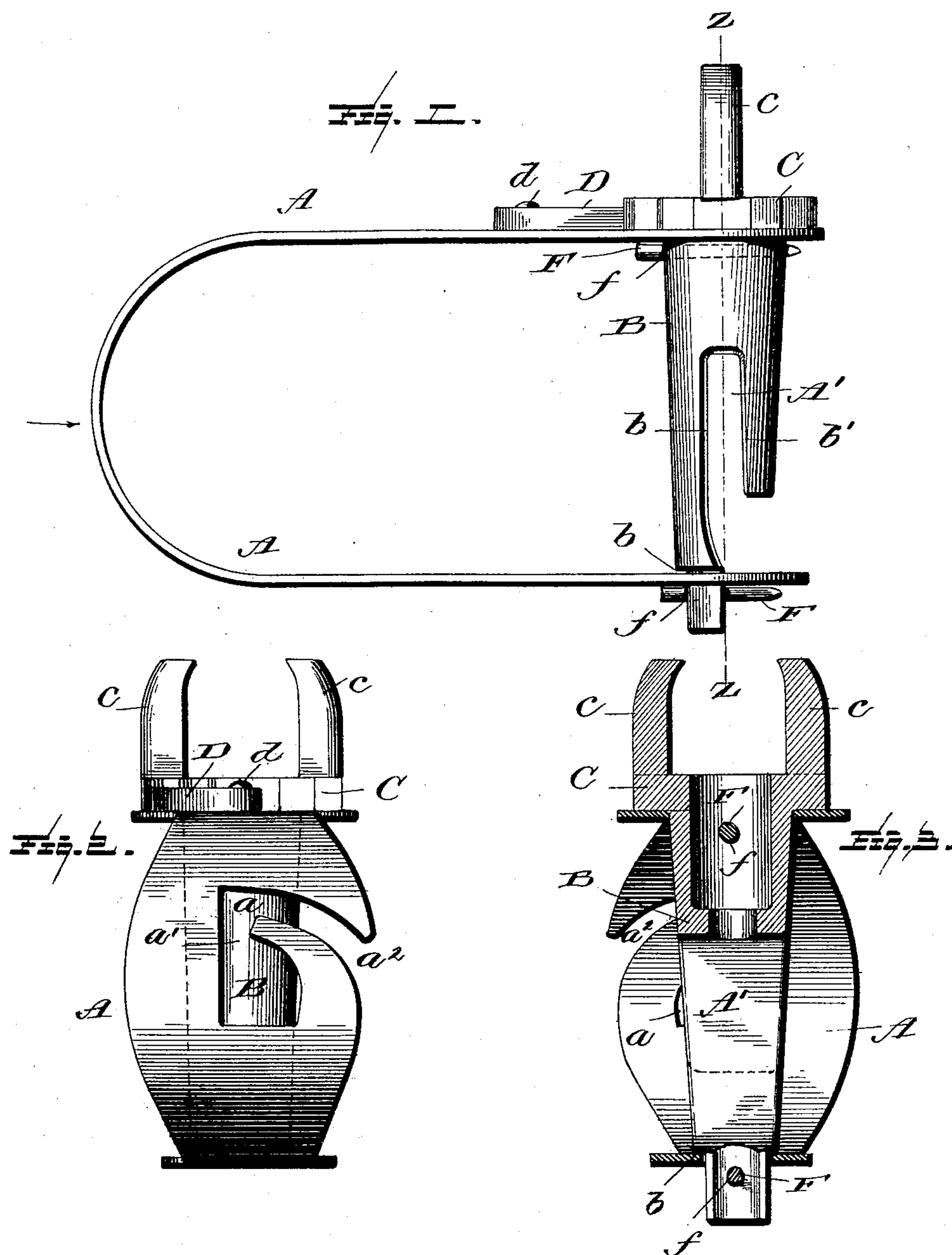


(No Model.)

J. L. BUCKINGHAM.
WIRE TIGHTENER.

No. 482,035.

Patented Sept. 6, 1892.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN L. BUCKINGHAM, OF HERMOSA, SOUTH DAKOTA.

WIRE-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 482,035, dated September 6, 1892.

Application filed January 14, 1892. Serial No. 418,069. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. BUCKINGHAM, a citizen of the United States, residing at Hermosa, in the county of Custer, State of South Dakota, have invented certain new and useful Improvements in Wire-Tighteners, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in wire-tighteners designed more particularly for taking up the slack in wire fences, and is designed more especially as an improvement upon the construction disclosed in my patent, No. 453,106, dated May 26, 1891. It may or may not be removed from the wire after it has been used for the purpose of taking up the slack therein.

The present invention has for its objects, among others, to provide for the ready attachment of the device to the wire without taking the shaft out of its support. For this purpose I provide the shaft with a longitudinal slot open upon one side.

It has for a further object to prevent short or square bends in the wire when first starting to take up the slack, which makes it much less liable to break the wire. For this purpose I bevel the edges of the walls of the said slot in the shaft. I provide the shaft with a hole near each end, into which holes removable holding means, as pins, may be put to prevent the shaft from becoming displaced from its support while taking up the slack. I form the guide-slot in the support of a peculiar shape, whereby the wire can be more easily inserted and the cost of manufacture is lessened.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation of my improved wire-tightener. Fig. 2 is an end view of the same, looking in the direction of the arrow in

Fig. 1. Fig. 3 is a section through the same on the line $z z$ of Fig. 1.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates an arm or support substantially in the form of the letter U, or bow-shaped, the free and substantially parallel ends of which are formed with openings to receive the operating-shaft B, which is tapered, as seen in Fig. 1. The arm or support A is provided with a guide-slot a in its end or curved portion, and this slot has a vertical portion a' , with which communicates the curved entrance portion a^2 , as seen best in Fig. 2. I have found this shape of slot to be more easily manufactured than the old form, and, also, the wire can be more readily inserted therein, it readily entering the curved portion and riding into the vertical portion. After the wire is once inserted in this slot it cannot accidentally become displaced during the operation of the device. The shaft B near its lower end is provided with a shoulder b to engage the arm or support A, as seen in Figs. 1 and 3, and the upper end is provided with a ratchet C, which is larger in diameter than the opening in the arm through which the upper end of the shaft passes, and above the ratchet-wheel the shaft is formed with the parallel lugs c , adapted to receive a bar or other implement by which the shaft may be turned in its bearings.

D is a pawl pivoted at d to the arm or support A and designed to engage the ratchet-wheel to prevent retrograde movement of the shaft while it is being turned.

The shaft is provided with two holes f , one near each end and so located relatively to the parallel arms of the support A that the pins F, which are designed to be removably inserted in said holes, will engage the under faces of said parallel arms, and thus hold the same at the proper distance apart.

The shaft B is provided with a vertical passage A' , which extends for about one-half its length and is open at its lower end, which is above the lower portion of the support A, so that the wire can be inserted in the slot with-

out removing the shaft, which is necessary in my prior construction. In order to prevent too short bends in the wire when first starting to wind it up, I bevel the edges of the slot 5 in the shaft, as seen at *b'* in Fig. 1.

The operation will be readily understood from the foregoing description, when taken in connection with the annexed drawings, and a detailed description thereof is not 10 deemed necessary.

What I claim as new is—

1. The combination, with a U-shaped frame, of a winding-shaft having a longitudinal slot disposed at one end diametrically and passing 15 entirely through one side of the shaft at a point between the arms of the frame, substantially as specified.

2. The combination of the U-shaped frame having at its bend a wire-receiving slot and 20 guiding-eye with a winding-shaft rotatably mounted in the frame and provided with a

longitudinal slot terminating in a curved portion which passes through one side of the shaft and having at one end a ratchet and means for turning the shaft and at the other 25 end means for preventing the spreading of the arms of the frame, substantially as specified.

3. The combination, with a U-shaped frame, of a shaft terminating at one end in bifurca- 30 tions and an adjacent ratchet and at the other end in a shoulder and a semi-cylindrical bearing and having between the arms of the frame a slot with one end extending through the side of the shaft, substantially as specified. 35

In testimony whereof I affix my signature in presence of two witnesses.

JOHN L. BUCKINGHAM.

Witnesses:

JOHN F. WIGHT,
FREDERICK JONES.