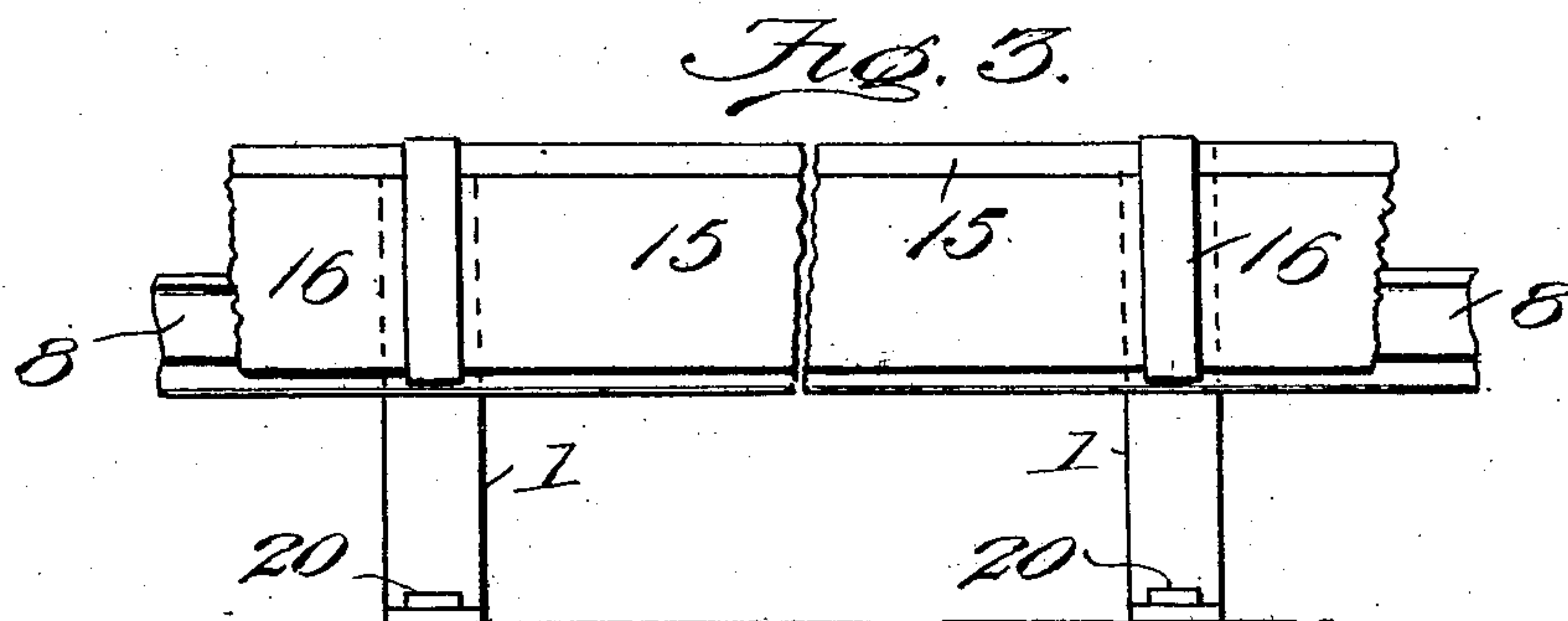
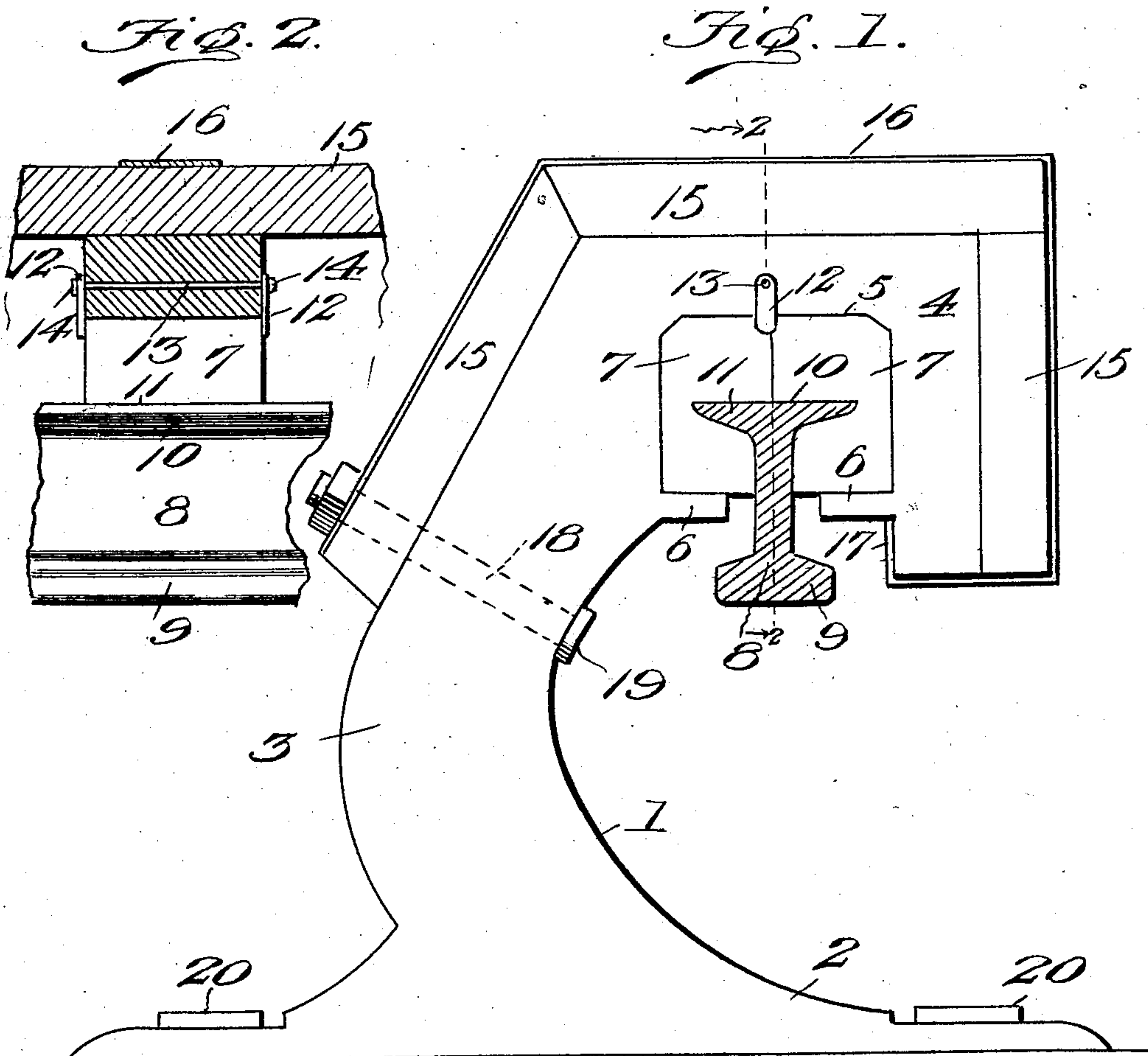


No. 879,683.

PATENTED FEB. 18, 1908.

F. D. SHARP.
PROTECTOR FOR THIRD RAILS.
APPLICATION FILED JAN. 19, 1907.



Witnesses

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FRANK D. SHARP, OF ALTOONA, PENNSYLVANIA.

PROTECTOR FOR THIRD RAILS.

No. 879,683.

Specification of Letters Patent.

Patented Feb. 18, 1908.

Application filed January 19, 1907. Serial No. 353,095.

To all whom it may concern:

Be it known that I, FRANK D. SHARP, a citizen of the United States, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented new and useful Improvements in Protectors for Third Rails, of which the following is a specification.

This invention relates to third-rail systems for electric railways, and it has for its object to provide an improved supporting and protecting device for the third-rail which shall possess superior advantages in point of simplicity, durability and general efficiency.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention; it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawing,—Figure 1 is an elevation of one of the rail-supporting brackets or hangers, the rail being shown in transverse section. Fig. 2 is a sectional detail view taken on the plane indicated by the line 2—2 in Fig. 1. Fig. 3 is a side elevation showing a plurality of the brackets or hangers, and a portion of the third-rail supported thereby.

Corresponding parts in the several figures are denoted by like numerals of reference.

The brackets or hangers 1, 1 may be cast of malleable iron or steel, each of said hangers being formed with a base 2, a shank or stem portion 3 and a head 4, the latter being laterally offset to one side and provided in its under side with a recess 5 near the lower end of which are formed supporting flanges 6—6. The said flanges serve to support the insulating blocks 7, 7, which cooperate to sustain the third-rail 8, which is provided with a head 9 and with flanges 10 which latter are accommodated in suitable recesses 11 in the opposing or abutting faces of the insulating blocks. The latter are retained in the recess 5 of the head of the hanger by means of turn buttons 12 upon the ends of a pin 13 which extends trans-

versely through the head 4 of the hanger a short distance above the recess 5; the ends of said pin being upset or headed, as shown at 14, to retain the turn buttons in position. Owing to this construction the insulating blocks which support the third-rail may be readily removed and replaced, as may be desired, and they are prevented from being accidentally displaced longitudinally of the rail.

The sides and top of the head 4 of the hanger serve to support boards or protecting members 15, which may be of any desired length, said boards being supported upon a plurality of the brackets or hangers, as will be readily understood by reference to Fig. 3 of the drawings. The boards 15 cooperate to form an inverted trough whereby the third-rail and the insulating blocks are protected from dirt and moisture. The boards 15 are secured in position by means of a strap 16 of band iron having a terminal hook 17 which hooks beneath the portion of the head 4 which is distant from the shank 3; said shank being provided with an aperture 18 for the passage of a bolt or fastening member 19 which extends through the opposite end of the strap or securing device 16 and also through one of the boards 15. Said boards or fastening members are thus secured to each of the brackets or hangers by means of a single bolt, thus enabling them to be readily removed if, for any reason, it should be desirable to do so. The base 2 of the bracket or hanger may be provided with apertures for the passage of lag screws, the heads of which are shown at 20, and which serve to secure the hanger in position.

From the foregoing description taken in connection with the drawings hereto annexed the operation and advantages of this invention will be readily understood by those skilled in the art to which it appertains. The construction of the improved hangers is very simple and inexpensive; the third-rail may be very easily, quickly and securely placed in position, and it may be as readily removed when occasion demands; the insulating blocks are likewise readily accessible, and may be easily removed and replaced.

The protecting device consisting of the boards forming an inverted trough is extremely simple and efficient, and said boards may be very readily applied to the hangers, and secured by means of a single bolt applied to each hanger, owing to the use of the strap

or supporting member having the terminal hook that engages beneath the head of the hanger.

What is claimed is:—

5 1. A supporting bracket or hanger for third-rails having a laterally-offset head provided with a recess in its underside, and supporting flanges near the lower end of said recess, a pin extending through the head
10 above the recess, turn buttons upon said pin, and insulating blocks supported in the recess upon the flanges near the lower end of the latter and between the turn buttons.

15 2. A third-rail supporting bracket or hanger having a laterally offset head provided with a recess in its under side, and flanges near the lower end of said recess, insulating blocks supported upon said flanges and having rail-engaging recesses in their op-
20 posing faces, a third-rail sustained by said blocks, and pivotally supported means for preventing displacement of the blocks longitudinally of the rail.

25 3. A third-rail supporting bracket or hanger having a laterally offset head provided with a recess in its underside, a plurality of protecting members supported exteriorly upon the head and cooperating to form an

inverted trough, a strap having at one end a terminal hook engaging beneath that por- 30
tion of the head which is distant from the shank of the hanger, and a securing member connecting the opposite end of the strap with said shank.

4. In a third-rail system, a plurality of 35
brackets or hangers having laterally offset heads provided with recesses in their under sides, a third-rail, rail-supporting members consisting of insulating blocks mounted in the recess, means for preventing the displace- 40
ment of said insulating blocks longitudinally of the rail, protecting members supported upon the heads of the hangers and cooperating to form an inverted trough, and securing devices consisting of straps each provided at 45
one end with a terminal hook engaging beneath the head of a hanger, and bolts securing the opposite ends of said straps to the shanks of the hangers.

In testimony whereof, I affix my signature 50
in presence of two witnesses.

FRANK D. SHARP.

Witnesses:

W. H. LONDON,
E. H. FLICK.