No. 777,782. PATENTED DEC. 20, 1904.

W. W. FOWLER.

RAILROAD TIE.

APPLICATION FILED JULY 25, 1904.

NO MODEL.

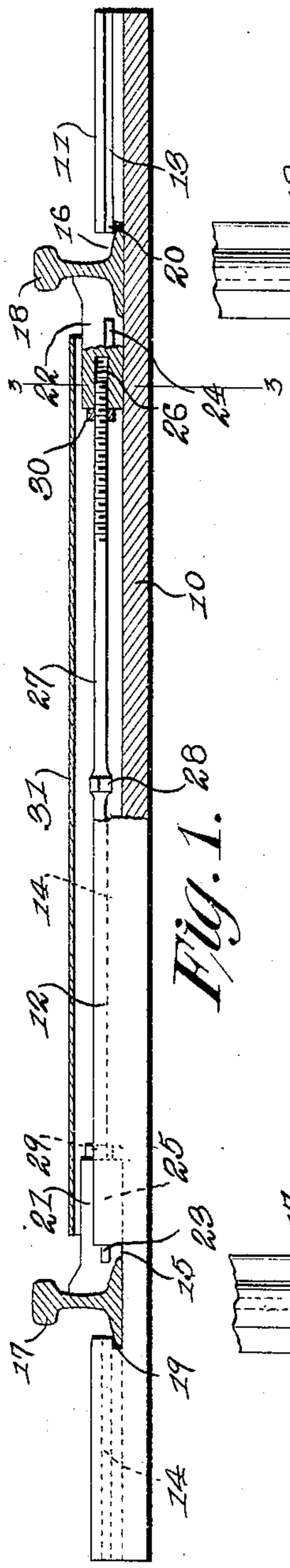

Fig. 1.

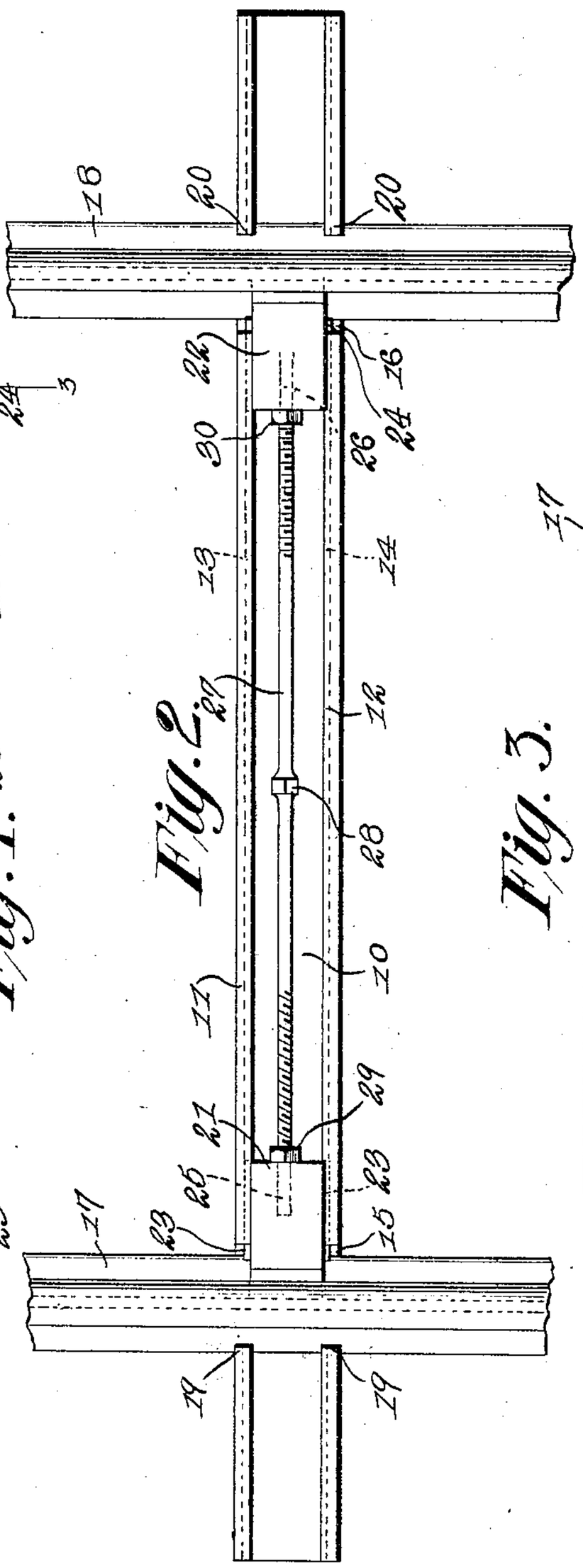

Fig. 2.

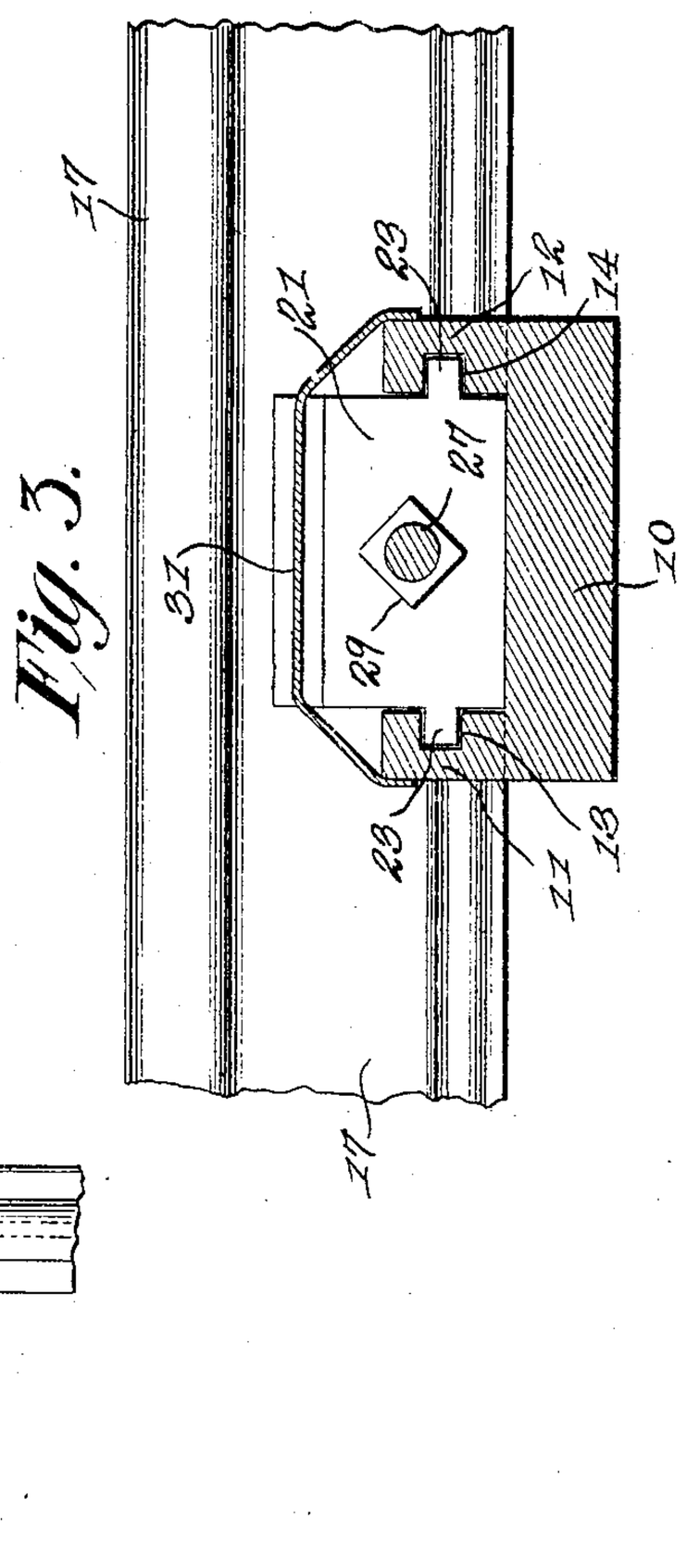

Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM WILBURT FOWLER, OF MILLERSBURG, OHIO.

RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 777,782, dated December 20, 1904.

Application filed July 25, 1904. Serial No. 218,173.

To all whom it may concern:

Be it known that I, WILLIAM WILBURT FOWLER, a citizen of the United States, residing at Millersburg, in the county of Holmes and State of Ohio, have invented a new and useful Railroad-Tie, of which the following is a specification.

This invention relates to railroad-ties, and has for its object to produce a simply-constructed and efficient device of this character whereby the strength and durability are increased and means provided for firmly clamping the rails to the ties without spikes, bolts, or other similar fastening means.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage of the parts may be resorted to without departing from the principle of the invention or sacrificing any of its advantages.

In the drawings thus employed, Figure 1 is a side elevation, partly in section. Fig. 2 is a plan view with the guard or shield removed. Fig. 3 is an enlarged transverse section on the line 3 3 of Fig. 1.

The improved tie and all of its attachments are of metal, preferably of steel, and may be cast, forged, pressed, or otherwise produced, as may be found most advantageous.

The improved device comprises a body portion 10, having a flat lower surface for resting upon the ballast or road-bed and provided with upwardly-extending side ribs 11 12, the ribs having longitudinal channels 13 14 in their inner faces throughout the entire length. Formed transversely of the ribs are spaced recesses 15 16 for receiving the rails 17 18, the rails thus resting directly upon the body portion 10. The ends of the ribs 11 12 forming the outer ends of the rail-recesses are undercut, as at 19 20, to overlap the outer edges of the tie-flanges of the rails to prevent upward movement to the outer sides of the rails.

Slidably disposed in the channel formed by the ribs 11 12 are clamp-blocks 21 22, formed to overhang the inner edges of the feet of the rails and bear against the vertical webs of the rails, the blocks having side pins 23 24 for engaging the grooves in the ribs. The blocks 21 22 are also provided with reversely-threaded recesses 25 26 for receiving the correspondingly reversely threaded ends of a rod 27, which thus connects the blocks. The rod is provided with a square central portion 28 to receive a wrench for rotating the rod. By this simple arrangement it will be obvious that the rails may be firmly clamped to the tie structure and prevented from overturning or being otherwise displaced no matter what strains may be transmitted thereto. It will also be noted that all holding spikes, bolts, and similar holding means are dispensed with and dependence placed entirely upon the clamp-blocks and threaded rod for holding the rails.

The holding means may be quickly and easily adjusted at any time without disturbing the parts or displacing any portion of the road-bed or ballast.

All of the operating parts being above the ground are not affected by moisture or otherwise deteriorated by any substances therein.

Suitable lock-nuts or jam-nuts 29 30 are arranged on the rod 27 and bear against the blocks 21 22 to prevent accidental loosening or displacement of the rod 27. A detachable shield 31 is also provided for protecting the rod 27 and blocks 21 22 from the elements.

Having thus described the invention, what is claimed is—

1. A railway-tie, comprising a body portion provided with upwardly-extending longitudinally-grooved ribs along its sides and with spaced rail-receiving recesses transversely through said ribs, clamp-blocks disposed between said spaced ribs and between said rail-receiving recesses and provided with pins for slidably engaging said longitudinal

grooves, said blocks bearing against the rails and having reversely-threaded openings, and a threaded rod disposed between the blocks and engaging in said openings.

2. A railway-tie comprising a body portion provided with upwardly-extending longitudinally-grooved ribs along its sides and with spaced rail-receiving recesses transversely through said ribs and with the ribs undercut at the outer ends of the recesses for overlapping the feet of the rails, clamp-blocks slidably disposed between said spaced ribs and having pins engaging the grooves, said blocks overlapping the feet of the rails and bearing against the vertical webs thereof, said blocks having reversely-threaded openings, and a threaded rod extending between the blocks and engaging in said openings.

3. A railway-tie comprising a body portion provided with upwardly-extending longitudinally-grooved ribs along its sides and with spaced rail-receiving recesses transversely through said ribs, clamp-blocks disposed between said spaced ribs and between said rail-receiving recesses and provided with pins slidably engaging said grooves, said blocks bearing against the rails and having reversely-threaded openings, a threaded rod extending between the blocks and engaging in said openings, and a detachable shield arranged above said tie and covering said clamp-blocks and threaded rod.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM WILBURT FOWLER.

Witnesses:
LEANDER C. CLOSE,
BERNARD F. McCOY.