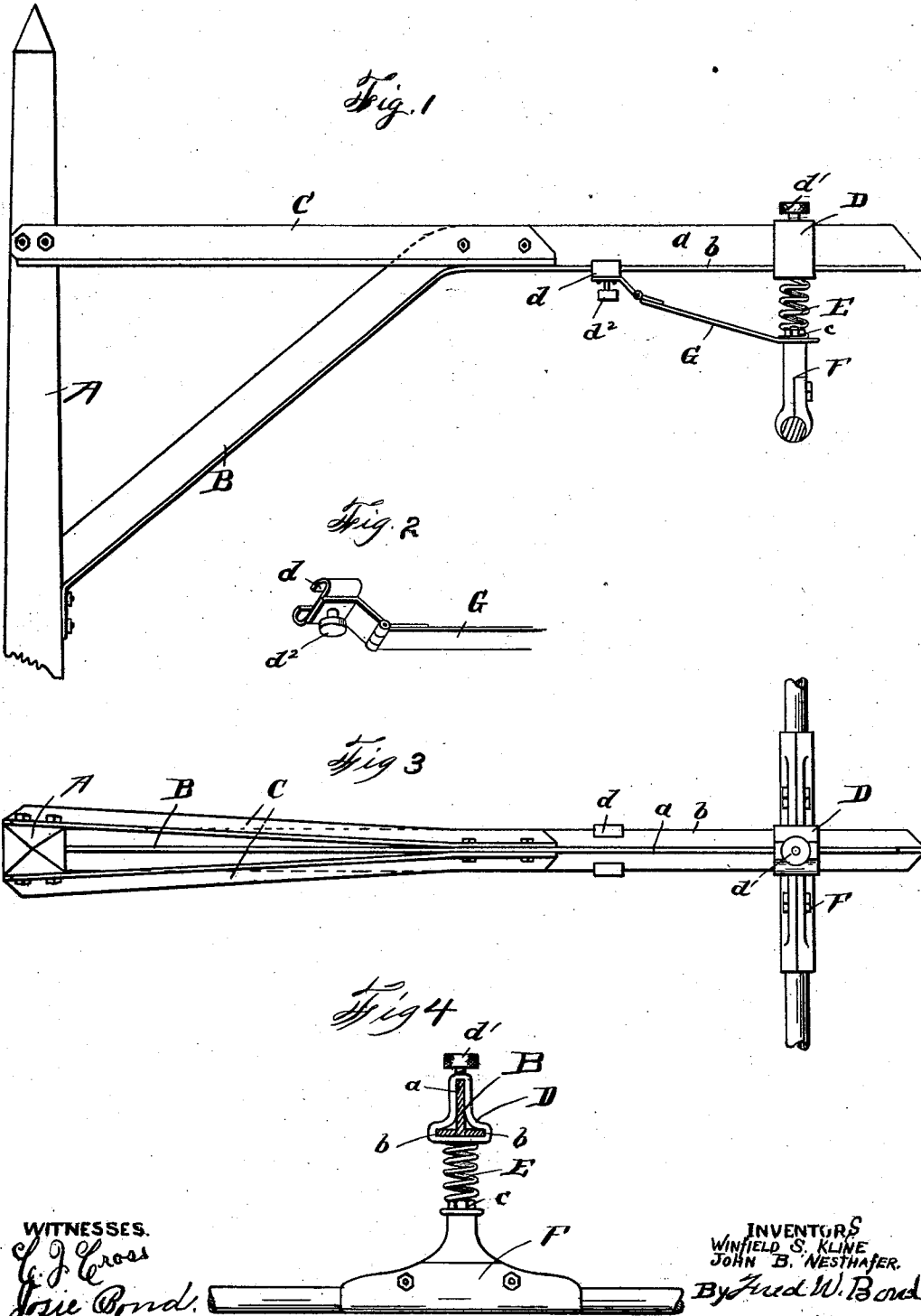


(No Model.)

W. S. KLINE & J. B. WESTHAFFER.
TROLLEY WIRE BRACKET.

No. 531,437.

Patented Dec. 25, 1894.



UNITED STATES PATENT OFFICE.

WINFIELD S. KLINE, OF BOLIVAR, AND JOHN B. WESTHAFFER, OF NEW
PHILADELPHIA, OHIO.

TROLLEY-WIRE BRACKET.

SPECIFICATION forming part of Letters Patent No. 531,437, dated December 25, 1894.

Application filed October 17, 1894. Serial No. 526,125. (No model.)

To all whom it may concern:

Be it known that we, WINFIELD S. KLINE, residing at Bolivar, and JOHN B. WESTHAFFER, residing at New Philadelphia, Tuscarawas county, Ohio, citizens of the United States, have invented certain new and useful Improvements in Trolley-Wire Brackets; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1, is a side elevation, showing a portion of the pole and the different parts properly arranged to support and hold a trolley wire. Fig. 2, is a view, showing a portion of the hinged bar and its clip. Fig. 3, is a top view of the bracket. Fig. 4, is a transverse section of the bracket arm showing the outer clip properly located thereon, also showing the trolley wire clamp properly attached for use.

The present invention has relation to trolley wire brackets, and it consists in the novel construction and arrangement hereinafter described, and particularly pointed out in the claims.

Similar letters of reference indicate corresponding parts in all of the figures of the drawings.

In the accompanying drawings—A, represents the pole which is constructed in the ordinary manner, and may be made of any suitable material, inasmuch as the pole proper has no particular reference to the present invention, except that some kind of a pole must be used to carry out the purpose of our invention.

To the pole A, is securely attached the bottom or lower end of the bent or curved T arm B, which T arm is substantially of the form shown in Fig. 1, and as shown in cross section, Fig. 4, it is provided with the vertical flange a, and the lateral flanges b. To the vertical flange a are bolted or riveted the braces C, which braces extend rearward and their rear end is securely attached to the pole A.

To the outer end of the curved arm B is adjustably attached the clip D, to which clip is attached the helical spring E; the bottom or lower end of said spring being securely attached to the top or upper end of the trolley clamp F, said attachment being made by means of the screw-threaded nut c or its equivalent.

For the purpose of holding the spring E, in the proper position, the hinged arm G is provided, which hinged arm is located substantially as illustrated in Fig. 1. To the inner end of the hinged arm is securely attached the adjustable clip d, which adjustable clip embraces the flanges of the arm B.

For the purpose of holding the trolley wire clamp F, at the desired point of lateral adjustment, the set-screws d' and d'' are provided.

The free end of the arm G is located directly above the trolley clamp F and below the helical spring E thereby allowing the free end of said arm to move up and down as the trolley of a street car passes under the clamp F.

It will be understood that by suspending the trolley wire by means of the spring E, said trolley wire will be hung on a strain and is free to move up and down as the tension of the spring is such that as the trolley wire is lifted by the trolley of a passing car the spring will yield.

The braces C are formed of L iron, and the vertical flanges of the braces securely attached to the vertical flanges of the arm.

It will be understood that by our peculiar manner of forming the arm B, but one piece of metal is required thereby greatly reducing the cost of manufacturing.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the arm B, having adjustably attached thereto the clips D and d, the spring E and the hinged arm G, substantially as and for the purpose specified.

2. The arm B formed of a single piece, the braces C secured to said arm and to the pole

the spring E carrying the trolley wire clamp, and the hinged arm G, substantially as and for the purpose specified.

3. The combination of the arm B, the clips
5 D and *d*, provided with the set-screws *d'* *d*² and a spring connection to the trolley wire, substantially as and for the purpose specified.

In testimony that we claim the above we

have hereunto subscribed our names in the presence of two witnesses.

WINFIELD S. KLINE.
JOHN B. WESTHAFFER.

Witnesses:

JULIUS HAKE,
LOUIS WELTY.