No. 743,738. PATENTED NOV. 10, 1903.

W. LIECHTY.

WIRE WORKING TOOL.

APPLICATION FILED JUNE 24, 1903.

NO MODEL.

Fig. 1.

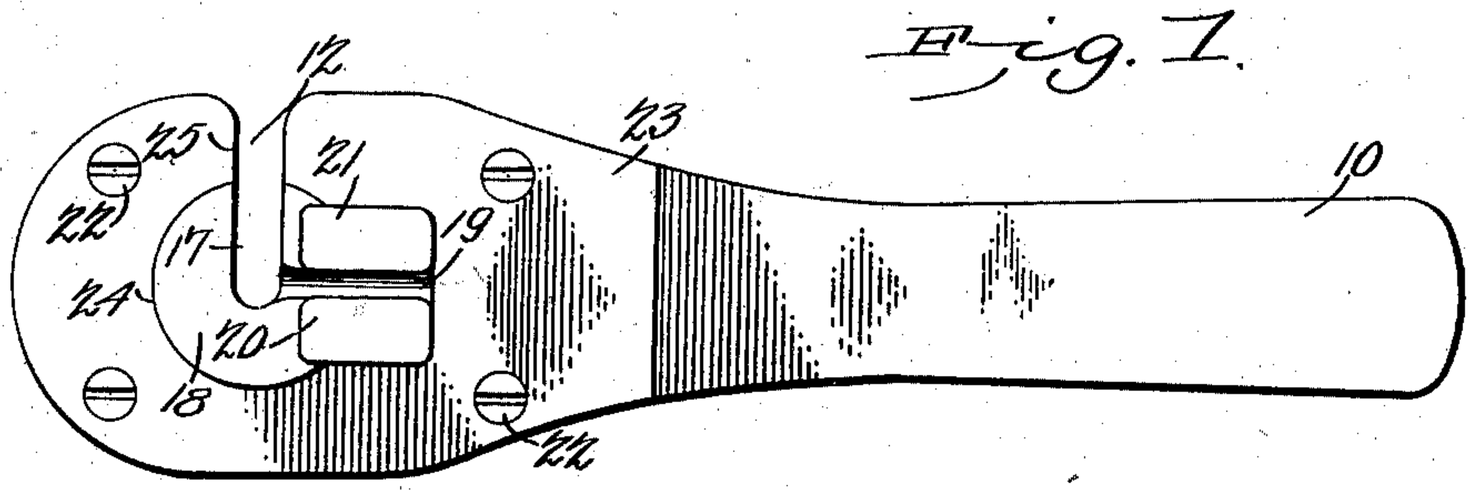


Fig. 2.

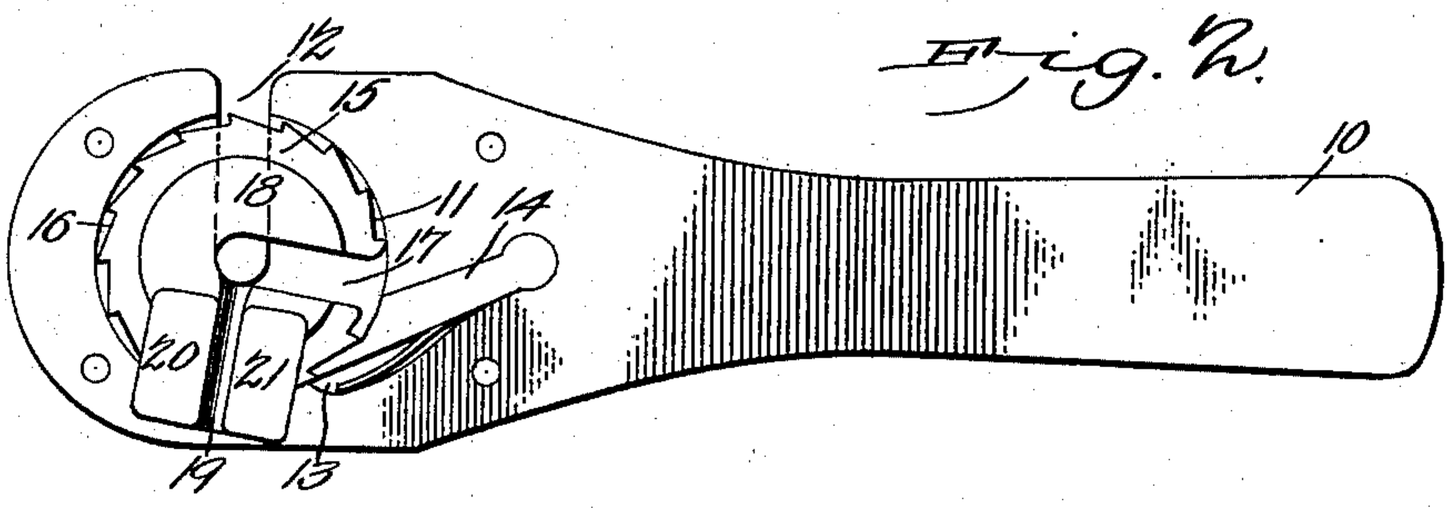


Fig. 3.

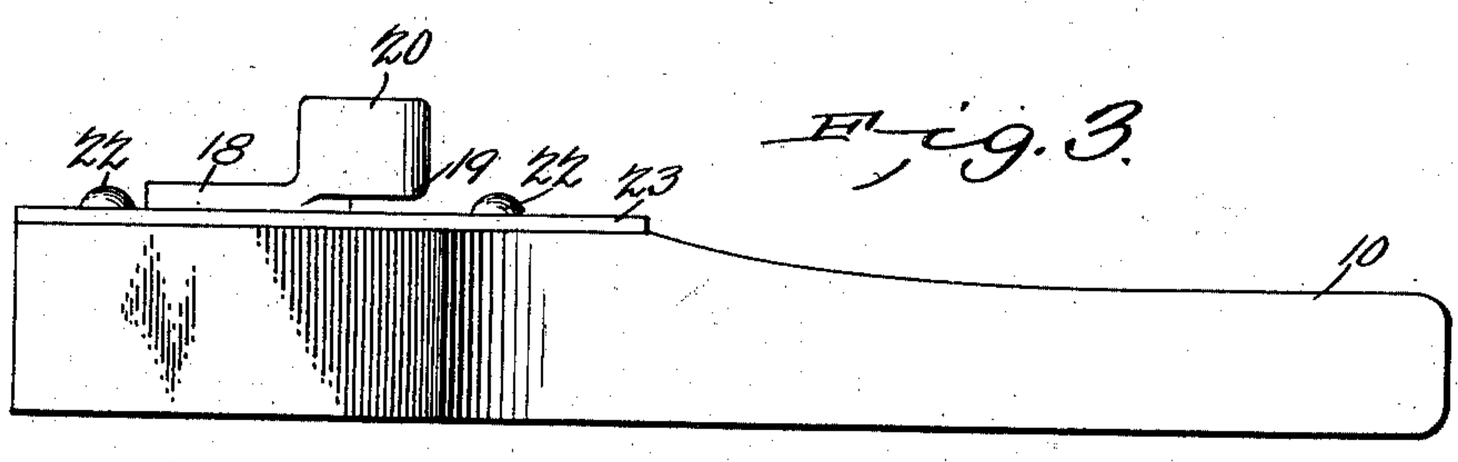


Fig. 5.

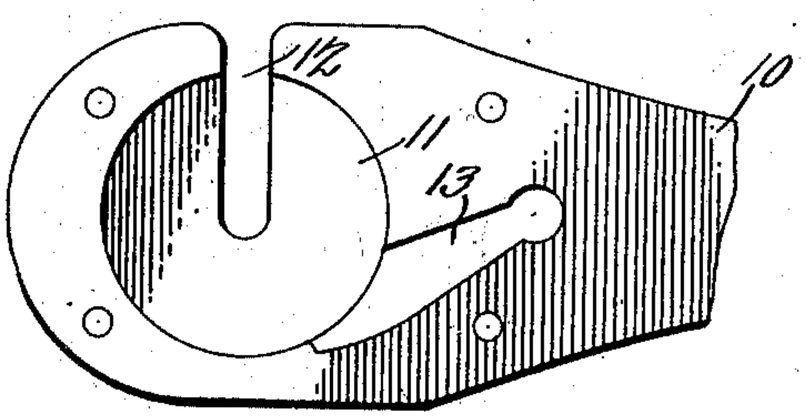
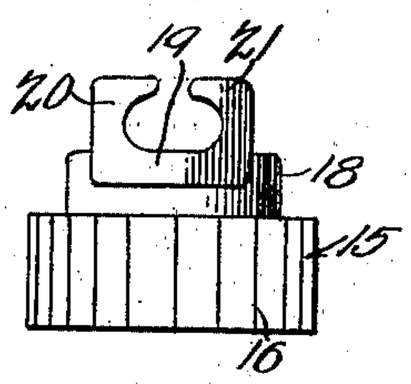


Fig. 4.



Witnesses
E. F. Stewart
C. N. Woodward.

William Liechty, Inventor,
by Church & Co
Attorneys

No. 743,738. Patented November 10, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM LIECHTY, OF BLUFFTON, OHIO.

WIRE-WORKING TOOL.

SPECIFICATION forming part of Letters Patent No. 743,738, dated November 10, 1903.

Application filed June 24, 1903. Serial No. 162,916. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM LIECHTY, a citizen of the United States, residing at Bluffton, in the county of Allen and State of Ohio, have invented a new and useful Wire-Working Tool, of which the following is a specification.

This invention relates to wire-working tools, and has for its object to provide an implement for coiling the ends of wires around the body portion of the same or another wire or other object, and is more particularly adapted for use in fence-building and for similar purposes, but may be employed for other purposes. I do not, therefore, wish to be limited in the use of the device in connection with any structure or for any purpose for which it is adapted.

The invention consists in certain novel features of construction, as hereinafter shown and described, and specified in the claims.

In the drawings illustrative of the invention, in which corresponding parts are denoted by like designating characters, Figure 1 is a plan view. Fig. 2 is a plan view with the cover-plate removed. Fig. 3 is a side elevation of the implement. Fig. 4 is an end view of the coiling-disk detached. Fig. 5 is a plan view of a portion of the stock or handle member with the coiling-disk and pawl detached.

The improved implement consists of a stock or handle 10 of any approved shape or size and having a central cavity 11 in one face at the operative end, the bottom of the cavity having a radial aperture 12 extending outwardly through the body of the stock and also through the wall of the cavity, as shown in Fig. 5. Leading from the cavity 11 is a smaller cavity 13, in which a spring-actuated pawl 14 fits, as shown. Within the cavity 11 the coiling-disk 15 fits and is rotative therein and provided with peripheral ratchet-teeth 16, with which the pawl 14 engages, as shown in Fig. 2. The coiling-disk is formed with a radial aperture 17, adapted to register with the aperture 12 when the coiling-disk is turned into one particular position; but it will be noted that a central aperture is maintained continuously through both the stock and coiling-disk. By this means the coiling-disk is free to rotate in one direction only in the cavity, but will be held from turning in the opposite direction by the pawl 14.

The coiling-disk 15 is formed with an extended concentric central portion 18 smaller than the body of the disk, having a shoulder or lug 19 formed thereon and extending beyond the periphery of the part 18, and extending laterally from this extended portion are spaced ribs 20 21, the space between the ribs merging into and forming a lateral extension of the radial aperture 17, as shown. The inner adjacent faces of the ribs 20 21 are reversely concaved, as shown in Fig. 4, the object to be hereinafter explained.

Attached, as by screws 22, to the stock 10 is a cover-plate 23, the plate having an aperture 24 conforming to the extension 18 and engaging under the shoulder or lug 19 and provided with a lateral aperture 25, corresponding to and arranged to register with the aperture 12. The plate extends entirely over the apertures 11 and 13 and forms an effectual cover therefor to prevent the entrance of moisture or other foreign matter, and it also serves as a holding means for the coiling-disk and pawl.

The stock or handle will be formed of suitable metal and of sufficient strength to withstand the strains to which it will be subjected.

By this simple means a very cheaply-constructed efficient implement is produced by which a wire may be very quickly coiled around another wire or another portion of the same wire and tightly secured thereto and as many coils or "whirls" made as required.

When operating the device, the end to be twisted is bent over into the space between the ribs 20 21 and held therein by slight pressure by the hand of the operator until the "twist" is started, when the "overhang" or concaved form of the inner faces of the ribs will form a frictional "tension" means to effectually prevent the wire from leaving the ribs accidentally. The concave form of the ribs is therefore an important feature of the invention and adds materially to the effectiveness of the device.

The details of the construction may be va-

ried in minor particulars without departing from the principle of the invention or sacrificing any of its advantages.

Having thus described the invention, what I claim is—

1. A wire-working tool consisting of a stock or handle having a circular cavity at one end provided with a radial transverse aperture leading outwardly through the wall of the cavity, a coiling-disk mounted rotatively in said cavity and having an outwardly-opening radial aperture corresponding with said radial stock-aperture, and formed with laterally-extended spaced guide-ribs exteriorly of said stock or handle, and means for locking said disk from movement in one direction, substantially as described.

2. A wire-working tool consisting of a stock or handle, a coiling-disk mounted for rotation upon said stock or handle and having a radial aperture and laterally-extended spaced guide-ribs, and means for locking said disk from movement in one direction, substantially as described.

3. A wire-working tool consisting of a stock or handle, a coiling-disk having ratchet-teeth upon its periphery and provided with a radial aperture extending through said periphery and with laterally-extending spaced guide-ribs, and a pawl carried by said stock or handle and operating upon said ratchet-teeth, substantially as described.

4. A wire-working tool consisting of a stock or handle, a coiling-disk mounted for rotation upon said stock or handle and having a radial aperture and laterally-extended spaced guide-ribs, with their inner adjacent faces concaved, to form a tension means for the wire, substantially as described.

5. A wire-working tool consisting of a stock or handle having a circular cavity at one end provided with a radial transverse aperture leading outwardly through the wall of the cavity, a coiling-disk mounted rotatively in said cavity and having an outwardly-opening radial aperture corresponding with said radial stock-aperture, and formed with laterally-extended spaced guide-ribs exteriorly of said stock or handle, means for locking said disk from movement in one direction, and a cover-plate detachably connected to said stock or handle and forming a closure to said cavity and the members contained therein, substantially as described.

6. A wire-working tool consisting of a stock or handle having a circular cavity at one end provided with a radial transverse aperture leading outwardly through the wall of the cavity, a coiling-disk mounted rotatively in said cavity and having an outwardly-opening radial aperture corresponding with said radial stock-aperture, and provided with a shoulder or lug, spaced from and arranged parallel with the plane of the stock and having an undercut groove therein, and a cover-plate secured to said stock and having an aperture engaging the disk under said shoulder and provided with a radial aperture registering with said radial stock-aperture, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM LIECHTY.

Witnesses:
B. F. WELTY,
CHRISTIAN STEINER.