an upper row of deflectors disposed in spaced relation, a lower row having deflectors disposed beneath the spaces between the deflectors of the upper row, the deflectors of said lower row each comprising an elongated sheet metal member having a medial crest and downward sloping sides to provide a ridge, the extremity of each

side being formed with a V-shaped gutter portion having a section contiguous with the side, said section being offset inwardly laterally with respect to such side, said offset being slit for a major portion of the length of the deflector to provide a terminal lip portion for each side which overlies its associated gutter portion, and reinforcing members secured to each side for retaining the lips of the slit in proper spaced relation.

3. As an article of manufacture, a deflector 10 comprising an elongated sheet metal structure

comprising bent planar sides forming a ridge, the extremity of each side being formed with a V-shaped gutter portion having a section contiguous with the side, said section being offset inwardly laterally with respect to the plane of its side, said offset being slit for a major portion of the length of the deflector to provide a terminal lip portion for each side which overlies its associated gutter portion.

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