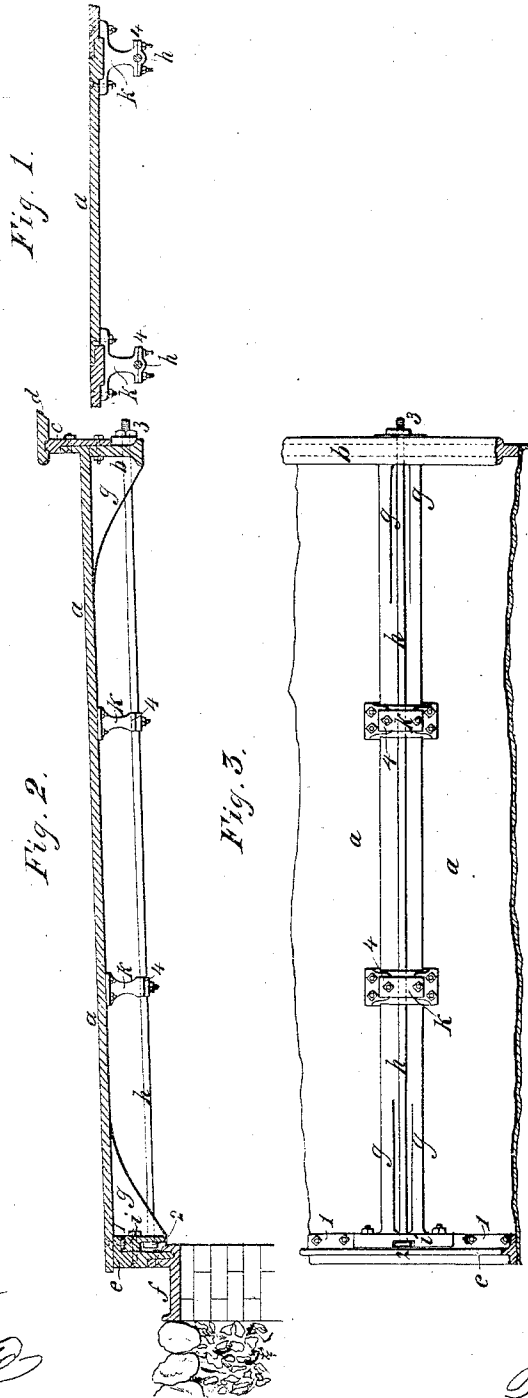


P. H. Jackson.

Street Gutters.

N^o 21,834.

Patented Oct. 19, 1858.



WITNESSES:

Lemuel W. Correll

Thomas G. Howard
" " "

INVENTOR:

Peter H. Jackson

UNITED STATES PATENT OFFICE.

PETER H. JACKSON, OF NEW YORK, N. Y.

CONSTRUCTION OF METALLIC SIDE PAVEMENTS.

Specification of Letters Patent No. 21,834, dated October 19, 1858.

To all whom it may concern:

Be it known that I, PETER H. JACKSON, of the city and State of New York, have invented, made, and applied to use certain new and useful Improvements in Metallic Side-walks Over Vaults, &c.; and I do hereby declare that the following is a full, clear, and exact description of my said improvements, reference being had to the drawing making part of this specification, wherein—

Figure 1 is a vertical section of my side walk longitudinally, Fig. 2, is a cross section of the same from the curb and gutter of the street to the store front, and Fig. 3, is a plan of one of the girders.

Similar marks of reference denote the same parts.

The large cast iron plates that have heretofore been used for side walks, are very apt to become warped and buckled more or less in cooling, and these plates cannot be very large on account of the convenience in handling, and said plates have heretofore been sustained and strengthened by separate girders or beams.

The nature of my said invention consists in so forming the edges of the large iron plates that they receive a wrought iron rod and stanchions which simultaneously make an open truss to support the plate and also straighten out the plate, removing any twist or buckling.

a, a, are the plates formed with a roughened surface on the upper side. These plates set together with lapped edges in the manner shown in Fig. 1,—and rest at the end next the building on a cross beam or girder *b*.

c is the support for the first step or platform *d*, and at the outer edge, the plates *a*, rest upon and are bolted to a cast iron bar *e*, that sits, with a tongue, into a groove in the gutter *f*, at which point the joint is packed with cement, and the parts riveted together, this manner of forming the gutter plate *f* and bar *e*, facilitating casting and handling. The bar *e*, is to be riveted or bolted to the plates *a*, at the flange 1, 1.

g, g, are brackets formed on, or attached to the sides of the plates *a*, near one edge, as seen in the cross section Fig. 2,—and *h*, is a tie rod passing between each pair of brackets and having a head 2, setting against a plate *i*, that is formed on or attached to the bar *e*, and sits against the ends of the

brackets *g g*. The other end of the tie rod *h*, passes through the girder *b*, terminating with a head or nut 3. The tie rods *h*, are to be shrunk into place or screwed up (I prefer the latter) until the plates *a, a*, are slightly bent or arched upward, so that any weight on said plates *a*, forming the side walk, will be taken on said rods *h*, by tension as the said plates come down to a straight line, or nearly so.

k, k, are stanchions, one or more being applied to each tie rod. These are first bolted in the proper place to the undersides of the plates *a*, and connect the same as shown in Fig. 1. 4, 4, are caps that are then attached by screw bolts and act to draw the plates *a*, more or less into a straight line, using the tie rod *h*, as a resistance, the effect of which is to tighten said tie rod by drawing the plates *a*, down into line, thus forming a very strong and light girder.

In the plates *a*, openings are generally left at suitable places, and filled with glasses set in metal frames,—and where solid girders are used to sustain the plates *a*, the light is more or less obstructed, whereas with my open girder the light is free to shine around on the ceiling of the vault; and any warping or buckling of the plates *a*, is remedied, by the use of the stanchions *k*, in connection with the tie rods *h*, as set forth.

I do not claim a side walk or platform of metal, as this has long since been known and used, neither do I claim any device for sustaining said metallic side walk at the gutter and side next the house; but—

What I claim as my invention and desire to secure by Letters Patent, is—

The combination of the tie rods *h, h*, and brackets *g g* formed on the under sides of the plates *a, a*, with the stanchions *k, k*, acting to connect said plates to each other, straighten said plates, and strain the said tie rods *h, h*, substantially as and for the purposes specified.

In witness whereof I have hereunto set my signature this second day of February 1858.

PETER H. JACKSON.

Witnesses:

LEMUEL W. SERRELL,
THOMAS G. HAROLD.