No. 610,139. Patented Aug. 30, 1898.

W. H. JENKINS.

CONSTRUCTION OF CONCRETE FLOORS FOR BUILDINGS.

(Application filed Nov. 3, 1897.)

(No Model.)

Fig. 1.

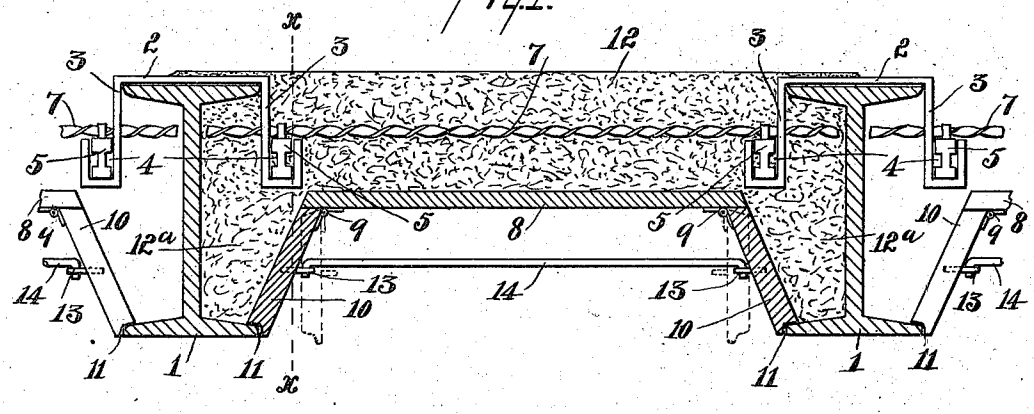


Fig. 2.

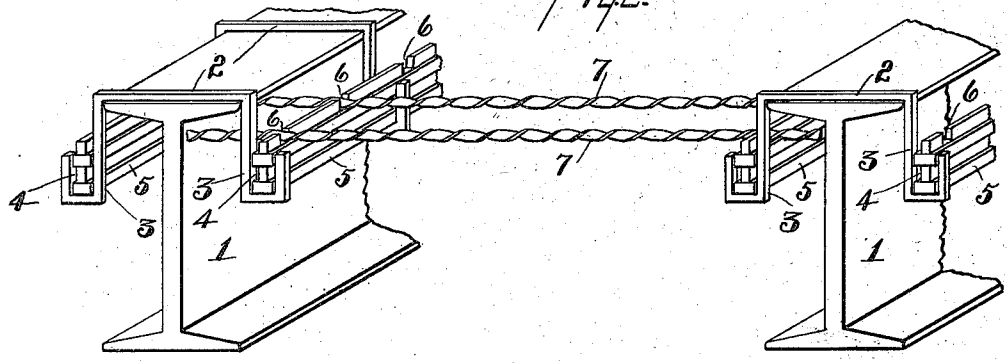
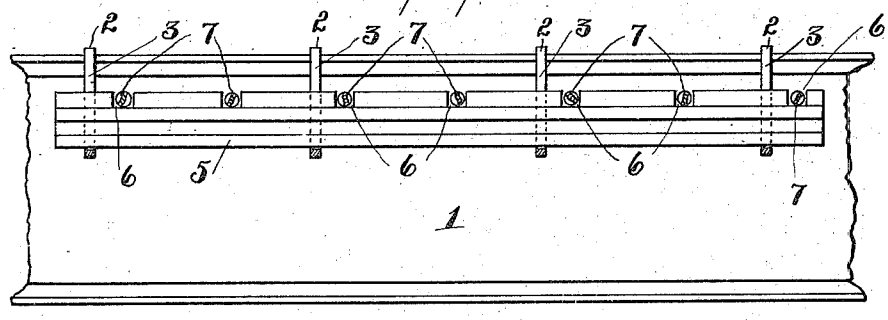


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

WARNER H. JENKINS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR, BY MESNE ASSIGNMENTS, OF ONE-HALF TO VIRGIL W. WATERS, OF SAME PLACE.

CONSTRUCTION OF CONCRETE FLOORS FOR BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 610,139, dated August 30, 1898.

Application filed November 3, 1897. Serial No. 657,274. (No model.)

To all whom it may concern:

Be it known that I, WARNER H. JENKINS, a citizen of the United States, residing in the city and county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in the Construction of Concrete Floors for Buildings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

Figure 1 is a transverse section through two I-beams of a building, showing the construction of my improved floor. Fig. 2 is a perspective view of the invention previous to laying the concrete. Fig. 3 is a section on line *x x*, Fig. 1, previous to laying the concrete.

This invention relates to that class of floorings for buildings which are formed of concrete supported by girders or I-beams and by cross-bars extending between the I-beams.

The invention has for its object to produce such a floor, which shall be readily constructed, strong, and durable.

The precise nature of the construction will clearly appear from the following specification, in which also the particular improvements will be pointed out.

Referring to the accompanying drawings, 1 marks two of the usual I-beams, whose ends are supported in the walls of the building in the usual manner.

2 are saddles placed at suitable intervals apart and whose crowns rest upon the top of the I-beams, as shown. The ends of the depending limbs 3 of these saddles are turned upward to form a socket 4 and support for the longitudinal bars 5, whose upper edges project above the outer limb, forming one side of the said socket. These edges are provided at suitable intervals with notches 6 some distance below the top of the I-beams. The notches of the bar adjacent to one I-beam are opposite those of the bar of the opposite I-beam. In these notches I lay cross-bars 7, preferably threaded or twisted, as shown, which are thus supported by the I-beams, as clearly shown in the drawings.

The parts are now in position for the laying of the concrete that is to constitute the floor of the structure. In order to do this in a convenient manner, I employ the temporary support for the concrete. (Seen in Fig. 1.) This consists of a top board 8 of any desired length and whose width is less than that between opposite feet of the two I-beams. To this board I attach, by means of hinges 9 at each side, a leg 10. In putting this device in place the said legs are brought into a vertical position (indicated in dotted lines in Fig. 1) and the device is let down, or it may be put up between the I-beams. The legs are then spread outwardly and their free ends made to rest upon the ends of the feet of the respective I-beams. In order to prevent liability of the legs spreading and straining the hinges 9, I usually make at their free ends an offset or notch 11, whereby while the legs rest upon the feet of the I-beams they have a lateral bearing against the edge of the latter, as clearly seen in Fig. 1. The concrete 12 is now laid upon this temporary support, its upper surface on a line slightly above the top of the I-beams. The entire space between that line and said temporary support and between the I-beams is filled with concrete, the cross-bars and their supporting-bars 5, &c., being entirely embedded in the concrete. When the latter has become sufficiently set or hardened, the said support is removed by drawing inwardly the legs 10 into the vertical position, which allows the device to pass down between the feet of the I-beams. In order to lock the said device in the supporting position, I usually secure on the opposite inner sides of the legs apertured lugs 13, into which are inserted the bent ends of a rod 14, as seen in Fig. 1.

It will be seen that when the temporary flooring has been removed the under side of the body of concrete may be said to be in the form of an angular arch whose ends 12ª are supported by the feet of the I-beams, while the middle portion is sustained by the cross-bars 7, that are in turn, in effect, sustained by the I-beams.

The described construction is extended over the entire series of I-beams of the building, and thus a strong, firm, and durable fireproof floor is provided.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. In a floor for buildings, the combination of the I-beams, the series of saddles resting upon and depending therefrom, and provided with the sockets, the longitudinal bars resting in said sockets and having a series of notches in the upper edge thereof, the cross-bars extending between opposite I-beams, and resting in the said notches, together with the body of concrete having inwardly-inclined downward side extensions, resting upon the feet of the I-beams.

2. A skeleton support for a concrete floor, consisting of the combination of the I-beams, the series of saddles resting upon and depending therefrom, and having the sockets, the longitudinal bars resting in said sockets and having a series of notches in the upper edge thereof, together with the cross-bars extending between opposite I-beams and resting in said notches, substantially as described.

In testimony whereof I have hereunto affixed my signature this 6th day of October, A. D. 1897.

WARNER H. JENKINS.

Witnesses:
WALTER C. PUSEY,
JOSHUA PUSEY.