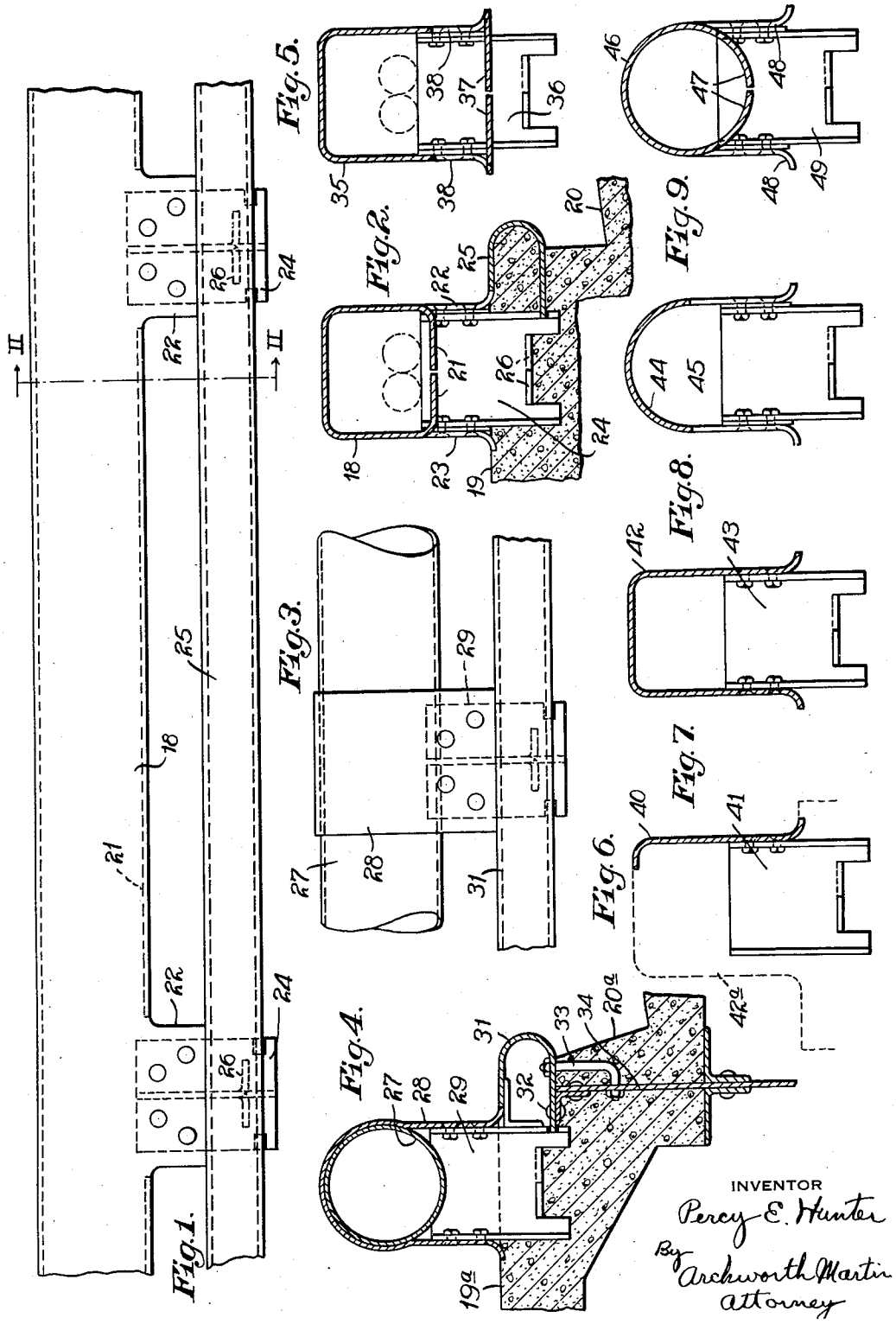
Oct. 4, 1932. P. E. HUNTER 1,881,376

TRAFFIC GUARD

Filed Sept. 4, 1930 2 Sheets-Sheet 1



INVENTOR
Percy E. Hunter
By Archworth Martin
Attorney

Oct. 4, 1932. P. E. HUNTER 1,881,376

TRAFFIC GUARD

Filed Sept. 4, 1930 2 Sheets-Sheet 2

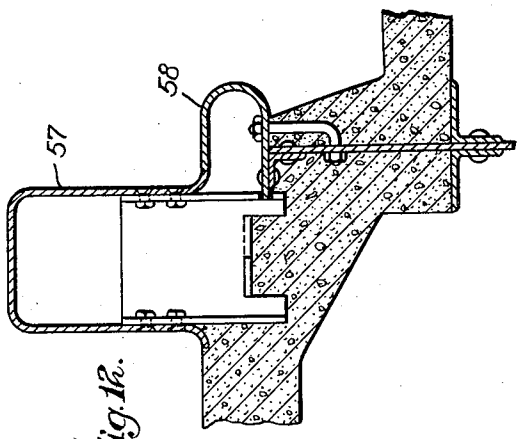


Fig. 12.

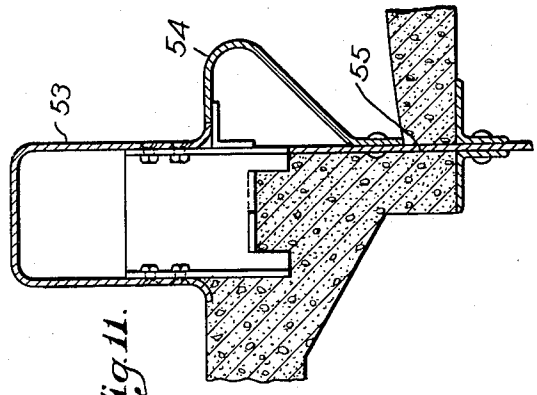


Fig. 11.

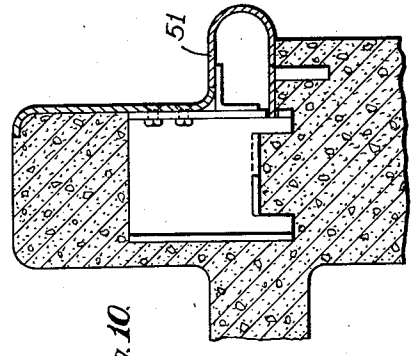


Fig. 10.

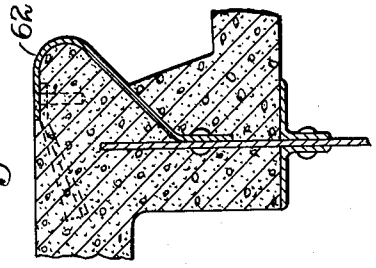


Fig. 16.

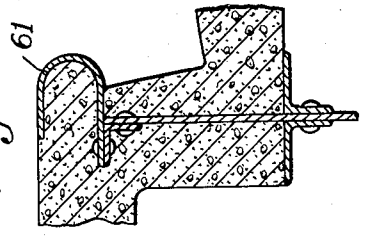


Fig. 15.

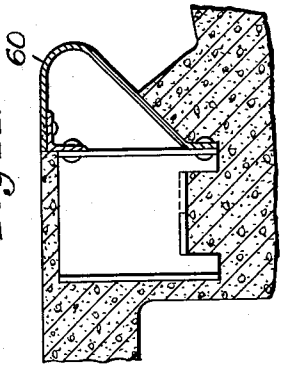


Fig. 14.

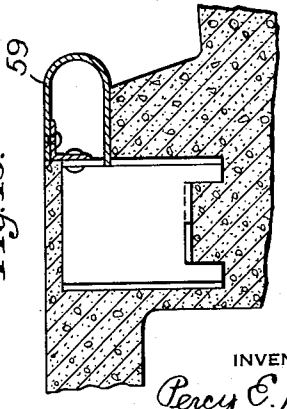


Fig. 13.

INVENTOR
Percy E. Hunter
By Duckworth & Martin
attorney

Patented Oct. 4, 1932 1,881,376

UNITED STATES PATENT OFFICE

PERCY E. HUNTER, OF PITTSBURGH, PENNSYLVANIA

TRAFFIC GUARD

Application filed September 4, 1930. Serial No. 479,658.

My invention relates to traffic guard structures such as curbs and sidewalks guards, and particularly to curbs and guards for use along the curb lines of highways, and as barriers between a highway and a sidewalk, including bridges where barriers between the roadway and the sidewalk are frequently employed.

Heretofore, barriers between a sidewalk and a roadway have been commonly formed of wooden beams or timbers which are expensive and which become split and scarred in use, with the result that they are weakened, and also present unever surfaces that enable the wheels of vehicles to climb or roll over the guard. Furthermore, wooden beams are unsightly, difficult of alinement, and tend to warp and, of course, decay.

The objectionable cracking and scarring above-referred to occurs also in the case of concrete beams, and the concrete will damage running boards, hub caps, etc., of vehicles coming in contact therewith, besides being frequently ineffective to deflect impacts.

One object of my invention is to provide a structure wherein the objectionable features above-referred to are eliminated and which, for a given weight of material, possesses great strength, good appearance and has smooth, hard wearing surfaces which will effectively deflect vehicles coming in contact therewith, and which will cause a minimum of damage to vehicles.

Another object of my invention is to provide a guard structure that may serve as a conduit for water lines, electrical transmission lines, etc.

Some of the forms which my invention may take are shown in the accompanying drawings, wherein Figure 1 is a side elevational view of a combined curb and sidewalk guard or barrier; Fig. 2 is a view taken on the line II—II of Fig. 1; Figs. 3 and 4 are views similar to Figs. 1 and 2, but showing a modification; Figs. 5 to 9 respectively show modifications of a sidewalk guard or barrier, the curbs of Figs. 2 and 4 being omitted; Figs. 10, 11 and 12 show modifications of the structures of Figs. 1 to 4, and Figs. 13, 14, 15 and 16 show various forms of curbs, no sidewalk guard or barrier being included therein.

Referring to Figs. 1 and 2, I show a hollow beam, which may be of iron or steel, that serves as a sidewalk guard or barrier, it being interposed between the sidewalk and the curb line. The sidewalk is indicated by the numeral 19 in Fig. 2, and the roadway paving is disposed at a lower level, as indicated by the numeral 20, which may extend upwardly, for example as shown at 20^a in Fig. 4.

The beam 18 is initially of inverted U or L form. At intervals throughout the major portion of its length, its edges may be inturned as indicated at 21, the vertically-extending portions 22 and 23 projecting downwardly therefrom at points spaced longitudinally of the beam.

The box-like structure permits of its being employed as a conduit for wires, cables, pipes, etc., and this feature is of particular utility where the guard is employed on bridges. The guards may be of convenient lengths which can be individually removed and replaced to permit of convenient access to the interior thereof for repair of lines passing therethrough, and are arranged to allow for expansion and contraction.

The body portion of the beam or barrier is spaced above the sidewalk level, thus preventing accumulation of dirt and facilitating the cleaning of the sidewalk. It will be seen that the beam, being of metal, will not crack or split or be abraded by vehicles coming in contact therewith or unduly affected by weather conditions, all surfaces being accessible for painting, and that it presents a smooth hard surface which will deflect vehicles with a minimum of damage to the vehicle and to the beam.

The downwardly-extending projections or flanges 22 and 23 are bolted to anchors 24 that are imbedded in the concrete of which the sidewalk and roadway are formed. A curb 25 may also be imbedded in the concrete and may be suitably attached to, or formed integrally with, the extensions 22, if desired. The curb 25 is located above the edge of the roadway, which may be formed to extend upwardly to the underside of the curb, and projects outwardly somewhat from the vertical portion of the roadway, as shown more clearly in Fig. 2, thus receiving the impacts which would otherwise be taken up by the vertical portion of the roadway. The exposed face of the curb is curved or rounded so that no sharp corner is presented to a vehicle wheel, and it will therefore not tend to bite into a vehicle wheel and permit the wheel to easily climb or roll over the top of the curb, but on the contrary will cause the vehicle wheel to slide along the curb face.

Each anchor plate 24 is of approximately H or T form in horizontal cross section and tongues 26 may be struck from the lower edge of the web thereof to extend horizontally in opposite directions. These tongues are imbedded in the concrete and serve as anchoring members for the plates and the beams carried thereby, but other anchoring means, such as pins extending through the web of the anchor plates may be employed, if desired.

Referring to Figs. 3 and 4, I show a structure somewhat similar to that of Figs. 1 and 2, but wherein the sidewalk guard or barrier 27 is of cylindrical form. This barrier is spaced above the level of the sidewalk surface, as in the case of the beam 18. At intervals, yokes 28 extend over the beams 27, and the legs of the yoke are bolted to anchor plates 29 that are imbedded in the concrete composing the sidewalk 19*a* and the curb 20*a*.

The curb 31, of generally channel or U form, is secured in position at the upper marginal curb line by rivets 32 and clamping bolts 33, the rivets and bolts serving to connect it to a vertical-extending plate or girder 34 such as is commonly found in bridge structures for supporting sidewalks.

In the structures of both Figs. 2 and 4, it will be seen that the barriers or beams are inset from the curbs 25 and 31, so that while a wheel may come close to or into contact with the curb, the hub of the wheel or other projecting portions of the vehicles such as running boards and fenders will not come into contact with the sidewalk guard.

Referring to Fig. 5, I show a sidewalk guard similar to the sidewalk guard of Figs. 1 and 2, but without the curb. The beam 35 and anchoring plate 36 are similar in form to the beam 18 and the plate 24. The lower portions of the sidewalls of the beam 35, at intervals throughout the major portion of the length of the beam, are struck inwardly and downwardly to form horizontal bottom wall portions 37, the portions 37 serving as a shelf across which dirt may be blown through the openings in the side walls of the beams, which openings are formed by striking in the portions 37. The undeflected portions 38 of the side walls of the beams, which lie between the inwardly struck portions 37, are fastened to the anchor plates 36.

In Fig. 6, I show a sidewalk guard of simpler form which consists merely of a face plate 40 and an anchor plate 41. The face plate 40 serves to protect the body portion 42ª of the guard, which portion may be a continuation of the concrete forming the sidewalk or a beam of suitable material.

Fig. 7 shows a sidewalk guard 42 of generally channel form that is bolted to an anchor plate 43 which is of simpler form than the structures of Figs. 1 to 5, and is nevertheless fully effective as a guard.

Fig. 8 shows a structure similar to Fig. 7, but of slightly different configuration, the beam or guard 44 being of partially cylindrical form and having openings or slots 45 cut through the sides thereof to prevent accumulation of dirt against the sides of the beam.

Fig. 9 shows a guard or beam 46 which has the major portion of its edges bent inwardly as indicated at 47, to form a substantially enclosed beam, certain portions 48 thereof at the sides of the beam extending downwardly at intervals throughout the length of the beam, for attachment to an anchor plate 49.

Fig. 10 shows a sidewalk guard of substantially the form shown in Fig. 1, but in combination with a curb 51, the curb 51 being anchored to or partially imbedded in the concrete.

In Fig. 11, I show a sidewalk guard 53 similar to the guard 42 of Fig. 7, but with which is associated a curb 54 that is secured to a structural member 55 of a bridge, the lower portion of the curb 54 being inclined downwardly for convenient attachment to the bridge structure and for increased strength, and to form a gutter.

Fig. 12 shows a sidewalk guard 57 which corresponds to the guard 42 of Fig. 7, but shows the manner in which a curb 58 may be associated therewith, the curb 58 being mounted on the paving in a manner similar to the mounting of the curb 31 of Fig. 4.

Figs. 13, 14, 15 and 16 show curb structures 59, 60, 61 and 62, respectively, which correspond somewhat to the curbs of Figs. 4, 10, 11, and 12, and showing the manner in which these curbs may be mounted independently of sidewalk guards.

Various of the curbs, particularly the forms shown in Figs. 14 and 16, constitute the curb of the roadway, without the necessity of extending the concrete upwardly to form a curb or gutter or a portion thereof.

Not only do I show a structure that is simple and effective, but it is of such form as to be of ornamental appearance with neat and graceful lines, and may be made still more ornamental by the addition of caps at intervals along the beams.

I claim as my invention:—

1. A traffic guard structure comprising a hollow metal beam, anchor plates adapted to be secured to a roadway, downwardly-extending tongue portions carried by said beam, and means for connecting said tongue portions to the anchor plates, those portions of the beam intermediate the tongue portions being spaced above the plane of the roadway.

2. A traffic guard structure comprising a hollow metal beam having downwardly-extending projections for supporting the major portion of the beam in vertically-spaced relation to a roadway, and anchor plates secured to said projections adapted to be embedded in the roadway.

3. A traffic guard structure comprising a hollow metal beam having downwardly-extending projections for supporting the major portion of the beam in vertically-spaced relation to a roadway, anchor plates secured to said projections and adapted to be imbedded in the roadway, and a metal curb disposed in proximity to but projecting outwarly from the anchor plates, in a plane below the plane of the said beam.

4. A highway structure comprising, in combination with a sidewalk and a roadway at different vertical levels and of monolithic structure, a curb for a roadway composed of a metal plate curved outwardly and downwardly from approximately the sidewalk level, and a metal sidewalk guard forming a continuation of the uppermost portion of the curb but disposed inwardly therefrom and extending to a plane above the uppermost plane of the curb guard, the said guard and curb being anchored in said monolithic structure.

5. A traffic guard structure comprising a hollow metal beam of inverted channel form, but having vertical flange portions inturned at intervals to partially close the channel, flange portions extending below the inturned portions in substantially vertical planes to vertically support the beam, and means for anchoring said flange portions to a roadway.

6. A traffic guard structure comprising a hollow metal beam of inverted channel form, but having vertical flange portions inturned at intervals to partially close the channel, flange portions at the front and rear sides of the beam, extending below the inturned portions such distance as to support the beam in vertically spaced relation to the roadway and means for anchoring said flange portions to a roadway.

7. A highway structure comprising, in combination with a sidewalk and a roadway at different vertical levels and of monolithic structure, a curb for a roadway composed of a metal plate curved outwardly and downwardly from approximately the sidewalk level, and a metal sidewalk guard disposed inwardly therefrom and extending to a plane above the uppermost plane of the curb guard, the said guard and curb being anchored in said monolithic structure.

In testimony whereof I, the said PERCY E. HUNTER, have hereunto set my hand.

PERCY E. HUNTER.