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HIGHWAY STRIPE

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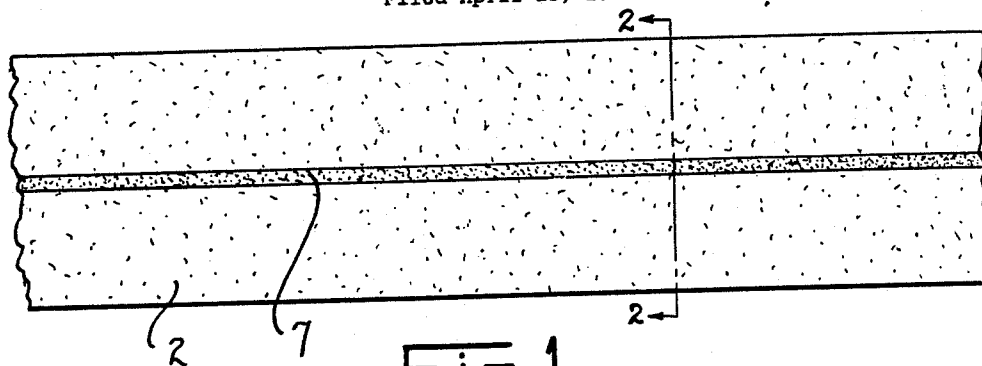


Fig. 1

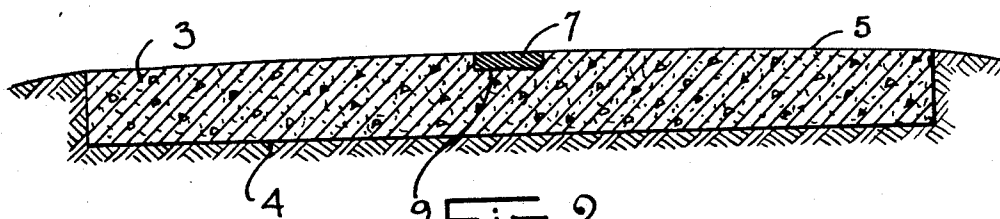


Fig. 2.

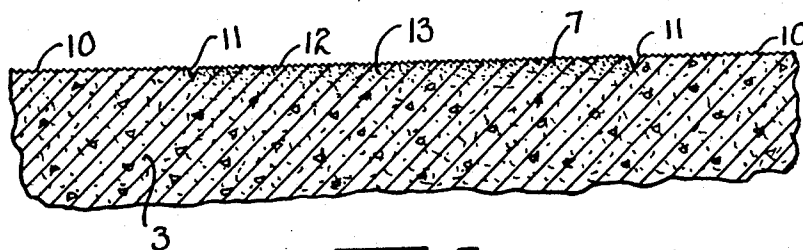


Fig. 3.

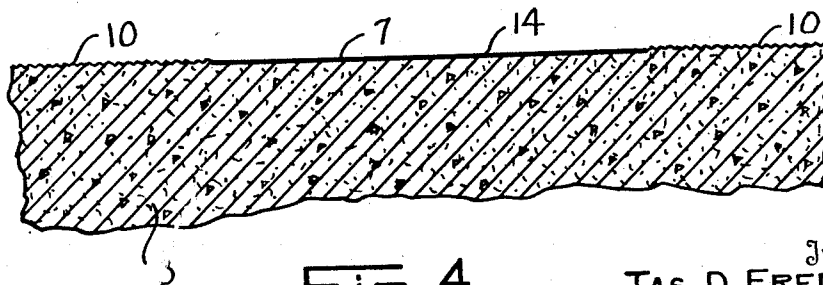


Fig. 4.

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HIGHWAY STRIPE

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3 Claims. (Cl. 94—1.5)

The invention relates to an improvement in highways and particularly the provision of a stripe on the surface of highways in order to define traffic lanes.

5 It is one of the objects of the invention to provide a traffic lane defining stripe which is formed integral with the pavement and which will be distinctly visible in the daytime and particularly visible at night due to the reflection of the rays of the headlights of vehicles.

10 Another object of the invention is to provide a stripe which is integral with the pavement so that it will not be subjected to wear more than the surface of the pavement and will remain effective for an indefinite period of time.

15 Another object of the invention is to provide a highway stripe which is formed with the same material as the pavement itself but it still defines a marking stripe.

20 Another object of the invention is to add coloring or other distinguishing material to the surface of the pavement at the time it is being formed so as to provide a distinguishing stripe.

25 Still another object of the invention is to embed a suitable material in the surface of a highway so as to define a marking stripe.

30 Still another object of the invention is to provide a stripe in highways in which there may be embedded a defining stripe of rock dust, rock chips, emulsified asphalt or cut-back, lamp black, glass chips, paint, dye, pigment, chemical or other inert or coloring reflecting material, carbon black, oxides of iron, or in which the surface is finished in a different manner than the main body of the highway surface.

35 Still another object of the invention is to finish a stripe in the surface of a pavement so that it will be distinguishable from the other surface of the pavement in order to define a marking stripe.

40 Still another object of the invention is to fabricate into the material of the pavement a substance which will define a marking stripe.

45 Still another object of the invention is to treat a portion of the surface of the highway so as to provide a distinguishing stripe thereon.

50 Other and further objects of the invention will be readily apparent when the following description is considered in connection with the accompanying drawing wherein:

Fig. 1 is a top plan view of a highway construction in accordance with the invention and showing the mark stripe.

55 Fig. 2 is a section taken on the line 2—2 of Fig. 1 and indicating one form in which the stripe

of identifying material may be embedded in the surface of the highway.

Fig. 3 is a magnified view showing the identifying material as being embodied in the highway as an integral part thereof.

Fig. 4 is a magnified view of a section of the pavement showing the defining stripe as being finished in a manner different from the main body of highway surface.

The highway is indicated generally at 2 in Fig. 1 and as seen in Fig. 2 may be made up of a slab of concrete 3. The invention is being described in connection with a concrete highway because the invention is most applicable to highways of such material. Other highways of bituminous or asphaltic material may have the invention applied thereto or it may be applied to any highway which is of a permanent nature.

For purposes of illustration a concrete highway will be described.

As is usual in laying concrete highways the subgrade 4 is prepared and then the mixed concrete deposited thereon in plastic form. Following the concrete mixer will be the surfacing machine which will finish off the top surface 5 of the highway in a relatively smooth condition, as seen in Fig. 2. In many instances, however, the surface is thereafter brushed, wiped or otherwise roughened so that proper traction may be had therewith by the vehicles traveling on the highway. In any event it is usual to apply a finish of some sort to the surface while the body of concrete is still in a plastic condition before and after it has taken its initial set but prior to the time when it takes its final set.

It is the practice at the present time to apply a stripe of marking material to the surface after the pavement has been completely finished by depositing the stripe of tar, asphalt, or other material to the surface in the hope that it will adhere to the surface and form a bond therewith. Such stripes are objectionable, principally because they wear away within a short period of time and in this manner become ineffective. They must be then renewed and there is also the objection that they form a traffic hazard because of the fact that they form a raised stripe on the surface and in some instances has caused skidding and accidents and are otherwise objectionable.

With the present invention it is contemplated that the stripe will be made integral with the paving or integral with the concrete body 3. As seen in Fig. 2, a small portion 7 of the concrete has been treated with a suitable material so as

to impart to it some distinguishing characteristic so that it will distinctly define the stripe in the highway. Many of the materials mentioned heretofore may be utilized for imparting the distinguishing characteristic to this stripe. It is contemplated that this portion of the surface will be treated while the concrete is still plastic so that there will be an integral bond between the surfaces at 9 where the treated material and the original body of the concrete are in contact.

Of course Fig. 2 is magnified and exaggerated to illustrate the formation of the stripe in the surface of the highway.

Fig. 2 may also illustrate a pavement which has been in position for some time and in which a recess has been formed and a body of distinguishing material such as 7 embedded therein.

In Fig. 3 an application of the invention is illustrated where the concrete body 3 has been treated while it was in a plastic condition by forming a roughened surface on the major portion of the pavement thereof. Where the stripe 7, however, is to be provided an indentation or other mark 11 has been made in the surface at each side to define the stripe and while the material 13 intermediate these marks was still in a plastic condition any suitable material such as 12 has been added thereto so that it would become integral with the surface of the pavement so as to form a distinguishing stripe.

As an illustration lamp black may be sprinkled on the moist surface of the concrete. This lamp black or oxides of iron would be absorbed by the moist concrete and by actual test it has been found that sprinkling lamp black or oxides of iron on the moist surface of the concrete has resulted in a penetration of at least one-eighth of an inch downwardly from the surface. A stripe of this sort is permanent and will last as long as the surface of the concrete. If desired, the surface intermediate the marks may be troweled or otherwise treated in order to cause an intimate mixture of the coloring or identifying material with the concrete. The marks 11 may or may not remain in the surface but they may be originally used in order to indicate that area of the surface which is to be treated in order to form the stripe.

The stripe portion 7 may be provided with the roughened surface the same as the roughened surface 10 either at the time the surface 10 is roughened or at a later time after the identifying material has been added to it.

It is to be understood that any of the identifying materials heretofore mentioned may be used, depending upon how distinctive a stripe is desired.

Fig. 4 shows a form of the invention wherein the body 3 of the pavement has been provided with the roughened surface 10 over the major portion of its area and the stripe portion 7 has been formed, however, as a distinguishable area because of the fact that it has been troweled or finished smoothly as indicated at 14. This smooth surface may be more or less glazed by troweling or treating with any suitable material so that it forms a slimy or reflecting surface. This slimy surface will of course serve to reflect the light rays so that it may be readily observed at night and in wet weather and of course it may be distinctly seen in the daytime.

It is to be understood that the surface with the identifying material as described in Fig. 3 may be finished with the smooth surface 14 of Fig. 4 if desired.

The invention broadly contemplates the provision of an integral stripe with a paving material so that an identifying surface will be rendered by the stripe and it will be a part of the pavement as distinguished from an added stripe of foreign material.

What is claimed is:

1. The art of forming a distinguishing marker such as a stripe on the surface of a highway which includes treating a portion of the surface while the highway is still plastic after the laying of the same, by adding a coloring material comprising an oxide of iron to the said surface portion to be marked.

2. The art of forming a distinguishing marker such as a stripe on the surface of a concrete highway which includes treating a portion of the surface while the highway is still plastic after the laying of the same, by adding a coloring material comprising an oxide of iron to the surface area to be marked, and mixing said iron oxide into and beneath the said surface portions of the highway surface.

3. A highway pavement and a marker forming an integral part of the same, comprising an oxide of iron incorporated into a portion of the pavement to impart a distinguishing characteristic, to thereby make said portion of the pavement distinctly visible from the other portions of said pavement.

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