United States Patent

Fischer, Jr. et al.

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[54] **ROOF WITH GRAVEL STOP**

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[52] **U.S. Cl.**.....**52/94,** 52/60

[51] **Int. Cl.**.....**E04b 7/02**

[58] **Field of Search**.....52/94, 95, 96, 58, 60

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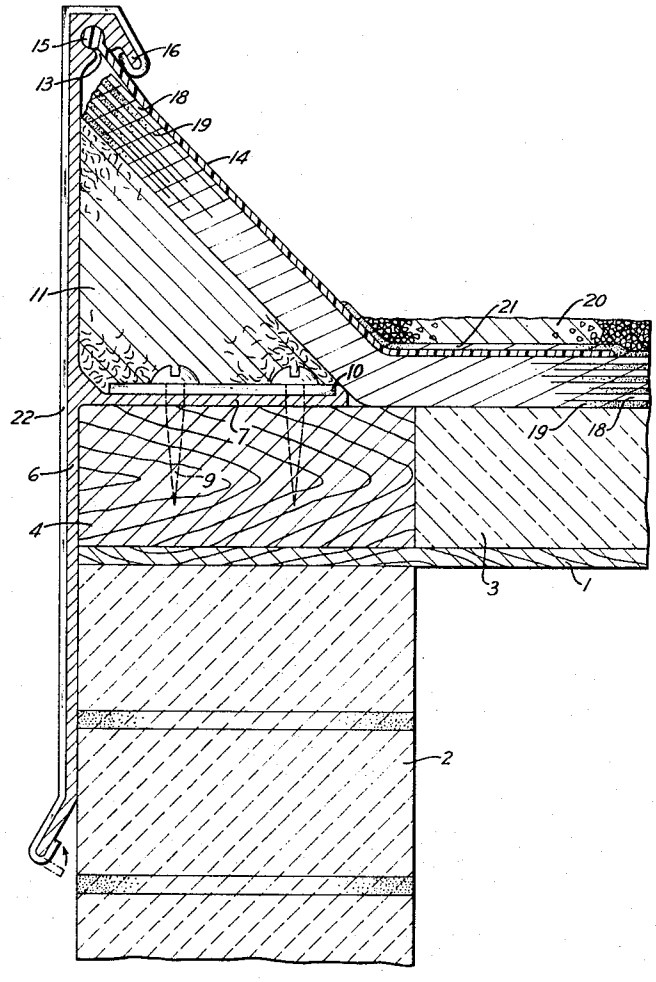
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[57] **ABSTRACT**

A fascia plate extends along an edge of a substantially horizontal roofing support and is provided along its inner side with a central flange seated on and fastened to the support. The plate has a slot near its top extending lengthwise thereof and opening downwardly over the flange. A cant is mounted on the flange with its upper edge spaced below the slot. The support and the inclined face of the cant are covered by roofing sheet material. Disposed in the slot in the fascia plate is a flexible impervious flashing strip that extends downwardly over the sheet material on the cant. At least the lower edge portion of the flashing strip is sealed by asphalt or other adhesive material to the roofing sheet material.

5 Claims, 3 Drawing Figures



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SHEET 1 OF 2

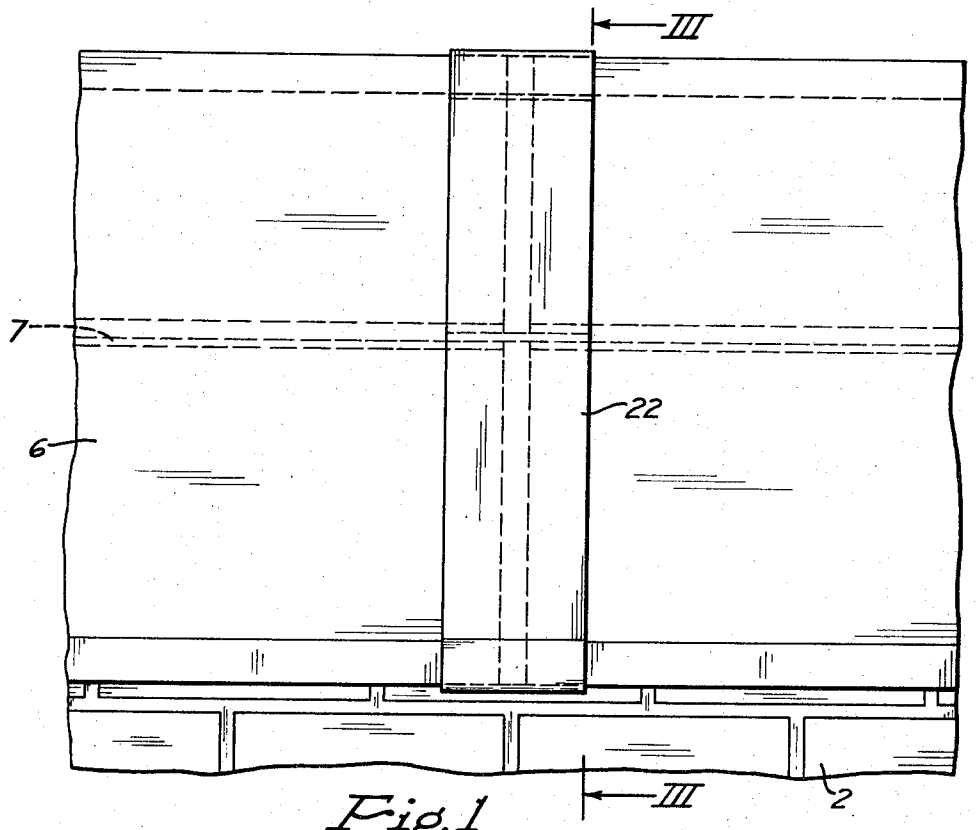


Fig. 1

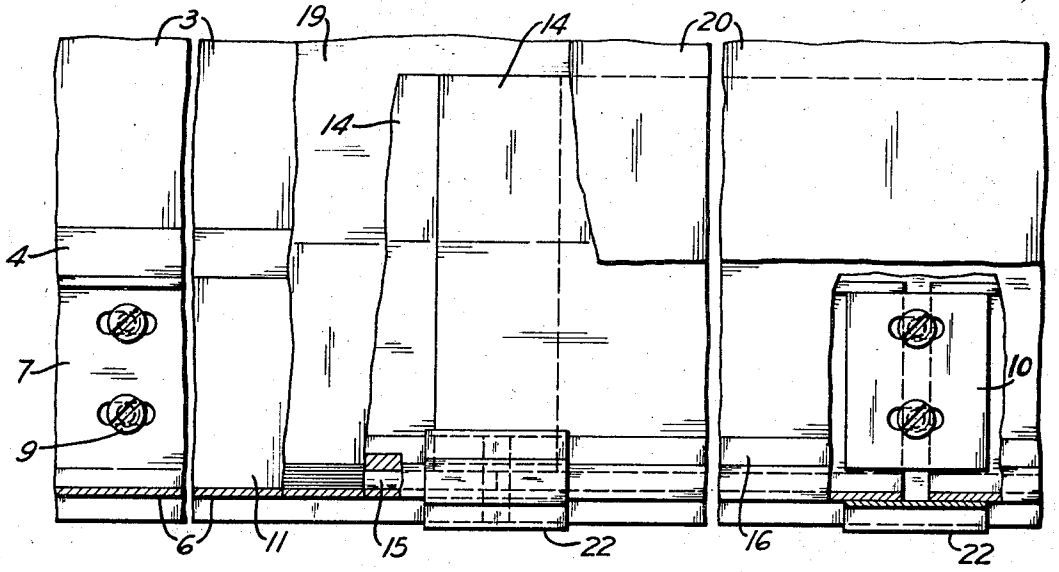


Fig. 2

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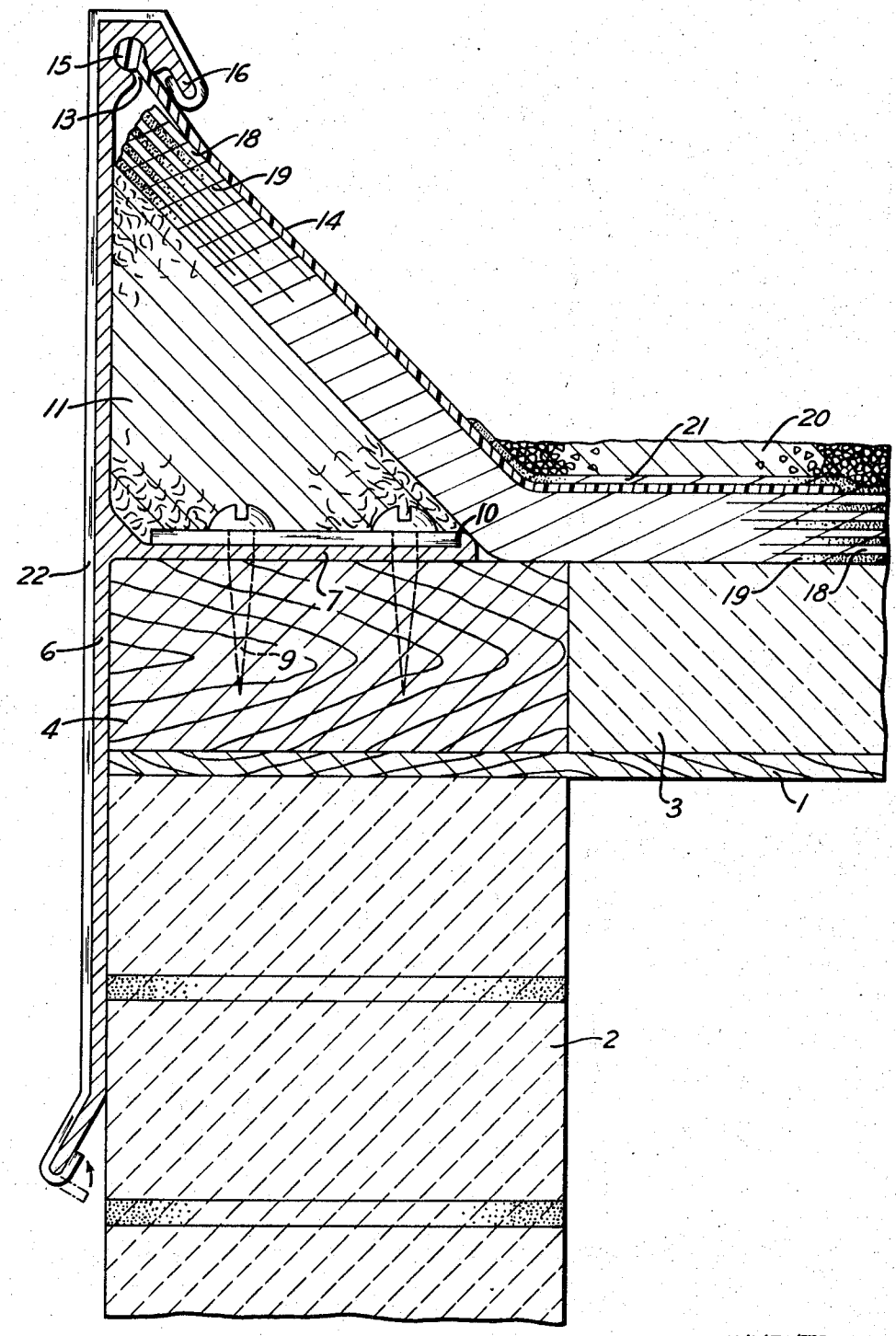


Fig. 3

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ROOF WITH GRAVEL STOP

Flat or low slope roofs often include a covering of several layers of roofing sheet material such as tar paper or asphalt-saturated paper felt. These layers or membranes are joined together by coating each one in succession with a layer of hot asphalt. To improve such roofs and lengthen their lives, they are covered with a layer of granular material, generally called gravel even though it may be slag or some other material. This gravel is held in place by a coating of bitumen on top of the uppermost membrane. Nevertheless, the gravel becomes loosened to some extent, so to prevent it from being washed off the roof by rains where the roof is not surrounded by an upstanding masonry wall, a construction known as a gravel stop has been used. This has taken various forms, but it includes a metal fascia that extends above and below the surrounded area of the roof. The fascia generally is nailed to the underlying roof support and a triangular cant is laid along the inner surface of the fascia to prevent water spillage over the edge, since roof areas are seldom dead level and may not drain fast enough to prevent overflow. To cover the nails and seal the nail holes, the marginal areas of the roof membranes extend out to the fascia, but this presents a problem of sealing the edges of the membranes so that water will not seep between them and the fascia, and high winds will not remove membranes. These problems require a metal strip overlying the top of the plate and the edge of the membrane. In addition, it also requires fasteners that must penetrate the membranes to hold the membranes and the strip in place. Also, the cost of installation is high with present two-piece canted roof eave fascias wherever different labor unions are involved. Thus, a member of the sheet metal union must install the fascia, the members of the roofer's union lay the roof and then the sheet metal workers must return to fasten the metal covering strip in place over the marginal area of the membranes. The second trip of the sheet metal workers materially increases the cost of constructing the roof, particularly for distant jobs.

It is among the objects of this invention to provide a roof with a canted gravel stop fascia of simple and inexpensive construction, which does not require fasteners to penetrate the roofing membrane, and which requires only one trip to be made by sheet metal workers.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which

FIG. **1** is a fragmentary outside view of a building provided with my fascia;

FIG. **2** is a fragmentary plan view, with parts broken away to show the different elements; and

FIG. **3** is a vertical section taken on the line III—III of FIG. **1**.

Referring to FIG. **3** of the drawings, a flat or horizontal or nearly horizontal roof includes a roofing support formed from a flat deck **1** supported by the wall **2** of the building or an overhand, or extended deck such as a canopy. This deck may be covered directly by roofing sheet material or there may be an intervening layer of insulation **3**. In the latter case the insulation is surrounded by wooden nailer strips **4** that are fastened to the edge of the deck. After the roofing support has been built, sheet metal workers install a surrounding fascia.

The fascia is formed from plates **6** disposed on edge. Each plate extends several feet along the building wall and several inches above and below the roofing support. The plates are placed end to end with enough space at the joints to allow for thermal expansion. To hold the plates in place, each has a central flange **7** extending along its inner side and seated on the adjoining nailer strip **4** or deck proper. Preferably, the flange and plate are integral and may be formed by extrusion. The flange is fastened in the center of each section with two screws **9** which extend down into the nailer strip. This permits the fascia flange to expand and contract, limiting the movement on each side of the screws to one-half the total. The ends of adjacent flanges are spaced apart and held down by a splice plate **10** secured only to the underlying nailer strip. The splice plate does not interfere with expansion and contraction of the flanges. The lower marginal area of fascia plate **6** preferably is turned outwardly so that water running down the plate will be directed out away from the underlying side of the building.

Seated on the fascia flange **7** is a roofer's cant **11**, which is a triangular strip that extends along the fascia. It is generally made of a fibrous material and soft enough so that it can be pushed down over the heads of the screws. The upper edge of the cant is spaced below the top of the fascia.

In accordance with this invention, the top of the fascia plate is thickened inwardly relative to the plate below it, as shown in FIG. **3**. This thickened portion is provided with a slot **13** that extends lengthwise of the fascia and opens downwardly over the cant and flange **7**. Preferably, the slot is inclined to about the same extent as the inclined surface of the cant. Disposed in this slot is the upper edge of a flexible impervious flashing strip **14** that extends along the fascia and projects from one end far enough to overlap the adjoining end of a similar flashing strip supported by the next fascia plate, as shown in FIG. **2**. To hold the strip in the slot, it is desirable to provide the upper edge of the strip with a bead **15** and to enlarge the inner portion of the slot to receive it. The strip is assembled with the fascia plate at the factory by inserting one end of the bead into one end of the slot and then pulling the strip along the plate to slide the bead along the slot until the strip extends the full length of the slot. It will be seen that the bead prevents the strip from being pulled down out of the slot. The top of the fascia preferably is provided with a lip **16** that extends downwardly below its slot to help prevent rain water from being blown up into the slot. It is desirable to deliver the fascia to the job with the flashing strip folded out over the top of the fascia and down its outer surface, to which it can be attached by adhesive tape. This keeps the flashing strip out of the way while the fascia is being installed.

After the fascia has been mounted in place on the roofing support by sheet metal workers, the roofers move in, install the cant **11** and then lay the roofing sheet material **18** or membranes in the conventional manner by alternating them with coatings of bitumen **19**. The marginal area of the sheet material is laid on the inclined surface of the cant and terminates near its upper edge. After all of the membranes have been laid, the top one is coated with bitumen or other adhesive material and then the roofers detach flashing strip **14**

from the outer surface of the fascia and swing it inwardly over the roof. The strip is pressed down in the hot layer of bitumen. The flashing strip not only covers the cant, but generally is wide enough to extend a short distance inwardly away from it. Of course, it bridges the space between the edge of the sheet material and the inner surface of the fascia plate.

After the flashing strip has been laid down in this manner, the roofers apply gravel **20**, if required, in the usual way to the exposed top layer of asphalt on the sheet material and a coating of bitumen **21** that they have also applied to the lower area of the flashing strip. It will be seen that there are no fastening members penetrating the flashing strip or the membranes beneath it and that the roof is thoroughly sealed against leakage.

The space between the ends of adjacent fascia plates **6** is covered by a metal strip **22** (FIG. **1**) that is hooked over the lips **16** of the two plates and that extends down flat against their outer surfaces and then outwardly over their inclined lower edges. The lower end of the strip extends inwardly across the lower edge of the fascia and is bent upwardly behind it to lock the strip in place. Since installation of the flexible flashing strip does not require a member of the sheet metal workers union, it is unnecessary for such a person to make a second trip in order to finish the roofing.

When the fascia expands and contracts lengthwise, it will slide along the flashing strip bead **15** and not disturb that strip and the roofing membranes beneath it, to which the strip is attached.

According to the provisions of the patent statutes, we have explained the principle of our invention and have illustrated and described what we now consider to represent its best embodiment. However, we desire to have it understood that, within the scope of the appended claims, the invention may be practiced otherwise than as specifically illustrated and described.

We claim:

1. A roof comprising a substantially horizontal roofing support, a metal fascia plate extending on edge along an edge of said support and provided along its inner side with a central flange seated on the support, fasteners attaching said flange to said support to hold the plate in place, the plate having a slot near its top extending lengthwise thereof and opening downwardly over said flange, the upper portion of said slot being enlarged in cross section, a cant mounted on said flange, the upper edge of the cant being spaced below said slot, roofing sheet material covering said support and the inclined face of the cant, a flexible impervious flashing strip having an upper edge provided with an integral bead disposed in said enlarged portion of the slot to hold the strip therein, said bead being slidable lengthwise in the slot, the flashing strip extending downwardly over the sheet material on said cant, and adhesive material sealing at least the lower edge portion of the strip to said roofing sheet material.

2. A roof according to claim **1**, including a plurality of said fascia plates disposed end to end with expansion space between them, said fasteners extending through each fascia plate flange substantially midway between its ends only, and each of said fascia plates supporting the bead of a said flashing strip.

3. A roof according to claim **2**, including a splice plate overlapping and seated on the adjacent end portions of adjacent fascia plates, and fasteners attaching the splice plate to said support only between said ends.

4. In a gravel stop for a building roof, a horizontally elongated metal fascia plate provided along one side with a central horizontally projecting flange adapted to seat on and be secured to a roof edge member with the portion of the plate below the flange overlapping the side of the building, said plate having a slot near its top extending lengthwise thereof and opening downwardly over said flange, the upper portion of said slot being enlarged in cross section, and a flexible impervious flashing strip for overlying said flange and the roof adjacent thereto, the upper edge of said sheet being provided with an integral bead disposed in said enlarged portion of the slot to hold the strip in the slot and slidable lengthwise relative thereto, whereby when the fascia plate expands and contracts lengthwise it can slide along the flashing strip.

5. In a gravel stop according to claim **4**, said plate being an extrusion with its top thickened inwardly over said flange, and said slot being located in the thickened portion and inclined downwardly and inwardly.

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