

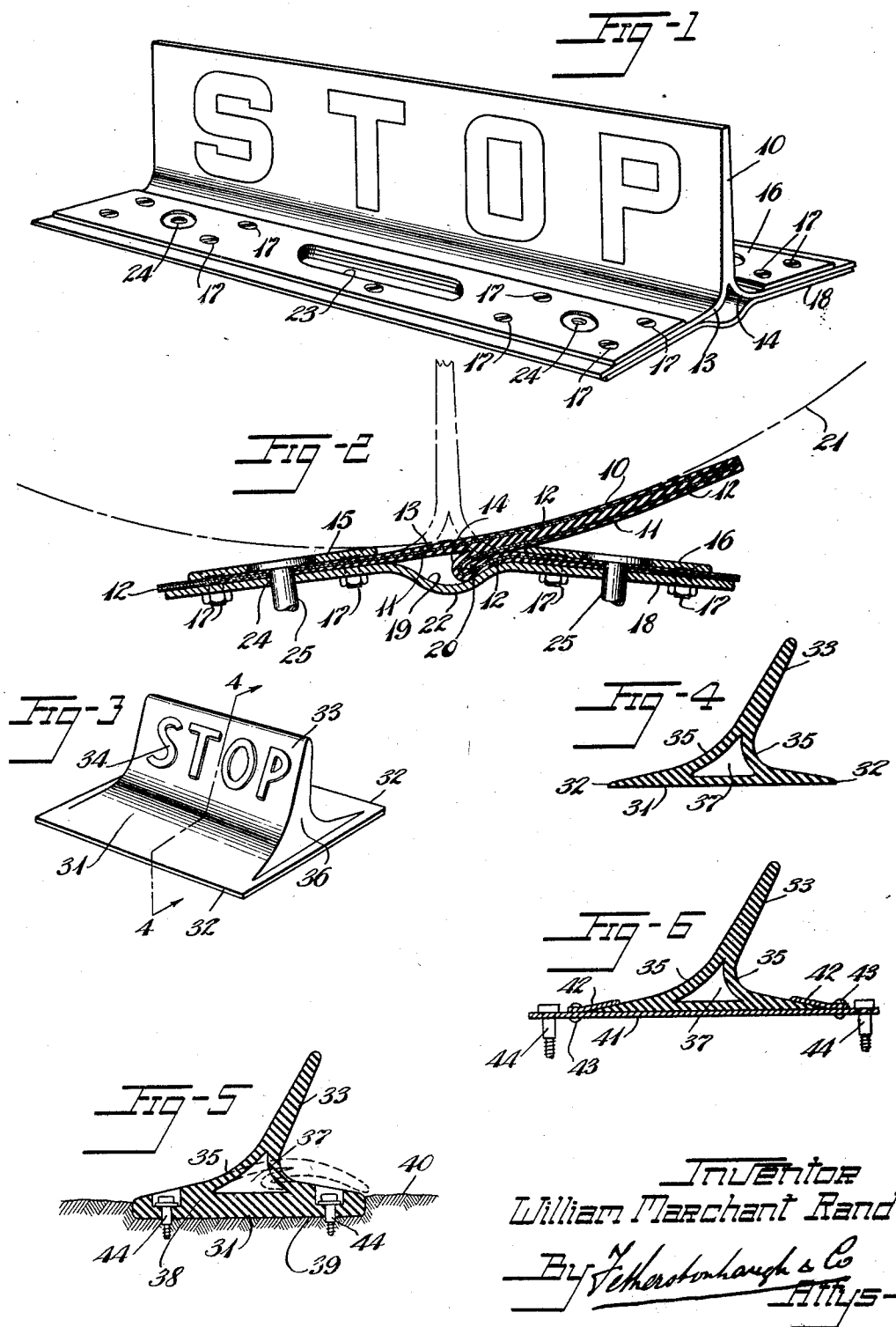
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TRAFFIC SIGN

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TRAFFIC SIGN

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This invention relates to traffic signs having a normally up-standing indicia-bearing portion adapted to be depressed and run over by vehicle wheels, the present application being in part a continuation of my application Serial No. 278,245, filed May 16, 1928.

My chief objects are to provide a sign adapted to be readily mounted upon and removed from the roadway or pavement upon which it is used, so that a moderate number of the signs may be sufficient to meet the needs of changing conditions of traffic, for example; to provide a sign requiring little or no mutilation of a pavement for its proper mounting or removal; to provide a sign adapted for long service without loss of the characteristic of its indicia-bearing portion of returning to a suitable vertical or approximately vertical position after being depressed; and to provide a sign having some or all of these desirable features and at the same time economical to manufacture.

I attain these objects in the preferred embodiment of my invention by providing an indicia-bearing member, preferably of sheet material such as rubber or rubber reinforced with fabric, divided in its lower portion to provide a plurality of legs or supporting branch portions which are bent in opposite directions and secured to a mounting, which may be the roadway or pavement itself but which preferably is a generally horizontal base member of metal or other rigid material and adapted to be readily and detachably secured to the roadway or to support the indicia-bearing portion of the sign in an upright position without being so secured.

The construction described is such that when the indicia-bearing portion of the sign is depressed by a vehicle wheel passing thereover, sharp flexure is imparted only to the leg portion extending in one direction and the leg portion extending in the other direction is approximately or completely straightened out, so that its resiliency is not greatly impaired at every passage of a vehicle, the result being a long life for the sign.

In order that the leg portion flexed by the vehicle wheel may have a desirably long ra-

dius of curvature when the indicia-bearing portion of the sign is in its upright position the leg portions preferably are formed of such length and are anchored to the mounting at such positions that the legs roughly represent two sides of an isosceles triangle, and in order that the flexed portion of the leg at the line of fold may not be destructively pinched between the vehicle wheel and the mounting the latter preferably is formed with a recess extending lengthwise of the indicia-bearing portion of the sign and adapted to receive the folded portion of the leg thereinto and to be bridged by the wheel or tire of all vehicles passing transversely thereover.

When the mounting for the indicia-bearing member of the sign is a movable base the base preferably is of such extent on each side of the said member, in the line of travel, that a wheel of any ordinary size passing over the indicia-bearing portion of the sign will not put the latter under very much stress until after the weight of the wheel has been imposed upon the base to hold it down, so that the sign may be used by simply setting it upon the roadway without anchoring it thereon or may be run over, when it is so anchored, without great strain upon the anchoring means.

Of the accompanying drawings:

Fig. 1 is a perspective view of a traffic sign embodying my invention in its preferred form, with the indicia-bearing portion in its normal, upstanding position.

Fig. 2 is a transverse, vertical section of the same with its indicia-bearing portion in a position which it assumes while a vehicle wheel is passing over it.

Fig. 3 is a perspective view of a sign embodying certain features of the invention in a modified form.

Fig. 4 is a cross-section on line 4—4 of Fig. 3.

Fig. 5 is a vertical cross-section of another modification.

Fig. 6 is a vertical cross-section of still another modification.

Referring to the drawings, the sign shown in Figs. 1 and 2 comprises a normally up-standing indicia-bearing member 10 of flexible material such as rubber 11, preferably re-

inforced with fabric 12, the said member being divided or branched along its lower margin to provide a plurality of leg portions 13, 14, the said member here being shown as being divided longitudinally to provide only two leg portions, although my invention is not limited to the longitudinal division of the member or to the provision of a single pair of legs.

The two legs are curved in opposite directions. Permissibly the legs may be given the curved form by bending them after the member as a whole has been molded and vulcanized in substantially flat form, for economy of production, in which case the legs may be formed by splitting the member after vulcanization, but the member preferably is molded and vulcanized in substantially the form in which it is shown in Fig. 1, so that the legs will be in an unstrained condition when the indicia-bearing portion of the sign is upright and so that both legs will exert a restoring force when the said portion is depressed.

Each of the leg portions 13, 14 is clamped down by means of a clip or clamping plate 15 or 16 and bolts 17, 17 against a base plate 18 which preferably is so formed, as by bending, that on opposite sides of the member it will contact the roadway only at its extremities, the middle portion rising somewhat from the extremities, but not so high as to constitute a damaging obstruction in the roadway, and being formed with a recess 19 in its upper face which extends lengthwise of and lies directly under the indicia-bearing portion and upper leg-portions of the member 10.

The recess 19 is so proportioned as to depth and width that upon the passage thereover of even the smallest of automobile wheels the recess will be bridged by the wheel or its tire while so accommodating the flexed leg of the member 10 that the leg at its line of fold is not pinched between the wheel or tire and the floor of the recess, as indicated by the space 20 shown within the fold of the leg in Fig. 2, in which the relative dimensions of the circumference 21 of a 30 x 3½ tire and an embodiment of my invention which is now in use are shown.

The base plate 18 preferably is so formed that in its middle zone, under the recess 19, its lower surface, at 22, lies substantially in the same plane as the road contacting extremities of the plate, so as to assist in supporting the middle zone of the plate against downward flexure.

The sign is so proportioned that the indicia-bearing portion will be put under little or no strain by the wheel before the wheel has come to bear upon the base of the sign to hold it against over-turning, so that the sign may be used without anchorage, especially when the base is made of metal or otherwise made heavy, and hand holes such as the hand hole

23 may be provided to facilitate placing and removal of the sign but the base structure is here shown as being formed with holes 24, 24 for screws 25, 25 by which it may be anchored to the roadway.

Referring to the modification shown in Figs. 3 and 4, the numeral 31 indicates generally a base of rubber or other suitable resilient material having its marginal edges 32 relatively thin and increasing in vertical depth towards its transverse centre from whence a rubber sign 33 extends in an inclined or vertical position.

The sign 33 is designed to bear any indicia such as "Stop" or "Slow" in letters of any suitable colour as at 34, for the instruction of approaching drivers. The sign 33 at the point of its intersection with the base 31 is formed with angularly extending leaves or supports 35, see Figs. 4, 5 and 6, which are connected together at their ends with end walls 36 which are formed of thin rubber to withstand extensive flexure. An enclosed pocket or air space 37 is defined between the supports 35 of the sign into which one of the supports may fold into said pocket while the other one becomes substantially straightened out as the sign is pressed over by the wheel of a vehicle, as indicated by dotted line in Fig. 5.

In the modification shown in Fig. 5, the base 31 is made of rubber and is relatively thick as at 38 to provide a block capable of insertion into a correspondingly formed cavity 39 in the surface of the road bed 40.

In the modification shown in Fig. 6, the base 31 is formed with a bed plate 41 having a pair of elongated clips 42 which are adapted to extend throughout the length of the supports 35 and bind them to the plate 31 by means of rivets 43 or other suitable fastenings. Where it is desired to fit the sign to a finished road bed, where no special provision is made therefor, the sign as shown in Figs. 3 and 4 is used and its base is secured to the surface by any suitable mastic cement, thus providing a sign, the base of which would be substantially flush with the surface to which it was fitted.

On new roads of concrete, cavities of a suitable size may be provided and the sign as shown in Fig. 5 may be used. In such cases, the preferred method of fastening is to bore suitable holes at the base of the cavity and fasten the base of the sign thereto with lag screws 44. The modified form shown in Fig. 6 is particularly adapted for use on tarred, macadam or concrete roads to which the sign may be secured with bolts or lag screws 44, if desired.

Still other modifications are possible within the scope of my invention as defined in the appended claims.

I claim:

1. A traffic sign comprising an indicia-bearing structure provided with a plurality

of downwardly extending legs of resiliently flexible material and means for so anchoring the said legs in spaced-apart relation as normally to hold the structure in upright position but to cause the legs to be flexed dissimilarly by the passage of a vehicle wheel over the structure.

2. A traffic sign as defined in claim 1 in which the indicia-bearing structure comprises a member formed of resiliently flexible sheet material and having an indicia-bearing portion and leg portions integral with each other.

3. A traffic sign comprising a member formed of resiliently flexible sheet material and having an indicia-bearing portion and flexible legs integral with each other and means for so anchoring the lower end portions of the legs that the legs normally are held in downwardly diverging and outwardly curved condition.

4. A traffic sign comprising a member formed of a resiliently flexible sheet of material and having an indicia-bearing portion branched in its lower margin to provide a pair of legs aligned with each other in the direction of the thickness of the sheet.

5. A traffic sign comprising an indicia-bearing structure provided with a plurality of legs of resiliently flexible material and means for so anchoring the said legs in spaced-apart relation as normally to hold the structure in upright position but to cause the legs to be flexed dissimilarly by the passage of a vehicle wheel over the structure, the anchoring means comprising a support formed in its upper face with a recess normally unoccupied by said legs and adapted to receive therein a flexed portion of one of the legs.

6. A traffic sign as defined in claim 5 in which the recess is so proportioned as to be bridged by standard automobile tires to prevent the flexed leg at its line of fold from being pinched between the tire and the floor of the recess.

7. A traffic sign comprising an indicia-bearing structure provided with a plurality of downwardly diverging and outwardly curved legs of resiliently flexible sheet material aligned with each other in the direction of travel and a support for said structure, the legs being anchored to the support and the support being formed in its upper face with an elongated recess under the legs, transverse to the direction of travel and adapted to receive therein a flexed portion of one of the legs, the recess being so proportioned as to be bridged by standard automobile tires to prevent the flexed leg at its line of fold from being pinched between the tire and the floor of the recess.

8. A traffic sign comprising a support having in its upper face an elongated recess of such size and shape as to be bridged by

standard automobile wheels passing over the support in a direction transverse to the recess and a piece of resiliently flexible sheet material mounted on the support and having a normally upstanding indicia-bearing portion over and substantially parallel to the recess, the recess being so proportioned as to contain a flexed portion of the said piece, upon depression thereof by the vehicle wheel, without pinching of the said flexed portion at its line of fold between the wheel and the floor of the recess, the said support being a removable base adapted to be mounted upon the plane surface of a roadway.

Dated at Vancouver, B. C., this 22nd day of February, 1929.

WILLIAM MARCHANT RAND.

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