

(No Model.)

E. SAMUEL & V. ANGERER.  
CASTING CLAMP FOR RAILWAY RAILS.

No. 531,865.

Patented Jan. 1, 1895.

FIG. 1.

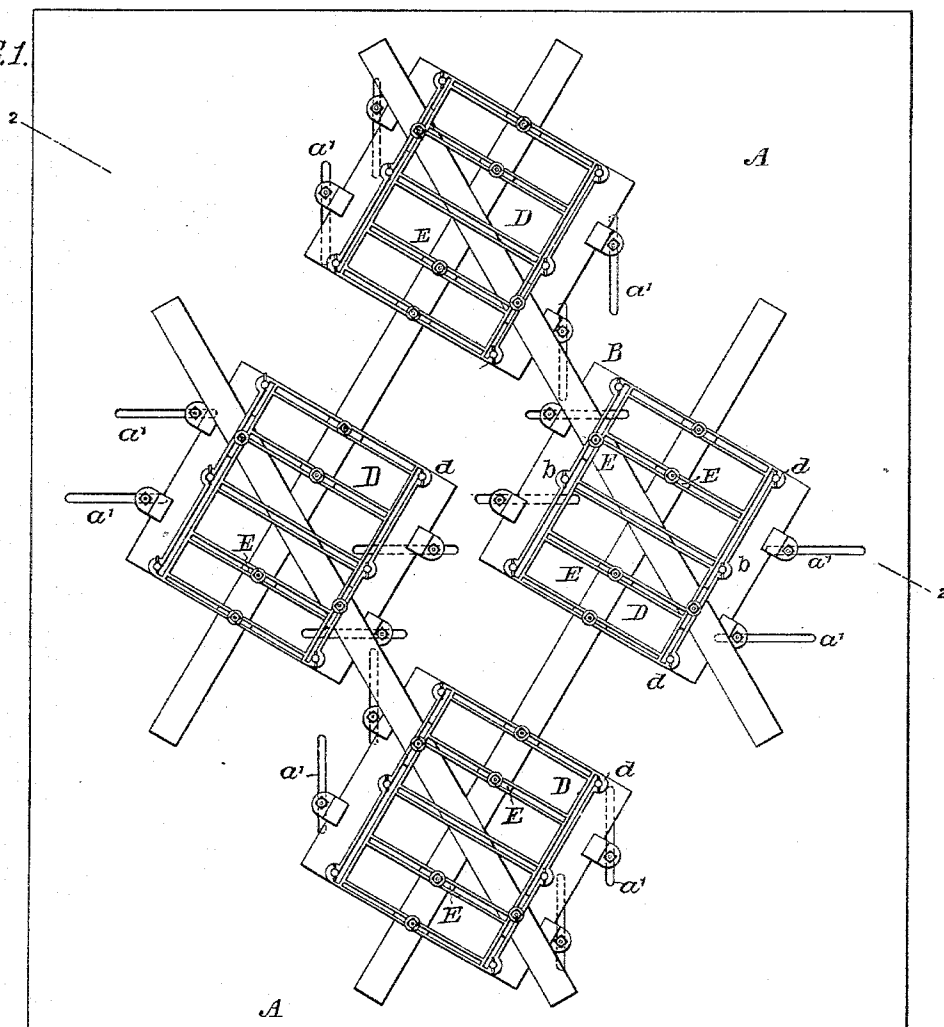


FIG. 3.

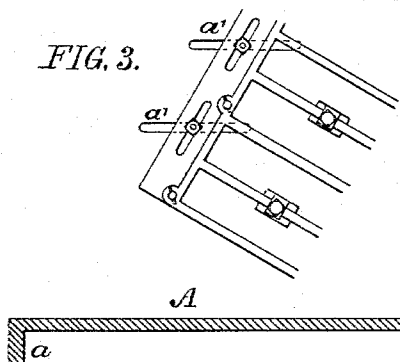
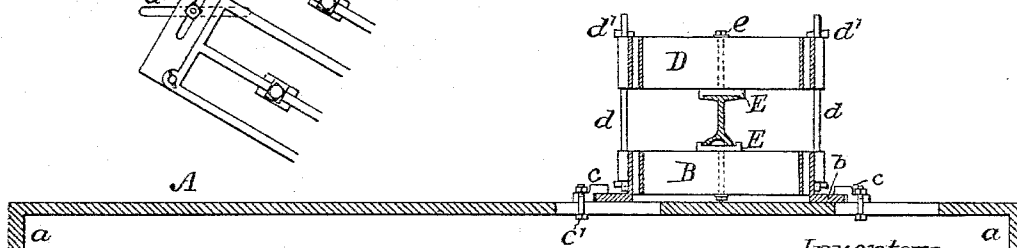


FIG. 2.



Witnesses:

R. Schlichter  
Will. A. Bass

Inventors

Edward Samuel  
and  
Victor Angerer

By their Attorneys

Howson & Howson

# UNITED STATES PATENT OFFICE.

EDWARD SAMUEL AND VICTOR ANGERER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO THE WILLIAM WHARTON, JR., & COMPANY, INCORPORATED, OF SAME PLACE.

## CASTING CLAMPS FOR RAILWAY-RAILS.

SPECIFICATION forming part of Letters Patent No. 531,865, dated January 1, 1895.

Application filed July 21, 1894. Serial No. 518,224. (No model.)

*To all whom it may concern:*

Be it known that we, EDWARD SAMUEL and VICTOR ANGERER, both citizens of the United States, and residents of Philadelphia, Pennsylvania, have invented certain Improvements in Casting Clamps for Railway-Rails, of which the following is a specification.

The object of our invention is to so construct a device for holding a series of rails in position while molten metal is cast around the joints that they will be perfectly rigid during the casting and can be adjusted so as to accommodate crossing structures arranged at different angles. Our invention is based on the Patent No. 490,941, dated January 31, 1893.

In the accompanying drawings:—Figure 1, is a plan view illustrating our improved device. Fig. 2, is a sectional view on the line 2—2, Fig. 1; and Fig. 3, is a view of a modification.

A is the bed plate, preferably provided with a downwardly projecting flange *a* and in the bed plate is a series of slots *a'* adapted to receive the confining bolts by which the lower frame B is secured to the bed. In the present instance there are four frames having base flanges *b* over which extend clips *c* secured to the bed by the confining bolts *c'*. On loosening the bolts *c'* any one of the frames B can be moved toward or from the center so that they can be set for crossings of different angles.

Mounted above each lower frame B is an upper clamping frame D between which and the lower frame are clamped the rails which are to be secured together by casting.

Extending from the lower frame B are rods *d* having slots in their upper ends, through which are passed the confining wedges *d'*. These rods pass through openings in the upper clamping frame D and confine said frame to the rails and to the lower frame. The bars making up each frame are slotted in the present instance and adapted to the slots are adjustable bolts *e* carrying at one end clamp plates E which are shaped to fit the rail as shown in Fig. 2, so that when the rails are set in the frames, as shown in Fig. 1, at the angle desired, the upper and lower clamp plates E

can be adjusted in line with the rails and when the upper clamp frame is secured to the lower clamp frame the rails will be rigidly held in the proper position.

The frames B and D are made of a size to accommodate the crossing rail only at the junction, but they may be made of different sizes without departing from our invention and the construction of the clamps may be modified.

In making a cast joint the lower clamp frames are first adjusted on the bed plate so as to properly accommodate the rails when arranged on the proper line. The rails are then adjusted on the lower clamp frames and the adjustable clamp plates E of the lower frame are set so as to be in proper position to receive the rails and when the rails are set the upper clamp frames are mounted upon the rails and their plates E adjusted so that when the wedges are driven the rails will be rigidly secured to the clamping frames, after which the mold can be made and the couplings cast so as to rigidly unite the rails.

In some instances slots may be made in the flange *b* of the lower frame B and a common bolt used and the cross bars need not be slotted, the clamp plates E in this instance being secured to the bars in any suitable manner, as shown in Fig. 3.

We claim as our invention—

1. The combination of the bed plate, and two or more sets of clamping frames between which the rails are mounted, the lower frame of each set being adjustable on the bed plate so that the several frames can be arranged to accommodate track structures of different angles, substantially as described.

2. The combination of the slotted bed plate, a series of lower clamping frames, bolts adapted to the slots and adapted to lock the frames to the bed, with upper clamp frames between which and the lower clamp frames the rails are secured, substantially as described.

3. The combination of the slotted base plate, the lower clamping frames secured thereto, adjustable blocks on the clamping frames, the upper clamping frame, and adjustable blocks thereon, substantially as described.

4. The combination of the base plate, the  
slotted lower clamp frame secured thereto,  
clamp blocks having bolts adapted to the  
slots, the upper clamp frame also slotted,  
5 clamp blocks having bolts adapted to the slots,  
and rods tying the two frames together, sub-  
stantially as described.

In testimony whereof we have signed our

names to this specification in the presence of  
two subscribing witnesses.

EDWARD SAMUEL.  
VICTOR ANGERER.

Witnesses:

WILLIAM A. BARR,  
JOSEPH H. KLEIN.