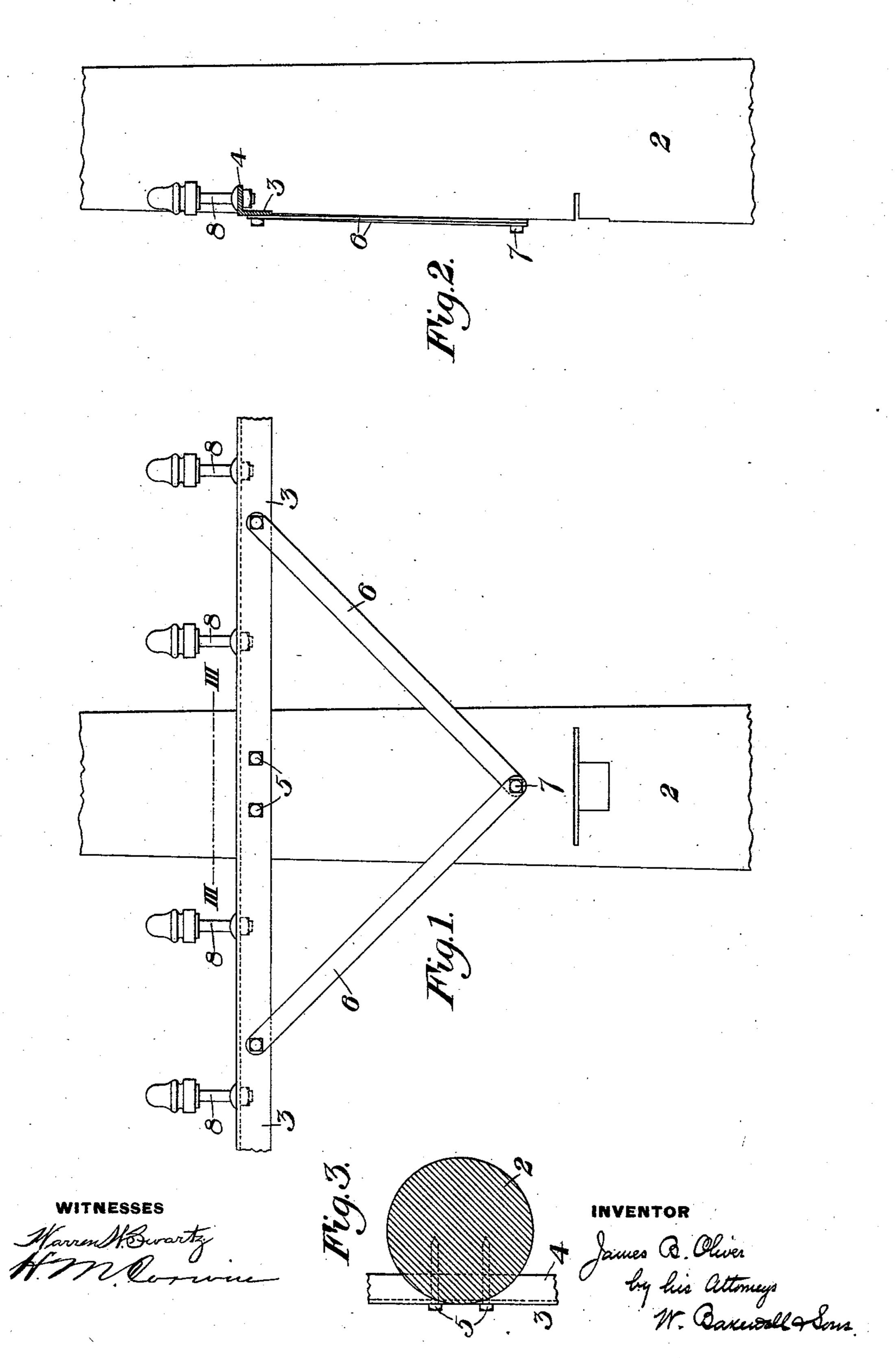
J. B. OLIVER.
CROSS BAR FOR TELEGRAPH POLES.

No. 540,799.

Patented June 11, 1895.



## United States Patent Office.

JAMES B. OLIVER, OF SHIELD'S STATION, PENNSYLVANIA.

## CROSS-BAR FOR TELEGRAPH-POLES.

SPECIFICATION forming part of Letters Patent No. 540,799, dated June 11, 1895.

Application filed August 10, 1894. Serial No. 519,952. (No model.)

To all whom it may concern:

Be it known that I, James B. Oliver, of Shield's Station, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Cross-Bars for Telegraph-Poles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation of a telegraphpole provided with my improved cross-bar. Fig. 2 is a side elevation of the same; and Fig. 3 is a cross-section on the line III III of Fig. 1, with the cross-arm partly broken away.

15 My invention relates to the cross-arms used upon telegraph poles for the attachment of the insulators, and is designed to provide a metal arm which shall take the place of the wooden arms now employed, and an improved connection for the arm and the pole.

In the drawings, 2 represents a portion of a telegraph pole, having a cross-arm 3, composed of an angle-iron, whose horizontal flange 4 is inserted within a horizontal slot formed 25 in the side of the pole. This cross-arm is perforated for the insertion of screw-bolts 5, which pass through the web into the post and secure the arm in place. As additional means for securing the arm in place and stiffening it, I 30 provide braces 6, which are bolted to the web of the angle-iron and thence extend at an angle to the pole, where they are secured by a single bolt 7. The horizontal flange of the bar is perforated for the insertion of the insu-35 lator stems 8, which are provided with enlargements resting upon the upper face and are secured by nuts engaging their lower screwthreaded ends.

The face of the pole immediately beneath the slot is preferably squared off to afford a better bearing for the web of the arm, as shown at the lower portions of Figs. 1 and 2.

The advantages of my invention will be appreciated by those skilled in the art. The horizontal flange or leg of the angle fitting 45 in the slot gives the bar a secure hold upon the pole and allows the use of a very light section of the rolled angle. The angle iron may be cheaply bought in the market and easily cut up into sections of a suitable length and 50 perforated for the bolts and insulator stems, and the life of the bar is much longer than any of the ordinary wooden bars now used.

Many changes may be made in the form and arrangement of the parts without departing 55 from my invention since

from my invention, since

What I claim as new, and desire to secure

by Letters Patent, is—

1. The combination with a telegraph pole having a narrow horizontal slot, of an angle 60 iron cross-bar having its flange fitting snugly within the slot and its web extending in a vertical direction exterior to the slot, and securing devices arranged to hold the cross-bar in place; substantially as described.

2. The combination with a telegraph pole having a narrow horizontal slot, of an angle iron cross bar having its flange fitting snugly within the slot and its web extending in a vertical direction exterior to the slot, and braces 70 extending from the cross-bar to the pole; substantially as described.

3. The combination with a telegraph pole having a deep horizontal slot and a wide shallow recess, of an angle-iron having its flange 75 within the horizontal slot and its web fitting

in the recess; substantially as described.
In testimony whereof I have hereunto set my hand.

JAMES B. OLIVER.

Witnesses:

H. M. CORWIN, F. E. GAITHER.