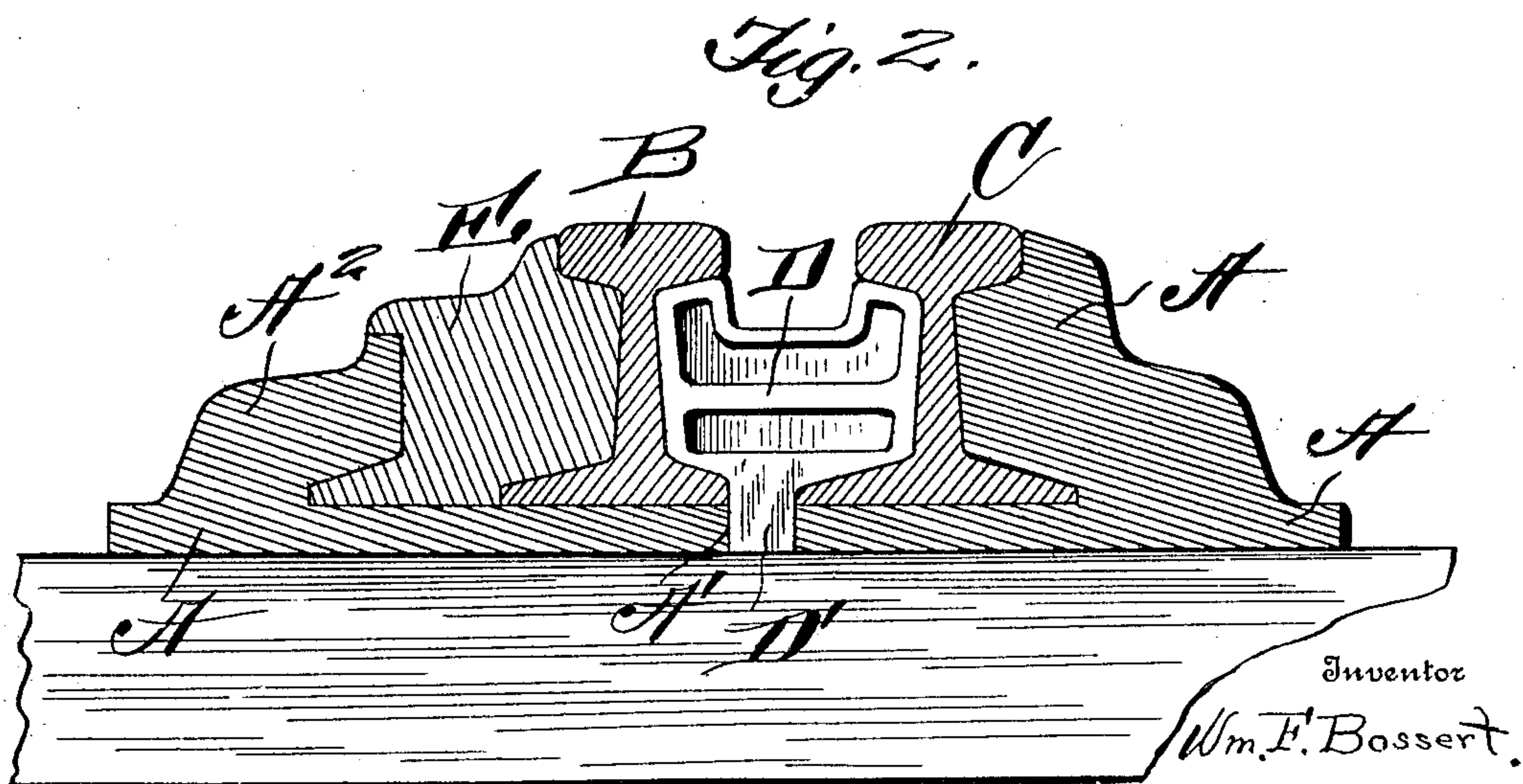
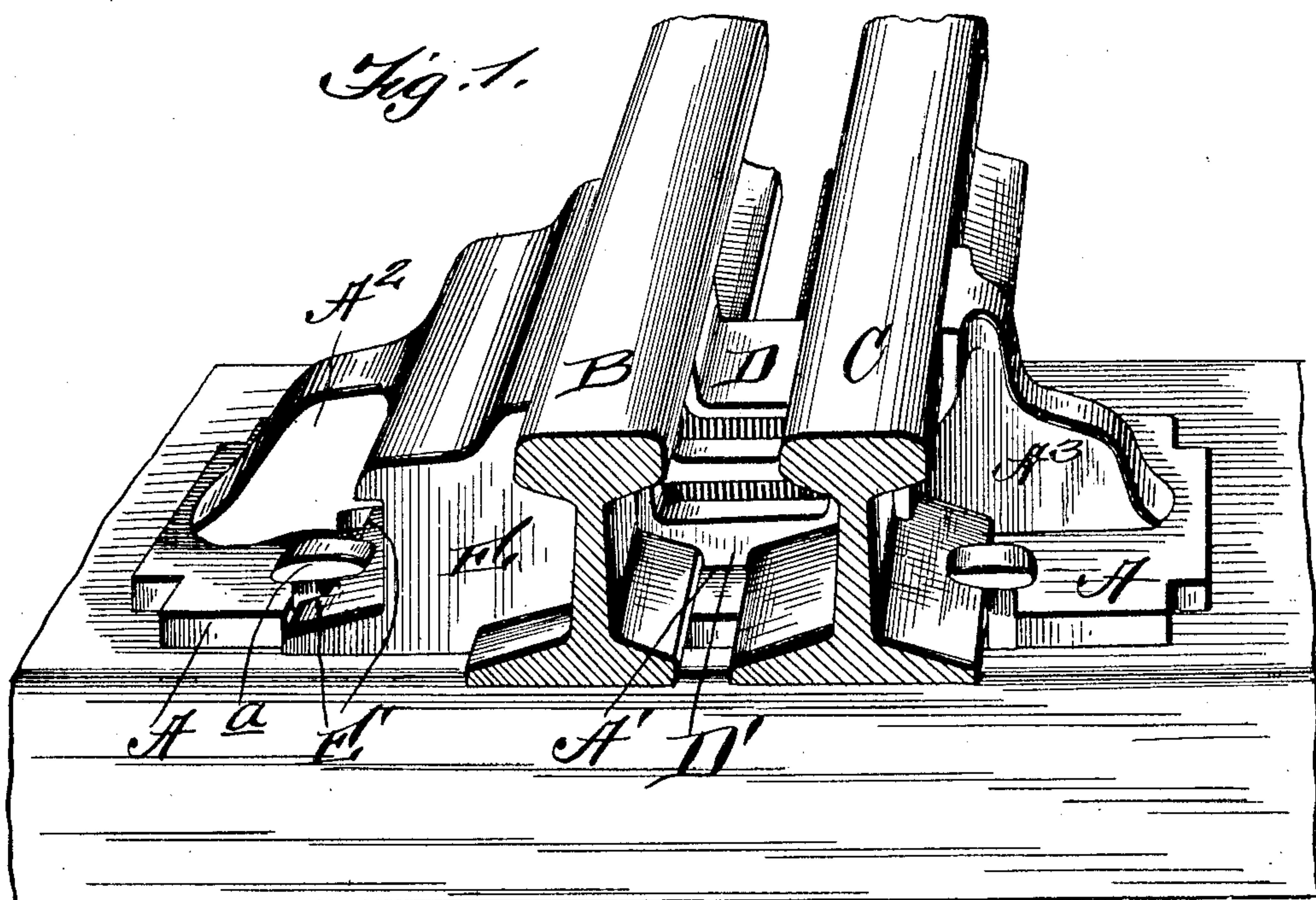


No. 871,909.

PATENTED NOV. 26, 1907.

W. F. BOSSERT.
COMBINED TIE PLATE AND GUARD RAIL CLAMP.
APPLICATION FILED MAR. 18, 1907.

3 SHEETS—SHEET 1.



Witnesses
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A. C. Hough

By *Franklin F. Hough*

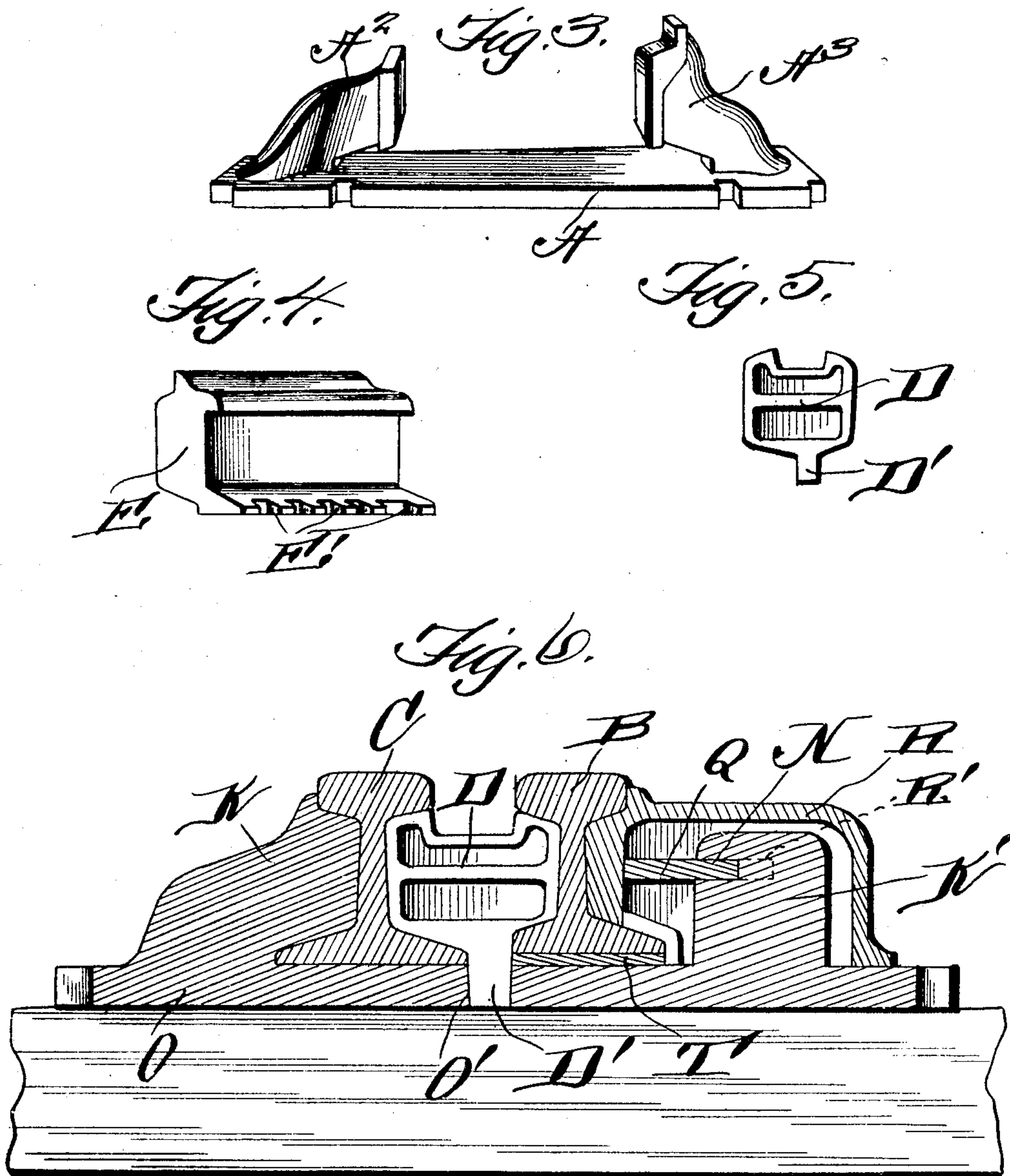
Attorney.

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3 SHEETS—SHEET 2.



Inventor

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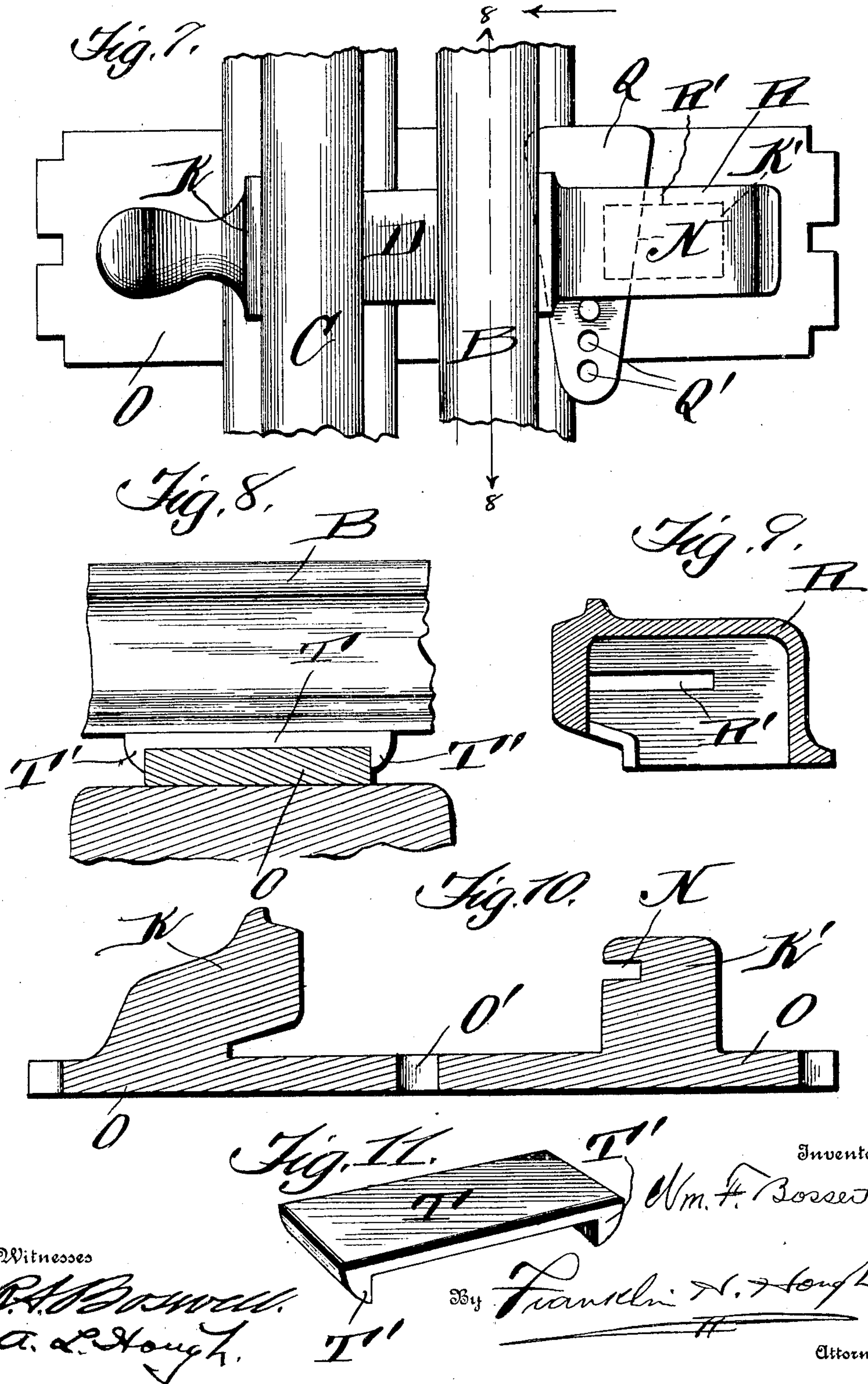
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3 SHEETS—SHEET 3.



UNITED STATES PATENT OFFICE.

WILLIAM F. BOSSERT, OF UTICA, NEW YORK.

COMBINED TIE-PLATE AND GUARD-RAIL CLAMP.

No. 871,909.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed March 18, 1907. Serial No. 363,128.

To all whom it may concern:

Be it known that I, WILLIAM F. BOSSERT, a citizen of the United States, residing at Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in a Combined Tie-Plate and Guard-Rail Clamp; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in apparatus for securely holding a guard and main rail spaced apart and securely holding the same when adjusted.

The invention consists further in the provision of means whereby a guard rail, smaller than the main rail, may be utilized by the supplying of an independent support or chair to give the same the proper elevation.

The invention consists further in the provision of means for spacing a guard from a main rail, dispensing with springs or wedges which are commonly employed for adjusting the rails the required distance apart.

The invention comprises various details of construction and combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a perspective view showing the application of my invention to a guard and main rail of a railway track. Fig. 2 is a cross sectional view through the construction shown in Fig. 1. Fig. 3 is a detail perspective view of the base plate upon which the rails are adapted to rest. Fig. 4 is an enlarged perspective view of a key block which rests upon the base plate and engages the web and flange of the stock or main rail. Fig. 5 is a detail view of the spacing block. Fig. 6 is a cross sectional view showing a slight modification of the invention. Fig. 7 is a top plan view of the modified form illustrated in Fig. 6. Fig. 8 is a sectional view taken on line 8—8 of Fig. 7. Fig. 9 is a cross sectional view through the cap forming a part of the modified form illustrated in Fig. 7. Fig. 10 is a cross sectional view of

the base block or casting of the modified form, and Fig. 11 is a detail perspective view of a support for a small sized guard rail.

Reference now being had to the details of the drawings by letter, A designates a base block or casting having upright extensions A^2 and A^3 and which base block or casting is adapted to be held by means of spikes or other suitable fastening means to the upper surface of a railway tie.

B designates the guard rail and C, the main or stock rail, said guard rail being adapted to be bent at its ends to form a flaring throat, not shown, for the easy entrance and passage of the flanges of a car wheel, as is usual in guard rails.

Interposed between the main and guard rails is a spacing block D, the edges of which conform to the shape of the webs, flanges and under surfaces of the tread of said rail, as shown clearly in Fig. 2 of the drawings. Projecting from the lower portion of said spacing block is a lug D' which may be of any shape and extends through an aperture A' formed in the base block A. Said base block has the two upright integral extensions A^2 and A^3 , the inner side of said extension A^2 conforming in shape to the outer side of the key block E, while the inner face of the extension A^3 conforms to the shape of the web, flange and edge of the tread of the main or stock rail against which it contacts. The face of the key block opposite to that engaged by the extension A^2 , conforms to and is adapted to contact with the web, flange and edge of the tread surface of the guard rail, and is provided with a series of notches E' upon the flange at the lower edge thereof and which notches are adapted to be engaged by the spikes a , shown clearly in Fig. 1 of the drawings, whereby the key block may be securely held in a locked position. Said key block is preferably wedge-shaped and is adapted to bind against the inner face of the extension A^2 and the web of the guard rail to securely hold the parts rigid. As the key block E is forced home, it will cause the two rails to be held securely against the opposite edges of the spacing block and the extension A^3 .

Referring to Fig. 6 of the drawings, will be seen a slight modification of my invention in which the base plate O is provided with an aperture O' for the reception of the lug D' of the spacing block D and has an upright extension K, the inner edge of which conforms

to and bears against the flange, web and edge of the tread of the stock or main rail C. Rising also from the base block O is a flat-sided extension K' of suitable dimensions and height and provided with a key-way or groove N, and R designates a hollow cap designed to fit over the extension K', and said cap is provided with a key-way R' conforming to and adapted to register with the key-way formed in the extension K'. Q designates a wedge-shaped key adapted to be passed through the registering key-ways N and R', whereby the wedging action of the key as it is driven home, may cause the rails to be held rigidly in place, the usual spacing block D being first interposed between the rails, as shown clearly in Fig. 6 of the drawings. Referring to Fig. 7 of the drawings will be seen apertures Q' formed in one end of the key Q through which a cotter pin may be placed to hold the key from loosening. When it is desired to utilize a small sized guard rail, a supporting chair T is provided having flanged ends T', a detail of which chair is shown clearly in Fig. 11 of the drawings, which chair is placed transversely across the block O with the flanges engaging the edges thereof, and upon which chair the guard rail is adapted to rest, thereby bringing the upper surfaces of the two rails on the same level. It will be understood that two spacing blocks are utilized for each guard rail, one being fastened adjacent to each end thereof.

In adjusting the parts when made in accordance with the illustration in Figs. 1 and 2 of the drawings, the rails are supported upon the base plate, and the spacing block inserted between the same, after which the key block E is forced between the upright extension A² and the adjacent face of the guard rail, thereby forcing the parts securely together, after which the spikes may be driven through the registering notches in the flange of the guard rail and said locking block, thereby securely holding the parts in locked relation and the rails spaced apart a uniform distance.

In the modified form the spacing blocks are inserted between the rails and the key Q is driven through the registering recesses in the cap and extension K', thereby forcing the parts together, as shown in Fig. 6 of the drawings, and when thus securely adjusted, the cotter pin may be passed through a hole in the key to securely hold the same from loosening.

By the provision of the apparatus shown and described, a simple and efficient means is afforded for securely holding a guard and main or stock rail spaced apart and rigidly held to the cross-piece of a railway without

the utilization of springs or wedges for adjusting the parts to the proper distance between the rails.

What I claim is:—

1. In combination with a guard and a main rail of a railway track, a base plate having a reinforced upright extension, one face of which conforms to the contour of the web, flange and tread of a railway rail, a spacing block interposed between the two rails and having the contracted extension passing through and adapted to engage the marginal edges of an aperture formed in said base plate and having its lower end flush with the under surface of the base plate, and a wedge member coöperating with said base plate for holding the rails against the opposite edges of said spacing block, as set forth.

2. In combination with a guard and a main rail of a railway track, a base plate having upright extensions, a spacing block interposed between the rails, a cap fitted over one of the upright extensions of the base plate and provided with a key-way, registering with a key-way in said extension; and a key fitted in said key-ways and adapted to force said cap against the web of the adjacent rail, as set forth.

3. In combination with a stock rail, a guard rail of smaller dimensions than the stock rail, a base plate having upright projections, the inner face of one of which conforms to the shape of the flange, web and edge of the tread of the stock rail against which it is adapted to contact, a spacing block interposed between the rails, a chair resting upon said base plate and upon which the guard rail is supported, and means for holding the guard rail against the edge of the spacing block, as set forth.

4. In combination with the guard and main rail, a base block having an upright extension, the inner face of which is adapted to conform to the flange, web and edge of the tread of the stock rail against which it is adapted to contact, a second extension from said base block provided with a horizontal key-way, a hollow cap fitted over said extension with the key-way therein and having a space adapted to conform to the flange, web and edge of the tread of the guard rail and having a key-way therein, a key fitted in the registering ways of said extension and cap, and means for holding the key in place, as set forth.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

WILLIAM F. BOSSERT.

Witnesses:

CLARENCE C. BOFF,
DAYTON ROTH.