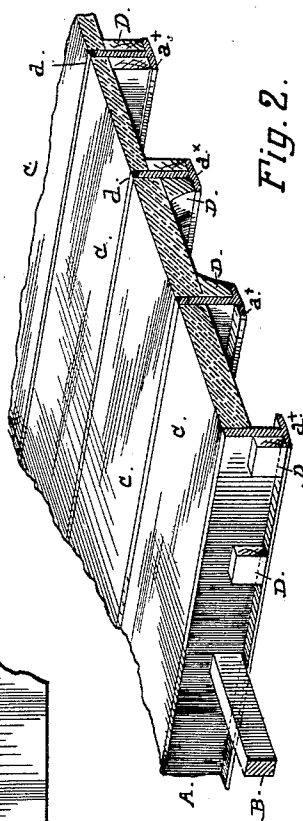
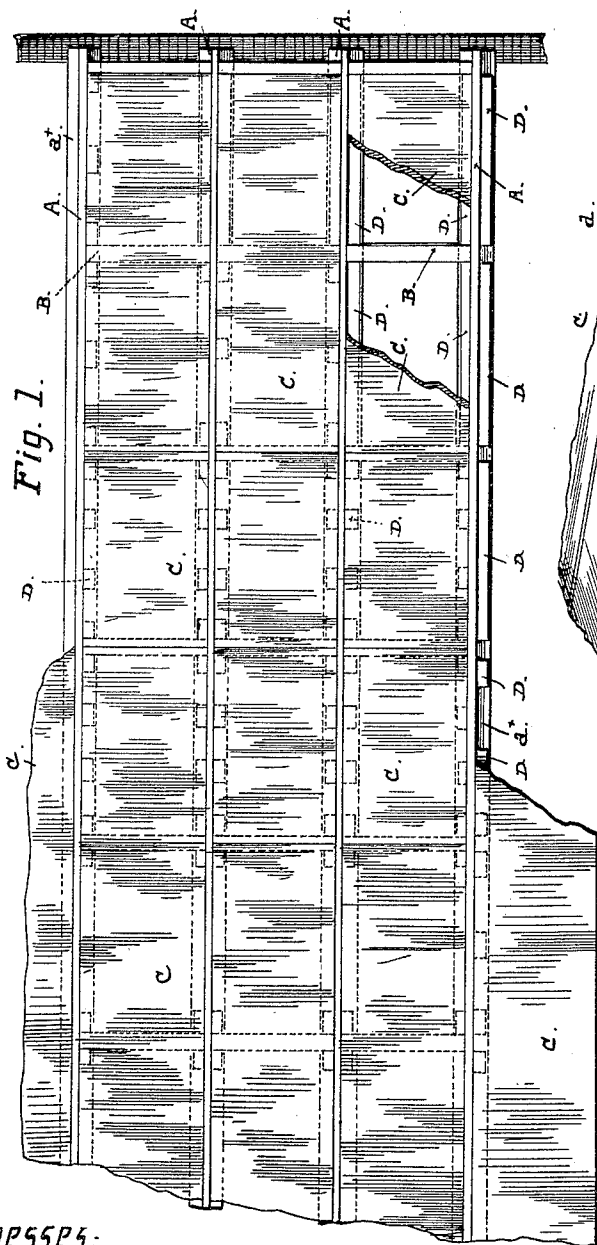


(No Model.)

G. W. PARKER.
LIGHT TRANSMITTING FLOOR OR SIDEWALK.

No. 477,148.

Patented June 14, 1892.



Witnesses:

A. B. C. C. C.
E. Patten

Inventor:

George W. Parker
By J. Smith & Co. Attys

UNITED STATES PATENT OFFICE.

GEORGE W. PARKER, OF SAN FRANCISCO, CALIFORNIA.

LIGHT-TRANSMITTING FLOOR OR SIDEWALK.

SPECIFICATION forming part of Letters Patent No. 477,148, dated June 14, 1892.

Application filed January 21, 1892. Serial No. 418,839. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. PARKER, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented certain new and useful Improvements in the Construction of Light-Transmitting Floors and Sidewalks, of which the following is a specification.

My invention relates to improvements in the construction of floors and ceilings of buildings; but the improvements are applicable also to sidewalks and coverings over vaults, cellars, or subways under streets. The same have for their object to produce a water-tight, fire-proof, and translucent or light-transmitting floor or covering of a strong and durable character at moderate cost.

The nature of my said improvements and the manner in which I proceed to produce and apply the same will be fully understood from the following description and the accompanying drawings, to which reference is had by letters.

Figure 1 of said drawings is a plan or top view of a section of my improved floor or covering, and Fig. 2 is a perspective view showing at the end a transverse section.

The nature of these improvements consists in setting T rails or beams of like form in an inverted position and parallel order, with the flanges spaced at intervals of distance and the webs or bodies of the beams held in line by spacing-blocks, and then filling in the spaces between the beams over the flanges by slabs or plates of glass and sealing or closing the joints with cement of suitable character to produce a water-tight surface.

A A indicate the metal rails or beams, and a* their bottom flanges.

B B are the spacing-blocks, and C the glass slabs or plates.

D are the blocks or supporting-pieces, interposed between the flange and the glass plate to bring the surface of the glass flush with the top edge of the beam. These blocks B and D can be made of hard wood, as they are isolated or not in close contact with one another and are too small to materially affect the fire-proof qualities of the structure. They are not exposed at all on the top surface of the structure, and on the under surface or between the beams they are not, under ordinary condi-

tions, liable to be affected by heat and will not burn even under exposure to great heat.

When laid over a chamber or excavation of any kind to form a ceiling as well as a floor, the beams may be suitably ornamented on the faces of the flanges in the operation of rolling the beams at the mill, in order to relieve the plain appearance of the ceiling; but all such ornamentation is dispensed with where the beams are laid directly on the ground or are not exposed on the bottom surface.

The beams are laid in line with the edges of the flanges at intervals of space apart and spacing-blocks B B are set between them, resting on the flanges and abutting at the ends against the webs or bodies of the beams. In the intervals of space between these blocks B and longitudinally along the flange on each beam are set the blocks D, on which are laid the glass slabs C C. These last-mentioned blocks are placed in that manner to support the glass and bring the surface of the same flush with the tops of the beams, and consequently the height of block to use will vary with the thickness of slabs. They serve to reduce the thickness of slab required for this structure and enable me to use thin slabs or plates with deep beams. The weights and loads which the floor is required to bear will govern the thickness of the glass to be used, and also, to some extent, the number of supporting-blocks D to be used. In some cases these blocks are laid continuously between the spacing-blocks, as shown in Fig. 1, where the glass above them is broken away, and in some cases, on the other hand, they are laid at intervals apart. I prefer, also, to set the spacing-blocks B at the line of joint between one slab and the next, particularly with long slabs and where a water-tight joint is required. All joints between the blocks and beams and the slabs or plates are cemented when the structure is to turn water. Instead of setting the top face of the glass flush with the tops of the beams the slabs can be thrown up to bring their faces slightly above the metal, as shown at d, Fig. 2, and then by filling the groove thus formed between the edges of the glass with colored cement of some kind an ornamental and pleasing effect can be obtained. A floor constructed in this manner will have light-transmitting qualities to a high degree

and will be fire-proof, and, when so desired, water-tight. It will be found to possess advantages over most of the constructions heretofore employed to secure these qualities, for
5 the form of beam and the manner of spacing and holding them contribute to the strength and stiffness of the structure and enable light beams to be substituted for heavy beams.

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

A floor or similar structure consisting of the rails or beams having bottom flanges set at

intervals apart in spaced rows, the spacing-blocks B, located beneath the joints of the
15 glass slabs, the glass slabs or plates, and the supporting-blocks D between the flanges and the slabs or plates, substantially as hereinbefore described.

In testimony that I claim the foregoing I
20 have hereunto set my hand and seal.

GEO. W. PARKER. [L. S.]

Witnesses:

CHAS. E. KELLY,
EDWARD E. OSBORN.