

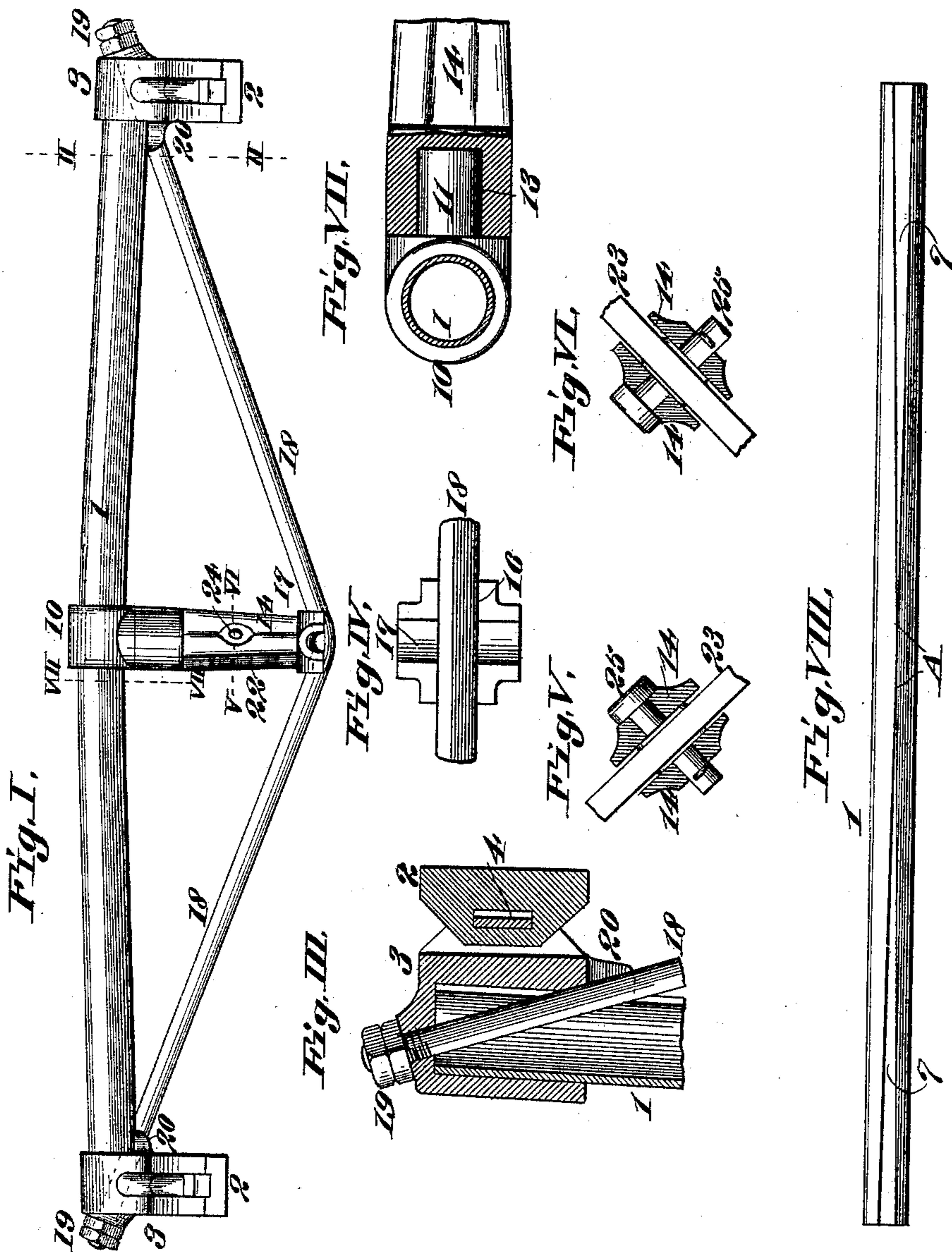
No. 619,245.

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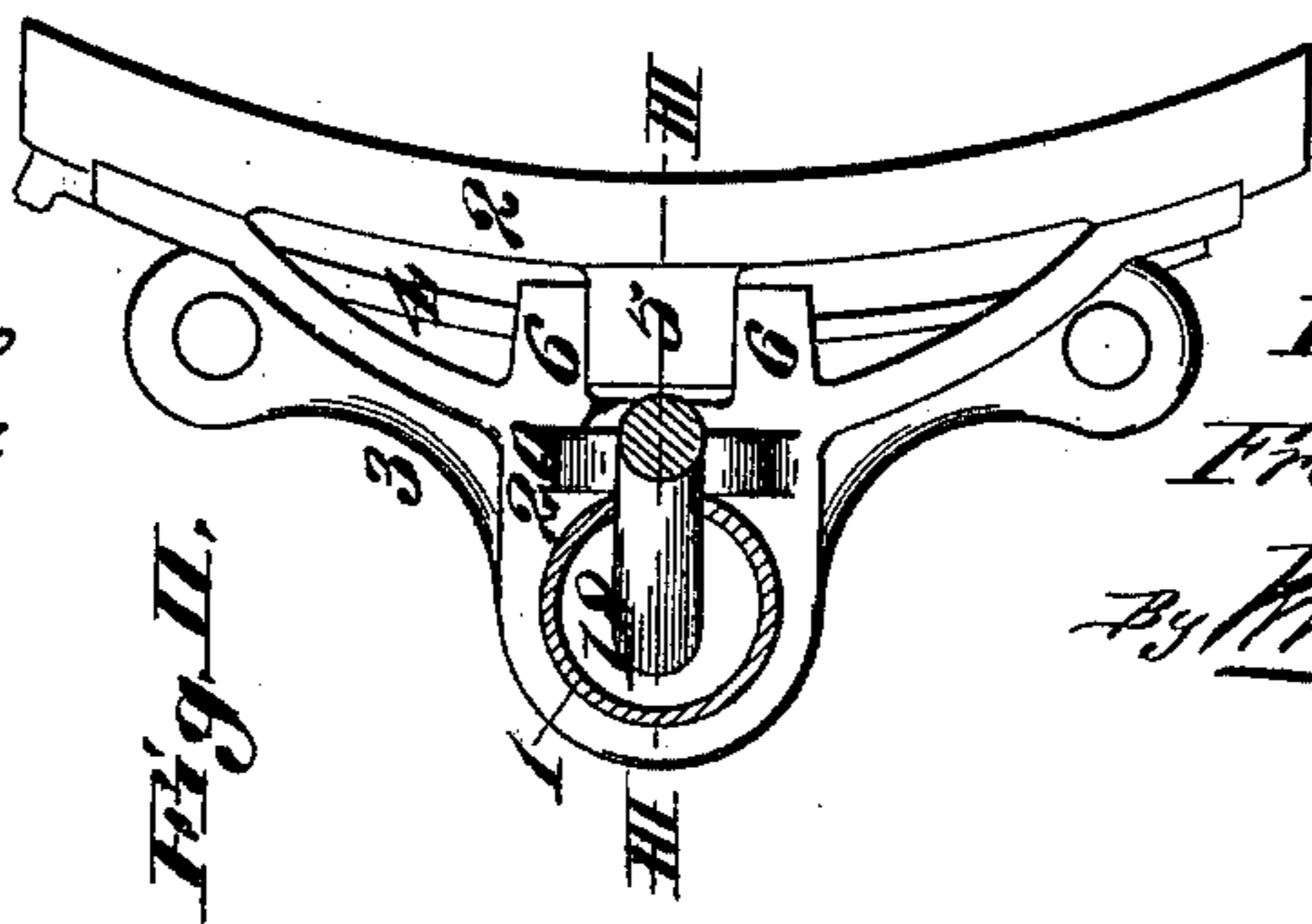
F. B. AGLAR.
BRAKE BEAM.

(Application filed May 27, 1895.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 619,245, dated February 7, 1899.

Application filed May 27, 1895. Serial No. 550,739. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS B. AGLAR, of the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Brake-Beams, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to an improved brake-beam; and the object of my invention is to construct such an article in a cheap, strong, and durable manner and which is interchangeable, so as to be used on either end of the car.

My invention consists in features of novelty hereinafter described, and pointed out in the claims.

Figure I is a top or plan view of my improved brake-beam. Fig. II is an enlarged transverse section taken on line II II, Fig. I. Fig. III is a detail longitudinal section taken on line III III, Fig. II. Fig. IV is an end view of the truss or tension rod swivel, showing part of the rod. Figs. V and VI are enlarged sections taken on line V VI, Fig. I, and showing the swivel in its different positions. Fig. VII is an enlarged transverse section taken on line VII VII, Fig. I. Fig. VIII is an inside view of the dismantled strut of the beam.

Referring to the drawings, 1 represents the strut of the beam, on each end of which is a brake-shoe 2, held to the beam by means of a head 3, each shoe being attached to its head by any suitable means, and I have shown it attached by means of a key 4, passed through a lug 5 on the shoe and through lugs 6 on the head. The strut 1 I make with gore or V shaped openings 7 along its inner side, as shown in Fig. VIII. These openings extend from the ends of the hollow tubular strut to near its middle, are largest at their outer ends, and taper down to a point at A, leaving a space between their adjacent ends for the collar of a swivel that is located between the strut and the tension or truss rod. By extending the openings 7 back to the point A the strut is lightened in weight to the extent of the weight of the metal removed, while the strength of the beam is not impaired

to any practical extent, and by having the strut completely closed where it receives the swivel-collar it is firm and not contractible.

The strut is made of sheet-steel cut from a blank and formed up into a cylindrical tube, and the openings 7 are provided by cutting the edges of the sheet at an angle to a line drawn through the center of the sheet. By forming the strut from sheet-steel in this manner it is very strong and at the same time cheap as compared with a welded tube-strut.

At the middle or central part of the strut 1 is the swivel-collar 10, fitting around the strut between the inner ends of the openings 7. This collar, as shown in Fig. VII, has a neck 11 fitting within a socket 13 in the end of a swivel plate or arm 14. The outer end of the swivel is formed with a groove 16 (see Fig. IV) and a cross-groove 17.

18 represents a tension or truss rod bearing against the outer end of the swivel 14 and connected at its ends to the ends of the strut. This rod passes through the openings 7 in the strut 1 and extends out through the ends of the beam and through the ends of the heads 3, where it is provided with nuts 19, as shown in Fig. III. The shoe-heads 3 have ears or lugs 20, that engage the tension-rod, and thus the heads are held from turning on the strut without the use of any independent parts.

The swivel 14 has a slot 22 for the passage of the brake-lever 23 and the swivel has also a perforation 24 to receive a pin or key 25, by which the brake-lever is held in the swivel. The direction of the opening or slot 22 through the swivel is made at such an angle as will give the proper usual inclination to the brake-lever, and this angle may be maintained in the proper direction regardless of which end of the car the beam is used on by simply loosening on the tension-rod 18 and turning the swivel, so that either the notch 16 or 17 will be presented to the tension-rod, according as may be desired, and when the tension-rod is again tightened up the swivel will be held in the position to which it has been adjusted. Thus my beams are interchangeable and may be applied to either end of the car.

I claim as my invention—

1. A brake-beam comprising a hollow tube

having gore-shaped slots extending from its ends to near its middle; substantially as described.

2. In a brake-beam, a strut formed of sheet-
5 steel with gore-shaped openings extending along its inner side almost to its center where the edges of the sheet abut, and a collar fitting over the strut at its closed part, substantially as set forth.

10 3. In a brake-beam, the combination of a strut, a tension-rod connected to the ends of the strut, and a swivel located between the middle of the strut and said tension-rod, said
15 swivel having cross-grooves in its outer end to receive the tension-rod, substantially as set forth.

4. A brake-beam comprising a truss having a swivel composed of sections swiveled to-

gether, the outer end of said swivel being provided with two grooves at right angles to
20 each other; substantially as described.

5. In a brake-beam, the combination of a strut, a tension-rod connected to the ends of the strut, and a swivel located between the
25 middle of the strut and the tension-rod, and which has an opening to receive a brake-lever, and means for connecting the swivel to the strut, consisting of a collar having a neck to enter a socket in the swivel; said swivel
30 having cross-grooves in its outer end to receive said tension-rod, substantially as and for the purpose set forth.

FRANCIS B. AGLAR.

In presence of—

E. S. KNIGHT,

W. FINLEY.