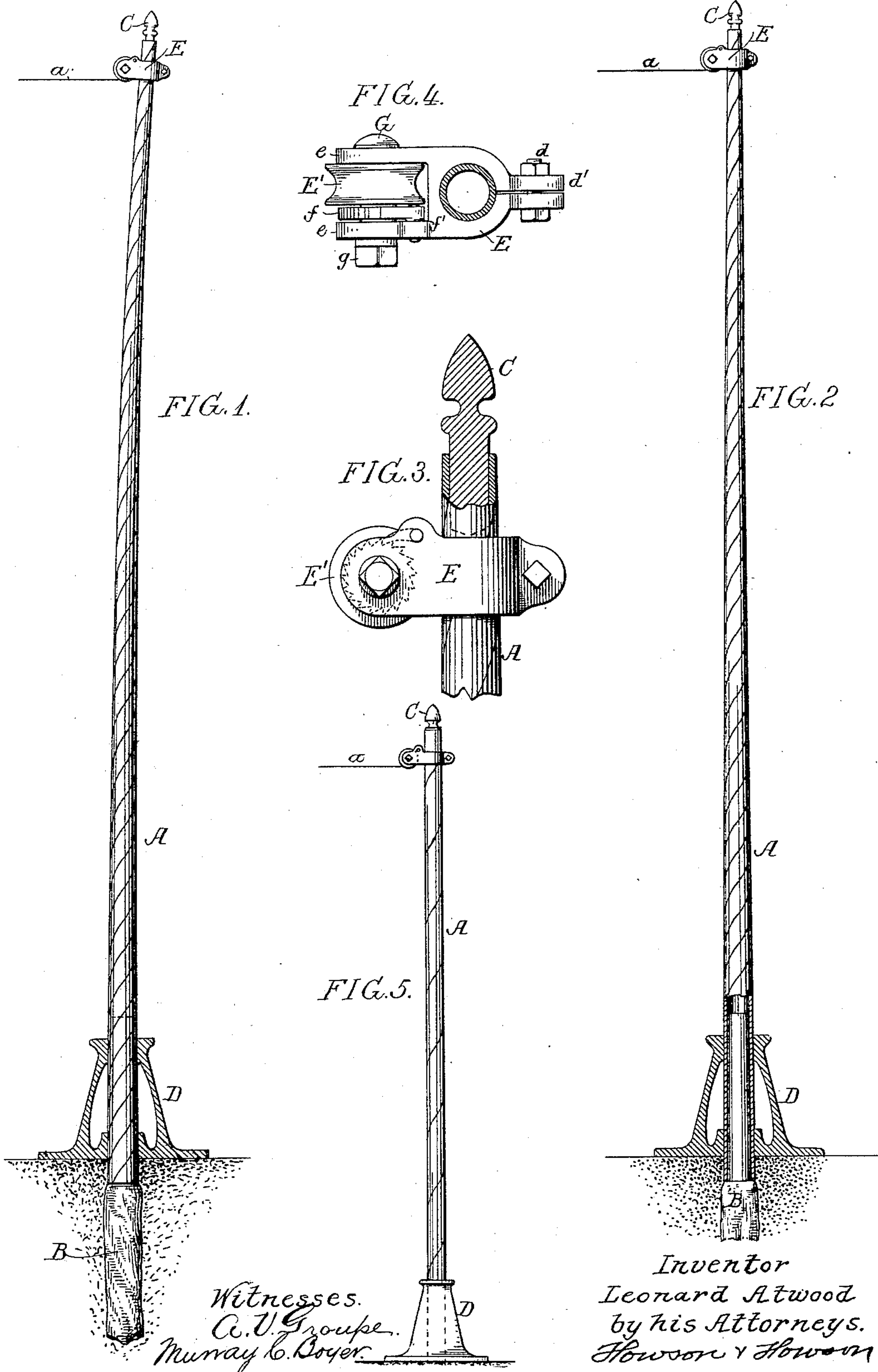


(No Model.)

L. ATWOOD.
POLE FOR SUPPORTING ELECTRIC WIRES.

No. 433,266.

Patented July 29, 1890.



UNITED STATES PATENT OFFICE.

LEONARD ATWOOD, OF PHILADELPHIA, PENNSYLVANIA.

POLE FOR SUPPORTING ELECTRIC WIRES.

SPECIFICATION forming part of Letters Patent No. 433,266, dated July 29, 1890.

Application filed June 7, 1890. Serial No. 354,573. (No model.)

To all whom it may concern:

Be it known that I, LEONARD ATWOOD, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Poles for Supporting Electric Wires, of which the following is a specification.

The object of my invention is to manufacture a metallic pole for supporting the wires of an overhead electric-railway or electric-light or telegraph wire. This object I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of my improved tapered pole before the strain is placed upon it. Fig. 2 is a side view of the pole after the strain is placed upon it. Fig. 3 is an enlarged side view, partly in section, of the upper portion of the pole. Fig. 4 is a plan view of the wire-tightener, and Fig. 5 is a view of a spirally welded or riveted pole of the same diameter throughout its length.

The common method of making poles for overhead electric railways and like purposes is to make them of a number of sections coupled together by cast screw-threaded couplings; but when the strain is placed upon these poles they bend and often break at the joints. I overcome this objection in the following manner: A is a pole made from sheet steel or iron, and is spirally welded throughout its entire length, thus dispensing with all screw-joints, as shown in Figs. 1 and 5; and I so form the pole in the manufacture that it has a reverse bend, as shown in Fig. 1, which is calculated by the strain which is to be placed upon a pole after it is set up and tension applied thereto. The pole A is preferably mounted on a pile B, which extends some distance into the pole, and the pole sets in a base D, which supports it in connection with the pile B. I place in the upper end of the pole A, plug C, upon which may be strung the main wires of the railway, and some short distance below the upper end of the pole I place the cross-wire-tightening device, which consists of a sleeve E, split and clamped to the pole by a bolt *d*, passing through the lugs *d'*, and between the bearings *e e* is a wire

drum E' and the ratchet-wheel *f*. The spindle G has square end portions *g*, to which can be applied the suitable wrench for turning the drum E'. A pawl *f*, hung to one of the bearings, engages with the ratchet-wheel and prevents any reverse movement of the drum. When the pole is placed in position, it has a curve similar to that shown in Fig. 1; but when the tension is applied through the medium of the wire *a* it will assume the position shown in Fig. 2. The pole in some instances may be spirally riveted instead of welded, and I prefer, where circumstances permit, to curve it reversely, as described above. I prefer to make the pole tapered from the base to the tip; but it may be partially tapered or straight, and the metal may be thicker at the base than at the tip, and bases differing in form to that shown may be used without departing from my invention.

I claim as my invention—

1. The combination of the spirally-welded pole A, the pile B, passing into said pole, with a base D surrounding the pole and pile, substantially as described.
2. As a new article of manufacture, a pole for electric purposes having a reverse bend which, when the tension is applied, will assume a vertical position, substantially as described.
3. As a new article of manufacture, a tapered spirally-welded reversely-bent pole, substantially as set forth.
4. As a new article of manufacture, a tapered spirally-wrought pole having a reverse curve with means for straightening the pole after it is in position, substantially as set forth.
5. The combination, in a tapered reversely-bent pole, with a tightener secured near its tip having a drum, pawl, and ratchet, of a wire or cord adapted to the drum and through which tension is applied to straighten the pole, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEONARD ATWOOD.

Witnesses:

HENRY HOWSON,
HARRY SMITH.