(No Model.) 2 Sheets—Sheet 1.

R. E. POINDEXTER.

WIRE TIGHTENER.

No. 462,411. Patented Nov. 3, 1891.

Fig. 1.

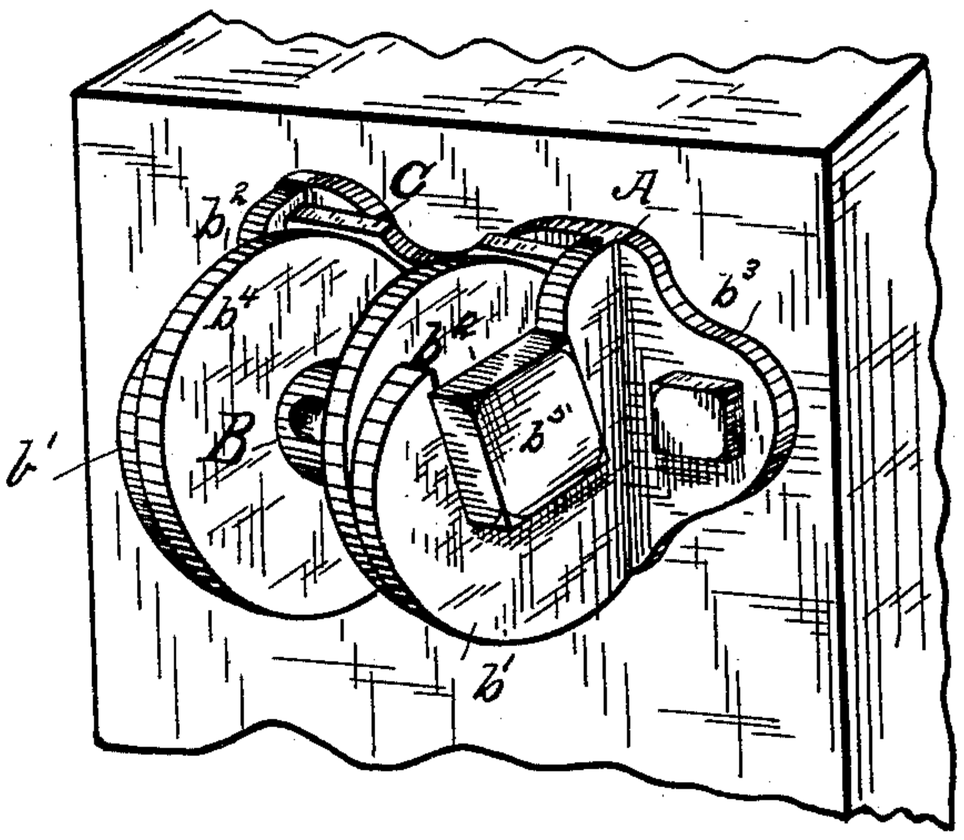


Fig. 2.

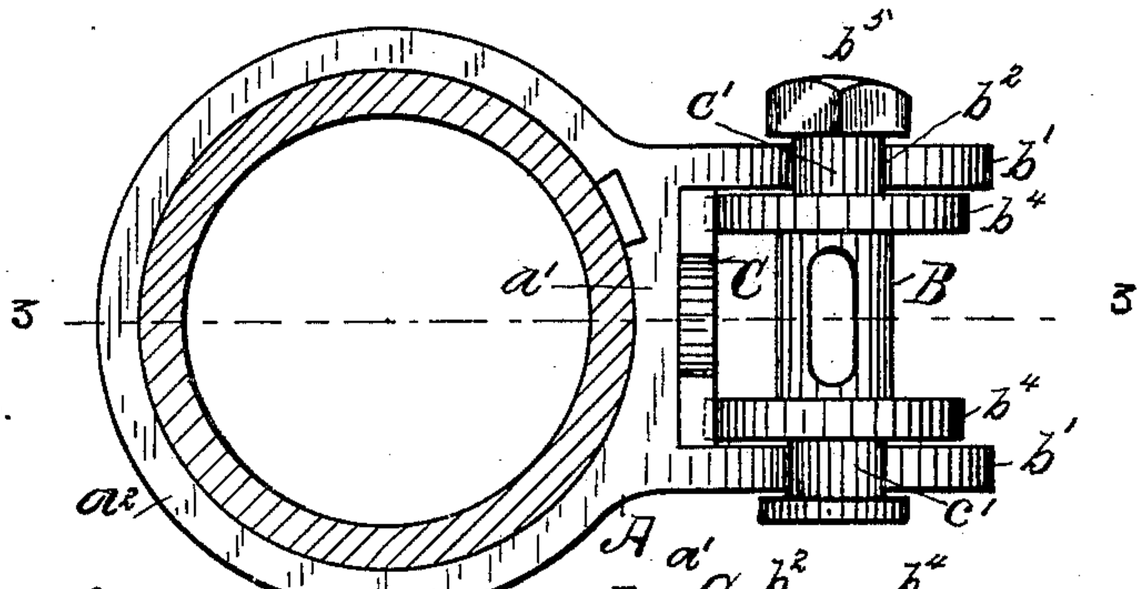


Fig. 3.

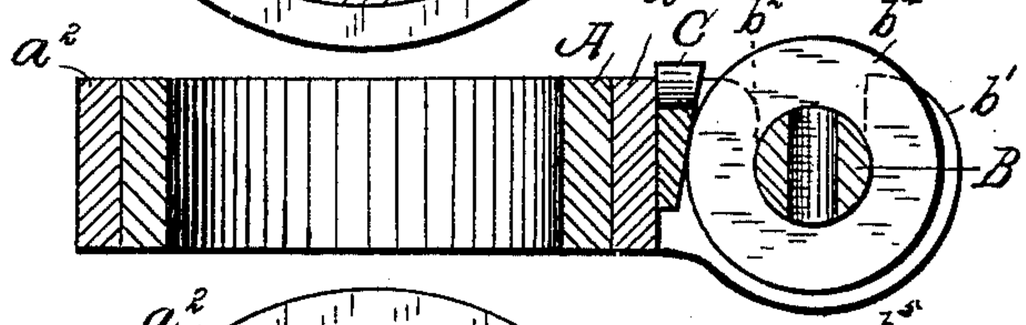


Fig. 4.

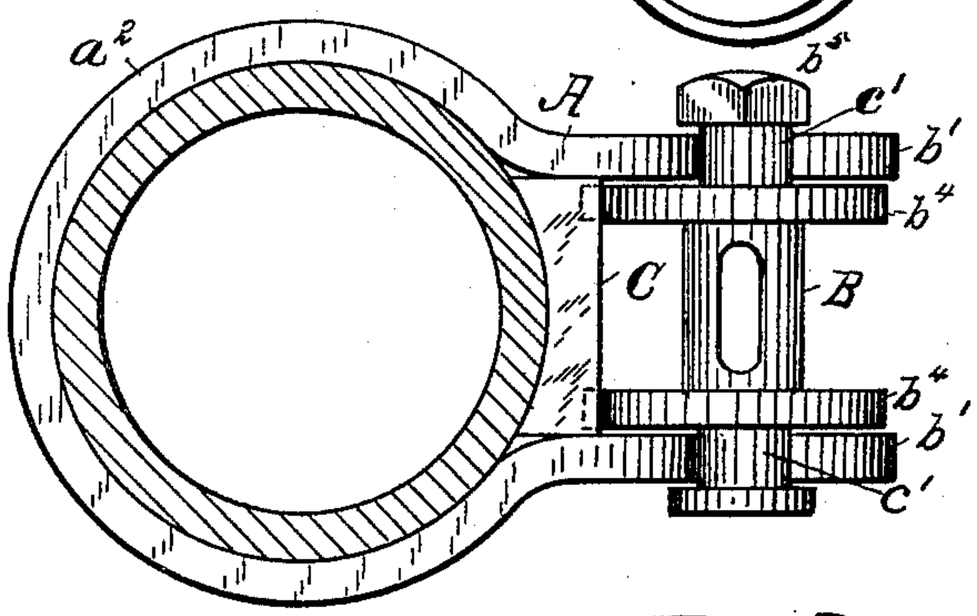
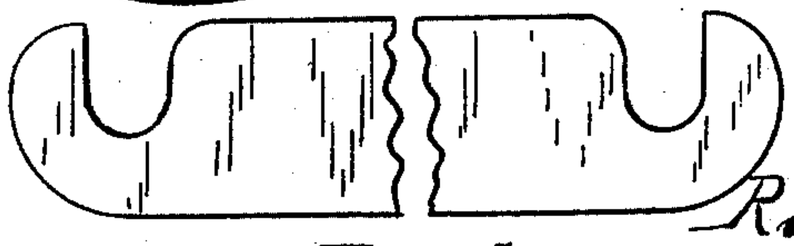


Fig. 5.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

R. E. POINDEXTER.

WIRE TIGHTENER.

No. 462,411. Patented Nov. 3, 1891.

Fig: 6.

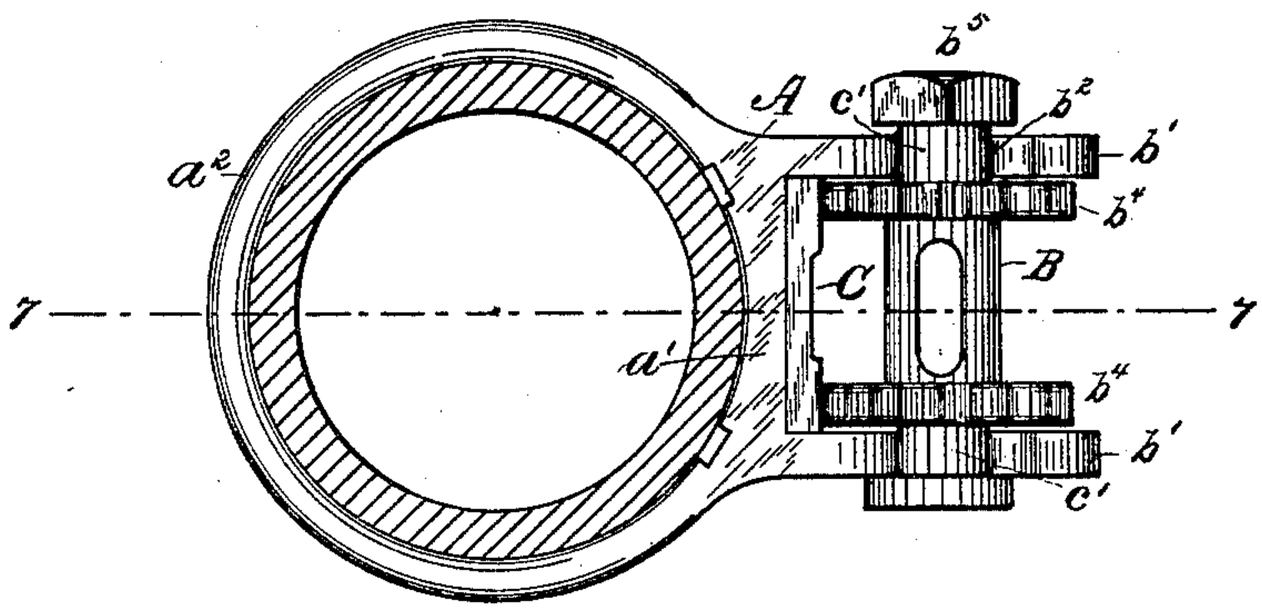


Fig: 9.

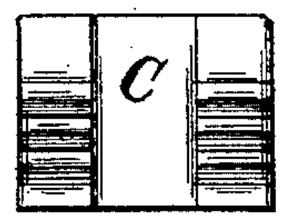


Fig: 7.

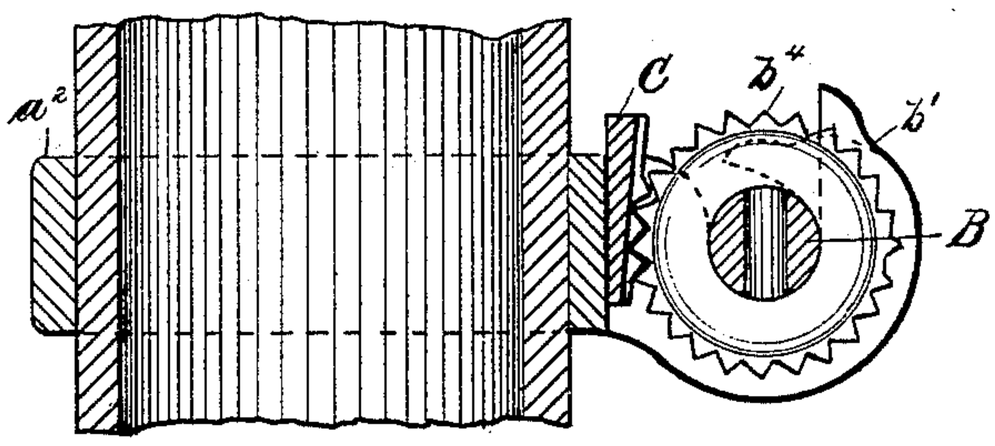


Fig: 10.

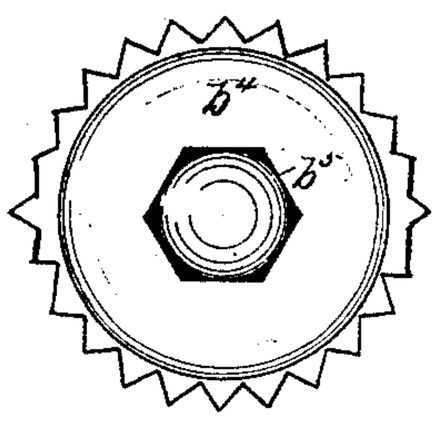
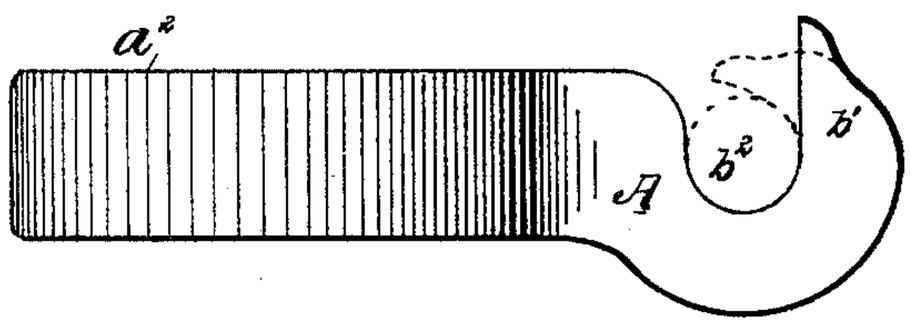


Fig: 8.



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UNITED STATES PATENT OFFICE.

ROBERT E. POINDEXTER, OF INDIANAPOLIS, INDIANA.

WIRE-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 462,411, dated November 3, 1891.

Application filed January 10, 1891. Serial No. 377,321. (No model.)

To all whom it may concern:

Be it known that I, ROBERT E. POINDEXTER, of the city of Indianapolis, county of Marion, and State of Indiana, have invented certain new and useful Improvements in Wire-Tighteners, of which the following is a specification.

My said invention consists in the particular construction and arrangements of parts of wire-tighteners for fences, as hereinafter described and claimed.

Figure 1 represents in perspective one form of my improved wire-tightener as applied to a wooden post; Fig. 2, a plan view of another form of my tightener as applied to a tubular metal post; Fig. 3, a central vertical section of the same on dotted line 3 3, Fig. 2. Fig. 4 represents in plan view the same style of tightener as constructed from wrought-iron. Fig. 5 represents a blank from which the tightener illustrated in Fig. 4 is constructed. Fig. 6 is a plan view of the tightener, showing the flanges of the winding-drum as notched to engage corrugations in the wedge or key; Fig. 7, a cross-section on dotted line 7 7, Fig. 6; Fig. 8, a side elevation of the frame, showing the ends of the drum-supporting arms in normal position or in the position they occupy prior to being bent over partly to encircle the journals of the drum; Fig. 9, a front view of the corrugated wedge; and Fig. 10, an end view of the drum on a slightly-enlarged scale, showing the manner in which the teeth or notches are formed.

Referring to the drawings, it will be seen that my improved tightener consists of three pieces—viz., an attaching plate or frame A of cast malleable metal, a reel B, and a removable key C, which key may be constructed of cast or wrought metal, as desired.

In Fig. 1 the frame or attaching plate is shown as consisting of a base-piece a', with arms b' extending outward at right angles thereto, which arms b' are remote from each other and have elongated vertical slots b^2 cut or formed therein to receive and hold the journals c' of the winding-reel B. This frame A also has preferably lugs b^3, through which bolts may be extended to secure the tightener to the post, as clearly shown. The reel B may be of any desired construction, it having annular flanges b^4 near its either end, and is so located that the periphery of each flange will be remote from the base a'.

Formed at the extreme end of the reel-shaft is a bolt-head b^5, by means of which the reel may be turned by a wrench. The reel is held against backward turning by means of a key C, having an inclined face, which key is inserted between the flanges of the reel and the base-piece, as in Fig. 1, or between said flanges and the post when the style of frame shown in Fig. 4 is used.

In Figs. 2 and 3 the frame A is shown as constructed with an annular ring a^2 to encircle and be keyed to a tubular metal post. The frame shown in Figs. 4 and 5 is formed open or from a bar, such as is shown in Fig. 5, bent into suitable form. Either form of frame is made of malleable or ductile metal, and has the notches b^2 to receive the spool-journals formed in the projecting ends. By reason of having said parts formed of malleable metal the outer points of said arms beyond said notches may be turned down over the journals of the spool when placed therein and thus retain said spool in position. The frame shown in the last-named figures forms a simple and durable clip, and the reel is the same as the reel used with the frame illustrated in the other figures. The shaft has a flange at one end and a bolt-head at the other, which bear against the outer faces of the ends of the frame to prevent the same from spreading, as shown clearly in Fig. 4. The key used in connection with the frame thus constructed will have a concaved face which will conform to and bear against the tubular post.

The operation of my device is as follows: The wire to be drawn taut is extended through the slot in the reel, after which the reel is turned, winding the wire thereon, and after the same has been wound sufficiently the key is inserted, which, owing to its inclined face, will wedge between the flanges on the reel and the base-plate a' (or the post if the construction shown in Figs. 4 and 5 is used) which will by frictional contact prevent said reel from slipping or turning backward. In some instances, especially in long line fences, where great strain is to be exerted in tightening the wires, it has been found desirable to roughen the periphery of the flanges b^4 of

the reel and also the face of the key C positively to prevent slippage. With this end in view, as shown in the drawings, Sheet 2, the flanges b^4 of the reel have teeth or projections formed thereon and the face of the key or wedge has similar teeth or projections to be engaged thereby, such construction insuring a positive binding. This construction of key and flange is preferable.

In practice, to prevent displacement of the reel during winding, the forward points of the arms b' of the frame A will, after the reel has been journaled in the slots b^2, be bent over upon the journal of the reel, which will hold the same in place, as shown in Figs. 7 and 8, Sheet 2. The malleable iron of which said arms and frame are formed will permit such bending without liability of breaking.

Having thus fully described my said invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A wire-tightener for fences, consisting of a frame A, mounted on the post and having the outwardly-projecting arms b' formed with the notches or recesses b^2 in their upper edges, the spool B with its journals mounted in said notches b^2, the points of said arms beyond said notches being bent down over said journals, whereby said spool is secured in position, said spool being also formed with an annular flange b^4 at each end, and the wedge C, inserted behind and impinging upon the edges of said flanges, whereby said spool is locked in the desired position, all substantially as described, and for the purposes specified.

2. A wire-tightener for fences, consisting of a base or frame mounted on the post and having outwardly-projecting arms, which arms are formed of malleable iron, and with notches or recesses in their upper edges, which are normally open, the spool formed with journals and having said journals mounted in said notches or recesses, the outer points of which are then bent down over said journals, whereby said spool is secured in position, and suitable means for operating said spool and locking it, substantially as set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 9th day of December, A. D. 1890.

ROBERT E. POINDEXTER. [L. S.]

In presence of—
H. C. BAUER,
N. E. C. WHITNEY.