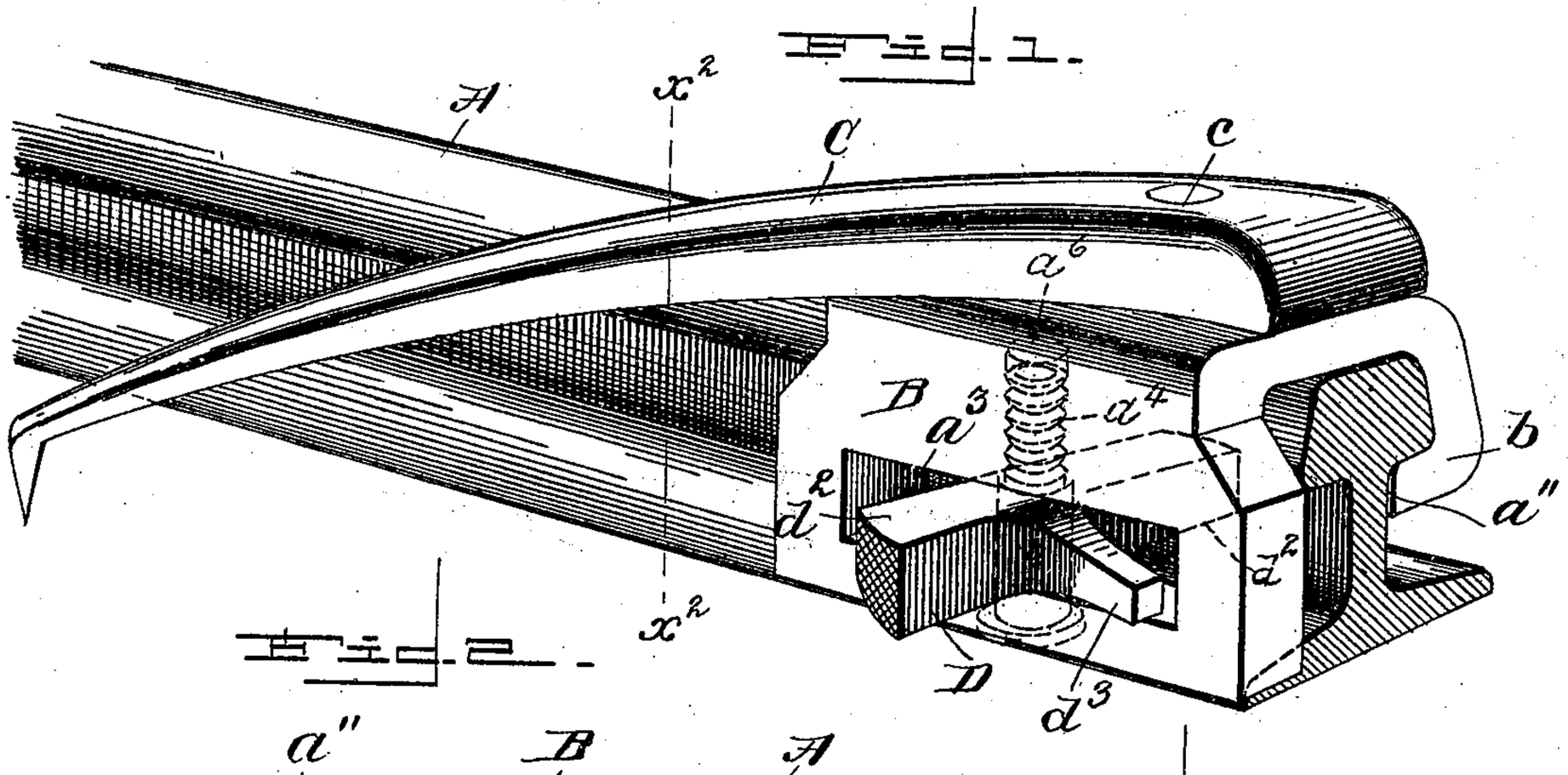
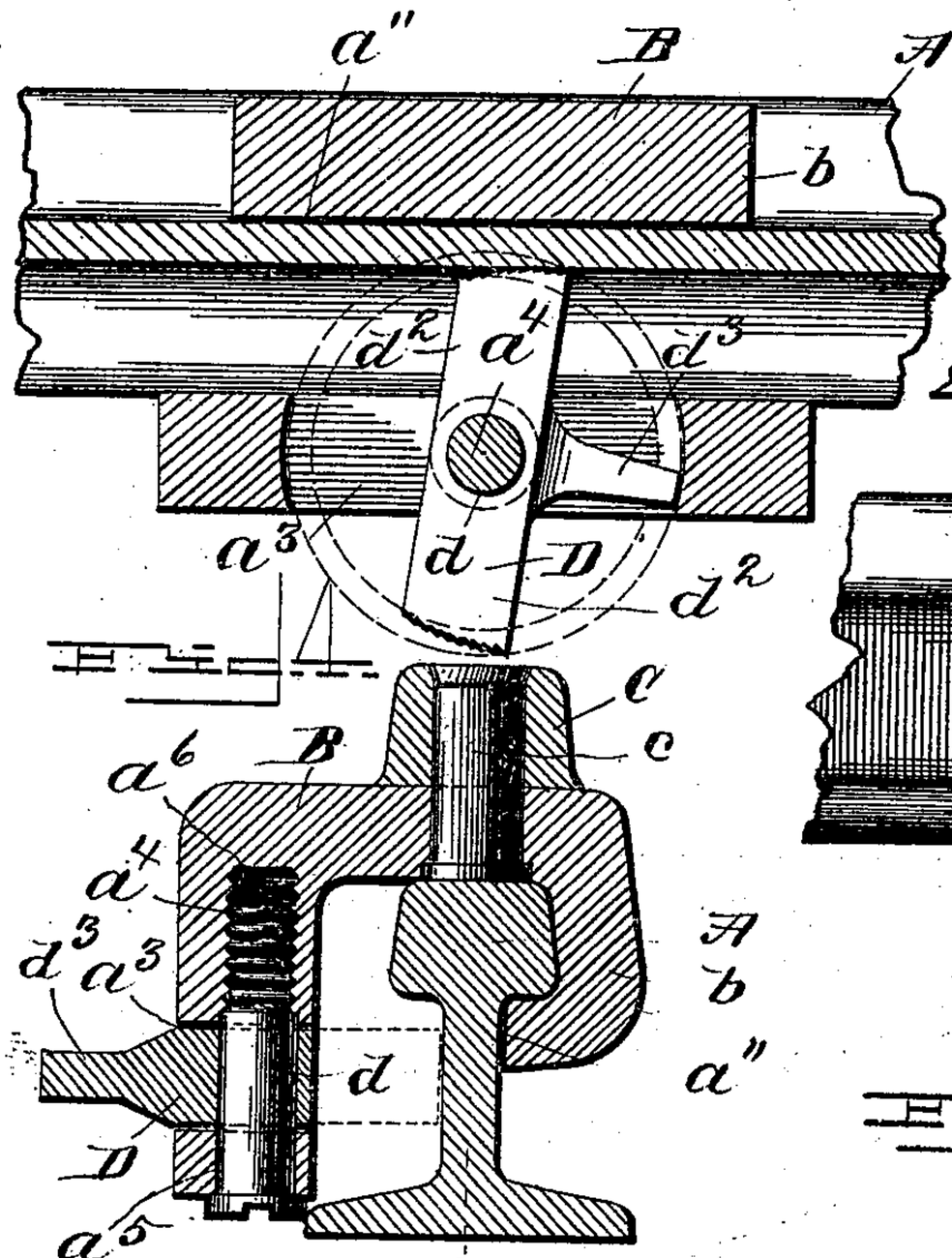
(No Model.)

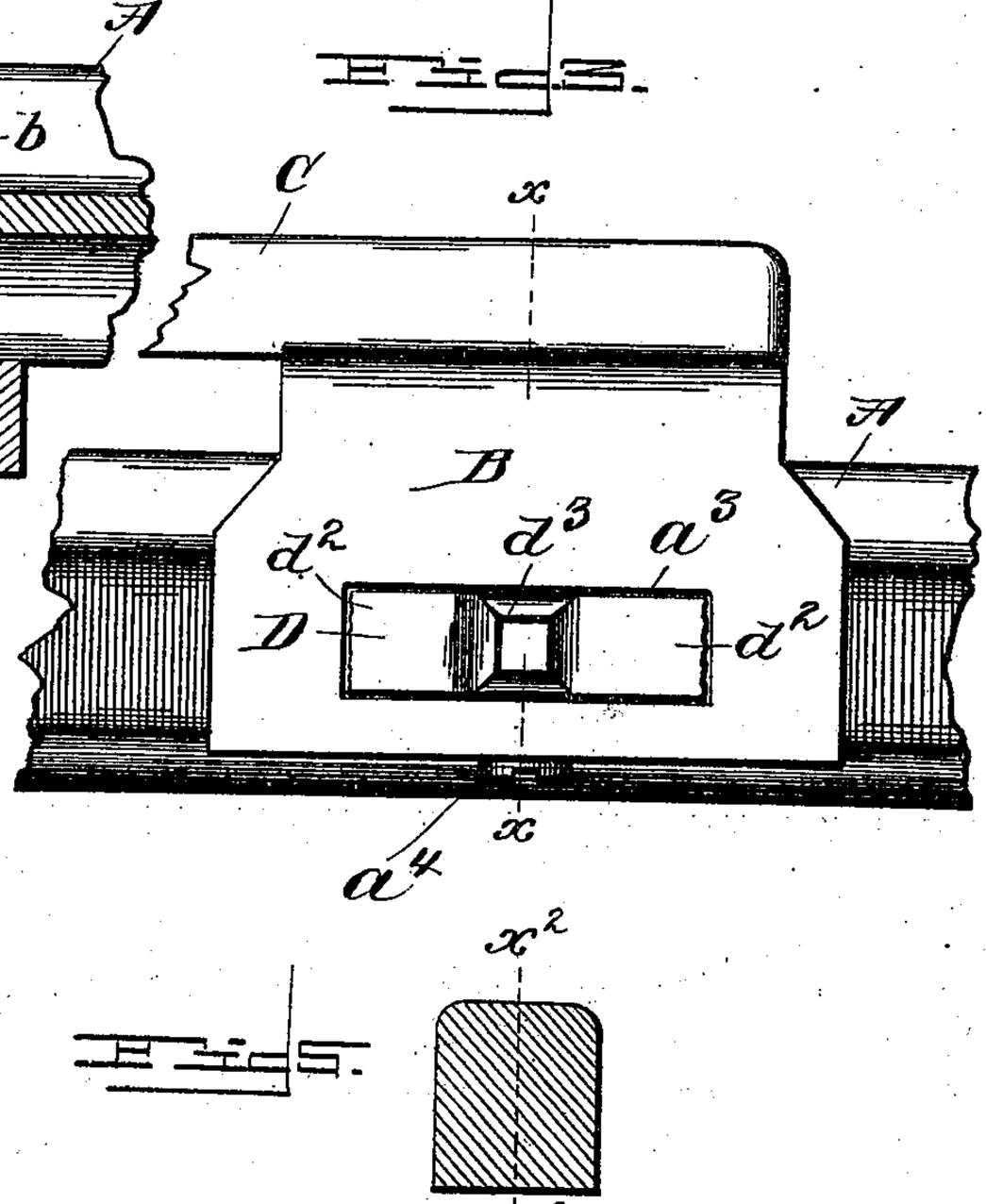
J. H. BLOMSHIELD.

CAR REPLACER.

No. 502,806. Patented Aug. 8, 1893.







WITNESSES:

Thos. F. Moore.

Chas. E. Brock

INVENTOR

John H. Blomshield.

BY

W. N. Humphrey.

ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN H. BLOMSHIELD, OF WEST BAY CITY, MICHIGAN.

CAR-REPLACER.

SPECIFICATION forming part of Letters Patent No. 502,806, dated August 8, 1893.

Application filed January 13, 1893. Serial No. 458,246. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. BLOMSHIELD, a citizen of the United States, residing at West Bay City, in the county of Bay and State of Michigan, have invented certain new and useful Improvement in Wrecking-Frogs or Car-Replacers, of which the following is a specification.

This invention relates to certain new and useful improvements in that class of devices known as "wrecking frogs" and more particularly as "car replacers."

The object of the invention is to provide a simple and inexpensive device of such improved construction as to be capable of ready and convenient attachment to and detachment from the main rails;—furthermore, means by which the device may be securely clamped in any of its adjusted positions.

A further object is to employ such peculiar and novel mechanism whereby the device may be secured on rails having webs of varying thickness.

With these and other objects in view, the invention comprises various novel arrangements of parts and details of construction which will be hereinafter more fully set forth and specifically pointed out in the claim.

In describing the invention in detail reference is had to the accompanying drawings forming part of this specification, wherein like letters indicate corresponding parts in the several views, in which—

Figure 1 is a view in perspective of one form of device constructed and arranged to embody my improvements. Fig. 2 is a top plan view, showing the cam engaging the web of the rail, parts being broken away to more clearly show the operation of the same. Fig. 3 is a view in side elevation showing the device in position on a rail preparatory to clamping. Fig. 4 is a transverse sectional view taken on the line x—x of Fig. 3, and showing by full lines the cam disengaged and by dotted lines the position when engaging the rail. Fig. 5 is a detail view in cross section of the replacer rail or guide bar, taken on the line —x^2—x^2— of Fig. 1.

In the drawings: —A— denotes a well-known form of T-rail, —B— a shoe or clip which is adapted to be clamped thereon, and —C— the replacer rail or guide-bar, pivotally connected with the shoe above and centrally of the main rail by the bolt —c— so as to swing or be readily adjustable about a vertical axis. The free end of this rail —C— may be tapered or pointed to bite into the ties of the road-bed and thus prevent movement or play when in operation.

The shoe —B— is provided with a clamping lip or flange —b— which, when the shoe is in proper position on the rail, (Fig. 4) hugs or clasps the head thereof, the extreme edge of the lip abutting against the web as at —a''. The body portion of the shoe is slotted at —a^3— to receive a cam —D— which is rotatably mounted therein on a screw-bolt —a^4—. This bolt is passed through coincident openings —a^5—d— of the shoe and cam and enters the threaded aperture —a^6— of the shoe; thus should the cam become worn, fractured or broken, the bolt may be readily removed and a new piece substituted. The cam is preferably formed with two arms —d^2—d^2— having their outer ends beveled and milled or otherwise roughened to secure frictional engagement with the web of the rail under all conditions. Formed at right angles to these arms is a squared head or projection d^3, on which may be fitted the socketed end of an operating lever for throwing the cam into or out of engagement with the rail, or the projection may be forced around by blows from a hammer or other suitable tool. Owing to the inclination or bevel given the ends of these arms, the shoe may be securely clamped on rails having webs varying in thickness.

To prevent the wheels of the cars or locomotives from cutting across or climbing over the rail, the tread of the latter is rounded to an approximately oval form (see Fig. 5.) which also decreases the tendency of the wheels to shove or topple over sidewise and thereby reduces the pressure on the pivotal bolt as the bearing of the flanges of the wheels will be on the lower part of the rail.

The operation is as follows: The peculiar form of double cam enables the operator to secure the shoe on either side of the rail and after being properly placed in position, the projecting head of the cam is given a partial revolution, which brings one of the beveled

cam faces into contact with the web of the rail. As the wheels of the derailed car begin to climb the guide rails the resulting pressure on the shoe tends to drive it forward and the cam revolving about the vertical axis moves in the opposite direction until the engaging face becomes firmly wedged and checks further movement of the shoe.

I am aware that prior to my invention, car replacers have been and are now in use comprising a shoe, an adjustable rail and an eccentric or wedge fastening attachment. I therefore disclaim all such construction.

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

In a car replacer, the combination with a shoe adapted for loosely clasping the rail, of a rotatably mounted cam having two arms, the beveled and roughened extremities of the arms, the projecting and squared head of the cam, and the horizontally adjustable rail pivotally secured on the shoe, as specified.

JOHN H. BLOMSHIELD. [L. S.]

Witnesses:
JNO. C. HARRIS,
C. C. DOUGLAS.