(No Model.)

J. B. CLEAVELAND.

WIRE STRETCHER.

No. 366,076. Patented July 5, 1887.

Fig. 1.

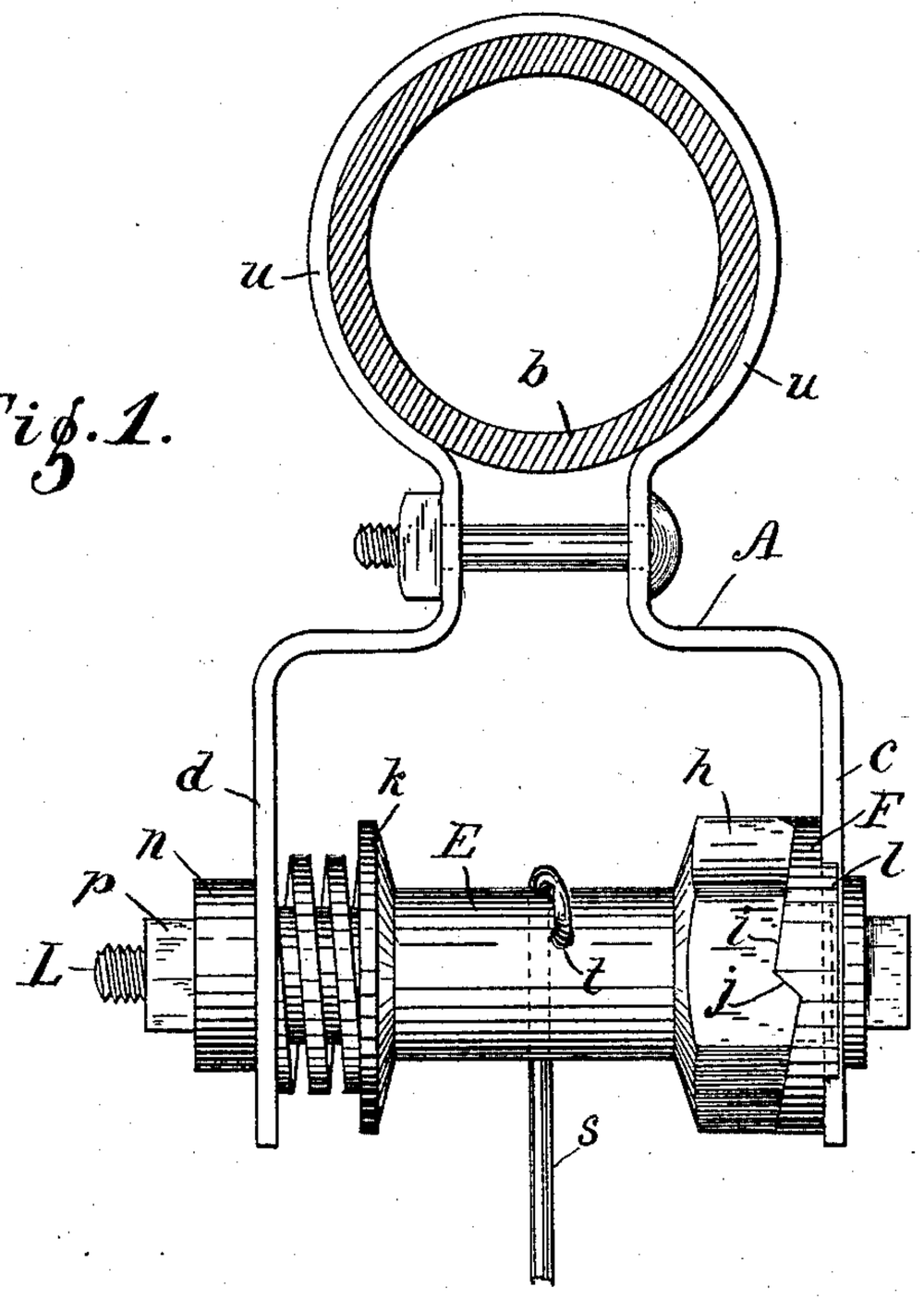
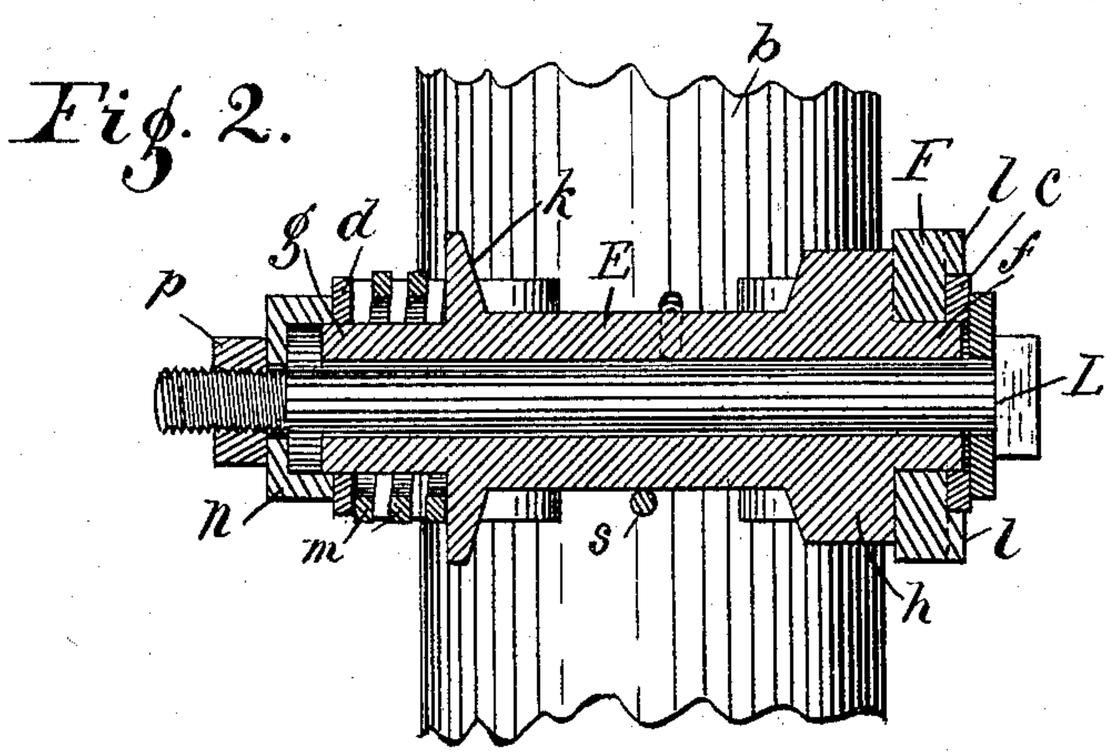


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN B. CLEAVELAND, OF INDIANAPOLIS, INDIANA.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 366,076, dated July 5, 1887.

Application filed December 30, 1886. Serial No. 222,969. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. CLEAVELAND, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Wire-Stretchers, of which the following is a specification.

My invention relates to an improvement in a wire-stretcher for which Patent No. 338,486 was issued to me March 23, 1886.

The object of my improvement is to provide a wire-stretcher of the same class which may be applied to the fence-post without making holes through the post, and which will be cheaper and more convenient to manufacture than my former invention.

The accompanying drawings illustrate my invention.

Figure 1 is a plan. Fig. 2 is a vertical section.

A is a bracket formed of a continuous strip of wrought-iron bent to form a loop, *u*, adapted to embrace the post *b* and the arms *c d*.

E is a windlass having at opposite ends cylindrical journals *f* and *g* and its central portion forming a spool having flanges *h* and *k*, one of which is made angular in form, having parallel faces adapted to be seized between the jaws of a wrench for the purpose of turning the windlass. The outer side of flange *h* is provided with ratchet-teeth *i*, having backwardly-inclined retaining-faces *j*, for the purpose of allowing the windlass to turn backward under certain conditions, as hereinafter explained.

F is a cast plate forming a bearing for the windlass-journal *f*, and having on one side ratchet-teeth corresponding to those on the windlass and on the other side lugs *l l*, which engage the edges of the arm *c* of bracket A, and serve to hold the plate in a fixed relation thereto. Journal *g* has a bearing in arm *d*, and *m* is a stiff spiral spring slipped over the journal, its ends resting between the inside of arm *d* and flange *k*, the journal extending through the arm *d* and having its outer end covered by the hollow washer *n*, the arrangement being such that arm *d* and the washer may move longitudinally on the journal *g*.

L is an ordinary bolt passing loosely through arms *c d*, the windlass E, and washer *n*, and secured in place by the nut *p*. Said bolt serves to hold the windlass in place, and also as a clamp to compress spring *m*, and thereby force the ratchet-teeth on the flange *h* into a yielding engagement with the ratchet-teeth on plate F. Bracket A is clamped in any desired position on the post by a bolt and nut, *r*. The fence-wire *s* is secured to the windlass by inserting the end of the wire in a hole, *t*, in the spool.

The operation of my device is as follows: The device having been secured to a corner post, or one of the principal posts of a line of fence, and the wire being secured at one end to a distant post, the other end of the wire is secured to the windlass, as above described. The windlass is now turned by means of a wrench applied to flange *h*, thus winding the slack wire upon the spool until sufficiently taut, the spring *m* yielding to allow the ratchet-teeth of the windlass to ride over those of plate F, and the windlass being prevented from turning backward by the inclined retaining-faces *j* of the ratchet until an extra strain is brought on the wire—as the contraction of the wire in cold weather—when the spring *m* will again yield and allow the wire to unwind, as described in my former above-mentioned patent. By this mode of construction the windlass, with its ratchet-teeth, may be easily molded and cast in one piece, and ordinary bolts may be used in the windlass axis, the whole device forming a cheaper and more satisfactory wire-stretcher than that shown in my former patent.

I claim as my invention—

1. In a wire-stretcher, the combination of the bracket adapted to be secured to a post, the windlass having at opposite ends cylindrical journals mounted in said bracket, and having also flange *k* and angular ratchet-faced flange *h*, plate F, hollow washer *n*, spring *m*, bolt L, and nut *p*, all arranged to co-operate substantially as specified.

2. In a wire-stretcher, the combination of the bracket A, consisting of a single piece of metal bent to form the loop *u*, and arms *c* and *d*, bolt *r*, the windlass having at opposite ends cylindrical journals mounted in said bracket, and having also flange *k* and angular ratchet-faced flange *h*, plate F, hollow washer *n*, spring *m*, bolt L, and nut *p*, all arranged to co-operate substantially as specified.

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