

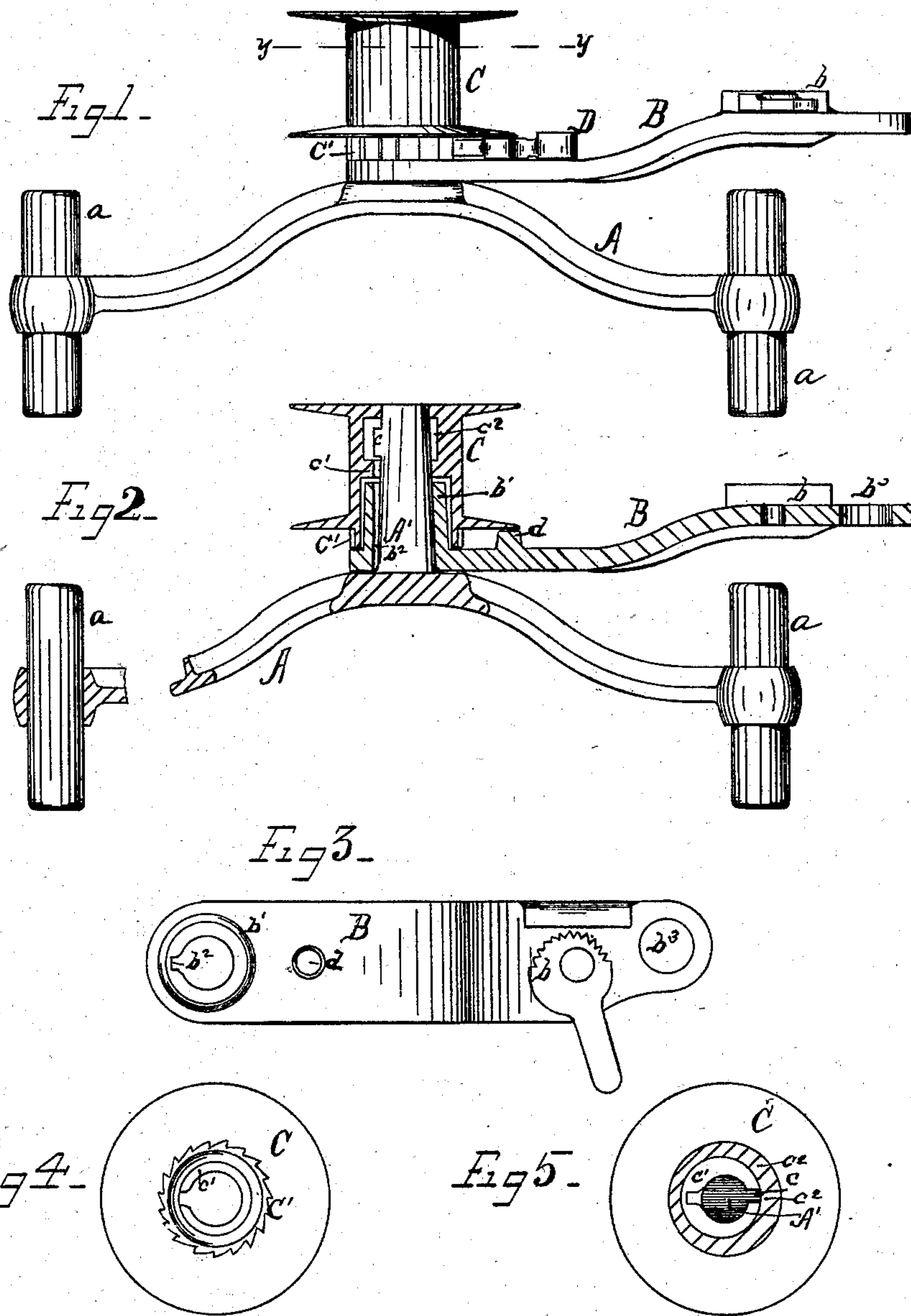
(No Model.)

C. H. SALISBURY.

WIRE AND CLOTHES LINE TIGHTENER.

No. 255,033.

Patented Mar. 14, 1882.



WITNESSES—
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UNITED STATES PATENT OFFICE.

CHARLES H. SALISBURY, OF DE KALB, ILLINOIS.

WIRE AND CLOTHES-LINE TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 255,033, dated March 14, 1882.

Application filed November 26, 1881. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. SALISBURY, of De Kalb, county of De Kalb, in the State of Illinois, have invented certain new and useful
5 Improvements in Wire and Clothes-Line Tighteners, of which the following is a specification.

This invention, which is designed to cheapen and simplify the construction of this class of implements, consists in the novel construction
10 and combination of the several parts, as hereinafter set forth.

In the accompanying drawings, Figure 1 is a top view of my improved stretcher as it appears when in position for use. Fig. 2 is a central horizontal section of the same. Fig. 3 is
15 a side view of the arm carrying the clamping device for taking hold of the rope or wire to be stretched. Fig. 4 is a side view of the drum, and Fig. 5 is a vertical section of the same upon the line *y y* of Fig. 1.

In said drawings, A represents a double crank for operating the winding-drum, having short handles *a* at each end projecting through to either side, as clearly shown. By this feature the palm of the hand is caused to come
25 centrally upon the handle, relieving the hand of much of the exertion heretofore thrown upon it, and enabling the exertion of a greater force with less expenditure of muscular strength. There is also less disposition by the apparatus
30 to depart from the horizontal, or, in other words, to twist around the line of draft. Handles of this nature need not get broken or come out. In all these respects they are much superior to
35 handles projecting wholly from one side of the crank.

B is the grappling-arm, carrying the clamping device *b*, by which attachment is made to the rope or wire to be tightened. It is mounted upon the stem or trunnion A' projecting from the center of the crank, and is held thereon by the winding-drum C. The sleeve *b'* is to broaden the bearing upon the trunnion. The notch *b²* in the trunnion-opening is to permit
40 the arm being passed over the retaining-stop *c* on the trunnion. This arm has cast upon it a projection, *d*, which serves as a pivot for the pawl D. The drum has the ratchet C' cast upon one side, and when placed upon the trun-
50 nion the ratchet side is next to the arm, and

the rim of the drum confines said pawl upon its pivot, thereby dispensing with any riveting for holding the pawl.

In the interior of the drum is an annular rim, *c'*, cut away at one point to permit the passage
55 over the stop *c*, and beyond this rim is a cam-surface, *c²*, preferably double—that is to say, sloping both ways from a point opposite the cut in the rim. With this construction the drum may be slipped upon the trunnion and
60 then turned thereon until the stop *c* and the cam-surface become so wedged and tightened that all danger of the drum coming off is obviated, and all keying and riveting may be omitted. If preferred, however, other means of in-
65 suring greater safety of attachment may be employed with those here described.

By locating the grappling-arm between the drum and the crank full and unimpeded liberty is given for winding up the rope when the
70 apparatus is not in use, and it is also better in other respects. The outer end of the arm B is provided with an eye, *b³*, to permit the insertion of a hook or the attachment of some other object than a wire or clothes-line. This is a
75 convenience, as the device may be used for other purposes than merely tightening fences and ropes—such as hoisting and the like—and said eye allows the securing of a rope or hook to the arm. 80

The stretcher thus constructed is, I believe, the simplest yet produced, and while thus cheapened is not less effective than its more cumbersome and complicated predecessors.

I disclaim in this application the double fixed
85 crank-handle, broadly considered, as I have shown such in a prior application.

I claim—

1. In a rope and fence stretcher, a double-crank handle provided with short handles, pro-
90 jecting upon each side of the crank, substantially as specified.

2. The crank having the trunnion, in combination with the grappling-arm and the drum, both mounted and secured on said trunnion,
95 the arm being between the crank and the drum, substantially as specified.

3. The combination, with the drum provided with a ratchet upon its side, of the grappling-
100 arm, and the pawl pivoted upon the arm with-

in the circumference of the drum-rim, whereby the pawl is confined on its pivot without riveting, substantially as specified.

4. The stretcher consisting of a crank having a projecting trunnion, a grappling-arm mounted upon said trunnion, next to the crank, and bearing a pivot for the ratchet-pawl, said pawl, and a drum having a ratchet cast thereon at one side, and secured upon the same trunnion with its ratchet side toward the arm, substantially as specified.

5. The trunnion and its stop, in combination

with the drum slipped upon the trunnion and having an interior rim and cam-surface acting in conjunction with said stop to secure it thereon, substantially as specified. 15

6. In a stretcher, a grappling-arm having an eye, b^3 , at its outer end, substantially as and for the purpose set forth.

CHARLES H. SALISBURY.

Witnesses:

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