

No. 618,342.

Patented Jan. 24, 1899.

B. HABERMEHL.  
RAILROAD FROG.

(Application filed Apr. 4, 1898.)

(No Model.)

Fig. 1.

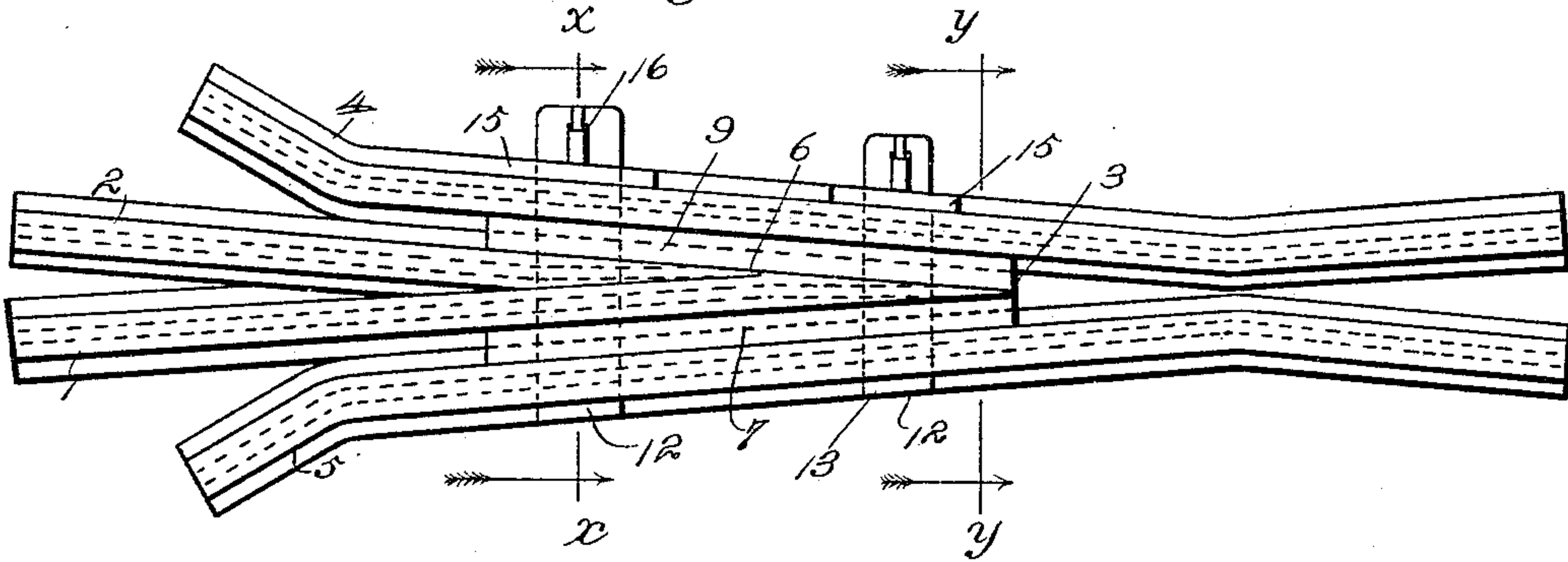


Fig. 2.

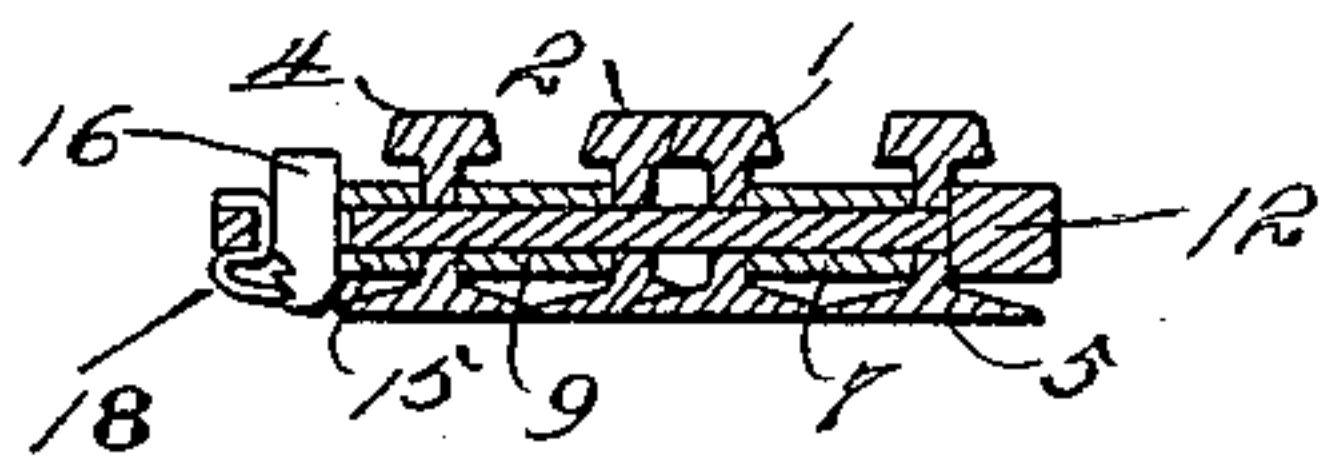


Fig. 3.

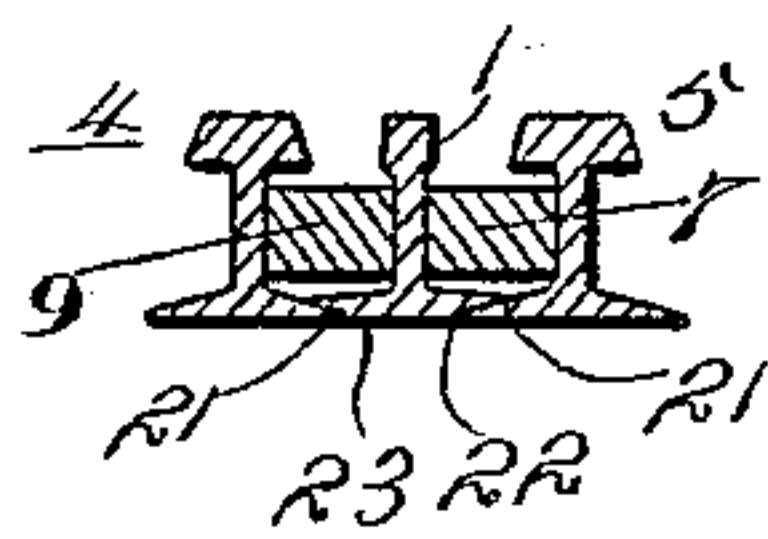


Fig. 4.

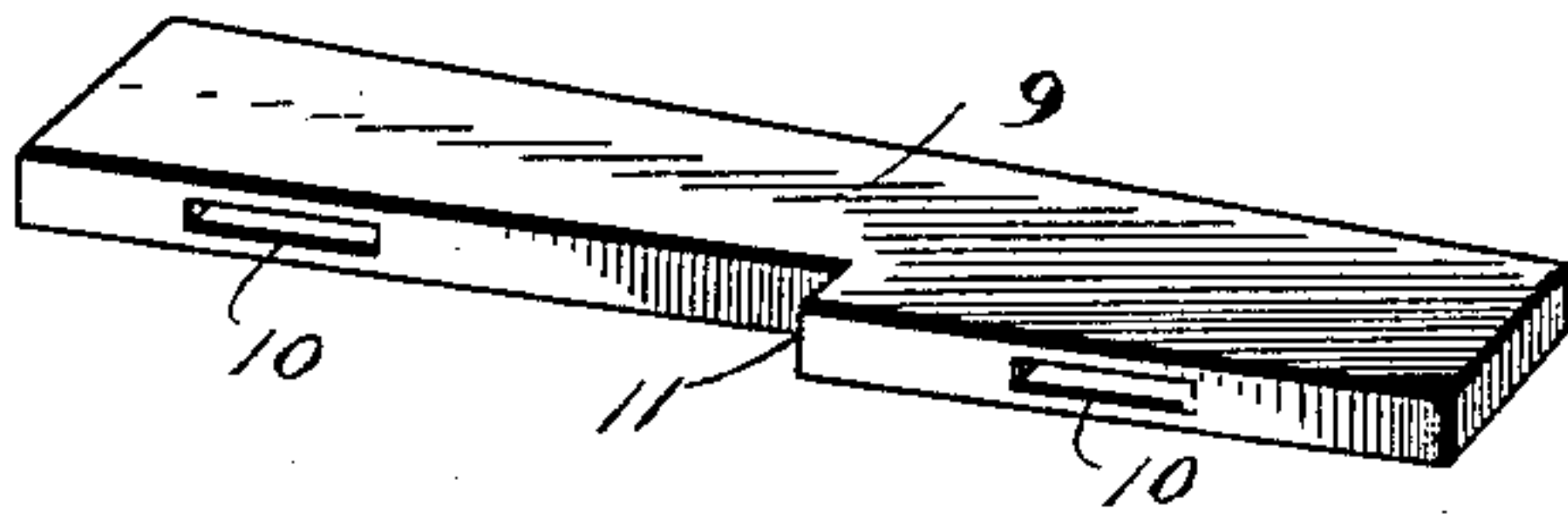


Fig. 6.

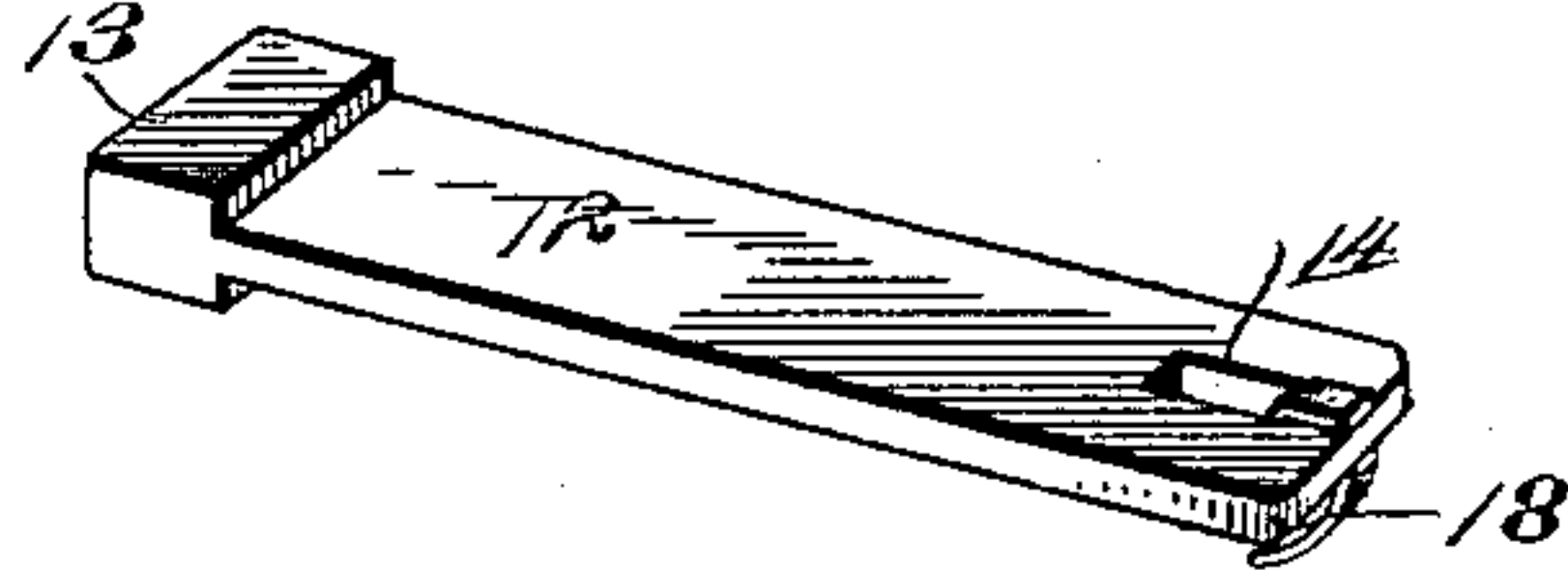


Fig. 5.

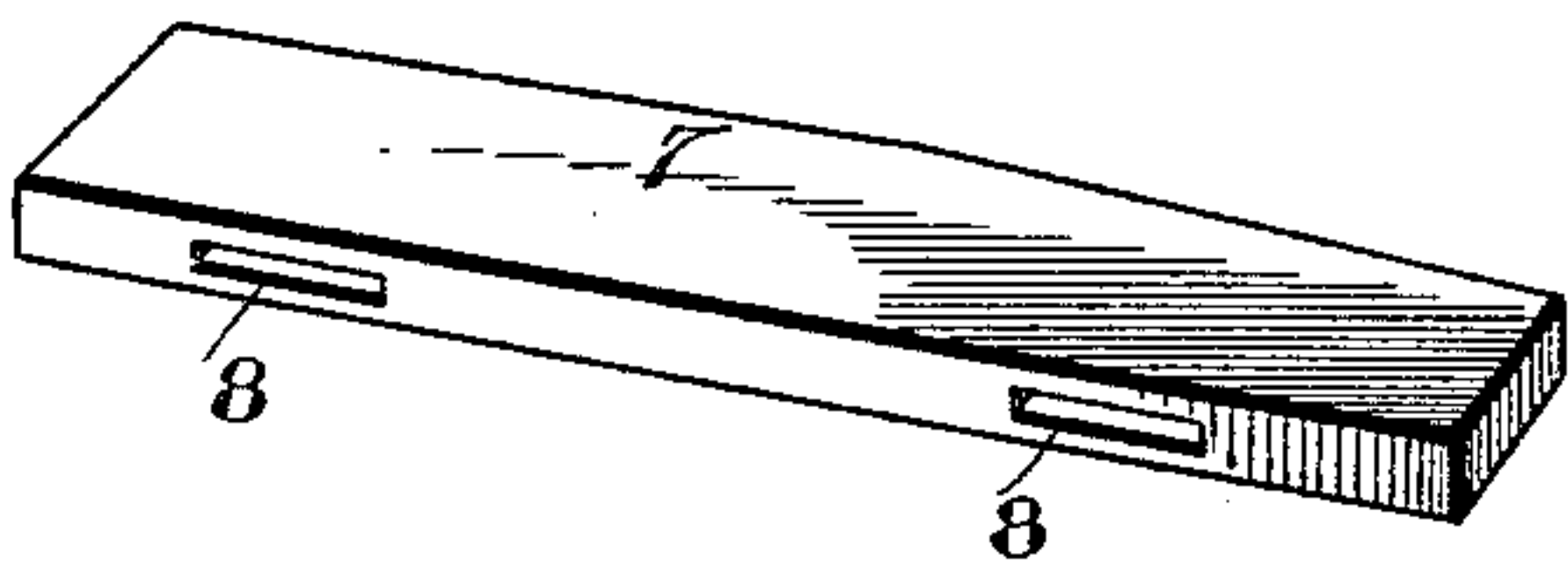
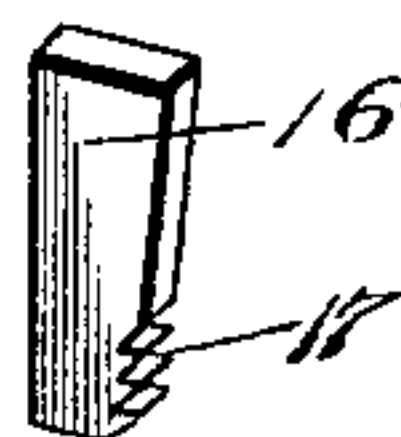


Fig. 7.



Witnesses  
C. K. Walker,  
A. L. Amer.

Inventor  
Ben Habermehl.  
by V. S. Shockridge,  
his Attorney.



# UNITED STATES PATENT OFFICE.

BEN HABERMEHL, OF MURPHYSBOROUGH, ILLINOIS.

## RAILROAD-FROG.

SPECIFICATION forming part of Letters Patent No. 618,342, dated January 24, 1899.

Application filed April 4, 1898. Serial No. 676,394. (No model.)

*To all whom it may concern:*

Be it known that I, BEN HABERMEHL, a citizen of the United States, residing at Murphysborough, in the county of Jackson and State of Illinois, have invented certain new and useful Improvements in Railroad-Frogs; 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 the same.

My invention relates to that class of railroad-frogs in which spacing-blocks are employed for holding the frog-point and the wing-rails apart, the object of the invention being to provide special means for retaining the parts in their locked positions and to prevent the lateral or downward movement of the main frog-point.

The invention consists of a locking-bolt for the wing-rails, spacing-blocks, and frog-point which extends through openings in each part and is provided with a head upon one end and with a slot in the other, a wedge extending through said slot and provided with teeth or notches in one edge, and a dog on the end of said bolt adapted to engage said teeth or notches.

The invention also consists in other details of construction and combinations of parts, which will be hereinafter more fully described and claimed.

In the drawings forming a part of this specification, Figure 1 represents a plan view of a frog constructed according to my invention and with the improvements I have made applied thereto. Fig. 2 is a vertical cross-section on the line *x x* of Fig. 1. Fig. 3 is a similar section on the line *y y* of Fig. 1. Figs. 4 and 5 are detail perspective views, respectively, of the two spacing-blocks employed. Fig. 6 is a perspective view of one of the locking-bolts. Fig. 7 is a similar view of the wedge which acts in connection therewith.

Like reference-numerals indicate like parts in the different views.

The main rail 1 and the branch rail 2 converge, as clearly shown in Fig. 1 of the drawings, and terminate in a frog-point 3. The said frog-point and the parts of the rails 1 and 2 adjacent to said point are located between the diverging wing-rails 4 and 5, re-

spectively. The head of rail 1 is cut away transversely at a point near its end, forming a shoulder or abutment 6, the web of said rail being bent from the shoulder 6 to the point 3, as clearly shown in dotted lines in Fig. 1. The head of said rail, moreover, is cut away or chamfered on both sides to bring it to about the thickness of the web. The head of rail 2 at its point of meeting with the rail 1 is cut away on a diagonal line, and the extreme end thereof abuts against the shoulder 6 on said rail 1. Between the end of the rail 1 and the wing-rail 5 is located a spacing-block 7, which is provided with openings 8 8 at points adjacent to its ends, the sides of said block bearing against the webs of the rails 1 and 5, respectively. As the web of the rail 1 is slightly bent at a point adjacent to the shoulder 6 thereon, one side of the block 7 will be slightly irregular to conform to the shape of said web. Between the end of the rail 2, the adjacent side of the rail 1, and the wing-rail 4 is located a spacing-block 9, which is provided with openings 10 10 at points adjacent to its ends, which when the said block is in place register with the openings 8 8 in the block 7. The said block 9 is formed with an offset or shoulder 11 upon one side, which enables the same to space both rails 1 and 2 with relation to the wing-rail 4.

Extending through the openings 8 and 10 in the spacing-blocks 7 and 9, respectively, and through corresponding openings in the webs of the rails 1, 2, 4, and 5 are locking-bolts 12, each of the same being formed with a head 13 upon one end and with a slot or opening 14 at its opposite end. Fitting upon the end in which the opening 14 is formed is a washer 15, and extending through the opening 14 outside of the washer 15 is a wedge-block 16, having notches or teeth 17 along one of the side edges thereof, which are adapted to be engaged by a dog 18 upon the end of the bolt 12. The said dog 18 is preferably constructed of a strip of spring metal secured in place upon the bolt 12 and having a resilient projecting portion constituting its engaging end, which extends beyond the outer surface of said bolt. Upon the under side of the frog-point 3 formed by the end of the rail 1 is a short base-flange 20, which is formed with recesses 21 21 upon the under side thereof and upon oppo-



site sides of its vertical center, the said recesses forming laterally-projecting lips 22, which rest upon the upper surfaces of the bases of the rails 4 and 5, and shoulders 23, 5 which bear against the side edges of the bases of said rails 4 and 5 for preventing lateral movement thereof.

In applying the parts of my device the wedge-blocks are inserted in place by forcing 10 them longitudinally of the rails between the base and head of each of the adjacent rails, and when the slots or openings 8 and 10 respectively register with the corresponding openings in said rails the locking-bolts 12 are 15 applied. When the latter are in place, the head 13 of each of said bolts bears against the web of the outer wing-rail 5, and the opposite end thereof projects out beyond the side edge of the web of the wing-rail 4. The washer 15 20 is then applied, and the wedge-block 16 is inserted through the opening 14. The said wedge-block serves to force the parts in close contact one with the other, and the same is prevented from accidental displacement by 25 the engagement with the teeth or notches 17 thereon of the dog 18. By the provision of the base-flange 20 on the frog-point wear upon this part of the device is avoided, lateral movement thereof is further prevented, and a firm 30 support for the same is provided.

Having now described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. A locking-bolt having an opening in one end and a dog secured at one end thereto 35 adjacent to said opening, and having a resilient engaging portion which projects beyond the surface of said bolt, in combination with a rigid wedge-block adapted to engage on one side a stationary part of the structure with 40 which the bolt is used and on the other one end of the slot in said bolt, and also adapted to be engaged by the resilient portion of said dog.

2. A locking-bolt having a head upon one 45 end, and a slot or opening in the other, in combination with a rigid wedge provided with a series of notches or teeth, and a dog secured at one end to said bolt adjacent to said opening and having a resilient engaging portion 50 which projects beyond the surface of said bolt, and is adapted to engage said teeth, the said wedge-block adapted to engage on one side a stationary part of the structure with which said bolt is used, and on the other one end of 55 the slot in said bolt.

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

BEN HABERMEHL.

Witnesses:

JAMES A. WHITE,  
J. J. FRIEDMAN.