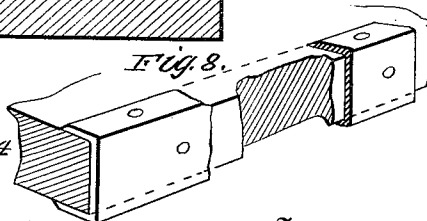
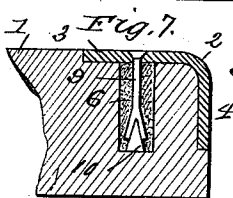
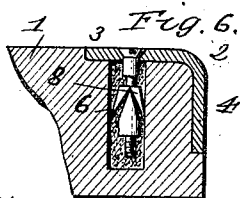
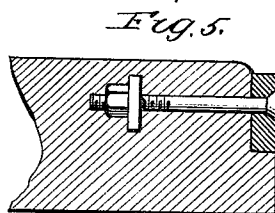
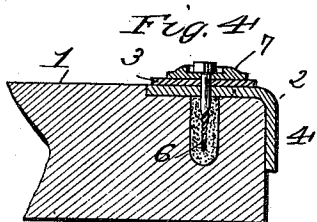
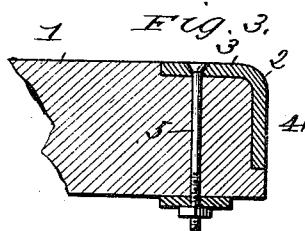
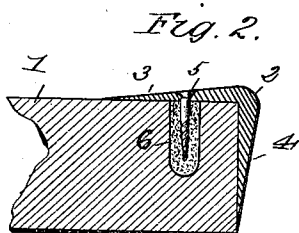
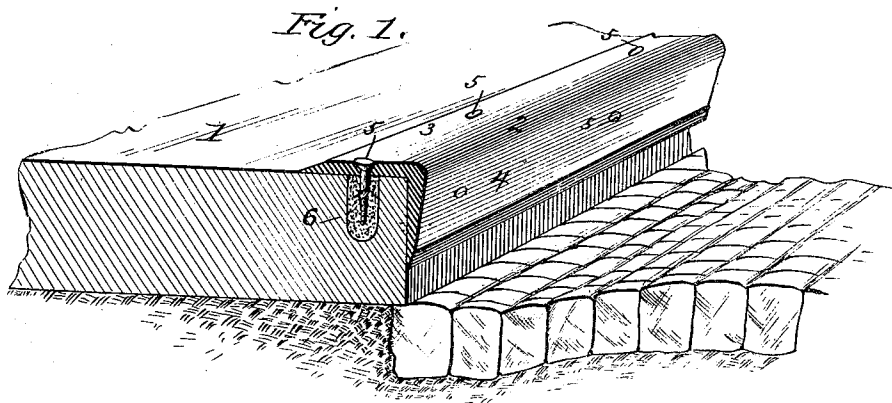


(No Model.)

I. L. LANDIS.
METALLIC CURBING.

No. 537,047.

Patented Apr. 9, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

ISRAEL L. LANDIS, OF CHICAGO, ILLINOIS.

METALLIC CURBING.

SPECIFICATION forming part of Letters Patent No. 537,047, dated April 9, 1895.

Application filed April 18, 1892. Renewed September 27, 1894. Serial No. 524,301. (No model.)

To all whom it may concern:

Be it known that I, ISRAEL L. LANDIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Metallic Curbing, of which the following is a specification, reference being had therein to the accompanying drawings; in which—

Figure 1 is a sectional perspective view showing my improved metallic curb applied to a stone pavement. Fig. 2 is a detail sectional view of a slight modification. Figs. 3 and 4 are modifications showing the stone pavement recessed to receive the curb; and Fig. 5 shows my curb secured to a cement pavement. Figs. 6 and 7 show modifications of the fastening devices; and Fig. 8 shows means for covering a break in a curb, or flag-stone.

This invention relates to a new and useful improvement in metallic curbs; and it has for its objects to provide a curbing of simple and durable construction, which may be secured to a stone curb, or to the outer edge of the flange of a stone pavement, or to the outer edge of a cement pavement.

In the drawings 1, designates the sidewalk or pavement which is shown constructed of large stones or flags. To the outer upper corners of these stones is secured the metallic curb 2. This metallic curb consists of an angle plate, having the horizontal flange 3, and the downwardly extending vertical flange 4; these flanges fitting closely against the stones of the pavement, and embracing their upper corner as shown. These plates may be made of any suitable size, shape, and thickness, and the vertical flange 4 may be made to entirely cover the outer face of the stone curbing, or of the stone forming the pavement, if desired. The flanges 3 and 4 of the plate 2 are slightly tapered from where they join to within a short distance of their outer ends, where they are tapered abruptly inwardly to a knife edge, as shown clearly in Fig. 1. The object of this knife-edge on the horizontal flange 3, is that the dirt on the pavement may be easily swept over the curb. Another advantage is that there are no sharp corners or shoulders on the upper side of the curb to cause pedestrians to stumble.

The curb 2 is secured to the stones of the sidewalk or to the stone curbing by bolts or screws 5 which pass through perforations in flanges 3 and 4 and into recesses or pockets 6 formed in the stones. These pockets are filled with lead or cement, which, when it hardens securely holds the screws or bolts therein, or the holes are filled with wood. The heads of these bolts may be counter-sunk in the curb as shown for obvious reasons.

In Fig. 2 is shown a modified form of the curb. In this construction the flanges 3 and 4 are shown tapering on their outer surfaces from their point of connection to their outer edges, the knife-edge being formed by a gradual incline as shown.

In Fig. 3 I have shown the stones of the pavement recessed at their outer upper corner, and an angle plate set in said recess, the outer surface of the plate or curb being flush with the outer surface of the stones of the sidewalk. If desired, the metallic curbs may be secured to the stones of the sidewalk as shown in this figure, that is, a bolt having a counter-sunk head may be passed through the horizontal flange 3 and through an aperture in the stone of the sidewalk, and a nut and washer secured on its lower end.

As shown in Fig. 4 the flag-stones of the sidewalk may be recessed on their outer sides only, and in place of the counter-sunk head the bolts may be provided with a square head, and a washer 7 having a recess for the head of the bolt, and downwardly and outwardly inclined sides may be used as shown, to protect the head of the bolt.

In Fig. 5 I have shown a metallic strip or curb secured to the upper edge of the outer face of a cement or artificial-stone pavement. In this construction, I pass a long bolt horizontally through the metallic strip and into the cement, and secure to its inner end an anchor plate and nut, as shown, which when the cement or artificial-stone pavement hardens, securely holds the curb in place. The outer surface of the curb is flush with the outer face of the pavement, as shown. This metallic curb is durable and neat in appearance. It will effectually prevent the breaking and chipping of the outer edges of stone sidewalks by the backing of heavily loaded vehicles against them. It is easily and read-

ily secured to the flag stones already in place, or it may be secured to them before they are placed in the sidewalk, with equal facility.

In Figs. 6 and 7 are shown modified forms of the fastening device used in securing the metallic curbing in place.

In Fig. 6 is shown an expansion bolt 8, which when in position binds against the sides of the recess 6, securely holding the curb in its place without the necessity of filling the recess 6, with lead or cement or other suitable material.

In Fig. 7 is shown a bolt 9, having a split end. A wedge 10 is placed at the bottom of the recess 6. The bolt 10 is passed through an aperture in the curbing 2, and into the recess 6, and is then driven on to the wedge 10 which expands the split end of the bolt causing it to bind against the sides of recess 6, securely fastening the curbing in its place. If desired the recess 6 may be filled with cement to more securely hold bolts 8 and 9 in place, as is evident.

In Fig. 8, is shown means for covering the face of a broken flag-stone, or curb. As shown, I employ a channel-iron of suitable size to snugly fit the face of the broken curb or flag-stone and secure it thereto over the broken portion by any of the fastening devices heretofore described, and fill the recess made by the break with cement, the lower flange of

the channel-iron serving as a support for the cement filling.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In combination with the flag-stones of a sidewalk, a metallic curbing consisting of an angle plate adapted to fit over the upper outer corner of the flag-stones, the flange of said angle-plate which rests on the upper surface of the stone being tapered to a thin edge, at its outer edge, and suitable fastening devices, substantially as described.

2. In combination with the flag-stones of a sidewalk said flag-stones being provided with recesses as described, a metallic curbing consisting of an angle plate adapted to fit over the outer upper corner of said flag-stone, the flange of said angle plate being tapered to a knife edge at its outer edge, devices passing through the flanges of said angle curbing and into the recesses in the flag-stones and secured therein by lead or cement, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ISRAEL L. LANDIS.

Witnesses:

R. A. OGDEN,
H. I. PORTER.