

March 27, 1928.

1,664,070

B. FOSTER

ROADWAY WITH TRAFFIC CONTROL MARKING

Filed Aug. 7, 1923

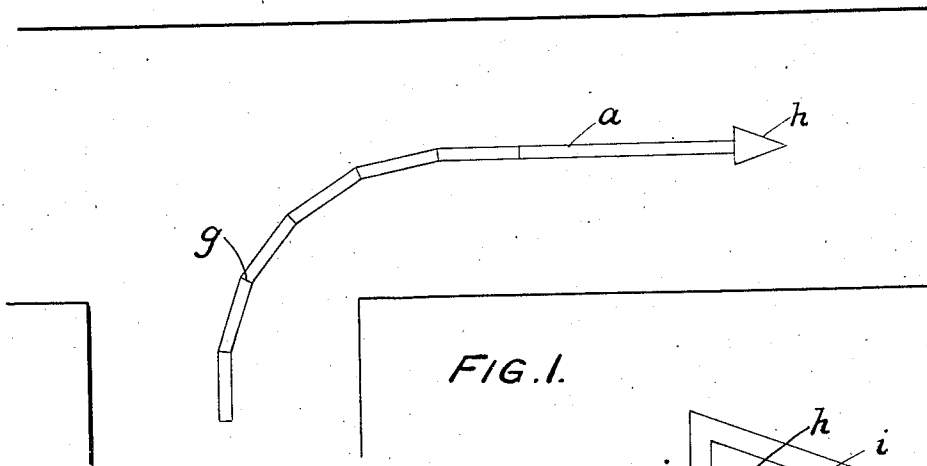


FIG. 1.



FIG. 2.

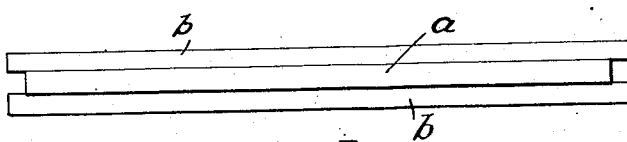


FIG. 3.

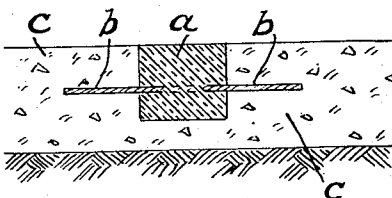


FIG. 6.

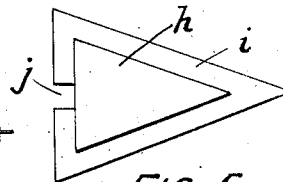


FIG. 5.

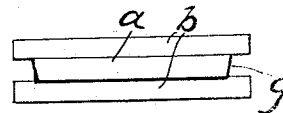


FIG. 4.

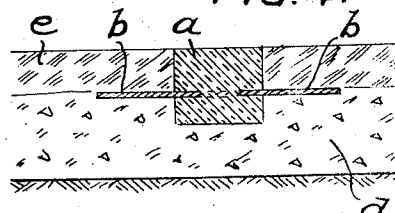


FIG. 7.

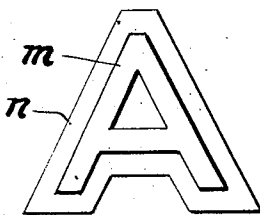


FIG. 10.

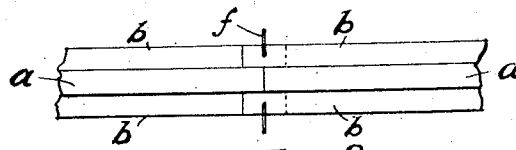


FIG. 8.

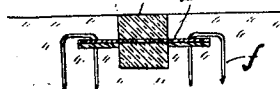


FIG. 9.

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WITNESS:

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UNITED STATES PATENT OFFICE.

BENJAMIN FOSTER, OF PHILADELPHIA, PENNSYLVANIA.

ROADWAY WITH TRAFFIC-CONTROL MARKING.

Application filed August 7, 1923. Serial No. 656,153.

It is customary at the present time to paint on the surface of a cement, asphalt or other roadway, right-of-way or traffic-control lines or stripes, as well as words, arrows, numbers and other devices. These markings are not durable. They tend to wear away or to become so discolored that they do not stand out sharply. The object of the present invention is to provide means for rendering such markings as durable as the roadway itself. This is accomplished by providing a structure which is built into the roadway, flush with the surface thereof, such structure having a superficial contour corresponding to the marking desired. Preferred specific structures accomplishing the object sought are illustrated in the accompanying drawings, in which—

Fig. 1 is a plan view of a roadway provided with a traffic-control stripe and embodying my invention.

Fig. 2 is a side view, and Fig. 3 a plan view, of one of the embedable bars whose upper surfaces form a traffic-control stripe.

Fig. 4 is a plan view of a relative short bar forming part of a complete "curve".

Fig. 5 is a plan view of one of the end blocks of a complete "stripe".

Fig. 6 is a cross-sectional view of my invention applied to a concrete roadway.

Fig. 7 is a cross-sectional view of my invention applied to an asphalt roadway.

Fig. 8 is a plan view of the abutting ends of two contiguous bars.

Fig. 9 is a cross-section through the joint between two embedded bars.

Fig. 10 is a plan view of another form of embedable block.

If the superficial marking is a line or stripe I construct a bar *a*, preferably rectangular in cross-section, a few inches in height and of a width corresponding to the width of the stripe to appear superficially on the roadway. The bar is constructed, preferably, of a mineral or clay, but it may be made of any durable material. A carborundum by-product composition or a phosphorus-bearing composition is preferred, because such material is not only durable, but presents a degree of luminosity that will enable it to be seen readily at night.

Extending from opposite sides of the bar *a*, between its top and bottom, are thin wings or webs *b*. Preferably, these are formed from a single piece of wire mesh that is considerably wider than the bar and that is so

cast into the bar that it projects from opposite sides thereof.

The bar *a* is positioned during the building of the road. If the road is a cement road (see Fig. 6), the cement *c* will be cast about the webs *b*, and on both sides of the bar *a*, which thus becomes an integral part of the roadway. In the case of an asphalt pavement laid on a concrete or stone base, the webs may extend into the base, whereby the bar becomes an integral part of the base; or (as shown in Fig. 7) the webs may be positioned below the top of the bar a distance corresponding to the depth of the asphalt sheet *e*, so that, after the coating of asphalt is applied to the base *d*, the webs will be confined between the base *d* and the asphalt sheet *e*.

It will usually be impracticable to make the bar as long as the traffic control stripe. It is therefore necessary to abut one rod end to end against another. In order to tie successive bars together, I prefer that the webs shall extend beyond the ends of the bars and therefore that adjacent webs of abutting bars shall overlap, as shown in Fig. 8. As an additional means of securely uniting adjacent bars, I prefer to lock them together and to the material of the roadway by any suitable means, such as by a two-pronged pin *f* (see Figs. 8 and 9), one prong of which extends through overlapping webs, both prongs being embedded in the road-forming material.

Traffic-control stripes are usually curved for at least a portion of their length. Instead of curving the bars, I prefer to make them—or such of them as go to make up the curved portion of the stripes—of a comparatively short length, with the ends *g* slightly bevelled so that one side of the bar is slightly longer than the other, as shown in Fig. 4. When a number of such bars are abutted end to end, they form, as shown in Fig. 1, a series of chords of short arcs together forming the complete curve. Such series of chords deviate but slightly and immaterially from a continuous curve.

If it is desired to form the similitude of an arrow at either end, I provide a triangular block *h* (see Fig. 5) with webs *i* projecting therefrom on all sides, the web being cut away at *j* to accommodate the end of a bar *a*.

If letters, figures or other devices are to appear on the surface of the roadway, I form blocks *m* corresponding to the several

letters, figures or other devices, as shown in Fig. 10, and provide the same with lateral webs *n*, and secure the blocks and webs in position in the same manner in which the bars *a* are held in place.

It is comparatively easy to make the upper surfaces of the bars, blocks, etc. flush with the upper surface of the roadway, this being effected automatically in the final road-rolling operation, provided reasonable care has been taken in the original positioning of the bars or blocks.

Having now fully described my invention, what I claim and desire to protect by Letters Patent is:

1. A roadway presenting a permanent traffic-control marking comprising a piece of material having a superficial contour corresponding to said marking and webs projecting laterally from said piece of material, the material of the roadway underlying and surrounding said piece of material and overlying and underlying said webs, the depth of roadway material overlying said webs substantially corresponding to the distance of said webs from the top surface of said piece of material so that said top surface is substantially flush with the material of the roadway.

2. A roadway presenting a permanent traffic-control marking comprising sections of material assembled together with their top surfaces substantially flush with each other and embedded in the material of the roadway with their top surfaces substantially flush with the surface of the roadway, a web extending from the body of each section and overlapping a web on an adjacent section and fastening devices securing said overlapping webs on adjacent sections together.

3. A roadway presenting a permanent

traffic-control marking comprising sections of material assembled together with their top surfaces substantially flush with each other and embedded in the material of the roadway with their top surfaces substantially flush with the surface of the roadway, means locking said sections from vertical movement relative to the material of the roadway, and fastening devices securing together contiguous parts of adjacent sections and embedded in the material of the roadway beyond the limits of the sections.

4. A roadway presenting a permanent traffic-control marking comprising a plurality of sections each provided with lateral webs, webs of contiguous sections overlapping, said sections resting on the material of the roadway, which also extends on opposite sides of said sections and above and below said webs.

5. A roadway presenting a permanent traffic-control curved stripe comprising a series of relatively long and narrow sections of material assembled together end to end and embedded in the material of the roadway with their top surfaces substantially flush with each other and with the surface of the roadway, the individual sections forming the curved strip being straight from end to end, the sections being so disposed in their lengthwise extension as to form a continuous series of chords of arcs of a curve, the abutting ends of adjacent sections being shaped to substantially coincide, and a flange member at each side of each section extending beyond the end of an adjacent section in overlapping relation.

In testimony of which invention, I have hereunto set my hand, at Philadelphia, Pa., on this 18th day of July, 1923.

BENJAMIN FOSTER.