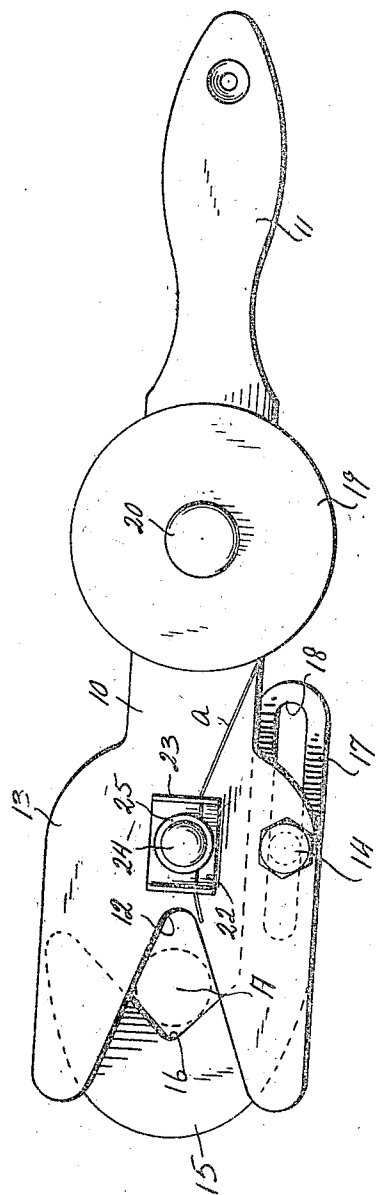
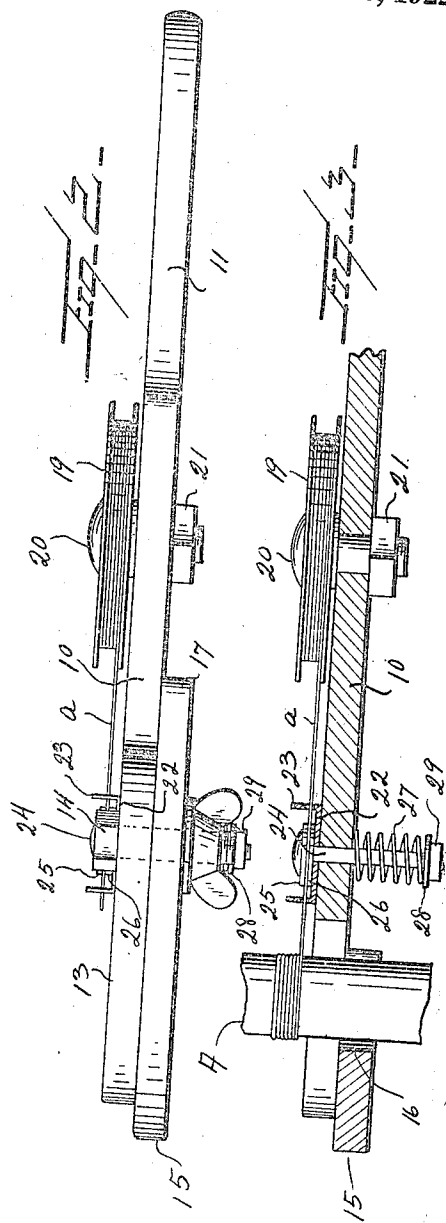


1,431,784.

U. G. DILLON.
WIRE WINDING DEVICE.
APPLICATION FILED FEB. 2, 1922.

Patented Oct. 10, 1922.



Inventor

U. G. Dillon

By *Watson E. Coleman*
Attorney

UNITED STATES PATENT OFFICE.

ULYSSES G. DILLON, OF NORA, NEBRASKA.

WIRE-WINDING DEVICE.

Application filed February 2, 1922. Serial No. 533,559.

To all whom it may concern:

Be it known that I, ULYSSES G. DILLON, a citizen of the United States, residing at Nora, in the county of Nuckolls and State of Nebraska, have invented certain new and useful Improvements in Wire-Winding Devices, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to wire winding devices, and particularly to an implement adapted to wind wire around a mandrel or the equivalent thereof.

The general object of the invention is to provide a tool of this character particularly adapted to winding wire around hammer, hatchet, hoe and fork handles that frequently split, and which is also adapted for wrapping wire around the ends of ropes or cables to prevent the ends from becoming unraveled, the tool being further adapted to making coiled springs or like objects.

A further object is to provide a tool of this character embodying a handle and centering jaws whereby the tool may be applied upon the mandrel, handle or cable upon which the wire is to be wound or wrapped, the handle being provided with a spool for the wire and with means for applying tension to the wire.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a top plan view of a tool constructed in accordance with my invention;

Figure 2 is a side elevation thereof;

Figure 3 is a fragmentary longitudinal sectional view showing the manner in which the tool is used to wrap the wire around an article;

Referring to these drawings, it will be seen that my construction embodies a casting 10 formed to provide a handle 11 at one end and at the opposite end laterally enlarged and formed with a V-shaped, relatively deep notch 12. Passing through the head 13 thus formed is a bolt 14, and disposed against one face of the head 13 is a second jaw 15 formed with a V-shaped notch 16 reversely disposed to the V-shaped notch 12 and having a shank 17 which is longitudinally slotted, as at 18, for the passage of the bolt 14. These notches 12 and 16 are designed to embrace the mandrel, tool

handle, cable or other article upon which the wire is to be wrapped.

I have illustrated a mandrel designated A and shown in dotted lines in Figure 1. The slot 18 permits the jaw 15 to be adjusted toward or from the apex of the notch 12 and thus provides for the jaws being so adjusted as to center the tool upon the mandrel or other article upon which the wire is to be wrapped. Mounted on the body 10 between the head 13 and the handle 11 is a spool 19 upon which the wire *a* is wrapped. This spool is mounted upon a bolt 20 which extends down through the body 10 and has the nut 21.

In order to apply tension upon the wire as it is being wrapped upon the mandrel, I provide a wire guide comprising a plate 22 having upwardly turned lugs 23 perforated for the passage of the wire *a*. This plate is held in place by a bolt 24, and mounted upon this bolt in any suitable manner are the friction disks 25 and 26 between which the wire passes, the perforations in the lugs 23 being disposed so that the wire passes between the friction disks to one side of the bolt, as illustrated clearly in Figure 1. Preferably a coiled expansion spring 27 is disposed between the body 10 and a washer 28 which is held in place by a nut 29. By turning up this nut 29 the tension on this spring 27 may be adjusted and the spring will urge the friction disks 25 and 26 yieldingly toward each other and exert a binding or frictional action upon the wire.

In the use of this device, the jaw 15 is opened, the article upon which the wire is to be wrapped is inserted in the notch 12, then the jaw 15 is closed and one end of the wire is held in place upon the article in any suitable or obvious manner. The tool is then turned about the mandrel A as a center and the wire wrapped tightly upon the tool handle. The tightness of this wrapping can be regulated by increasing or decreasing the tension of the spring 27. Under some circumstances the spring 27 may be omitted and the friction disks may be urged toward each other simply by means of the nut 29.

As before stated, this device is particularly adapted for wrapping wire around the handles of hammers, hatchets, axes, also wrapping wire on pitchfork, spade, and shovel handles, or on any rod-like article

which it is desired to reinforce or which has been split and which requires the split be closed. It also may be used to wrap wire around rope ends, to wind coiled springs, and, as illustrated, the implement is adapted to be used with mandrels, handles or rope ends having a diameter of from one-quarter of an inch up to two inches. It will be obvious, of course, that the size of the implement may be varied to suit it for larger or smaller work. The spool of wire is detachable so that other spools may be put in place, and I do not wish to be limited to the particular form of spool shown, as the regular stock spools upon which wire is sold in hardware stores may be easily applied in place of the spool illustrated.

While I have illustrated a detailed construction which I have found particularly handy and convenient, it is obvious that this detailed construction might be changed in minor respects without departing from the spirit of the invention as defined in the appended claims. It is further obvious that the devices might be made in various sizes, each size having a range of work depending upon the adjustment of the movable jaw and depending upon the length of the tool, as the greater the length of the tool, the heavier the wire which might be handled by the device.

I claim:—

1. A wire wrapping implement of the character described comprising a body having a handle at one end and adjustable mandrel-engaging jaws at the opposite end, a wire tensioning device disposed adjacent the mandrel-engaging jaws, and a spool supporting means mounted on the body.

2. A tool of the character described comprising a body having a handle at one end and at the other formed with a head having a V-shaped notch, a jaw having a V-shaped notch and a shank adjustably engaged with the head, a wire tensioning device mounted upon the head adjacent the apex of the V-shaped notch therein, and means for supporting a spool of wire upon the body.

3. A wire wrapping device of the character described comprising a body having a handle at one end and at the other provided with work-engaging jaws, means for supporting a spool of wire upon the handle, means for tensioning the wire comprising a

guide, opposed friction disks, and a bolt

passing through the body and operatively engaging the friction disks and having a nut whereby the friction disks may be urged toward each other.

4. A wire wrapping device of the character described comprising a body having a handle at one end and at the other provided with work-engaging jaws, means for supporting a spool of wire upon the handle, means for tensioning the wire comprising a guide, opposed friction disks, a bolt passing through the body and operatively engaging the friction disks and having a nut whereby the friction disks may be urged toward each other, and a spring surrounding the bolt and bearing against the body at one end and at the other against said nut, whereby to urge the friction disks yieldingly toward each other.

5. A tool of the character described comprising a body having a handle at one end and a head at the other, the head being provided with a V-shaped notch, a jaw having a V-shaped notch confronting the V-shaped notch in the head and having a shank extending along one face of the head, the shank being slotted, a bolt passing through the head and through said slot whereby the jaw may be adjusted, a spool supporting bolt passing through the body, a bolt passing through the head adjacent the V-shaped notch therein, an apertured guide through which the bolt passes, upper and lower friction disks carried by said bolt and between which the wire passes, and means for exerting tension on said bolt to urge the friction disks toward each other.

6. A tool of the character described comprising a body having a head at one end and a handle at the other, the head being formed with a V-shaped notch, a jaw having a confronting V-shaped notch and a longitudinally slotted shank, a bolt passing through the head and through the slot of the shank whereby the jaw may be adjusted, a spool of wire rotatably mounted upon the body inward of the handle, a guide through which the wire passes, and friction disks mounted upon said guide and between which the wire passes, the friction disks being resiliently urged toward each other.

In testimony whereof I hereunto affix my signature.

ULYSSES G. DILLON.