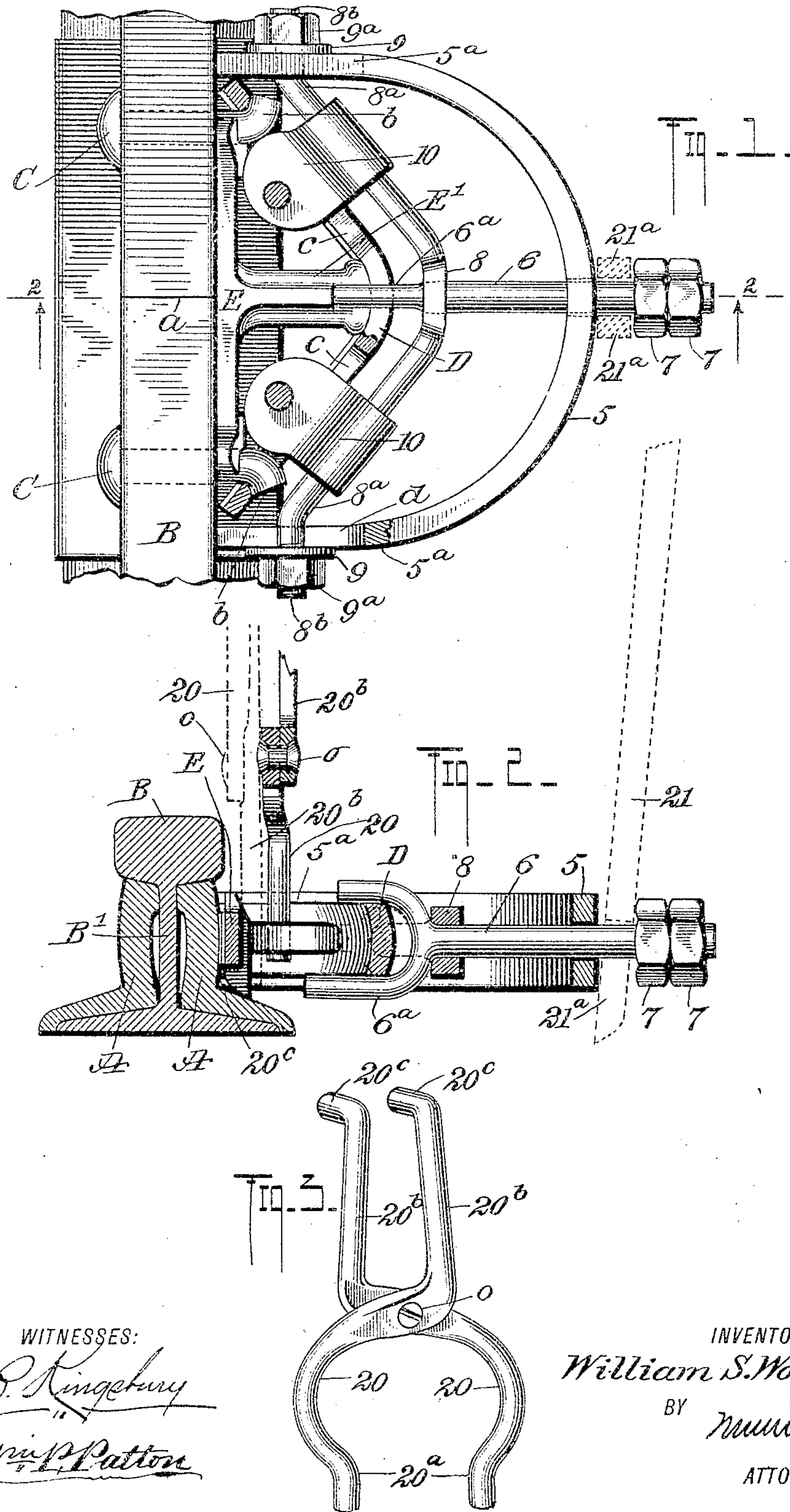


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W. S. WOOTTON.
IMPLEMENT FOR ADJUSTING FISH PLATE CLAMPS.

APPLICATION FILED JULY 16, 1904.



WITNESSES:

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WILLIAM S. WOOTTON, OF ROANOKE, VIRGINIA.

IMPLEMENT FOR ADJUSTING FISH-PLATE CLAMPS.

SPECIFICATION forming part of Letters Patent No. 778,731, dated December 27, 1904.

Application filed July 16, 1904. Serial No. 216,879.

To all whom it may concern:

Be it known that I, WILLIAM S. WOOTTON, a citizen of the United States, and a resident of Roanoke, in the county of Roanoke and State of Virginia, have invented a new and Improved Implement for Adjusting Fish-Plate Clamps, of which the following is a full, clear, and exact description.

This invention relates to means for adjusting a securing device on fish-plates that are therewith clamped upon the meeting ends of track-rails, holding them alined, and has for its object more particularly to provide novel details of construction for an implement that is especially well adapted for adjusting the parts of a novel fish-bar clamp of my invention, the implement by its use enabling the fixture of said clamping device at a rail-joint in a convenient, speedy, and reliable manner and also facilitating the removal of the fish-bar clamp as may be required.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and defined in the appended claims.

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

Figure 1 is a partly-sectional plan view of the implement applied for affixing a fish-plate clamp upon two fish-plates at a track-rail joint. Fig. 2 is a transverse sectional view substantially on the line 2 2 in Fig. 1, and Fig. 3 is a perspective view of a detail of the invention.

The clamping device for securing fish plates or bars upon track-rails at the joint between the rails is of novel construction, and to enable a clear understanding of the present invention and its application the fish-plates and clamp therefor are represented in connection with the novel implement and will first be briefly described.

Two fish-plates of the well-known L shape have their upright members A imposed upon opposite sides of the webs B' of the T-rails B at their joint *a*. The parts A and B' are transversely perforated, as usual, at spaced intervals for the reception of clamping-bolts, two

of said perforations being equally distant from the joint *a*, and headed bolts C are passed through said alined perforations, having their heads impinged upon the exterior of one fish-plate member. The bolts C are provided with hook members *b* at their opposite ends, and these have engagement within longitudinal slots *c*, formed in a clamping-bar D. The bar D is laterally bent and has its concaved side disposed toward an adjacent fish-plate member A when the hook members *b* are engaged therewith. A key-block E, having essentially T shape, has its transverse head member seated upon the fish-plate member A nearest to the ends of the clamping-bar D. The remaining member E' of the key-block projects outward and is seated in or upon the central portion of the clamping-bar D, this engagement of the key-block with the fish-plate and clamping-bar being effected by the employment of the implement that constitutes the present invention and which is constructed as follows: A yoke 5, that is a curved metal bar, having two legs 5^a longitudinally slotted, as at *d*, is so proportioned that the legs thereof may be seated upon the fish-plate member A, whereon the head of the key-block E is to be forcibly held. Upon the yoke 5 a draft-bar 6 is held to slide, preferably by the loose insertion of the straight body portion of said draft-bar, through a perforation formed in the crown of the bar or at a point equally distant from ends of the legs 5^a. Upon the threaded end portion of the draft-bar 6, which may extend more or less outside of the yoke 5, two nuts 7 are mounted, and at the inner end of said draft-bar a fork 6^a is formed, the two members of which are in a vertical plane, these fork members loosely embracing the bowed central portion of the clamping-bar D when the implement is in use. A bowed coupling-bar 8 is mounted upon and secured to the draft-bar 6, adjacent to the hook 6^a, at the center of the coupling-bar, and, as shown in Fig. 1, the equal members 8^a of said coupling-bar, which project diagonally from the draft-bar 6 at opposite sides, extend toward the slotted ends of the yoke members 5^a and are bent outward, respectively passing through the slots *d* in said members. The outwardly-

bent end portions 8^b of the coupling-bar 8 are threaded, and upon the threaded ends that are exterior of the slotted ends of the yoke 5 washers 9 and nuts 9^a are mounted, which secure the coupling-bar loosely upon the end portions of the yoke. A lug 10 is formed or secured upon each coupling-bar member 8^a at points equally distant from the draft-bar 6, each lug having a vertical perforation therein.

When the implement that has been described is to be employed as means for placing in position the fish-bar clamp, that has also been briefly described, assuming that the fish-plates A A are mounted on opposite sides of two rail-webs B' by means of the bolt-bodies C and that the hook-shaped ends b of the bolts are inserted through the slots c in the clamping-bar D, so as to have a hooked engagement with ends of said slots, the implement is adjusted for use as follows: The yoke 5 is so positioned that the slotted ends 5^a have contact with the fish-bar member A, that the clamping-bar D is adjacent to, and at the same time the lugs 10 are passed through the slots c in the clamping-bar, locating the perforations in the lugs at the concave or inner side of the bowed clamping-bar. It is only necessary now to insert metal pins or the like down into and through the perforations in the lugs 10 to secure the lugs temporarily in connection with the clamping-bar, so that by applying pulling strain upon the draft-bar 5 and pressure upon the yoke at the same time the fish-plate members A A will be forced against the rail-webs B', so that the forcible insertion of the key-block E into place between the central bowed portion of the clamping-bar D and the adjacent fish-plate member A will contribute to hold the fish-plate in clamped condition on the track-rails at the joint between their ends, it being understood, however, that two or more of these clamping devices are employed for this purpose.

For convenience it is preferred to employ the auxiliary tool (shown best in Fig. 3) as means for providing abutment-pins to occupy the holes in the lugs 10 temporarily when the implement proper is put into service. The auxiliary tool consists of two similar sections each formed of a metal bar, said bars being lapped together and pivoted at a suitable point between their ends, as at o. At and near the pivot o the corresponding end portions 20 of the lapped bars are rounded and bent, so as to separate their free ends 20^a sufficiently to permit said ends to be passed down into the perforations in the lugs 10, and thus afford removable abutment-pins for locking the lugs in the slot c when said lugs are fully inserted through the slots. It will be seen that when the lugs 10 are secured within the slots c and the nuts 9^a are jammed together at a proper distance from the crown of the yoke 5 space is provided between the yoke and the nuts for the introduction of the slotted end 21^a of a

lever 21 into said space, straddling the draft bar and adapted when rocked to press upon the yoke and pull upon the draft-bar, as is indicated by dotted lines in Figs. 1 and 2. Obviously by the use of a suitable lever such as described and the employment of the removable tool having the limbs 20^a there may be powerful pressure and pulling strain applied for clamping the fish-plates upon the track-rails and providing a proper space to receive the key-block E, which when driven into place secures the fish-plates, after which the implement may be removed and the operation be repeated as occasion may require.

At the opposite ends of the lapped and pivoted members of the auxiliary tool (shown in Fig. 3) a laterally-bent toe 20^c is formed on the free end of each straight leg 20^b, and, as shown in Fig. 2 by dotted lines, the toes 21^a may be hooked below the head portion of a key-block E and said block be removed by use of a lever that may be inserted near the pivot o between the legs 21 and rests on the ball of the track-rail as a fulcrum.

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

1. An implement for adjusting fish-plate clamps, comprising a yoke, a draft-bar slidable on the yoke, a coupling-bar carried by the yoke, and lugs having perforations and extended from the coupling-bar.

2. An implement for adjusting fish-plate clamps, comprising a curved yoke having slotted limbs, a draft-bar slidable in the crown of the yoke and having its ends held to slide in the slots, and lugs having perforations and extending laterally from the coupling-bar.

3. An implement for adjusting fish-plate clamps, comprising a curved yoke having longitudinally-slotted limbs, and a perforation in its crown, a draft-bar having a fork at one end which may embrace a member of the fish-plate clamp, said draft-bar being slidably held in the perforation in the crown of the yoke, a bent coupling-bar secured on the draft-bar near the fork, and having its limbs loosely engaged in the slotted limbs of the yoke, perforated lugs projected laterally from the coupling-bar, and means for simultaneously pressing upon the yoke and pulling upon the draft-bar.

4. An implement for adjusting fish-plate clamps, comprising a curved yoke, the limbs of which are longitudinally slotted, said yoke having a perforation in its crown equally distant from its limbs, a draft-bar threaded at one end and passing through the perforations in the yoke, nuts on said threaded end, a fork on the other end of the draft-bar, a coupling-bar fixed at its center on the draft-bar near the fork thereon and extended toward and through the slots in the limbs of the yoke, nuts on the threaded ends of the coupling-bar, perforated lugs projected laterally from the coupling-bar near its ends, and a forked lever

which engages the draft-bar between the yoke and the nuts thereon.

5 5. An implement for adjusting fish-plate clamps, comprising a curved yoke having slot-
ted limbs, a draft-bar slidable in the yoke, a
coupling-bar fastened on the draft-bar and ex-
tended at each side thereof, the ends of said
coupling-bar being loosely secured in the slot-
10 ted limbs of the yoke, two lugs projected
from the same side of the draft-bar and each
having a vertical perforation, a tool having

pin-like members that may be inserted in said
perforation to form abutments, and means for
pressing upon the yoke and pulling upon the
draft-bar.

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

WILLIAM S. WOOTTON.

Witnesses:

LEVI WITT,

R. E. BELTON, Jr.

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