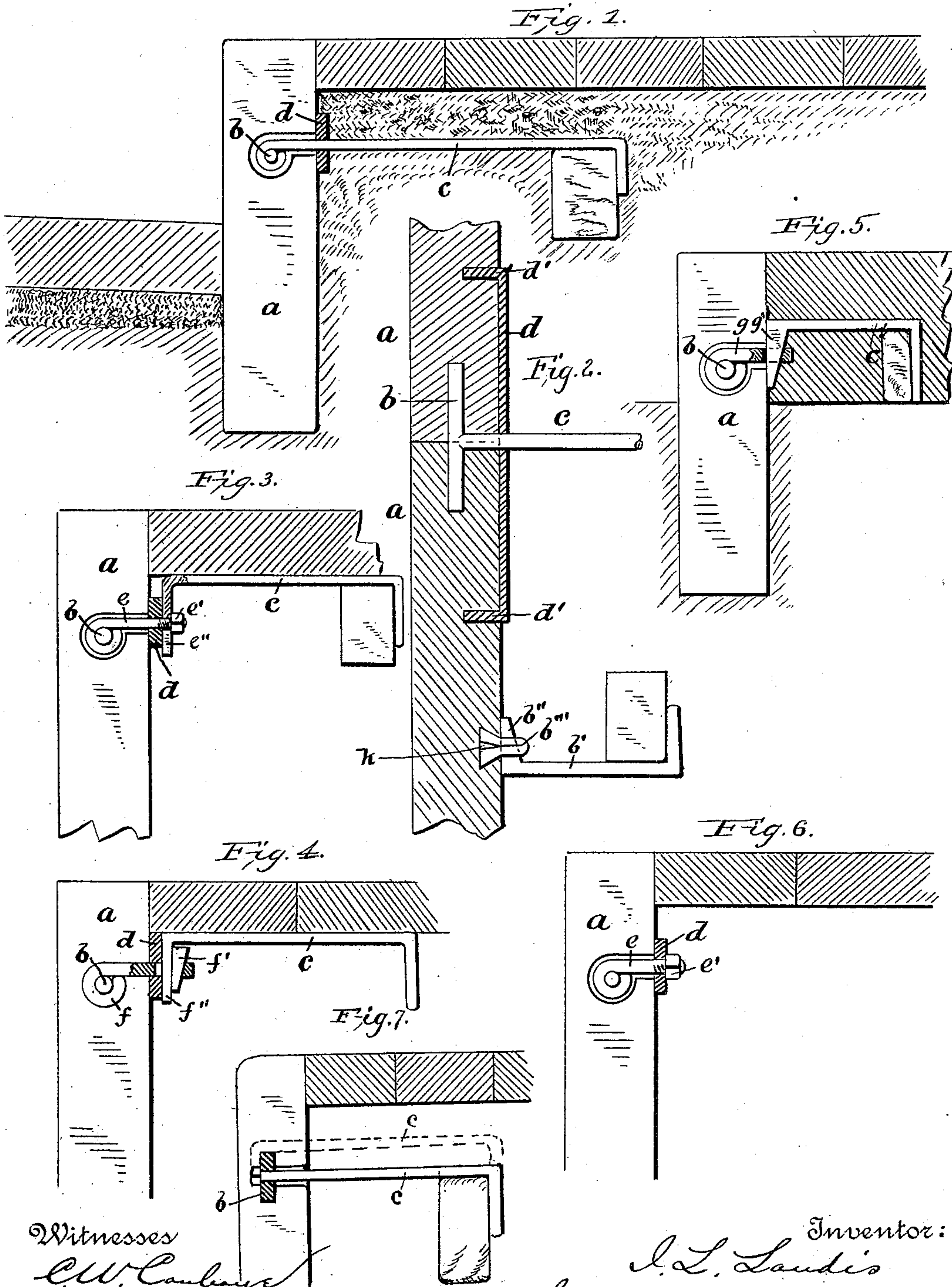


(No Model.)

I. L. LANDIS.
CURBSTONE.

No. 428,007.

Patented May 13, 1890.



Witnesses

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UNITED STATES PATENT OFFICE.

ISRAEL L. LANDIS, OF LANCASTER, PENNSYLVANIA.

CURBSTONE.

SPECIFICATION forming part of Letters Patent No. 428,007, dated May 13, 1890.

Application filed November 6, 1889. Serial No. 329,400. (No model.)

To all whom it may concern:

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

10 Figure 1 represents a sectional view of a curb and the adjacent sidewalk and gutter; Fig. 2, a horizontal sectional view of the two adjacent ends of two curbstones; and Figs. 3, 4, 5, 6, and 7, views similar to Fig. 1, showing
15 modifications of the securing devices, which will be fully hereinafter set forth.

It is a well-known fact that the main difficulty or drawback to the employment of stone curbs for sidewalks arises from the fact that
20 a comparatively short time after they have been set they settle into the earth and tilt one way or the other, some stones settling and tilting more than others, thereby throwing them out of alignment with each other
25 and presenting an irregular and unsightly appearance, as well as being dangerous to pedestrians.

It is the object of the present invention to obviate the above drawback by keeping the
30 adjacent ends of the stones in line with each other and preventing them from settling or tilting one way or the other, as will presently appear.

In the drawings annexed, *a* designates the
35 curbstones, which may be of the ordinary construction and dimensions and set in the ground in the usual manner, their upper edges being flush with the pavement. The adjacent ends of the curbs are correspond-
40 ingly drilled or bored for the reception of a connecting pin or bar *b*, the ends of the stones setting close to each other, as shown. Connected to this pin *b* is an anchor-rod *c*, which extends back into the earth under the side-
45 walk, and is hooked over an anchor-block or otherwise secured. This rod may be formed integral with the pin *b*, as shown in Fig. 2, or it may be connected thereto by means of an eye formed on its end, as shown in Fig. 1.
50 The adjacent ends of the stones are suitably recessed for the reception of the bar *b* or its connections, in order that the stones may abut

closely together. The pins *b* may be more securely fastened in their recesses, if desired, by cement or other plastic compound.

55 The anchor-rod *c*, as shown in Figs. 3 and 4, may assist in supporting the sidewalk, if desired.

Extending across the joints of the curbs, at their rear sides, are bars *d*, provided with
60 projections *d'* at their ends, which enter recesses in the stones, these bars being provided with holes about midway their length for the passage of the anchor-rods. These bars will prevent spreading apart of the curbs
65 and assist in holding them in alignment.

In order to further support the curbs (especially long curbs) and relieve the pins somewhat, I may attach a supplemental anchor-rod *b'*, as shown at lower end of Fig. 2,
70 to the back of the stone at any suitable point between its ends, this rod being attached to the stone by means of a wedge *b''*, formed on its end, and a loop *b'''*, dovetailed into the stone by means of a small wedge *k*.

75 Various devices may be employed to connect the anchor-rods to the connecting-pins and the plates *d* without departing from the invention in the least. I have shown a few of these modifications, and will now describe
80 them.

In Fig. 3 the anchor-rod is provided with a slotted bent portion *e''*, which is clamped to the bar *d* by an eyebolt *e* and clamping-nut
85 *e'*, the eye of the bolt being secured to the pin *b*, as shown.

In Fig. 4 the anchor-rod *c* is provided with a downward extension *f''*, which is adjustably but rigidly clamped to the bar *d* by means of a wedge *f'* and a slotted eyebolt *f*,
90 as shown.

In Fig. 5 the bar *d* is omitted, and a wedge *g'* is formed on the anchor-rod and passed through a slot in an eyebolt *g*, whereby the parts are rigidly secured together.

95 In Fig. 6 the anchor-rod is omitted and the eyebolt *e* clamped to the bar *d* by its nut *e'*.

Any of these modifications may be employed without departing from the invention, and many others may be devised by a skilled
100 mechanic. I therefore do not wish to confine myself to the specific construction shown and described.

It will be observed that by my invention it

will be impossible for the stones to settle or tilt independently of each other.

As shown in Fig. 5 the rods *c* may be embedded in the sidewalk when the same is constructed of any material laid while in a plastic state—such as concrete, cement, artificial stone, &c.

By forming the connecting-bar *b* rectangular in shape, as shown in Fig. 7, the curbs will be further prevented from tilting or twisting independently of each other. When rectangular bars *b* are used, the bars *c* may be provided with a head and passed through the said bars *b*, as shown in this figure, or they may be hooked over the bars, as shown in dotted lines.

Having thus described my invention, what I claim is—

1. The combination, with two adjacent curbstones provided with recesses, of a bar *d*, extending across the joint between the ends of the two stones and provided with hooks or extensions *d'*, which enter the recesses in the said stones, whereby the stones will be effectually prevented from parting, substantially as described.

2. The combination, with two adjacent curbstones having formed in their adjacent ends longitudinal recesses, of a bar connecting these curbstones and setting in the said longitudinal recesses in the same, and an anchoring rod connected to the said bar and extending back between the adjacent ends of the stones and into the earth beneath the sidewalk, substantially as described.

3. The combination of a curb, a loop *b'''*,

dovetailed into the curb, and an anchoring rod connected to this loop and extending back into the earth under the sidewalk, substantially as described.

4. The combination, with two curbstones having their adjacent ends provided with corresponding longitudinal recesses, of a bar setting in these recesses and connecting the stones together, so as to keep them in alignment, a bolt or rod *e*, connected to the said bar and extending rearward between the adjacent ends of the stones, a bar *d*, provided with projections *d'*, which enter recesses in the rear faces of the said curbstones, and means for clamping the bar *d* to the back of the curbstones and to the bolt *e*, substantially as described.

5. The combination, with two curbstones correspondingly recessed in their adjacent ends, of a bar setting in these recesses and serving to keep the curbstones in alignment, a bolt *e*, connected to the said bar and extending rearwardly between the adjacent ends of the stones, the said ends being recessed for the reception of the bolt, a bar *d*, clamped to the back of curbstones and to the projecting end of the bolt *e*, and an anchoring rod connected to the bar *d* and bolt *e* and extending back under the sidewalk, substantially as described.

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

ISRAEL L. LANDIS.

Witnesses:

A. DELLET,
GEORGE KAUTZ.