

(No Model.)

F. HAINES.
STREET CURBING.

No. 508,308.

Patented Nov. 7, 1893.

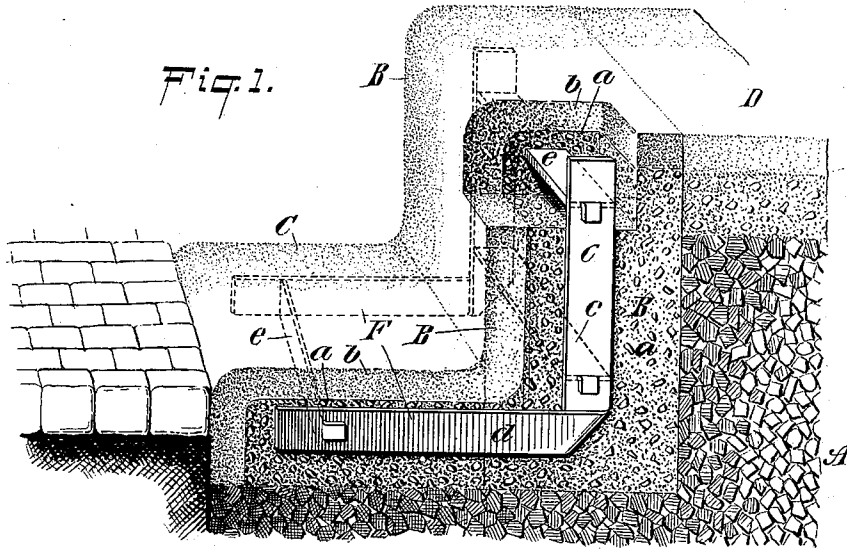


Fig. 2.



Fig. 5.

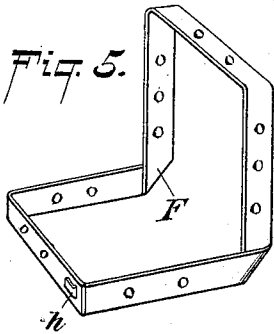


Fig. 3.

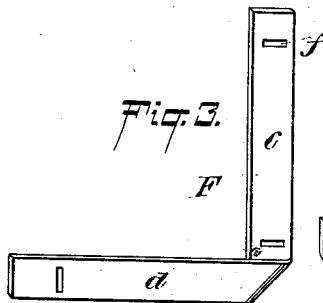
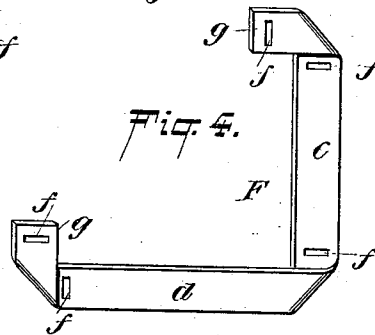


Fig. 4.



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STREET-CURBING.

SPECIFICATION forming part of Letters Patent No. 508,308, dated November 7, 1893.

Application filed June 28, 1892. Serial No. 438,247. (No specimens.)

To all whom it may concern:

Be it known that I, FRANKLIN HAINES, a citizen of the United States, and a resident of Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Street-Curbing, of which the following is a specification.

My invention relates to an improvement in curbs, and more particularly to those curbs made of artificial stone, the object being to provide a structure of this character which will be capable of withstanding the great strain or pressure imposed upon it, and which strain at times falls vertically upon that portion commonly known and referred to as the gutter stone, and sometimes laterally or horizontally against the curb proper, as when a cart or vehicle backs heavily against it, and with this and other ends in view, my invention consists in certain novel features of construction as will be hereinafter fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a portion or section of curbing constructed in accordance with my invention, the upper part being partially broken away for the sake of illustration. Fig. 2 is a view of one of the end pieces of the binder before being bent into proper shape. Fig. 3 is a view of the same after bending. Fig. 4 is a similar view of the binder after the ends thereof have been given an additional bend for the purpose of extending them from one layer or course of material into the outer or finishing course. Fig. 5 is a view of a modification of the binder.

In constructing my improved curbing, I make use of any of the well known compositions or materials now employed for constructing artificial stone pavements, preferring to first form a foundation A therefor of broken stone, bricks, cinders, &c.; upon this foundation I build the curbing, consisting of the curb proper B, and the gutter stone C, formed either in one solid piece or separate. In the latter event, the curb proper B will first be formed, joining on one side the pavement D, if one there be, and formed on the opposite side with a flat face to which the gutter stone C is subsequently joined.

In constructing the curbing I prefer to em-

ploy two layers or courses of material, as for instance, the lower coarser layer *a* of gravel, crushed rock, cement, &c., and a finer upper or top layer *b* of cement, sand, crushed granite, &c. Embedded in the material is a binder constructed preferably of end pieces F shaped or bent as shown in Fig. 3, and formed from a metal plate or strip as shown in Fig. 2, the strip being bent over upon itself to form a vertical arm *c*, to extend up into the curb proper B, and a horizontal arm *d* to extend into the gutter stone C. By thus bending the metal, the edges of the arms *c* and *d* will be presented to the outer surface of the curb, in which direction the greatest strain falls thereon, thereby utilizing the greatest strength of the metal. The end pieces F of the binder are connected by the horizontal pieces or strips *e*, the ends of the latter extending through openings *f* formed in the pieces F for their reception, and bent down to lock or fasten them. These horizontal pieces *e* may be arranged either flatwise, or on edge, in accordance with the position or location of the curbing and in accordance with the probable direction of the greatest strain which they are to withstand or overcome either through pressure or strain upon the structure from the outside, or from the inherent tendency of the material to crack or separate, or otherwise, those in the drawings being arranged or placed on edge similar to the end pieces. If desired, the ends of the end pieces F may also be bent as shown at *g* in Fig. 4, the purpose and effect of which are to extend said ends *g* from the lower layer or course of material *a* into the top course *b* for the purpose of allowing said ends and cross pieces to assist in binding the two layers of material together more securely than would otherwise be the case. If desired the metal composing the binder may be perforated, as shown in Fig. 5, to allow of the cement or other material to enter and pass through it, and thereby securely hold the binder in place.

While I prefer to use the construction of binder above described, I do not limit my invention thereto, as other forms or constructions of binders may be utilized with good effects, as for instance, the binder may be constructed of one long strip of metal prop-

erly bent as shown in Fig. 5, the ends being locked as at *h*, instead of having the cross-pieces *e* made separate as shown in Fig. 1.

Although I have shown in the drawings the binder completely embedded in one section of curbing, it will be obvious that it may be of sufficient dimensions to extend from one section into another, and if desired from the curbing into the pavement to bind them together, as will be readily understood by those skilled in the art without further illustration, or further detail description.

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

1. A combined curb and gutter having embedded therein a flat metallic bar with its greatest width in a vertical plane transversely

of the gutter and with the portion of the bar within the curb folded upon itself to stand in a vertical position within the curb portion, the bar being entirely embedded within the integral curb and gutter.

2. A combined curb and gutter having flat strengthening bars with the two ends bent at right angles to each other; each portion extending with its flat faces in a vertical plane across the gutter and curb and entirely embedded therein, substantially as set forth.

Signed at New York, in the county of New York and state of New York, this 22d day of June, A. D. 1892.

FRANKLIN HAINES.

Witnesses:

B. P. STRATTON,
WILLIAM GOEBEL.