(No Model.)

J. P. E. C. STROMEYER.

METHOD OF ATTACHING RAILWAY RAILS TO LONGITUDINAL SLEEPERS.

No. 457,735. Patented Aug. 11, 1891.

Fig. 1.

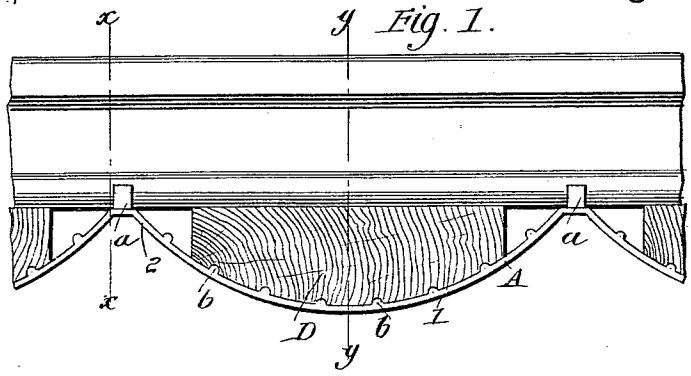


Fig. 2.

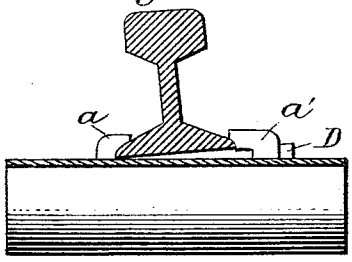


Fig. 3.

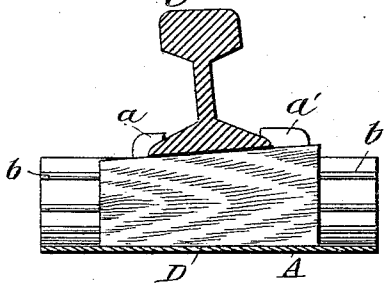
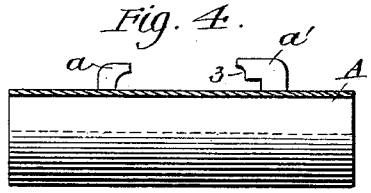


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHANN P. E. C. STROMEYER, OF LONDON, ENGLAND.

METHOD OF ATTACHING RAILWAY-RAILS TO LONGITUDINAL SLEEPERS.

SPECIFICATION forming part of Letters Patent No. 457,735, dated August 11, 1891.

Application filed February 15, 1890. Renewed July 14, 1891. Serial No. 399,457. (No model.)

To all whom it may concern:

Be it known that I, JOHANN P. E. C. STROMEYER, of Twickenham, London, England, have invented a new and Improved Method of Attaching Railway-Rails to Longitudinal Sleepers, of which the following is a full, clear, and exact description.

My invention relates to improvements in corrugated longitudinal railway-sleepers; and the object of my invention is to facilitate and improve the attachment of rails to the sleepers and to increase the bearing-surfaces in order to reduce the wear and tear at these points. This construction will be hereinafter fully described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters and figures of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the sleeper with a rail attached thereto. Fig. 2 is a transverse section of the same on the line *x x* of Fig. 1. Fig. 3 is a transverse section on the line *y y* of Fig. 1; and Fig. 4, an enlarged detail view of a crest or ridge of the corrugated sleeper, showing the lugs thereon for holding down the foot of the rail.

The metal sleeper A is formed so as to consist of a number of corrugations 1, which may be of any convenient form. At every crest 2 of these corrugations two lugs are formed, as shown in Fig. 4. The lugs *a* on one side of the sleeper are simple projections, while the lugs *a'* on the other side are formed with a projecting corner 3 on the lower or bearing side. These lugs are formed by punching and stamping the crests of the corrugations. The distance which separates the two lugs *a a'* on one crest from each other must be such that the foot of the rail B can be clasped by them, as shown in Figs. 2 and 3, and at the same time these lugs *a a'* must be separate so far from each other that the rail B can be tilted into the hollow formed between them. When this has been done, wedges D, as shown in Figs. 1 and 3, are driven into the hollows of the corrugated sleeper, thereby supporting the foot of the rail B, and also pressing the flanges against the under sides of the lugs *a a'*.

The upper surface of the sleeper may be provided with transverse ribs *b* for the purpose of retaining the wedges in place.

I have shown the lugs *a a'* as forming part of the sleeper A; but I do not confine myself to this method. Instead of these lugs *a a'* small plates or caps may be bolted to the crests of the corrugations, or hooks may be inserted there; but the inner edges or bearing-surfaces of these hooks or caps must be similar in form to the lugs *a a'*.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. As an improved article of manufacture, a transversely-corrugated longitudinal sleeper, along which the rail is adapted to lie lengthwise, provided at the crests of the corrugations with devices for engaging the foot or base of a rail and provided with ribs *b* in the hollows or depressions, substantially as set forth.

2. As an improved article of manufacture, a transversely-corrugated longitudinal sleeper, along which the rail is adapted to lie lengthwise, and lugs *a a'* on the crests of the corrugations to receive the base of the rail, the lug *a'* having a projecting corner 3 on the lower or bearing side, and transverse wedges to rest in the hollows or depressions, support the rails, and hold their bases or feet above the surface of the crests and against said lug *a* and projecting corner 3, substantially as set forth.

3. The combination, with transversely-corrugated sleepers, along which the rails extend lengthwise, and lugs, hooks, or caps on the crests of the corrugations to engage the base or foot of the rail, of transverse wedges to rest in the hollows or depressions, support the rails, and hold their bases or feet above the surface of said crests and against the said hooks, lugs, or caps, substantially as set forth.

4. The combination, with the transversely-corrugated longitudinally-extending sleeper,

along which a rail is adapted to extend lengthwise, ribs across the upper faces of the depressions or hollows, and lugs, hooks, or caps *a a'* on the crests and between which extends the base of the rail, of transverse wooden wedges D, resting on said ribbed surfaces and of a thickness to support the rails above the surface of said crests and hold their bases up against the said hooks, lugs, or caps, substantially as set forth.

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Witnesses:
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