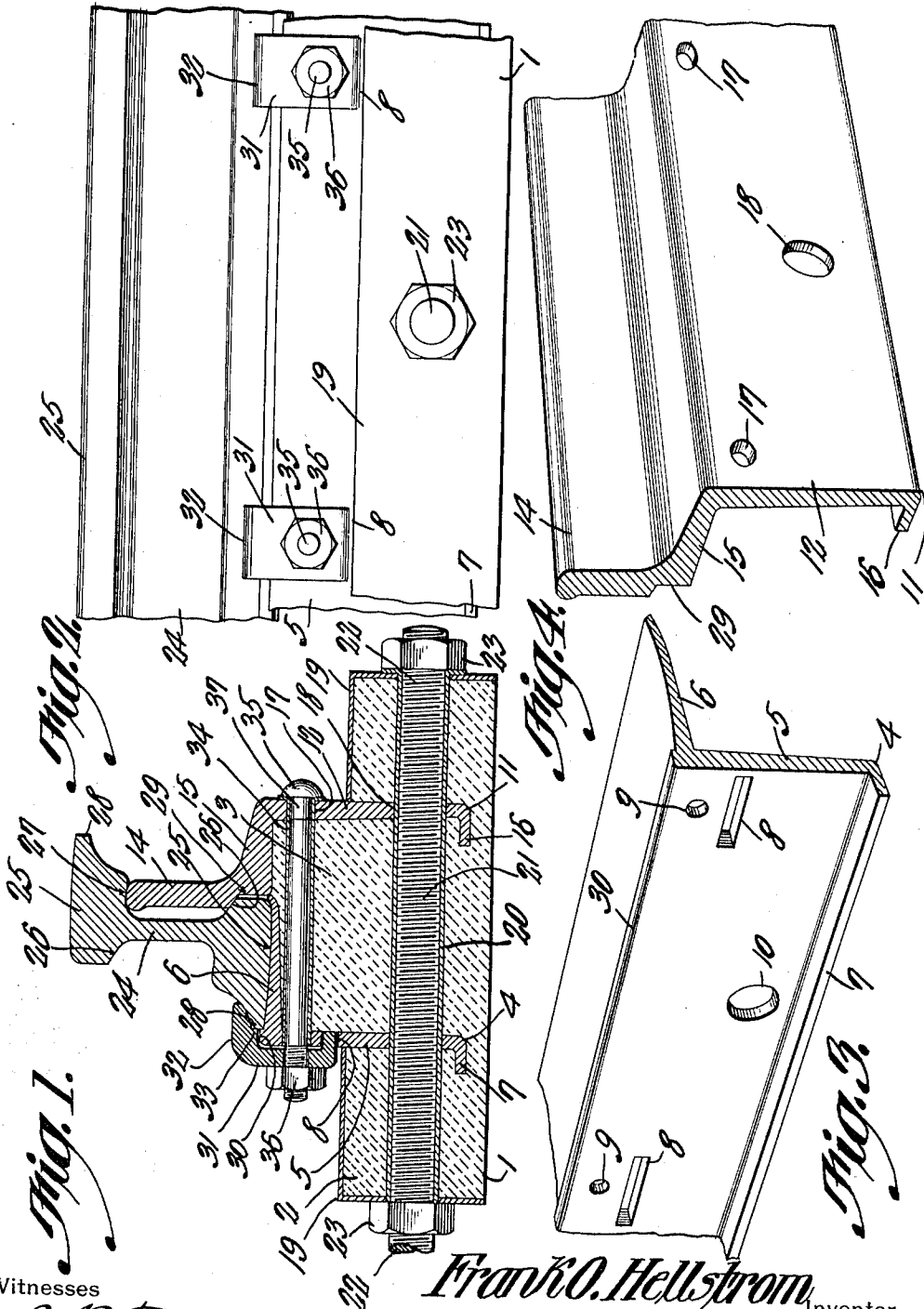


F. O. HELLSTROM.
RAIL SUPPORT.
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1,061,475.

Patented May 13, 1913.



Witnesses

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FRANK O. HELLSTROM, OF GROVE, NORTH DAKOTA.

RAIL-SUPPORT.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK O. HELLSTROM, a citizen of the United States, residing at Grove, in the county of Burleigh and State of North Dakota, have invented a new and useful Rail-Support, of which the following is a specification.

The device forming the subject matter of this application is a rail fastening in which the use of fish plates or like connecting elements is avoided.

One object of the invention is to provide rail supporting members of novel and improved form.

Another object of the invention is to provide novel means for assembling the rail supporting members with the support.

Another object of the invention is to provide novel means for preventing the movement of the rail upon the rail supporting members.

It is within the scope of the invention to improve generally and to increase the utility of, devices of that type to which the present invention appertains.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawing:—Figure 1 shows the invention in transverse section; Fig. 2 is a fragmental side elevation; Fig. 3 is a fragmental perspective view of the primary angle member; and Fig. 4 is a fragmental perspective of the secondary angle member.

In carrying out the invention there is provided a stringer 1 which extends longitudinally of each rail, the stringer 1 preferably being fashioned from concrete and comprising a base 2 and a rib 3 which upstands from the base, the rib 3 being of less width than the base. The invention further includes a primary angle member 4, the same including a main flange 5 and a transverse flange 6. The main flange 5 lies along one side face of the rib 3 and the lower edge of the main flange 5 is embedded in the body 2 of the stringer. The transverse flange 6 lies on top of the rib 3. Along its lower edge, the

main flange 5 is equipped with a laterally extended, angular foot 7. In that portion of the main flange 5 which upstands above the base 4 are slots 8, above which are located circular openings 9. In that portion of the main flange 5 which is embedded in the body 2 there are other openings denoted by the numeral 10.

The invention further includes a secondary angle member denoted generally by the numeral 11. The angle member 11 includes main flanges 12 and 14 which are approximately parallel, the flanges 12 and 14 being connected by the transverse web 15. The main flange 12 lies along one side face of the rib 3, and the lower edge of the main flange 12 is embedded in the body portion 2 of the stringer, the flange 12 being provided along its lower edge with laterally extended foot 16. The transverse web 15 lies on top of the rib 3 and the flange 14 upstands above the rib 3. The flange 12 is provided with openings 17, and with other openings 18. If desired, angular protecting members 19, preferably fashioned from metal, may lie along the upper and lateral edges of the base 2. The use of these elements 19, however, is optional. A tube 20 extends through the base 2 of the stringer and passes through the openings 10 and 18 of the flanges 5 and 12, respectively. Located in the tube 20 is a tie rod 21, which extends transversely of the track from one stringer to the other. The tie rod 21 is threaded as indicated at 22, to receive nuts 23, which, bearing against the lateral edges of the base 2, constitute means whereby the gage of the track may be adjusted.

The rail comprises a web 24 and duplicate balls 25, the balls 25 being provided with shoulders 26 and 27 located upon opposite sides of the web 24, one edge of each ball being thinned as indicated at 28, to form a lip. One ball 25 of the rail rests upon the transverse flange 6 of the angle member 4 and abuts against the transverse web 15 of the other angle member, the web 15 being provided with a recess 29 in which the shoulder portion 26 of the lower ball of the rail is received. The upper edge of the flange 14 of the secondary angle member engages the shoulder 27 of the upper ball to support the rail, as clearly shown in Fig. 1. Transverse movement of the rail is prevented by reason of the fact that the flange

5 of the primary angle member is prolonged above the transverse flange 6 to form a rib 30 which engages the outer edge of the lip 28 of the lower ball of the rail.

5 The invention further includes an arched clip 31, one end of which is engaged in the slot 8 of the primary angle member, the other end 32 of the clip overhanging the flange 6. The end 32 of the clip is provided with a shoulder 33 which coöperates with the rib 30 in preventing transverse movement of the rail.

15 A tube 34 extends through the rib 3. Located in the tube 34 is a bolt 35 or like securing element the same passing through the openings 17 and 9 in the secondary and primary angle members respectively. Mounted upon one end of the bolt 35 is a nut 36 which engages the clip 31, to hold the same in place, the bolt 35 passing through the clip. That end of the bolt 35 which is adjacent the head of the bolt is enlarged slightly in diameter, and is preferably made oval, and indicated at 37, to prevent a rotation of the bolt, this detail being common in the art.

25 The transverse flange 6 of the primary angle member 4 constitutes a support for the rail, and constitutes, also, a protection for one of the outer edges of the rib 3, the other outer edge of the rib being protected by the coöperating parts 12 and 15 of the secondary angle member 11.

35 In practical operation, the bolt 35 may be removed, or the nut 36 may be loosened merely, permitting the clip to be moved laterally. Whereupon, the rail may be placed upon the flange 6 of the primary angle member, and when the nut 36 is rotated, the lower ball of the rail will be held in the recess 29 and beneath the overhanging end 32 of the clip 31. As hereinbefore stated, the gage of the track may be adjusted readily by manipulating the nuts 23 which are mounted upon the tie rod 21.

45 Having thus described the invention, what is claimed is:—

1. In a device of the class described, a stringer; a primary angle member comprising a main flange embedded in the stringer and a transverse flange lying upon the top of the stringer; a rail resting upon the transverse flange; a fixed abutment carried by the stringer and receiving one edge of the rail; and removable means for engaging the other edge of the rail.

2. In a device of the class described, a stringer; a primary angle member comprising a main flange embedded in the stringer and a transverse flange resting upon the top of the stringer; a secondary angle member comprising a main flange embedded in the stringer and a transverse web located on the top of the stringer, the transverse web of the secondary member upstanding above the

transverse flange of the primary member to constitute a rail abutment; and a clip engaged with the main flange of the primary angle member and overhanging the transverse flange of the primary angle member.

3. In a device of the class described, a stringer; an angle member comprising a main flange embedded in the stringer and a transverse flange located on top of the stringer; a secondary angle member comprising approximately parallel flanges, one of which is embedded in the stringer, the other of which upstands from the stringer, there being a transverse web connecting the parallel flanges and located on top of the stringer; a rail engaging clip applied to the main flange of the primary angle member and overhanging the secondary flange of the primary angle member; and a connection between the main flanges of both angle members and the clip.

4. In a device of the class described, a stringer; a primary angle member including a main flange partially embedded in the stringer and provided with an opening, the primary angle member including a transverse flange located upon the top of the stringer; and a secondary angle member including a main flange partially embedded in the stringer and a transverse web located upon the top of the stringer and constituting a rail abutment; and a rail engaging clip, one end of which is engaged in the opening, the other end of which overhangs the transverse flange of the primary angle member.

5. In a device of the class described, a stringer comprising a base and an upstanding rib; a primary angle member including a flange lying along one side face of the rib and embedded in the base, and a transverse flange resting on top of the rib; a secondary angle member including a main flange lying along one side face of the rib and embedded in the base, the secondary angle member including a transverse web located upon the top of the rib and upstanding above the transverse flange of the primary member; and a rail engaging clip removably secured to the main flange of the primary angle member.

6. In a device of the class described, a stringer; a primary angle member comprising a main flange secured to the stringer and a transverse flange lying on top of the stringer; a rail resting on the transverse flange; a fixed abutment carried by the stringer and receiving one edge of the rail; and removable means for engaging the other edge of the rail.

7. In a device of the class described, a stringer; a primary angle member comprising a main flange bearing against one side of the stringer and a transverse flange resting on top of the stringer; a secondary angle

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member comprising a main flange bearing against the opposite side of the stringer and a transverse web located on the top of the stringer, the transverse web of the secondary member upstanding above the transverse flange of the primary member to constitute a rail abutment; and a clip engaged with the main flange of the primary angle member and overhanging the transverse flange of the primary angle member.

8. In a device of the class described, a stringer; an angle member comprising a main flange engaging the stringer and a transverse flange located on top of the stringer; a secondary angle member comprising approximately parallel flanges, one of which engages the stringer, the other of which upstands from the stringer, there being a transverse web connecting the parallel flanges and located on top of the stringer; a rail engaging clip applied to the main flange of the primary angle member and overhanging the secondary flange of the primary angle member; and a connection be-

tween the main flanges of both angle members and the clip.

9. In a device of the class described, a stringer; a primary angle member including a main flange applied to the stringer and provided with an opening, the primary angle member including a transverse flange located on top of the stringer; and a secondary angle member including a main flange applied to the stringer and a secondary web located on top of the stringer and constituting a rail abutment; and a rail engaging clip, one end of which is engaged in the opening, the other end of which overhangs the transverse flange of the primary angle member.

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

FRANK O. HELLSTROM.

Witnesses:

W. H. CABANISS,
L. S. CRANE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."