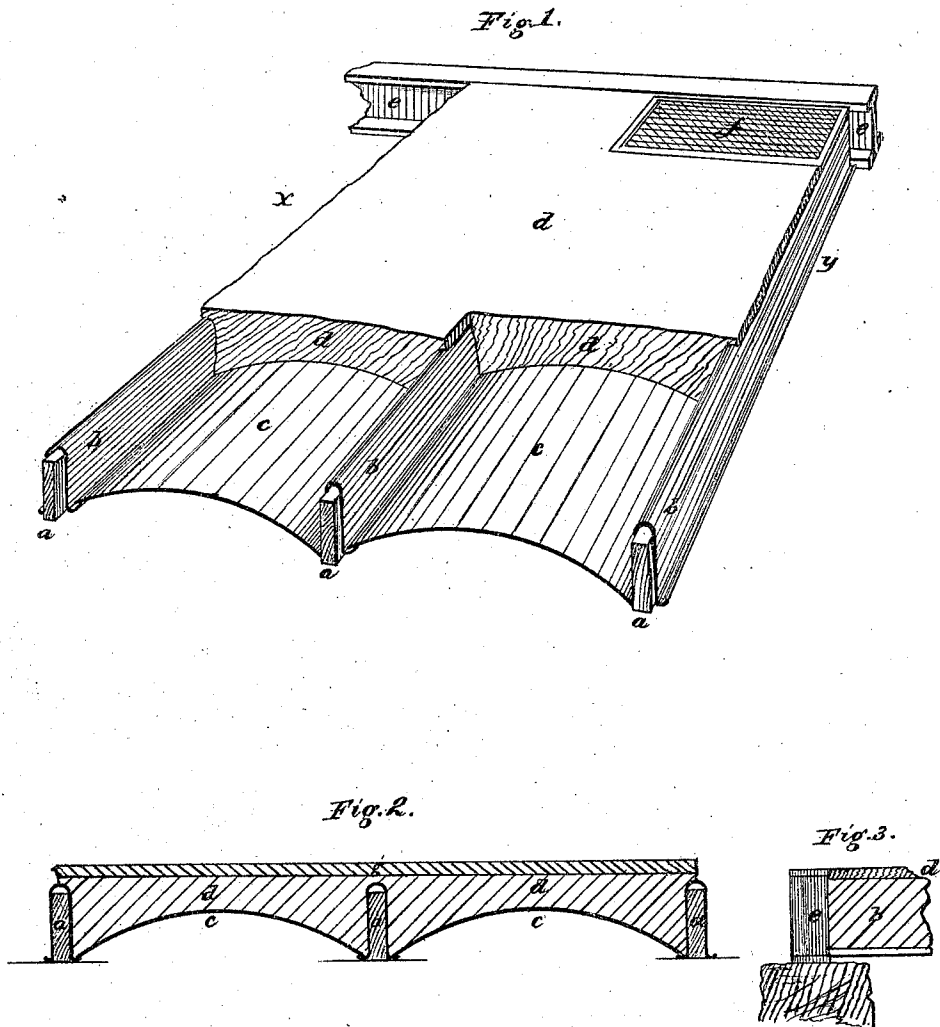


L. P. ROGERS.  
Concrete Sidewalks.

No. 133,544.

Patented Dec. 3, 1872.



Witnesses.

*Burdickson,  
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# UNITED STATES PATENT OFFICE.

LOUIS P. ROGERS, OF HARTFORD, CONNECTICUT.

## IMPROVEMENT IN CONCRETE SIDEWALKS.

Specification forming part of Letters Patent No. 123,544, dated December 3, 1872.

*To all whom it may concern:*

Be it known that I, LOUIS P. ROGERS, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Concrete Sidewalks; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

Figure 1 is a perspective view of my invention, showing its general construction. Fig. 2 is a cross-section upon the line *xy*, Fig. 1. Fig. 3 shows the end of one of the beams of my improved sidewalk resting upon the curb.

*a a* are wooden beams or blocks inserted between the sides of the bent plates forming the beams *b*. *b b* are beams, of wrought-iron plates bent into the form shown in the drawing, curved over the top, and bent out at the lower edges to serve as a support for the arched plates *c*. *c c* are thin iron plates, arched upward, and resting upon the outward-turned lower flanges of the plate-beams *b*. These arched plates are intended to be of only sufficient thickness to support the concrete or material above during construction. *d* is the concrete, forming the principal thickness of the sidewalk. It is intended to be of asphaltum and gravel, as is now used for sidewalks and similar purposes. It is of sufficient thickness to sustain any load or shock that may come upon it independent of the thin plate *c*

used to support it until it has set and become hard. This filling material forming the arches of the sidewalk may be of ordinary cement and gravel concrete, or of any of the *béton* compositions in ordinary use. Above this concrete a layer of brick or flagging-stone may be placed, as shown at *g* in Fig. 2. *e* is the support for the ends of the beams *b*. These latter may rest upon a stone curb at each end or upon an iron beam, as shown at Fig. 1. *f* is an opening through the flooring to admit light, if it is desired to have vaults below.

My improved sidewalk, resting only at the ends of the beams and forming a solid structure above the ground, cannot be disturbed by frost. It is also particularly applicable to places where it is desired to have vaults beneath.

What I claim as my invention is—

1. The combination of the wooden beam or blocks *a* with the bent-plate beam *b* passing over the top and the arched plates *c*, for the purpose of sustaining the concrete flooring *d*, substantially in the manner described.

2. The compound beam *a b*, constructed as herein specified, with the lower edges of the plate turned outward to support the intermediate structure, substantially as described.

3. A sidewalk composed of the devices *a b c d*, when constructed and arranged substantially in the manner described.

LOUIS P. ROGERS.

Witnesses:

THEO. G. ELLIS,  
BEN. A. COOKE.