No. 874,000. PATENTED DEC. 17, 1907.

N. O. GOLDSMITH.

GUARD RAIL CLAMP.

APPLICATION FILED MAR. 19, 1907.

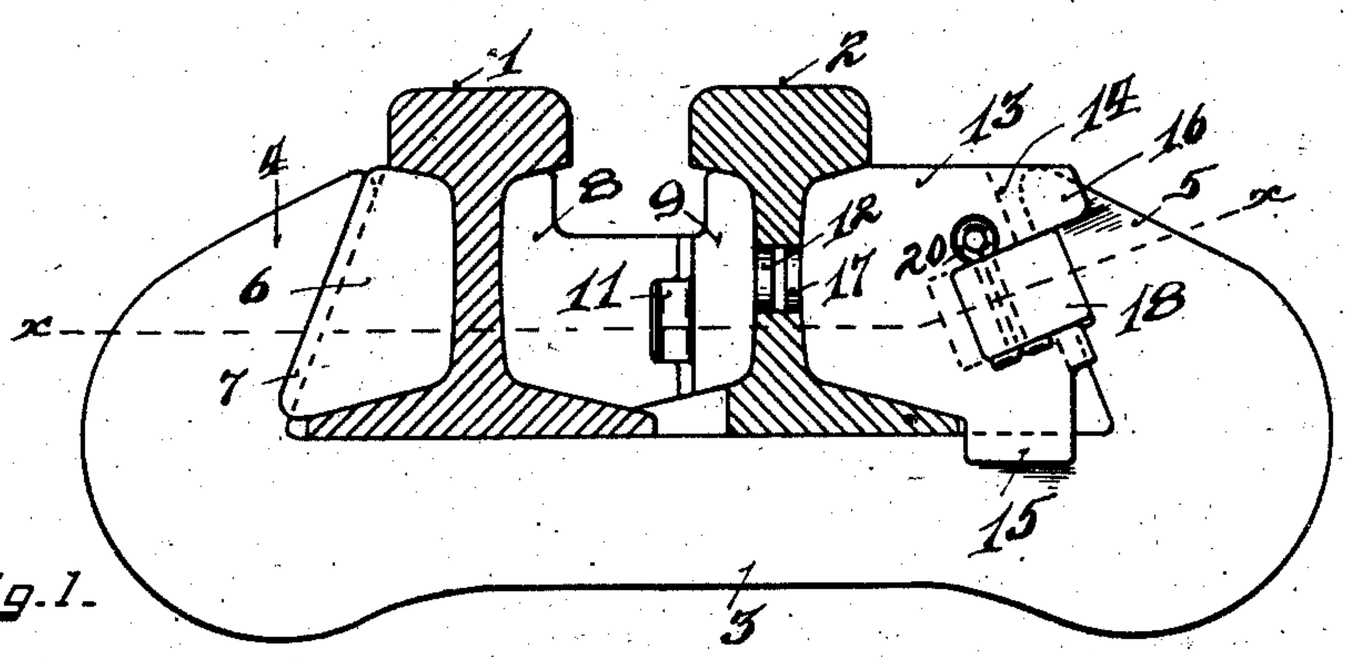

Fig. 1.

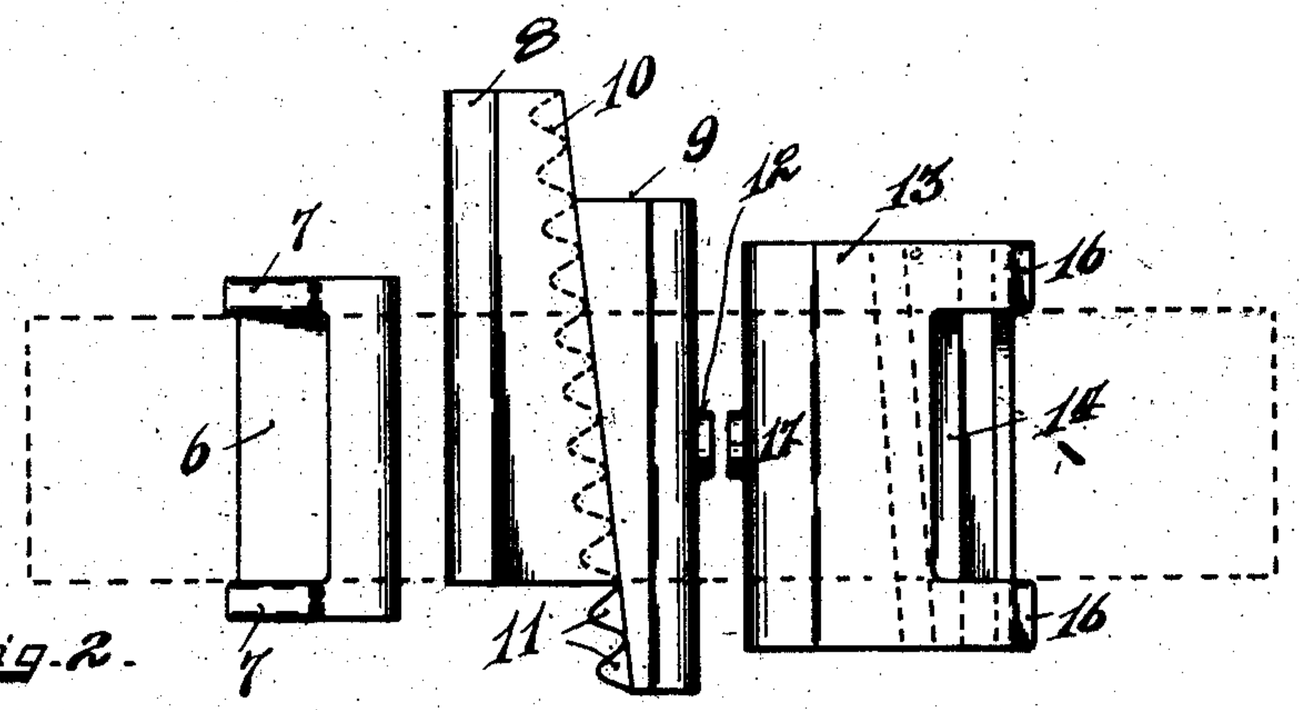

Fig. 2.

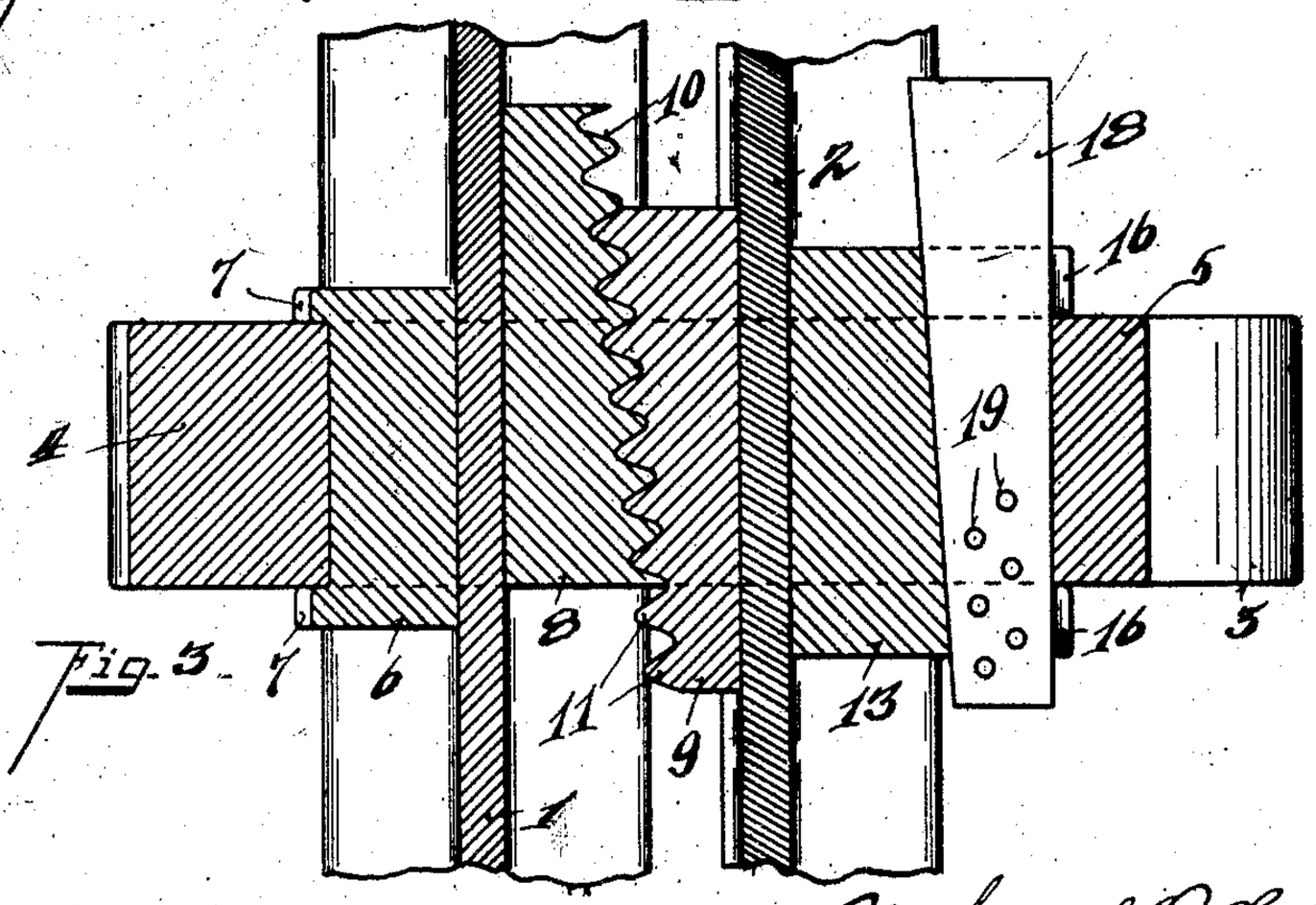

Fig. 3.

Witnesses
Chas. B. Kaiser
Leo O'Donnell

Inventor
Nathaniel O. Goldsmith
By Wood & Wood
Attorneys

UNITED STATES PATENT OFFICE.

NATHANIEL O. GOLDSMITH, OF NORWOOD, OHIO, ASSIGNOR TO THE WEIR FROG COMPANY, OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

GUARD-RAIL CLAMP.

No. 874,000. Specification of Letters Patent. Patented Dec. 17, 1907.

Application filed March 19, 1907. Serial No. 363,314.

To all whom it may concern:

Be it known that I, NATHANIEL O. GOLDSMITH, a citizen of the United States, residing at Norwood, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Guard-Rail Clamps, of which the following is a specification.

My invention relates to an improvement in an adjustable guard rail clamp.

The object of my invention is to provide a clamp for securely locking a guard rail to the main rail, in which the clamping members are formed to interlock with each other, and when wedged together will not become disengaged by the various strains brought to bear upon the clamp, and firmly hold the same in place vertically, longitudinally and laterally.

Another object of my invention is to provide means for securely holding the clamping members in position with the rail to prevent longitudinal movement of the parts upon themselves.

Other features of my invention will be more fully set forth in the description of the accompanying drawing, forming a part of this specification, in which:—

Figure 1 is an end elevation of the clamp in position for use with the main and guard rails shown in section. Fig. 2 is a top plan view of the clamp, filling and wedge blocks in position as employed. Fig. 3 is a section on line *x*, *x*, Fig. 1.

1 represents the main rail.

2 represents the guard rail. 3 represents a yoke, the jaws 4, 5, of which are inclined on their inner faces, thereby providing a dovetailed formation, the plain surface forming a support for the rails, while the angular surfaces form a wedging or gripping surface when the yoke is clamped in position. 6 represents a clamp block shaped to conform to the outline of the rail beneath the head, and also provided with a beveled face abutting against the jaw 4. 7 represents flange projections formed on said clamp block 6, adapted to overlap the jaw 4 of the yoke to prevent the clamp block from becoming disengaged from its position.

8, 9, represent filling blocks adapted to lie between the main and guard rails, each provided with an angular meeting surface to permit adjustment corresponding to the width between the rails. These filling blocks are provided with teeth 10, 11, adapted to intermesh for securely holding the same in position against longitudinal displacement, the filling block 9 being provided with a boss 12 adapted to seat within a recess or bore formed in the guard rail 2, and serving further as a means for preventing longitudinal displacement of the clamping members 8, 9.

13 represents a key block adapted to bear against the outside of the guard rail and provided with the angular face 14 adjacent to the angle of the jaw 5.

15 represents downwardly projecting lugs adapted to overlap the body portion of the yoke 3.

16 represents lugs adapted to overlap the jaw 5 of the yoke to prevent longitudinal displacement between the key block 13 and yoke.

17 represents a boss projecting from the key block 13 and adapted to seat into an orifice formed in the guard rail 2, serving as additional means against longitudinal displacement.

18 represents a wedge adapted to be driven into grooves formed in the key block 13 and jaw 5 of the yoke for securely clamping the rails and clamping members together. These grooves are slightly inclined in order to present the wedge in an angular position serving a two fold purpose of lateral and vertical clamping between the blocks and yoke, and yoke and rails.

To prevent the wedge from loosening through jars and the like, I provide means for locking the same in its wedged position.

19 represents orifices formed in the wedge 18 through one of which a pin 20 is driven, which prevents reverse action of the wedge and a series of orifices serve convenient means for locking the wedge under varying positions to which it might be driven in usage.

Having described my invention, I claim:—

1. In a guard rail clamp, a yoke, a wedge-block lying adjacent to one jaw of said yoke, an angled key-way formed respectively in said wedge-block and adjacent yoke jaw, and a wedge adapted to be driven into said key-way for longitudinally and vertically clamping the parts, substantially as described.

2. In a guard rail clamp, a yoke, a clamp and wedge block lying adjacent to the jaws of said yoke, and provided with lugs to overlap said yoke, inner filling blocks lying

between the rails to be clamped, the meeting faces provided with serrations, a key way formed respectively in the wedge block and one jaw of the yoke, and a wedge adapted to be driven into said key way for clamping the parts, substantially as described.

3. In a guard rail clamp, a yoke, the jaws of which are inclined upon their inner faces, a pair of outer blocks lying adjacent to said jaws, inner blocks lying between the rails to be clamped and outer blocks, provided with inclined meeting faces, serrations formed on said inclined faces adapted to intermesh with each other, a wedge adapted to be driven between one of the outside blocks, and one jaw of the yoke, and means projecting from the blocks and into the rails, substantially as described.

In testimony whereof, I have hereunto set my hand.

NATHANIEL O. GOLDSMITH.

Witnesses:

OLIVER B. KAISER,

LEO O'DONNELL.