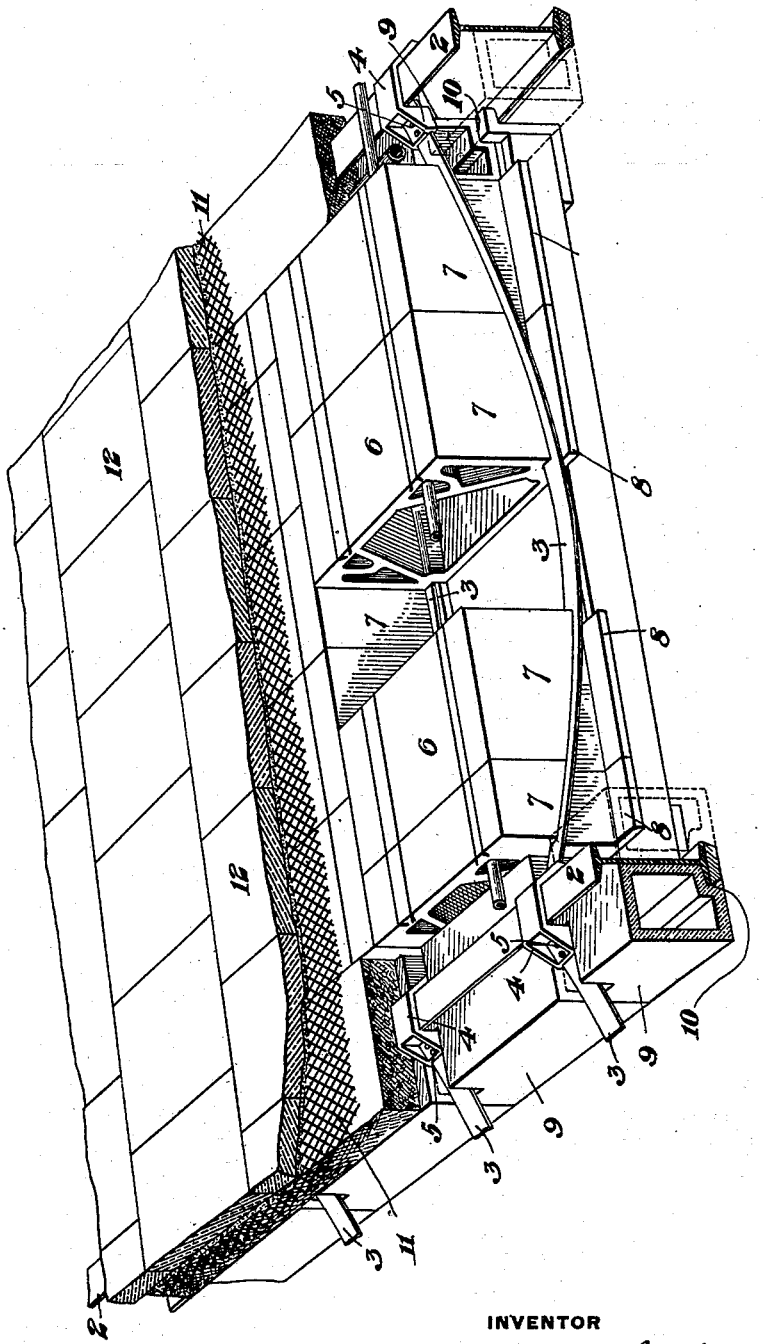
No. 650,073. Patented May 22, 1900.

C. F. BUENTE.

TILE FLOORING.

(Application filed Aug. 29, 1899.)

(No Model.)



WITNESSES

Warren W. Swartz

George B. Blemming

INVENTOR

Charles F. Buente

by Baldwin & Baldwin

his atty's.

UNITED STATES PATENT OFFICE.

CHARLES F. BUENTE, OF ALLEGHENY, PENNSYLVANIA.

TILE FLOORING.

SPECIFICATION forming part of Letters Patent No. 650,073, dated May 22, 1900.

Application filed August 29, 1899. Serial No. 728,847. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. BUENTE, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Tile Flooring, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, in which the figure is a perspective view, partly broken away, showing the tile flooring constructed in accordance with my invention.

Heretofore in tile-floor construction the common practice has been to provide a thick layer of cement or concrete above the hollow tiles, the floor proper being formed either by a wooden flooring secured to the sleepers fastened into cement or of tiles laid in the cement or concrete. Where either of these constructions is used in floors which are subjected to heavy loads, such as in warehouses, where heavy trucking is done over the floors, the hollow tiles are liable to be broken, thus necessitating expensive repairing and replacing of the floor construction. My invention is designed to overcome this difficulty and prevent liability of breaking the tiles, and, further, to reduce the cost of the flooring by greatly reducing the amount of cement or concrete used.

In the drawing, 2 2 represent parallel iron beams of the floor structure, between which extend the downwardly bent or curved tie-rods 3, the ends of which enter horizontal slots in hangers 4 and are secured by pins or rivets 5. The main tiles 6 are of hollow box form and provided on both sides with lateral lugs 7, having curved lower faces to fit the tie-rods, the lugs being successively deeper in the tiles toward the center of the rods. To close the spaces between the tiles at the bottom, I provide each with a lateral flange 8, which extends to the next tile, this flange being horizontal when the tile is in place. The main tiles are made of sufficient height that their upper faces shall extend a considerable distance above the level of the iron beams and do not extend to the beams, but only to within a short distance thereof. A space is thus left between the ends of the main tiles and the beams, within which piping may be laid. The spaces between the main tiles and the beams are closed by the shallower end tiles 9, having lower recesses 10 along one edge, which fit upon the foot of the beam. These end tiles are provided with one or more curved recesses to receive the tie-rods, as shown in the drawing, and are held in place by the beams and the main tiles. After any desired piping is laid along the ends of the main tiles these spaces are filled with cement, concrete, or tiles up to the level of the tops of the hollow main tiles. A layer of netting, expanded metal, or similar material is then laid over the entire floor, and upon this is spread a thin layer of mortar—one-half inch thick, for example—in which the floor-tiles 12 are secured in the ordinary manner.

The advantages of the invention result from the use of the netting or similar material and the extending of the hollow tiles above the level of the floor-beams. The netting distributes the strain resulting from a blow or pressure applied to any part of the floor and prevents breaking of the tiles, while a very small amount of concrete is necessary to cover the beams, the usual thick layer over the entire floor being done away with.

Many changes may be made in the form and arrangement of the tiles forming the main structure of the floor and in the supporting means therefor without departing from my invention.

I claim—

1. A tile floor, composed of hollow tiles supported between the beams and having horizontally-extending tops, a layer of netting or similar material resting directly on the tops of the tiles, and a layer of mortar or cement covering the netting; substantially as described.

2. A floor composed of hollow tiles having closed tops and supported between the beams, a layer of netting or similar material laid on the tops of the tiles, a layer of mortar or ce-

ment covering the netting, and floor-tiles secured to the mortar; substantially as described.

3. A floor composed of hollow tiles supported between and extending above the level of the beams, filling for the spaces above the beams, a layer of netting covering the tiles and filling, and a layer of mortar or similar material covering the netting, substantially as described.

In testimony whereof I have hereunto set my hand.

CHARLES F. BUENTE.

Witnesses:
F. E. GAITHER,
G. B. BLEMMING.