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3,426,658

CONTRACTION JOINT FOR PAVEMENTS

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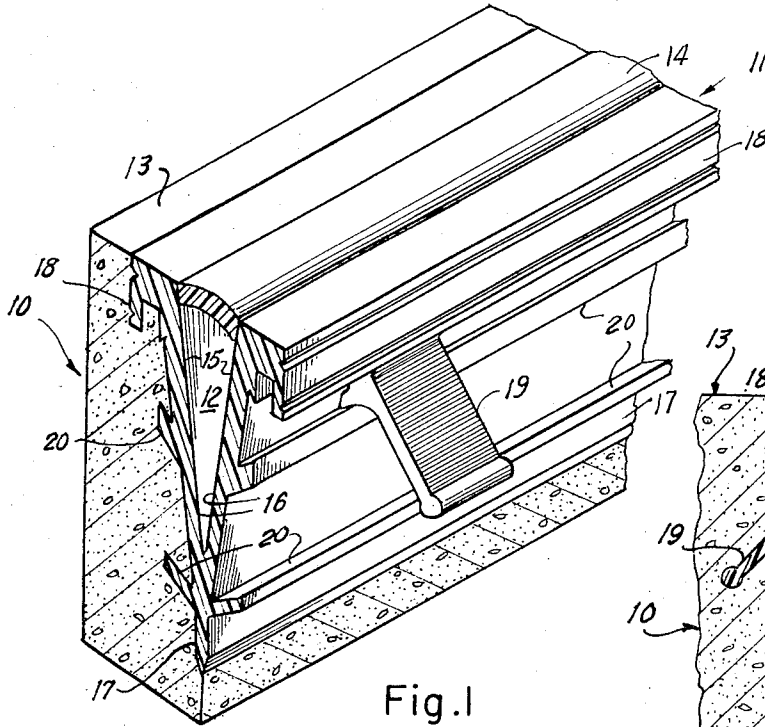


Fig. 1

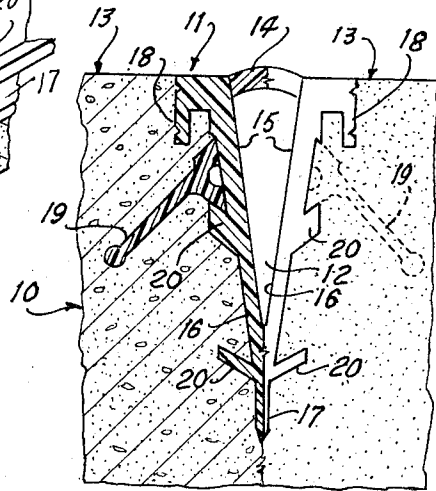


Fig. 2

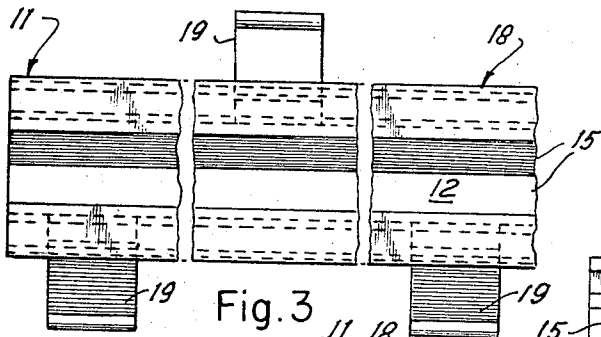


Fig. 3

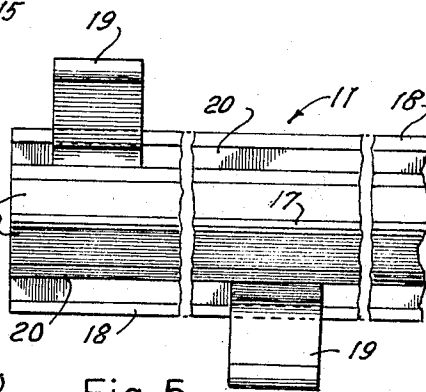


Fig. 5

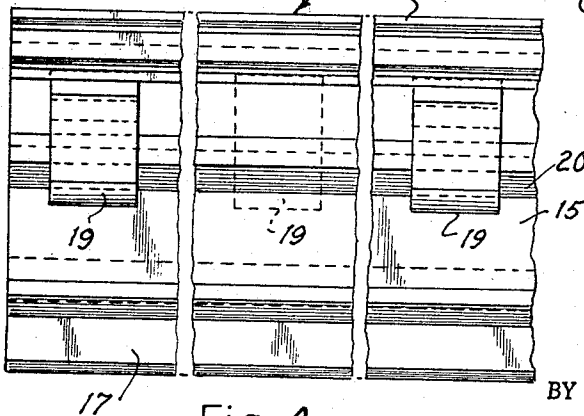


Fig. 4

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CONTRACTION JOINT FOR PAVEMENTS

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1 Claim

ABSTRACT OF THE DISCLOSURE

A prefabricated strip material or expansion unit for interposition between sections of concrete in the pavement of streets and roads, and providing a seal between such sections to exclude moisture, and other deleterious substances, from the joints between such sections. The unit comprises an extruded strip of indeterminate length to be embedded in the pavement transversely thereof, and is preferably of plastic material which is capable of substantial flexibility whereby to compensate for the expansion and contraction of the pavement as affected by temperature differentials.

This invention relates to a contraction joint for concrete pavements, and its has particular reference to a prefabricated strip of a semi-flexible plastic material for interposition between sections of the pavement to compensate for expansion and contraction thereof.

A prime object of the invention is that of providing a prefabricated strip material for permanent installation at regularly spaced intervals in a concrete pavement, immediately adjacent the surface thereof, simultaneously with the forming of the pavement, to provide a contraction joint.

The invention contemplates, briefly, a prefabricated strip material as described which forms with the pavement a permanently sealed, narrow confined space of limited, predetermined depth extending transversely between opposing sections of the pavement which is subject to contraction as the material of the pavement expands and contracts in response to variations in atmospheric temperature.

Still another object of the invention is to provide a prefabricated strip material for use as described which is characterized by its simplicity, as well as its efficiency in use and its durability, and may be produced inexpensively, and upon installation, requires little or no maintenance.

While the foregoing objects are paramount, other and lesser objects will become apparent as the description proceeds, when considered in connection with the appended drawings wherein:

FIGURE 1 is a perspective view showing fragmentarily, on a scale which approximates its actual size, a prefabricated strip material embodying the invention as installed in a concrete pavement, a portion of which is shown.

FIGURE 2 is a sectional elevational view showing the strip material embedded in the pavement substantially as illustrated in FIGURE 1.

FIGURES 3, 4 and 5 are top, side, and bottom views, respectively, on a slightly enlarged scale, showing the strip material in its detached position.

Referring primarily to FIGURE 1 of the drawing, the numeral 10 designates generally a concrete pavement, shown fragmentarily, and the numeral 11 indicates generally a prefabricated strip material embodying the invention, a portion of which is shown, which is embedded in the concrete of the pavement 10, as by molding.

In accordance with the invention the strip material 11 is permanently installed at regularly spaced intervals in

the pavement 10, immediately adjacent the surface 13 thereof, simultaneously with the forming of the pavement 10, and forms with the pavement a permanently sealed, narrow confined space 12 of limited, predetermined depth extending transversely between opposing sections of the pavement 10 which is subject to contraction as the material of the pavement 10 expands and contracts in response to variations in atmospheric temperature. A flexible sealing strip 14 is applied to the space 12 to close it against moisture and foreign matter, as shown in FIGURES 1, 4 and 5.

The primary strip is substantially Y-shaped in transverse section, having two upstanding planar portions 15, which are arranged in spaced apart relation to each other defining the space 12 therebetween, and having a pair of downwardly converging middle portions 16, which are continuous with the upstanding planar portions 15, and a depending planar portion 17, which merges with the downwardly converging middle portions 16 and terminates at the lower longitudinal edge of the strip.

The strip 11 has a pair of outwardly and downwardly turned marginal portions 18, right angular in transverse section, coextensive with its length, and are flush with the surface 13 of the pavement 10 in the applied position of the strip material 11, as shown in FIGURES 4 and 5.

A plurality of elongated anchor blades 19 extend laterally outwardly and downwardly from the upstanding planar portions 15, in longitudinally spaced relation to the strip 11. The anchor blades 19 on opposite sides of the strip 11 are staggered relative to each other, as best shown in FIGURES 3 and 5, and are connected at their upper ends to the portions 15 immediately below the marginal portions 18.

Two pairs of continuous anchor blades 20, which are comparatively narrow relative to the length of the anchor blades 19, are inclined upwardly and outwardly from each side of said first strip, immediately above the depending planar portion 17 and at the juncture of the upstanding planar portions 15 with the downwardly converging middle portions 16, respectively.

For convenience in manufacture the anchor blades 19 may be formed initially as separate pieces and thereafter bonded to the material of the upstanding planar portions 15, immediately above the uppermost continuous anchor blades 20.

When installed in the pavement 10 the upstanding planar portions 15 of the strip 11 overlie the opposing sections thereof, and with the strip 14, define the narrow confined space 12 between the members 15. The strip 11 advantageously may be formed of extrusion molded plastic material which is comparatively hard but is characterized by a degree of flexibility and elasticity.

The sealing strip 14 may be formed of extrusion molded rubber or like plastic material characterized by its resilience, elasticity, and toughness, is arched in transverse section, and in use is impinged between upstanding planar portions 15 immediately adjacent the upper longitudinal edge of the strip 11 and fused thereto.

The invention may be modified within certain limitations by persons skilled in the art without departing from the spirit and intent thereof or the scope of the appended claim.

What is claimed is:

1. In a contraction joint for concrete pavements, a prefabricated strip material forming a unit for permanent installation at spaced intervals in said pavements, the said unit comprising a first strip substantially Y-shaped in transverse section, having a depending planar portion and a pair of upwardly divergent planar portions defining a V-shaped cavity therebetween and terminating in substantially right-angular outwardly and downwardly turned marginal flange portions coextensive therewith, the outer

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surface of each of the divergent portions having a pair of spaced, upwardly inclined anchor blades formed longitudinally thereof and coextensive therewith, and a second strip of yieldable material interposed between the said marginal flanges at the upper edges of said divergent portions whereby to seal the said cavity to exclude moisture therefrom.

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