

No. 768,480.

PATENTED AUG. 23, 1904.

W. K. PAGE.
SAFETY GUARD.

APPLICATION FILED MAR. 23, 1904.

NO MODEL.

Fig. 1.

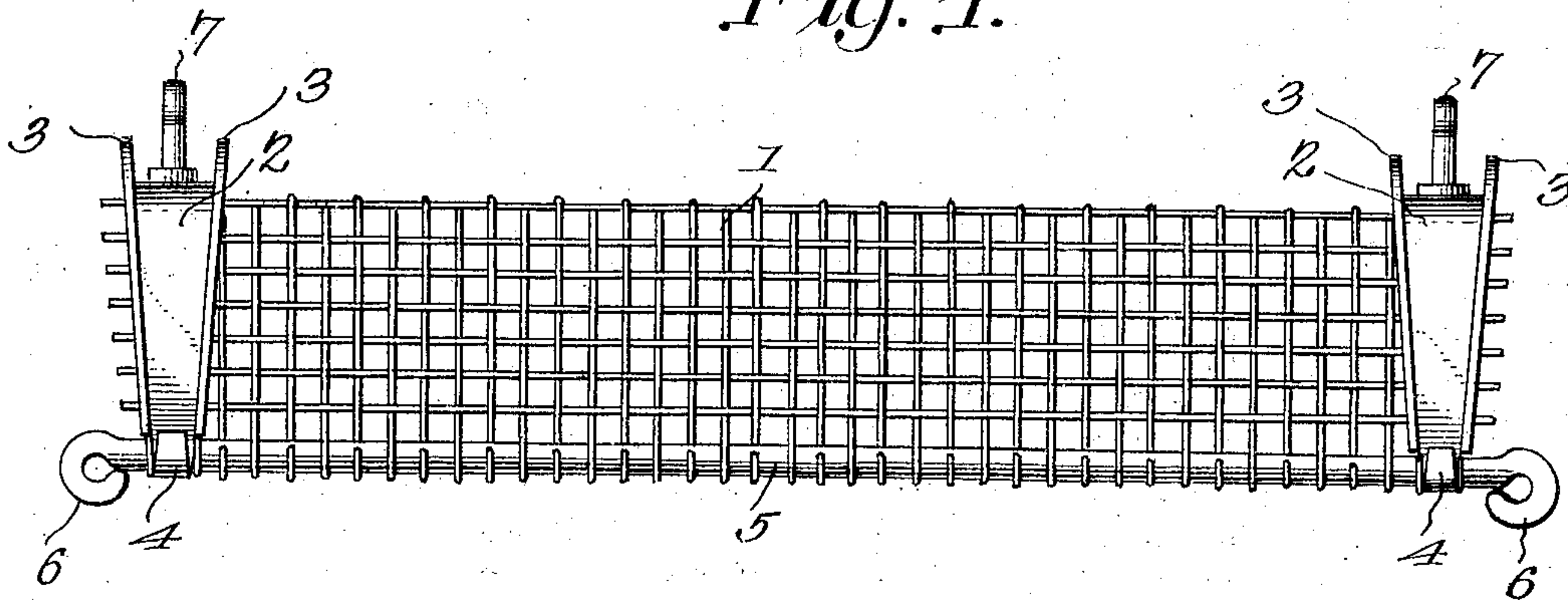
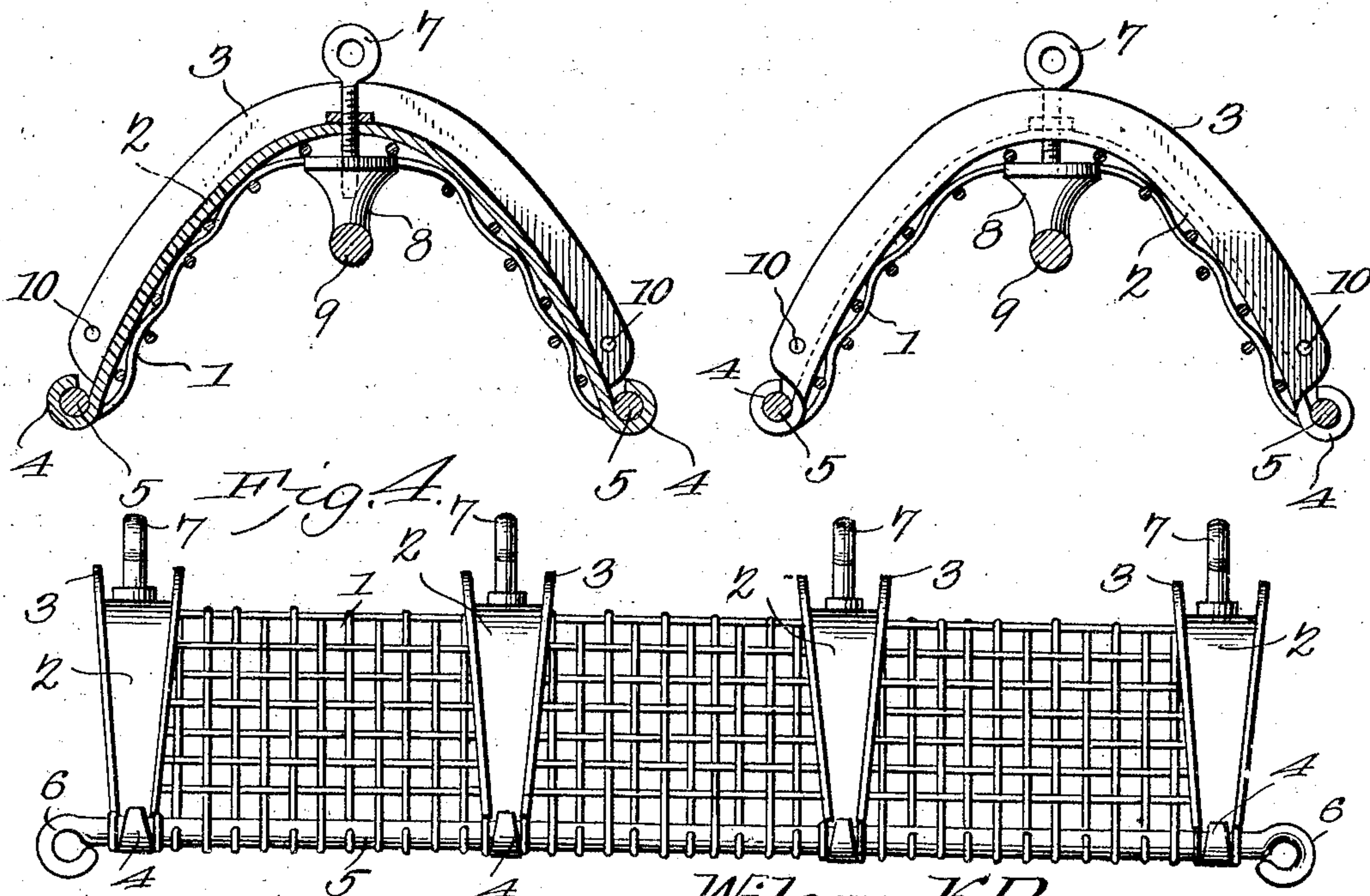


Fig. 3.

Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILSON KINGMAN PAGE, OF OLEAN, NEW YORK.

SAFETY-GUARD.

SPECIFICATION forming part of Letters Patent No. 768,480, dated August 23, 1904.

Application filed March 23, 1904. Serial No. 199,605. (No model.)

To all whom it may concern:

Be it known that I, WILSON KINGMAN PAGE, a citizen of the United States, residing at Olean, in the county of Cattaraugus and State of New York, have invented a new and useful Safety-Guard, of which the following is a specification.

This invention relates to safety-guards for trolley-wires at railroad-crossings.

The object is in a positive manner to prevent stalling of a car at a crossing by providing a novel form of guard to bridge the crossing, the guard to be of such construction as to constitute a perfect conductor for the current should the trolley-wheel leave the trolley-wire, to reduce the weight of the guard to a minimum, to prevent vibrations due to wind-pressure, thus relieving the trolley and guy wires of dangerous strain, to prevent any accumulation of snow by the guard, which would have a tendency to weaken the poles and guy-wires, to facilitate shipping and handling of the guard, and to reduce to the minimum the noise due to contact between the trolley-wheel and the guard.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a safety-guard for trolley-wires, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate corresponding parts, there is illustrated one form of embodiment of the invention capable of carrying the same into practical operation, it being understood that various changes as to shape, proportion, and exact manner of assemblage may be made without departing from the spirit thereof.

In the drawings, Figure 1 is a view in elevation of a guard constructed in accordance with the present invention. Fig. 2 is a view in end elevation, showing more particularly the shape of one of the yokes to which the body of the guard is secured and by which the trolley-wire is supported. Fig. 3 is a view in transverse section. Fig. 4 is a view

in side elevation of a slightly-modified form of guard.

Referring to the drawings, 1 designates the body of the guard, the same being constructed of meshed wire of any required gage, and 2 terminal arches or yokes to which the wires of the body are connected in any preferred manner. The yokes are by preference made of wrought iron and are arch-shaped in elevation and provided with lateral strengthening-flanges 3 to render the structures rigid in character. The wire of which the body is constructed may be of any suitable kind—such, for instance, as galvanized-iron wire—to present a non-rusting structure. The lower end of each of the yokes is formed into an eye or keeper 4, in which are held longitudinally-disposed brace-wires 5, the ends of which are formed into eyes 6 to provide a means of attachment for guy-wires which are provided for the purpose of holding the guard against longitudinal vibrations in operation. As shown in Fig. 1, but two arches or yokes are employed; but if found necessary to impart additional strength to the guard intermediate yokes may be employed, as shown in Fig. 4, wherein four are exhibited. Through the crests of each of the yokes extends an eyebolt 7, to the lower end of which is connected a hanger 8 for supporting the trolley-wire 9, the eyes being engaged by supporting-wires for holding the guard in proper position. It will be noted that the hanger is in contact with the wires of the body of the guard, and by this means the guard is charged, so that in event of the trolley-wheel jumping from the trolley-wire the current will be supplied as usual, and thus positively obviate any danger of a car becoming stalled on a crossing. As these guards must of necessity be of considerable length where employed in bridging, say, two tracks, it follows that they should be made as light as consistent with the work to be done, not only to relieve the poles, guy-wires, and trolley-wires of objectionable weight, but also to reduce the cost of application of the guard to the line. In addition it is desirable to prevent accumulation of snow or ice upon the guard, which would greatly

add to its weight, and a final object is to reduce the vibration to a minimum. All of these results are secured by making the body an open-work structure, which will allow wind to pass therethrough, and thus prevent vibrations, and will positively prevent accumulation of snow and ice to such an extent as to be objectionable. Further, by making the body of woven wire space in shipping is saved and handling is facilitated, as the yokes and body portion may be shipped separately and assembled at the place of use. In addition to the brace-wires 6 for engagement by guy-wires to brace the structure the yokes near their terminals are provided with openings 10, with which can be combined other guy-wires, which operate still further to brace the structure against vibration and liability of sagging in use.

As seen by reference to Fig. 2, the structure is arch-shaped in cross-section, and the trolley-wire is disposed at the crest, and by this arrangement should the trolley-wheel jump the trolley-wire it will be positively held from becoming disengaged from the guard.

Having thus fully described my invention, what I claim is—

1. A guard of the class described embodying an open-work body or conducting portion, and trolley-wire hangers combined with the upper portion thereof.

2. A guard of the character described embodying an open-work body or conducting portion, and trolley-wire hangers associated with the crest thereof.

3. A guard of the class described embodying an open-work body or conducting portion, and terminal trolley-wire hangers associated with the crest thereof.

4. A guard of the class described embodying an open-work or conducting portion, yokes with which the body portion is combined, and trolley-wire hangers carried by the crests of the yokes.

5. A guard of the class described embodying an open-work body or conducting portion, terminal yokes with which the body portion is combined, and trolley-wire hangers carried by the crests of the yokes.

6. A guard of the class described embodying an open-work body or conducting portion, terminal yokes with which the body

portion is associated, trolley-wire hangers supported by the yokes, and longitudinally-disposed brace-rods combined with the yokes and provided with means for attachment to guy-wires.

7. A guard of the class described embodying an open-work body or conducting portion, yokes to which the ends of the body portion are associated, the terminals of the yokes being formed into eyes or keepers, and longitudinally-disposed brace-rods engaging the keepers, and provided with means for attachment to guy-wires.

8. A guard of the class described embodying an open-work body or conducting portion, yokes associated with the ends thereof, the terminals of the yokes being formed into eyes, an eyebolt passed through the crest of each of the yokes, trolley-wire hangers held in place by the eyebolts, and longitudinally-disposed brace-rods engaging the yoke-eyes and provided with means for attachment to guy-wires.

9. A guard of the class described embodying an open-work body or conducting portion, yokes associated with the ends and intermediate portions thereof, the terminals of the yoke being formed into eyes, an eyebolt passed through the crest of the yokes, trolley-wire hangers held in place by the eyebolts, and longitudinally-disposed brace-rods engaging the yoke-eyes and provided with means for attachment to guy-wires.

10. A guard of the class described embodying a plurality of yokes the terminals of each of which are formed into eyes, an eyebolt passed through the crest of each of the yokes, an open-work body or conducting portion disposed on the inner sides of the yokes, trolley-wire hangers clamped against the conducting portion by the bolts, and longitudinally-disposed brace-rods engaging the yoke-eyes and provided with means for attachment to guy-wires.

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

WILSON KINGMAN PAGE.

Witnesses:

WILSON R. PAGE,

FRED. F. MASON.