

No. 764,184.

PATENTED JULY 5, 1904.

W. E. ELLENBERGER.
CAR FOR DRYING CONCRETE BUILDING BLOCKS.

APPLICATION FILED APR. 29, 1904.

NO MODEL.

3 SHEETS—SHEET 1.

Fig. 1.

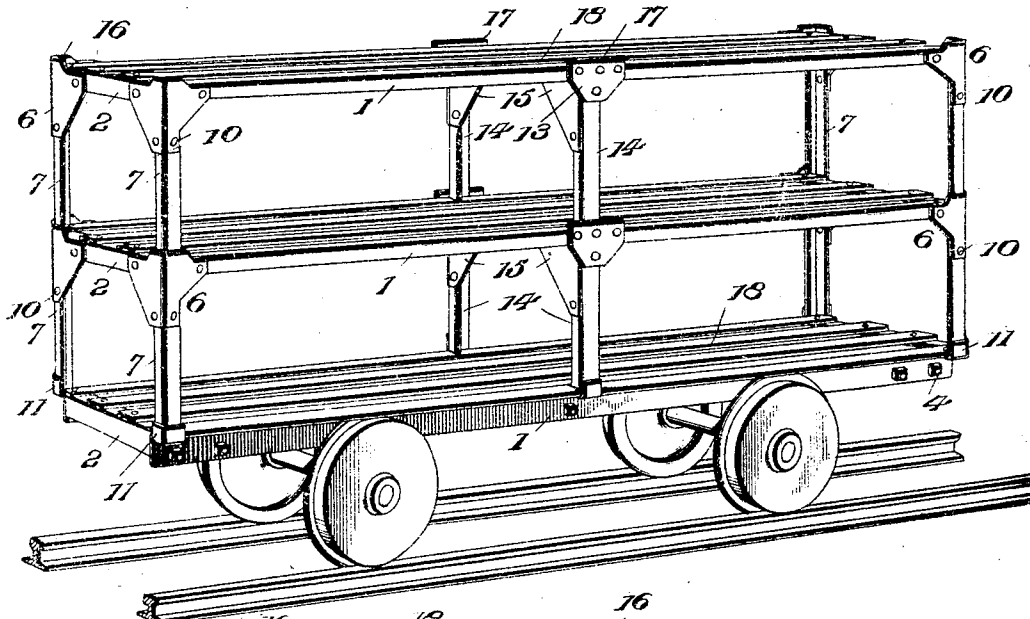


Fig. 3.

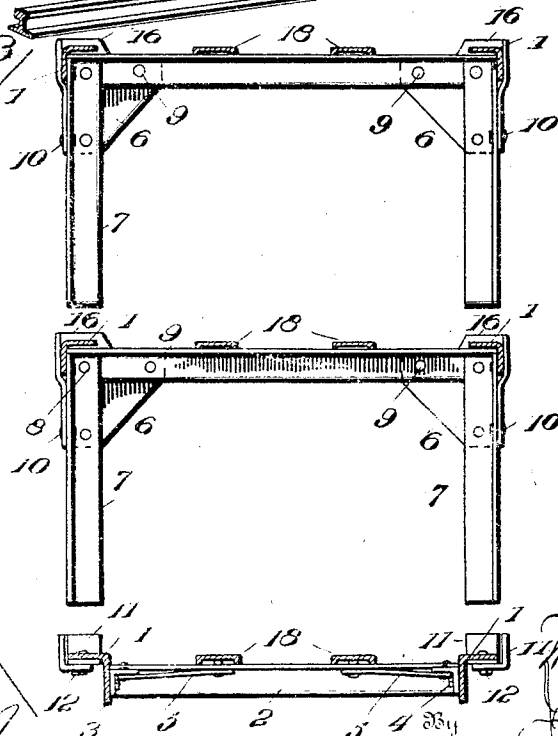
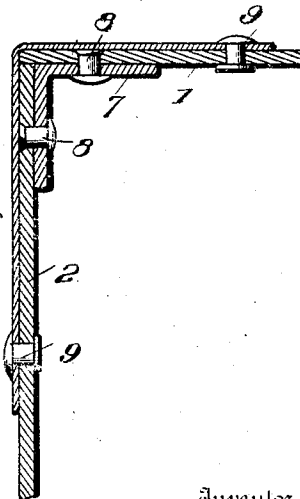


Fig. 7.



Witnesses

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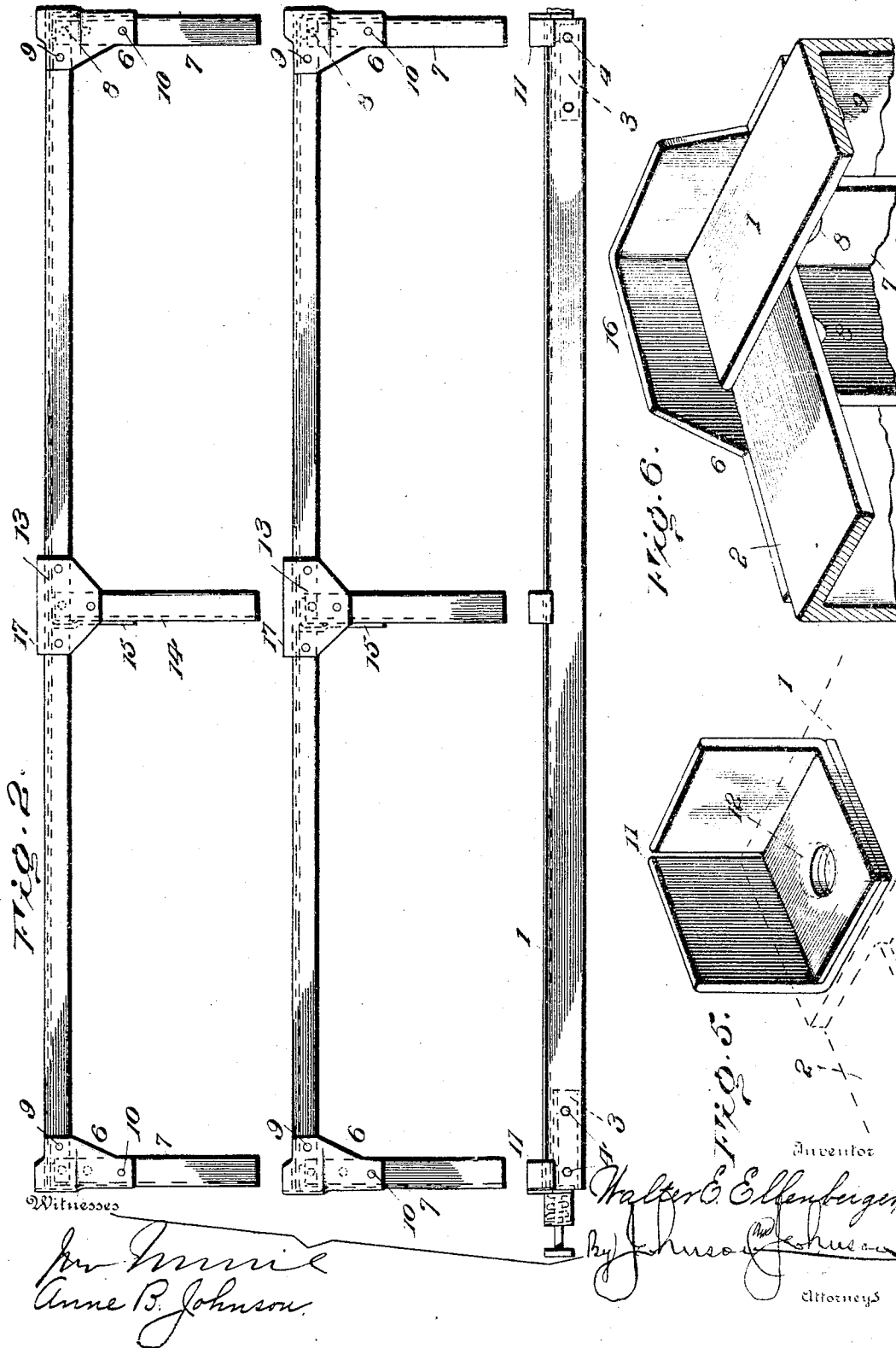
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3 SHEETS—SHEET 2.



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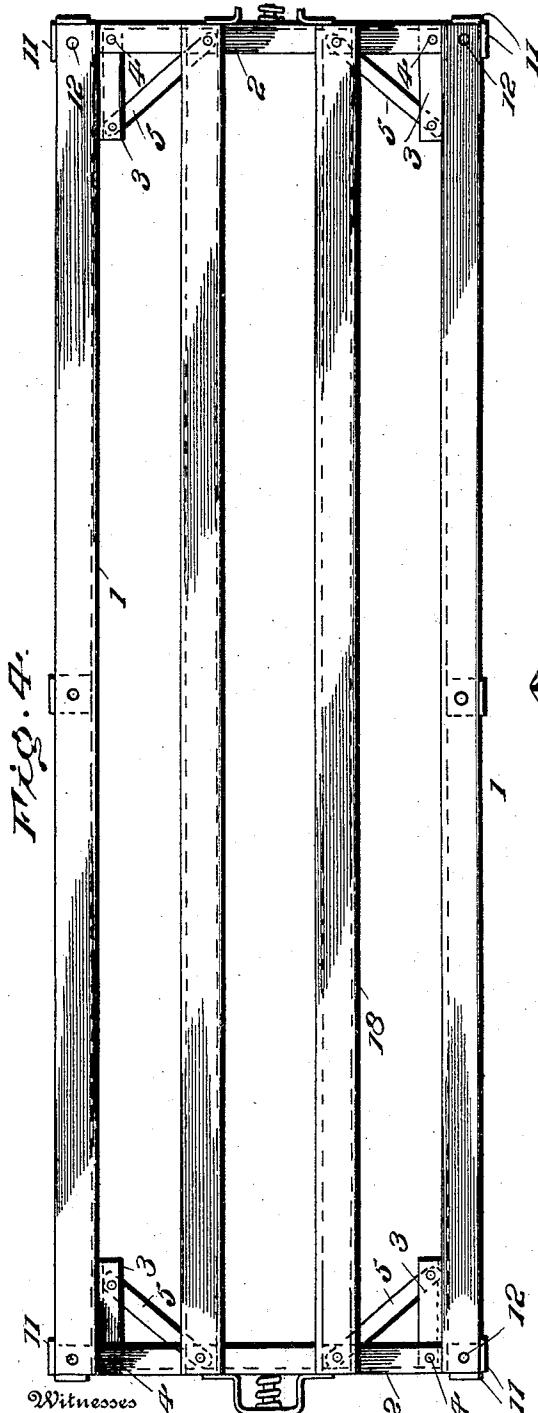
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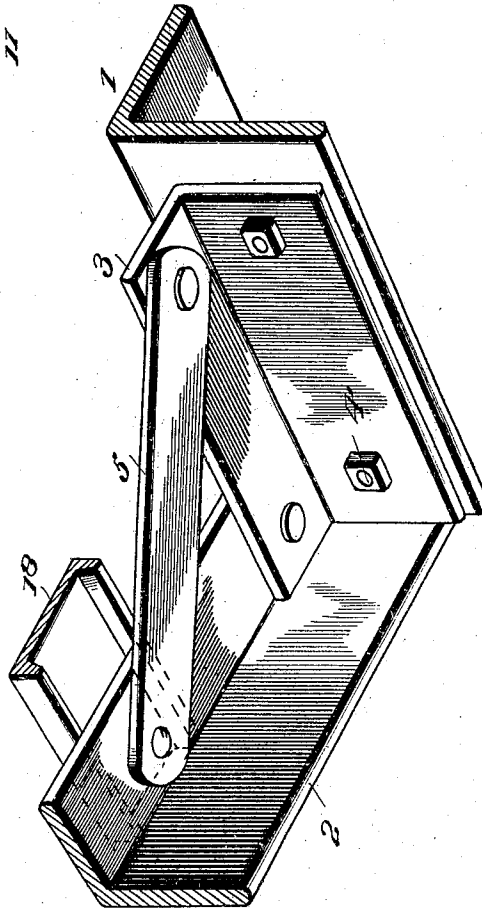
NO MODEL.

3 SHEETS—SHEET 3.



Witnesses

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UNITED STATES PATENT OFFICE.

WALTER EDWARD ELLENBERGER, OF WESTPARK, OHIO.

CAR FOR DRYING CONCRETE BUILDING-BLOCKS.

SPECIFICATION forming part of Letters Patent No. 764,184, dated July 5, 1904.

Application filed April 29, 1904. Serial No. 205,579. (No model.)

To all whom it may concern:

Be it known that I, WALTER EDWARD ELLENBERGER, a citizen of the United States, residing at Westpark, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Cars for Drying Concrete Building-Blocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

For drying concrete building-blocks and the like I have produced a car constructed with a plurality of platforms or decks arranged one above the other and comprising features of novel construction in the provision of supplemental platforms or decks, each having fixed depending legs freely supported upon the platform below and upward-projecting reinforcing-plates forming angle abutments for confining the legs at their points of support. The legs provide for properly spacing the decks, and the means of confining the legs affords convenience for shipping the parts and for erecting the car for use with effective drying capacity.

The following description, read in connection with the accompanying drawings, will enable any person skilled in the art to which my invention relates to understand and practice my invention in the form in which I prefer to employ it; but it will be understood that my invention is not confined to the precise form and details of construction herein illustrated and described, as various changes and modifications may be made without exceeding the scope of the claims in which my invention is set out.

Referring to the drawings, Figure 1 represents in perspective a triple-deck platform-car embodying my invention. Fig. 2 is a side elevation of the same, showing the decks and their depending legs in separated relation one above the other and the reinforcing abutment-forming plates for the legs. Fig. 3 is a transverse section of the same. Fig. 4 is a top view of the main-platform frame. Fig. 5 shows in perspective right-angle abutment-forming plates of the main platform of the car. Fig. 6 shows a like view of one of the corners, its

angle abutment-forming plates, and its depending leg. Fig. 7 is a horizontal section of the same. Fig. 8 shows a perspective view of the under side of one of the corners of the main platform, showing the corner bracing of the beams.

The main platform is mounted upon carrying-wheels adapted for carriage upon rail-tracks, and upon this platform are mounted a plurality of supplemental platforms or decks, secured in spaced relation to each other by provision which allows of their being freely supported for use and removal. The frames of these platforms are of steel beams, and each frame is constructed of side beams 1, their ends at the corners resting upon and connected together by end beams 2, both of L shape in cross-section, so that the end beams abut against the inner sides of the vertical flanges of the side beams. For the main platform this connection is made at each corner by a short angle-bar 3, secured by nutted bolts 4 4 to the inner vertical wall of the side beam and to the under side of the horizontal flange of the end beam, with the end of the short angle-bar abutting against the inner vertical wall of the end beam, while a diagonal bar 5, riveted to the under side of the inner end of the horizontal flange of the short angle-bar and the under side of the horizontal flange of the end beam, braces and renders solid this corner connection. The frames of the supplemental platforms or decks are connected as follows: The end beams 2 abut against the inner vertical walls of the side beams 1 beneath the upper horizontal flanges of the latter, forming thereby an angle corner. A right-angle plate 6 covers the outside of this frame angle corner as a reinforcing element and extends below the same, and to the inner walls of the angle of this corner is secured a steel leg 7, the angle sides of which are secured by rivets 8 to the inner vertical walls of the flanges of the side and end beams, while the outside angle-plate is secured by rivets 9 to the same walls of the beams and by rivets 10 to the angle sides of the leg below the beams, rendering solid this angle corner and its connected depending leg. These corner depending legs are of the same length and are freely sup-

ported at the corners of the main platform upon the ends of the side angle beams and are confined thereon by the angle-plates 11, riveted to the under side of the beam, so as to form a right-angle abutment to hold the leg in place. I prefer to make these abutment-forming angle-plates of separate parts and secure them, one lapping the other, on the under side of the beam by the same rivet 12. To the side beams, mediately of their length, are secured plates 13, which hang below the beams, and to these plates are riveted legs 14, which are also riveted to the beams and depend and rest upon the top of the side beam of the main platform, whereby to afford proper support for the upper platforms at the middle of their length. The plates 13 are riveted to the outer side of the beam, while a plate 15, riveted to the inner side of the leg and to the inner wall of the beam, gives a strong fastening of the leg to the beam. The top supplemental platform or deck and its depending legs is of identical construction and is mounted and freely confined upon the platform or deck below. To support and laterally confine this top platform or deck upon the platform or deck below, the corner angle-plates of the latter are extended above the beams and form right abutments 16 to hold the legs against lateral movement either sidewise or endwise. These corner angle-plates, therefore, not only serve as the means of securing the side and end beams firmly together, but form abutment-bounds for the ends of the legs depending from the upper platform or deck. For the mediate legs the plates to which they are secured to the side beams are extended above the latter and form shoulders 17 as means for keeping the ends of the legs of the upper deck true on the beams of the lower deck.

The floors of the platforms are formed of separated steel angle-bars 18, secured by rivets at their ends to the end beams and which may be otherwise suitably braced. I prefer to make the legs of angle-bars for strength and stiffness and as affording the best means for securing them at the angle corners.

The car is provided with suitable buffer-springs to counteract the effects of vibration of the car.

Looking at Fig. 7 it will be noted that the abutment-forming angle-plate 6 extends from the corner along the vertical flanges of the frame-beams beyond the sides of the leg to allow the angle-plate to be riveted to the beams. Looking at Figs. 1 and 3 it will be noted that the horizontal flange of the side beams of the main platform stands outward, while the horizontal flanges of the supplementing platforms stand inward to allow the legs to stand vertical and be riveted to the walls of the inner sides of the upper beams. Looking at Figs. 4 and 8 it will be noted that the end beams do not rest on the side beams, but on the horizontal flange of the short angle-bar 4,

to which the end-beam flange is riveted; that the short angle-bar being riveted to the vertical flange of the side-beam renders it a firm support for the end beam, while the diagonal brace 5, riveted to the short angle-bar and to the end beam, gives a firm and solid connection, and it will be understood that by reason of the great weight upon the platforms when loaded with concrete blocks it is of the last importance that the corners of the platform-frames must be solidly and strongly connected, so that there can be no sagging of the platforms or uneven supporting of the feet of the legs. Freely supporting the legs upon the side beams against abutments rising therefrom gives the advantage of quickly seating and removing the supplementing frames and avoids trouble of binding the legs in sockets and with which the least warping or canting of the beam-frames would tend to prevent the registering of the legs with sockets. The beam-frames and the legs when made of angle-iron and connected and braced as an entirety allow the legs to have a firm seating upon the flanges of the side beams, and in such seating the legs and the standing-angle abutments cooperate in supporting the frames, and in this support each leg rests upon the flange of the frame-beam below.

I claim—

1. A drying-platform, consisting of a frame of angle-beams joined at their ends, a floor of separated bars connecting the end beams, legs riveted at the corners to the inner walls of the side and end beams, and including reinforcing angle-plates riveted at the corners to the outer sides of the side and of the end beams and extending above them to form angle abutments.

2. A drying-platform, consisting of a frame of angle-beams joined at their ends, a floor of separated bars connecting the end beams, legs secured at the corners to the inner walls of the side and of the end beams by rivets 8, 8 and including reinforcing angle-plates at the corners extending against the outer sides of the side and of the end beams beyond the sides of the legs and secured thereto by rivets 9, 9 the said angle-plates extending above said beams to form angle abutments and secured to both the sides of the legs by rivets 10, 10 as set forth.

3. In a drying-car, a main-platform frame, right-angle abutment-forming plates secured to and standing at the corners of and above said frame, supplementing platform or deck frames, legs secured to the inner walls at the corners of said frames, right-angle reinforcing-plates secured to the outer sides of the corners and forming abutments standing above the surface of the frame the legs of the supplementing frame resting freely upon the frame below and against the standing walls of the right-angle abutments.

4. A drying-car, comprising a plurality of platform-frames supported in tiers, each con-

constructed of angle-beams, the horizontal flanges of the beams of the main platform standing outward, and the horizontal flanges of the beams of the supplementing platforms standing inward, reinforcing-plates 11, riveted to the angle-beams forming right-angle abutments standing above the corners of the main platform, legs riveted to the inner walls of the vertical flanges of the side and end beams of the supplementing platforms, right-angle abutment-forming plates riveted to the outer sides of the vertical flanges of the side and of the end beams and standing above them, and including legs medially of the length of the side beams riveted to them, the legs of the supplementing platforms resting upon the horizontal flanges of the side beams and against the inner walls of the right-angle abutment-forming plates 17 of the frame below.

5. In a drying-car, a main platform, a plurality of platforms supported thereon in tiers, each comprising a frame of angle-beams, corner-legs, each leg riveted to the side and to the end beams on their inner sides, and reinforcing angle-plates riveted to the outer sides of the angle-beams and projecting above the beams as angle abutments for the legs.

6. In combination in a drying-car, a main platform, a plurality of decks, one above the other, the frames of each having corner-legs, and angle-plates which project below and above the frames and serve as the means of securing the legs to the under side of the frame and as the means of confining the legs of the deck next above upon the upper side of the deck having the legs.

7. In a platform drying-car, supplemental platforms or decks, one above the other, their frames composed of angle-bars united at their corners, legs secured to the corners at the inner sides of the angle-bars, and angle-plates covering the ends of the frame-bars on their outer sides, secured to them and reinforcing their connection with the legs.

8. In a drying-car, a plurality of platform or deck frames of angle-beams, the main platform at its corners having right-angle abutment-forming plates secured to the side and to the end beams, and standing above the beams, legs secured to and depending from the inner walls of the side and end beams of the supplementing frames, and right-angle plates secured to said beams and projecting above them to form abutments and secured to

the legs below said beams, the legs of each deck-frame resting freely on the angle-beams against the inner walls of angle abutment-plates of the frame below.

9. In a drying-car, a plurality of platforms frames of angle-beams, the main-platform frame, having fixed at its corners right-angle abutment-forming plates standing above the beams, corner-legs secured to the inner walls of the beams of the supplementing frames and angle-plates secured to the beams of said frame, projecting above it to form abutments, the legs of each supplemental frame resting freely on the side angle-beams against the inner walls of the abutment-forming plates of the frame below.

10. A platform-car, comprising a plurality of deck-frames one supplementing the other, legs carried by each frame and corner-plates secured to and standing above the frames, the feet of the legs of one frame supported on the frame below between its standing corner-plates.

11. A car comprising a plurality of deck-frames the corners of each having legs and plates secured to the legs and to the deck-frames, standing above the latter and arranged in such relation to each other as to coöperate in supporting the frames in the way described.

12. In a drying-car and in combination, a main-platform frame, a plurality of supplementing platform or deck frames having depending legs, the main-platform frame constructed of angle-beams connected at their ends, and means effecting such connection consisting of a short angle-bar 3, secured by its vertical flange to the vertical flange of the side beam by nutted bolts 4, 4 and riveted to the under side of the horizontal flange of the end beam, and a bar 5, riveted to the under side of the flange of the end beam and to the inner end of the short angle-bar, and angle-plates riveted to the side and end beams and standing above them to form corner-abutments for confining the feet of the depending legs of the deck-frames above.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WALTER EDWARD ELLENBERGER.

Witnesses:

WM. H. BEAVIS,
MAUDE DAVIES.