(No Model.)

V. ANGERER & C. A. PSILANDER.

APPARATUS FOR THE MANUFACTURE OF TRACK STRUCTURES.

No. 490,941. Patented Jan. 31, 1893.

FIG. 1.

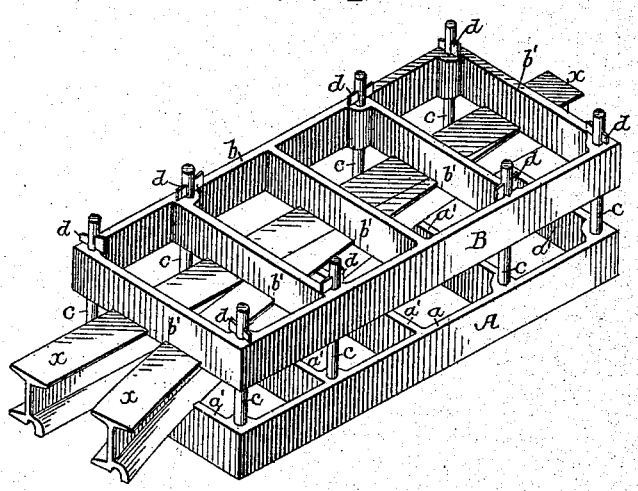
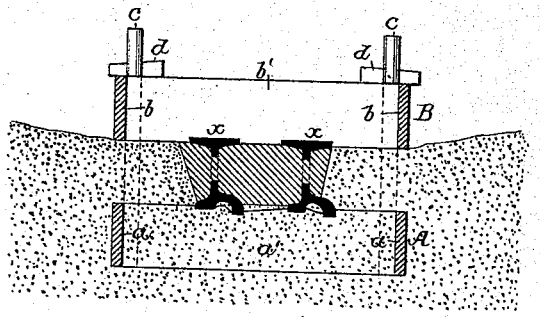


FIG. 2.



Witnesses:
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by their Attorneys
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UNITED STATES PATENT OFFICE.

VICTOR ANGERER AND CHARLES A. PSILANDER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO THE WILLIAM WHARTON, JR., & COMPANY, INCORPORATED, OF SAME PLACE.

APPARATUS FOR THE MANUFACTURE OF TRACK STRUCTURES.

SPECIFICATION forming part of Letters Patent No. 490,941, dated January 31, 1893.

Application filed May 16, 1892. Serial No. 433,147. (No model.)

To all whom it may concern:

Be it known that we, VICTOR ANGERER, a citizen of the United States, and CHARLES A. PSILANDER, a subject of the King of Sweden and Norway, and both residents of Philadelphia, Pennsylvania, have invented an Apparatus for Manufacturing Track Structures, of which the following is a specification.

The object of our invention is to hold rails or other shapes in proper relative position while metal is being cast around them in order to secure them together.

Our invention is designed for use particularly in connection with the manufacture of railway track structures as set forth in the application for patent filed by Edward Samuel on February 24, 1892, Serial No. 422,618 in which is fully described the method of uniting two or more rails or other shapes together by means of a casting.

In the accompanying drawings:—Figure 1, is a perspective view of our improved frame for holding the rails in proper relative position; Fig. 2, is a transverse sectional view through the frame and molding sand.

A is the base frame made up of two longitudinal side bars *a* and transverse bars *a'* forming what we may term a grid. Projecting from the lower frame A is a series of posts *c* which pass through openings in an upper frame B similar in construction to the frame A, having longitudinal bars *b* and transverse bars *b'*. The rails *x x* are secured between the two frames, the posts *c* passing through the orifices in the frame B and keyed thereto by wedges *d* which pass through slots in the upper end of the post, thus the two frames are rigidly secured together with the rails in proper relative position between them.

In some instances we may shape the upper surface of the cross bars *a'* of the lower frame A to conform to the heads of the rails, as clearly shown in Fig. 2, and we may also notch the underside of the frame B to receive the base flanges of the rails in order to prevent the rails from being accidentally moved out of alignment. Separate adjustable pieces may also be secured to the cross bars *a'* to engage with the rails so as to take the place of the notches and hold the rails in alignment.

When the rails are mounted in position between the frames the structure is set in the molding sand which is rammed so as to leave a space at the side of the rails and between them wherever the cast metal is wanted.

It will be noticed that the lower frame A is embedded in the sand as well as the rails, but the upper frame B is above the sand. The molten metal is poured between the bars of the upper frame into the space or spaces made to receive the cast metal. When this metal cools the structure is removed from the sand and the united rails are released from the frame.

It will be understood that other means of fastening may be employed, and we do not confine ourselves particularly to the manufacture of railway structures, as other structures may be secured by the same method without departing from our invention.

We claim as our invention:

1. The combination of the two open frames between which are clamped the rails or equivalent parts, and devices for securing the frames together and against the rails, said frames being open to receive the sand of the mold and the molten metal, substantially as specified.

2. The combination of two clamping frames, one situated above the other, between which are confined the rails or equivalent parts, devices for securing the frames together and against the rails, and a mold in which the clamp is embedded and in which the casting is made, substantially as specified.

3. The combination of the lower frame A composed of longitudinal and transverse bars, the upper edges of the transverse bars being notched, posts on said frame, an upper frame B composed of longitudinal and transverse bars, the lower edges of the transverse bars being notched, said frame having openings through which the posts pass, and devices for locking the frames together, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

VICTOR ANGERER.
CHAS. A. PSILANDER.

Witnesses:
W. J. BURNS,
HARRY SMITH.