

A. BOLZANO.

METHOD OF FIXING RAIL CHAIRS ON TIMBER SLEEPERS.

No. 399,483.

Patented Mar. 12, 1889.

Fig: 1.

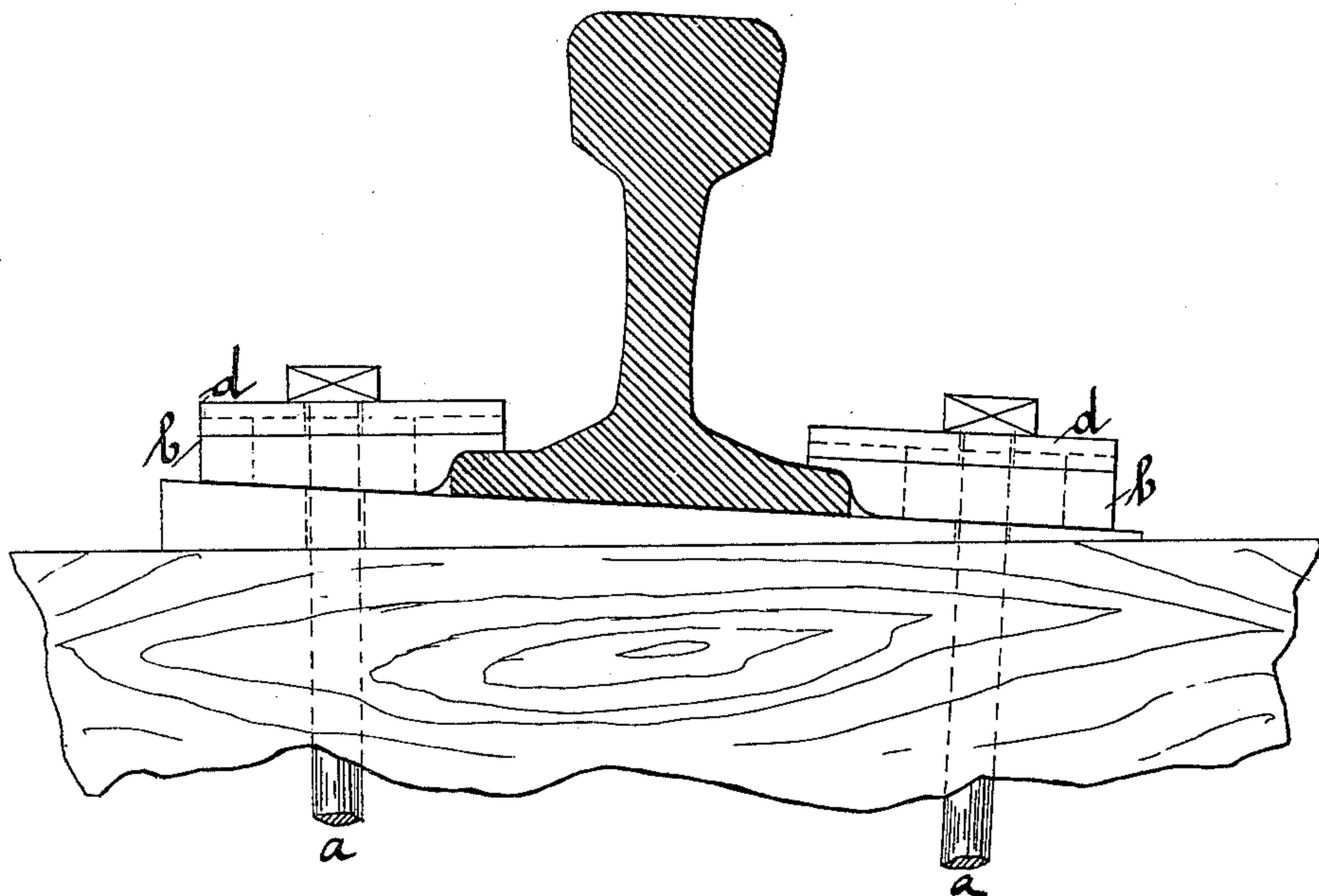
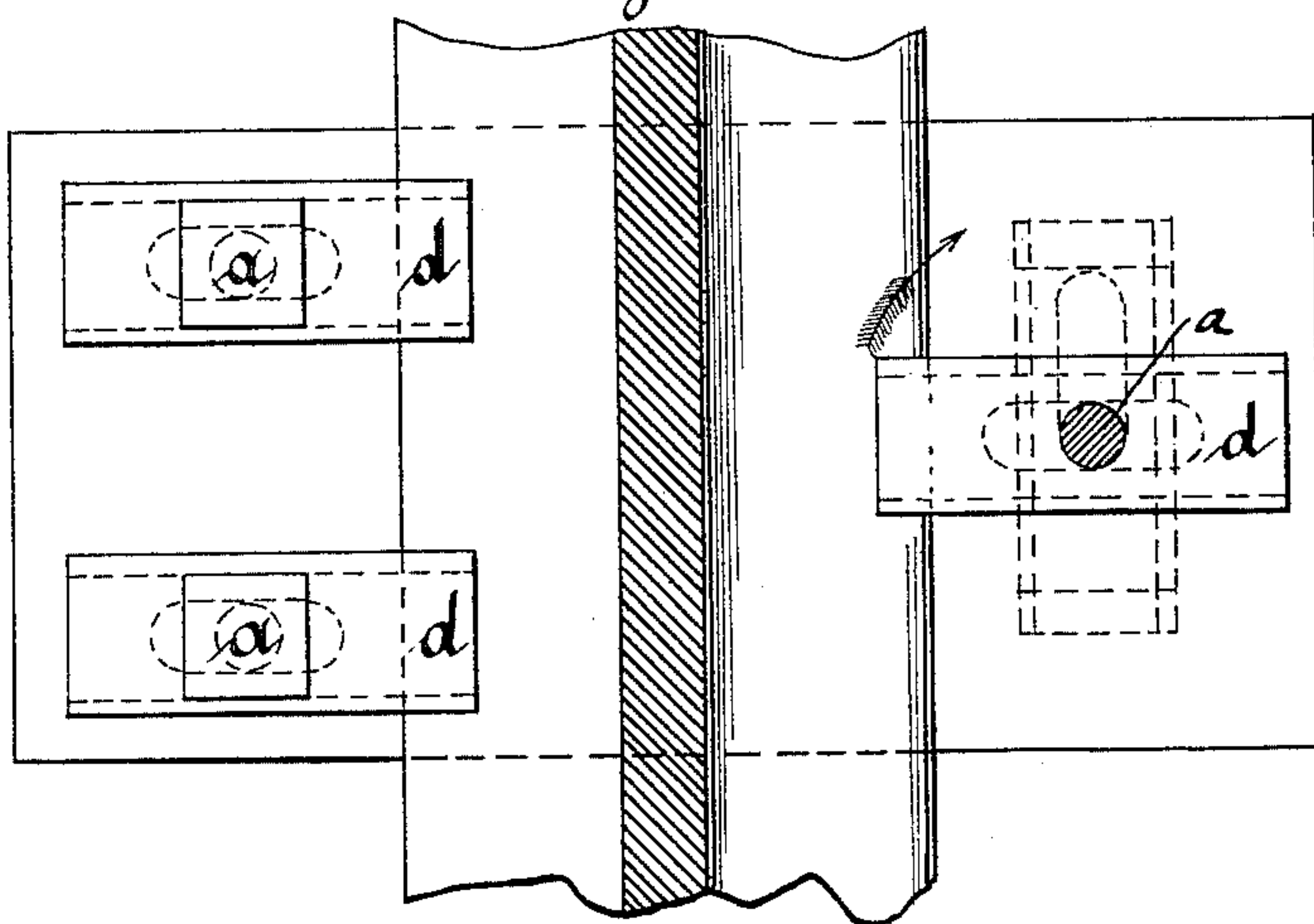


Fig: 2.



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Inventor
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his attys.

(No Model.)

2 Sheets—Sheet 2.

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Fig: 3.

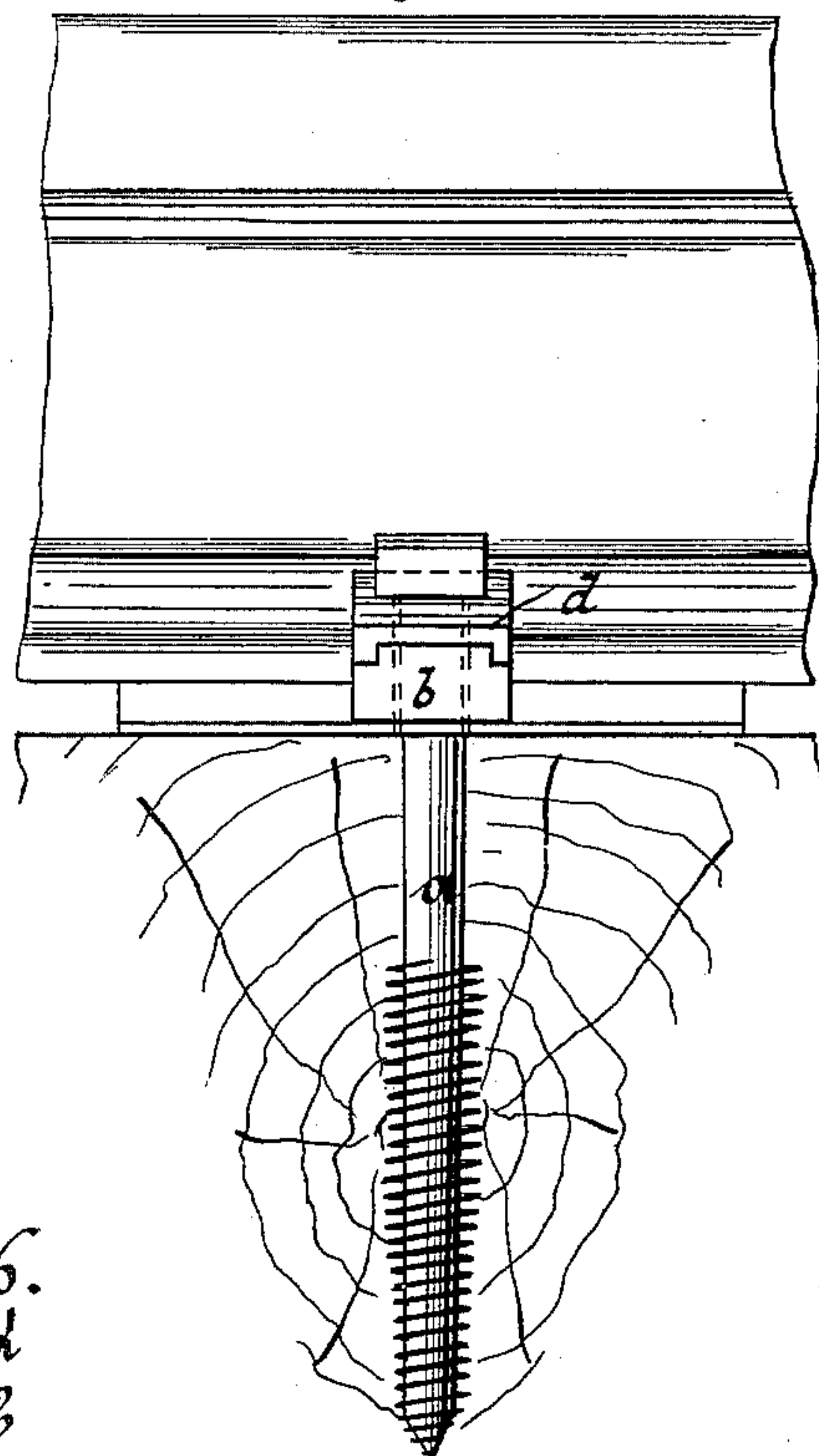


Fig: 6.



Fig: 4.

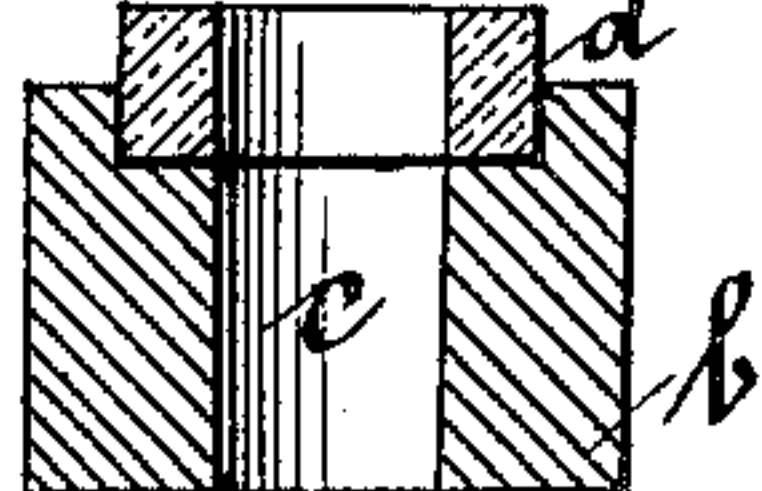


Fig: 5.

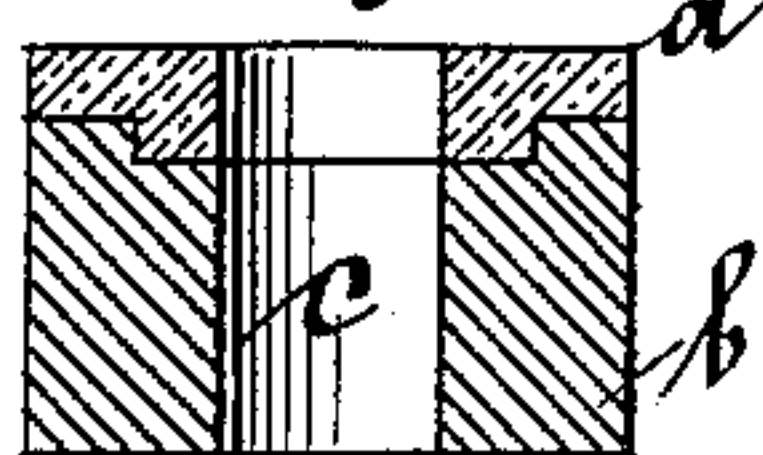
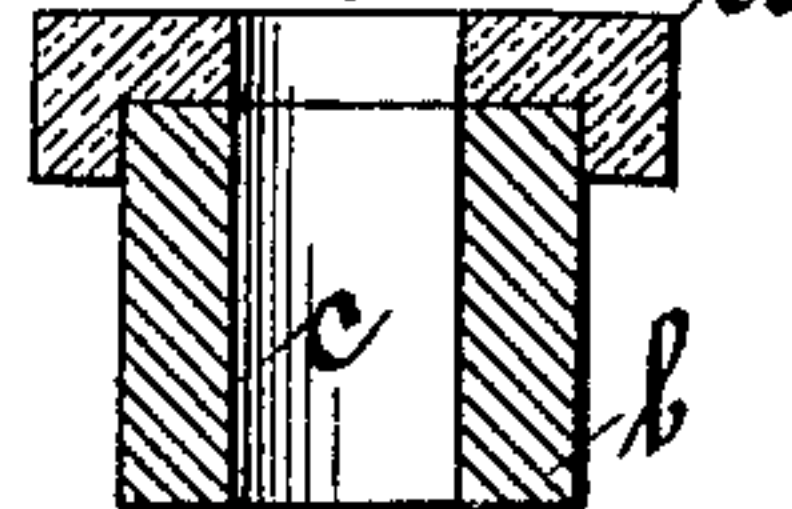


Fig: 7.



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UNITED STATES PATENT OFFICE.

ANDRÉ BOLZANO, OF AUGSBURG, BAVARIA, GERMANY.

METHOD OF FIXING RAIL-CHAIRS ON TIMBER SLEEPERS.

SPECIFICATION forming part of Letters Patent No. 399,483, dated March 12, 1889.

Application filed August 16, 1888. Serial No. 282,924. (No model.) Patented in Germany June 16, 1888, No. 45,741; in France July 27, 1888, No. 192,010; in Belgium August 14, 1888, No. 82,910; in England August 16, 1888, No. 11,827; in Sweden September 10, 1888, No. 1,692, and in Italy September 30, 1888, XXII, 24,055, XLVIII, 34.

To all whom it may concern:

Be it known that I, ANDRÉ BOLZANO, a subject of the King of Bavaria, residing at Augsburg, in the Kingdom of Bavaria, German Empire, have invented new and useful Improvements in Fixing Rail-Chairs on Timber Sleepers, (for which I have obtained a patent in Germany, dated June 16, 1888, No. 45,741; France, dated July 27, 1888, No. 192,010; Belgium, dated August 14, 1888, No. 82,910; England, dated August 16, 1888, No. 11,827; Sweden, dated September 10, 1888, No. 1,692; Italy, Reg. Gen., Vol. XXII, No. 24,055, Reg. Att., Vol. XLVIII, No. 34, dated September 30, 1888,) of which the following is a specification.

This invention relates to a method for fixing chairs on sleepers in a durable and secure manner. This invention is illustrated in the accompanying drawings, in which—

Figure 1 is a cross-section of a rail fixed to a sleeper. Fig. 2 is a sectional plan view of Fig. 1. Fig. 3 is a side elevation of Fig. 1. Figs. 4, 5, 6, and 7 show details of the devices for attaching the rails.

Similar letters indicate corresponding parts.

In the drawings, the letter *a* indicates a long strong screw of suitable material—such as wood—and intended to remain constantly in its seat. These screws are loosened only when required and tightened from time to time. The screw *a* serves to hold a fastening device for the rail. The fastening device consists of two parts having respectively a depression and a ridge or projection engaging one another. One part of the fastening contrivance forms the binding-plate *b*, while the other part is a pressing-plate, *d*. The plate *b* may be made of wrought or cast iron or of malleable cast-iron or cast-steel. The pressing-plate *d* may be made of wrought-iron. The rear part of the binding-plate lying upon the sleeper is provided with a longitudinal slot or hole, *c*, allowing the adjustment of the plate for half the possible widening of the gage, so that by displacing the opposite plates the gage can be widened to the required extent. The pressing-plate *d* is secured by the screw *a*. The plate *d* serves at the same time for covering the slot of the binding-plate *b*, and is provided with a hole corresponding to the diameter of

the screw. Owing to the depression and the ridge by which the two plates are held in proper relative position to one another a firm connection of the plates can be obtained.

From the position of the binding-plate it can be readily ascertained if there is any alteration of the gage and to what extent.

To exchange or move rails, it is only necessary to loosen the screws *a*. The plates *b* *d* are then sufficiently turned, as, for example, through an arc of ninety degrees, (see the position of the plates indicated by broken lines at the right hand in Fig. 2,) the rail is moved or replaced by another one, and the plates are turned back into their former position and the screws are again tightened.

Figs. 4, 5, 6, and 7 show several arrangements for connecting the plates *b* and *d* with each other. The binding-plate can be made of any cast material and the pressing-plate of a correspondingly-figured flat piece of iron. Fig. 7 of the drawings shows side views of two plates which are rolled or stamped out of wrought-iron. The depressions and ridges are made to run longitudinally along the plates *b* *d*, so that when the parts are in the position shown in Fig. 1 the binding-plates *b* can be readily slid toward or from the rail, so as to bring said binding-plate into proper position relative to the rail, while at the same time lateral displacement of the plates *b* *d* with respect to one another is prevented.

What I claim as new, and desire to secure by Letters Patent, is—

The combination, with the pressing-plate *d* and the binding-plate *b*, of the screw *a*, made to pass through the perforation in the pressing-plate and through the slot in the binding-plate, said pressing and binding plates being provided with the engaging depressions and ridges running longitudinally along the connecting-faces of said plates, substantially as herein shown and described.

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

ANDRÉ BOLZANO.

Witnesses:

F. S. CYBOTTS,

J. GATTESWINTER.