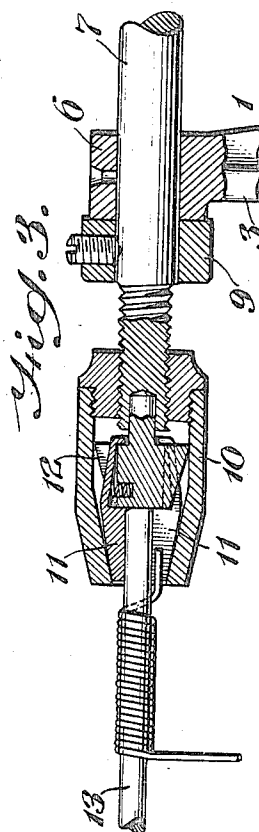
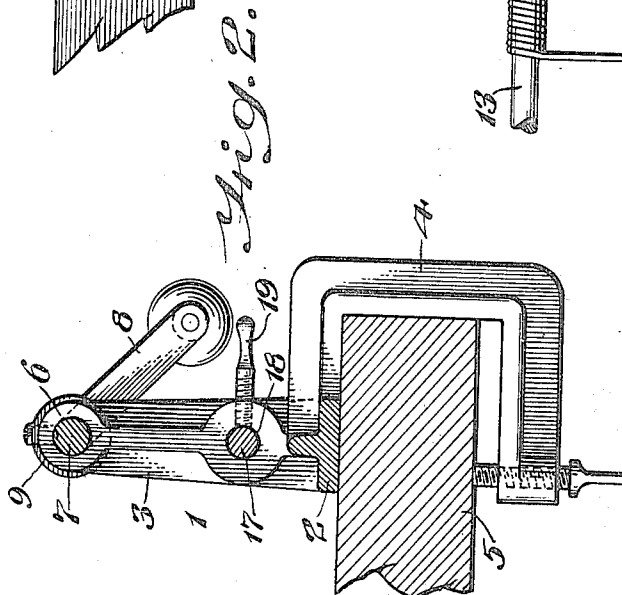
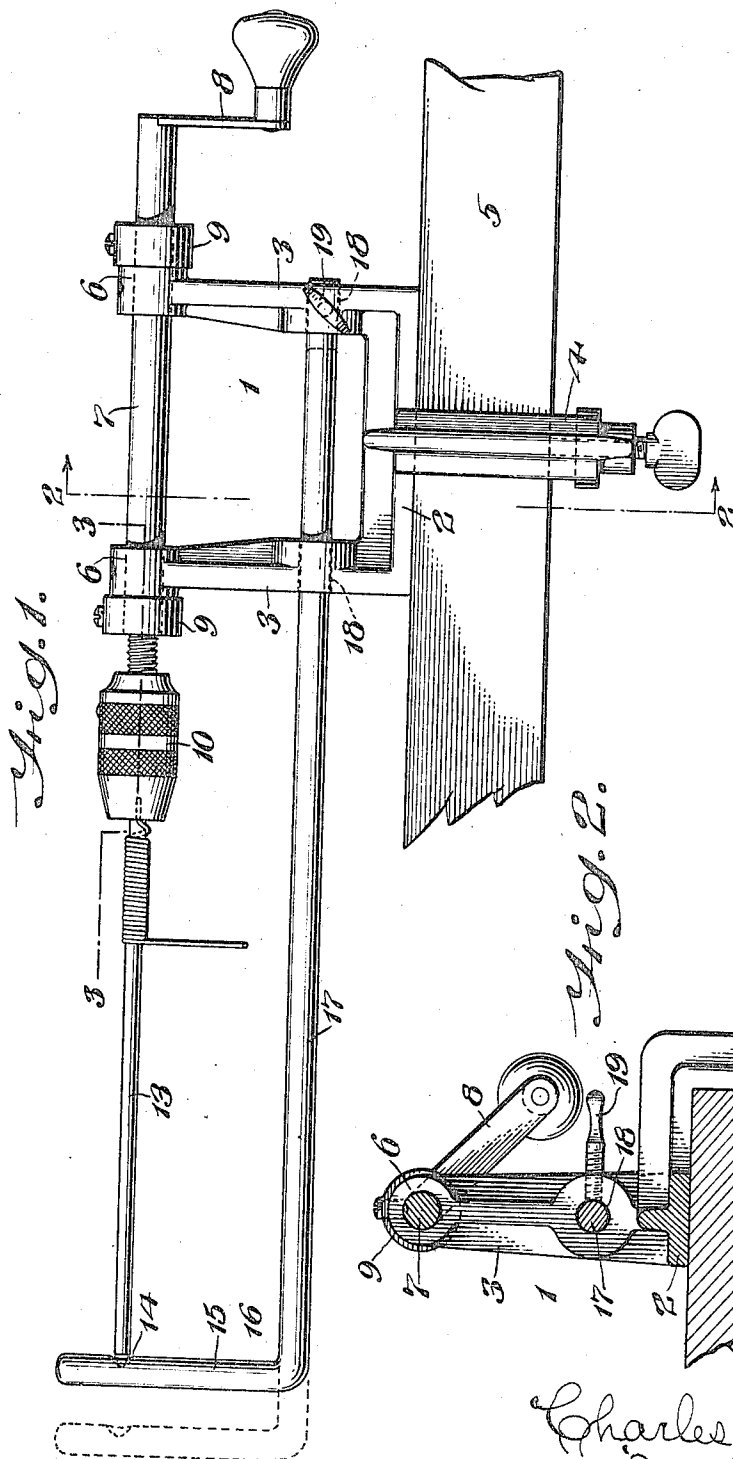


C. A. SCHOLL.
 DEVICE FOR WINDING OR COILING WIRE.
 APPLICATION FILED NOV. 16, 1916.

1,238,445.

Patented Aug. 28, 1917.
 2 SHEETS—SHEET 1.



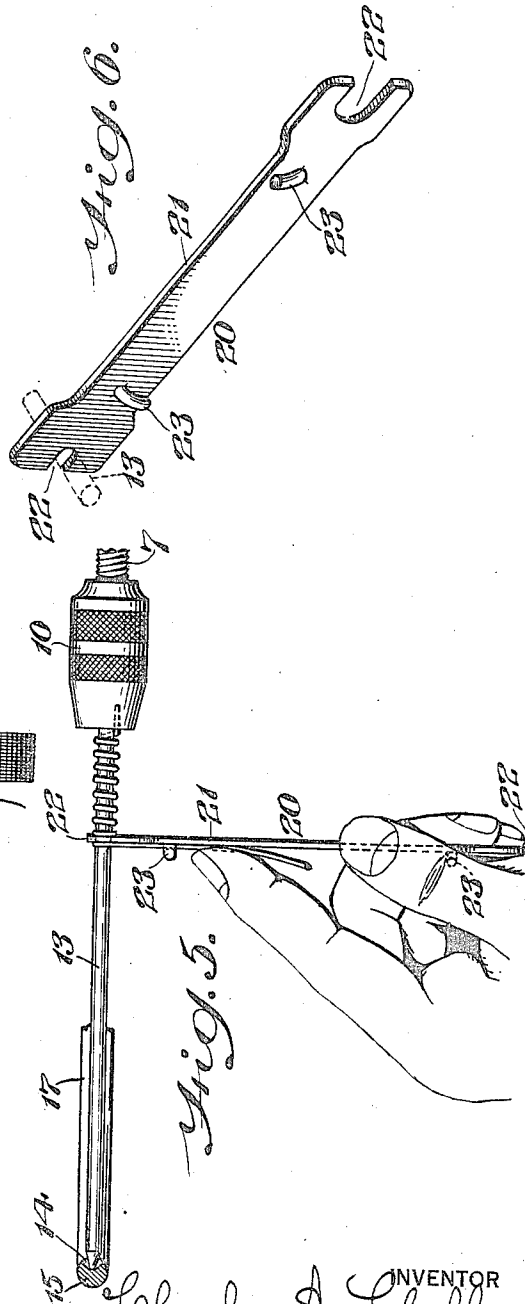
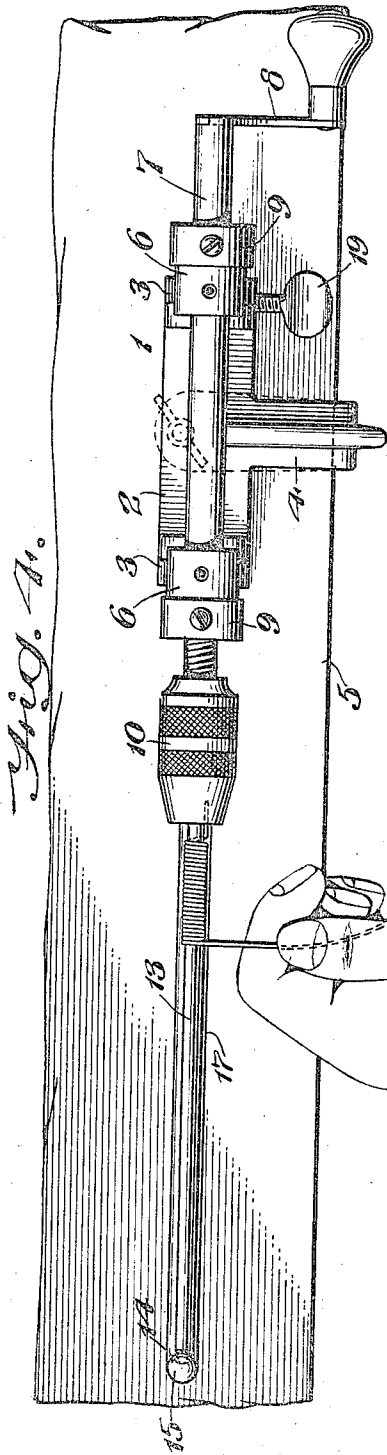
INVENTOR
 Charles A. Scholl
 BY *Diederich & Fairbank*
 ATTORNEYS

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UNITED STATES PATENT OFFICE.

CHARLES A. SCHOLL, OF PHILADELPHIA, PENNSYLVANIA.

DEVICE FOR WINDING OR COILING WIRE.

1,238,445.

Specification of Letters Patent. Patented Aug. 28, 1917.

Application filed November 16, 1916. Serial No. 131,655.

To all whom it may concern:

Be it known that I, CHARLES A. SCHOLL, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Device for Winding or Coiling Wire, of which the following is a specification.

My invention consists of a device adapted to wind or convert wire into the form of a coil or coil spring, the means employed being of simple and inexpensive construction, and the device is adapted to be easily and conveniently operated, as will be hereinafter described and the novel features pointed out in the claims.

The invention is satisfactorily illustrated in the accompanying drawing, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific details shown and described.

Figure 1 represents a side elevation of a wire coiling or winding device embodying my invention.

Fig. 2 represents a vertical section of a portion on line 2—2 Fig. 1.

Fig. 3 represents a longitudinal section of a portion on line 3—3 Fig. 1, on an enlarged scale.

Fig. 4 represents a top or plan view thereof.

Fig. 5 represents a top plan view of a portion showing another operation of the device, and an attached holder and guide for the wire.

Fig. 6 represents a perspective view of said holder and guide.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—

1 designates the frame of the device, the same consisting of the base plate 2, and the standards 3 rising therefrom. On the base plate 2 is the clamp 4 whereby the device may be attached to a support 5 such as a table, bench or otherwise.

On the top of the standards are the bosses 6 which form the bearings for the rotary arbor 7 which is provided with the crank handle 8 for evident purposes, said arbor being held adjustably in position on the frame by collars 9 which are screwed or otherwise secured to said arbor on opposite sides of said bosses, so as to swivel the arbor on said bosses.

The end of the arbor opposite to the crank handle 8 is screw threaded for the engagement therewith of the chuck 10 in the interior of which are the jaws 11, whose heel ends are adapted to be carried by the well known conical-head 12 when the spindle or mandrel is inserted in the body of the chuck so that said jaws may be closed on the spindle 13 which is inserted in the bore of the body of the chuck at the front end thereof, and when clamped by said jaws is firmly connected with the chuck and so has its clamped-end supported by the latter. The opposite end of said spindle 13 is freely and removably seated in an opening 14 in the vertical limb 15 of the supporting elbow 16, of said spindle, the horizontal limb 17 of said elbow extending under the spindle 13 and having its free end passed through openings 18 in the lower portions of the standards 3, one of which is provided with the screw 19 which is adapted to tighten against the adjacent portion of said limb 17 and so sustain the same firmly in position during the coiling or winding action of the device, it being noticed that when said screw is loosened, the elbow 16 may be withdrawn from the standards and so disengage the spindle 13 from the limb 15 that it may be removed from the chuck and the resultant coil, spring or article wound from the spindle.

The operation is as follows:—

One end of a piece of wire is inserted in the body of the chuck between the outer ends of adjacent jaws and so held. Then the adjacent portion of the length of the piece of wire is placed close to the spindle 13. The arbor is now rotated, whereby the end portion of the piece of wire is rotated by and with the chuck causing the adjacent portion of the length of the wire to be carried around the spindle in the form of a coil, the forming of the convolutions of which are guided by the hand, as shown in Fig. 4, so that they may be placed in perfect order on the spindle. When the length of the coil is completed the screw 19 is loosened, and the elbow moved in the present case, to the left, whereby it disengages the end of the spindle and the coil may be stripped from the spindle.

When desired, the chuck 10 may be unscrewed by being rotated in reverse order, and so removed from the jaws that the lat-

ter may separate from the spindle so that a coil if remaining on the spindle may be removed from the latter.

If it is desired to form a coil with widely separated convolutions as shown in Fig. 5, I employ the holder and guide 20, consisting of a bar or plate 21 which is provided at its ends with bifurcations 22 either of which may be fitted freely on the spindle 13, said bar having therein adjacent to the bifurcations the guiding and hook-shaped arms 23 under which the wire is placed and adapted to slide frictionally during the coiling operation, it being seen that the plate may move along the spindle as the coiling or winding of the wire progresses, and so the convolutions may be formed with precision, and in a convenient manner with relief to the hand of the operator, although it is evident that the bar may be used also for close coiling or winding as shown in the other figures of the drawing.

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

1. In a device for winding or coiling wire, a rotatable arbor, a frame on which said arbor has its bearings, a spindle on which the wire is coiled, means for supporting said spindle, said supporting means being bodily slidable endwise in said frame and having at one end an angular portion with a bearing for the outer end of the spindle, means

for securing the other end of the support in the frame, and means intermediate the arbor and spindle for coupling the same and holding one end of the wire. 35

2. In a device for winding or coiling wire, a rotatable arbor, a frame on which said arbor has its bearing, a spindle on which the wire is coiled, means for supporting said spindle, said supporting means being bodily slidable in said frame and having an integral angular portion at one end with a bearing for the outer end of the spindle, means for securing the other end of the support in the frame, and a clutch intermediate the ends of the spindle and arbor for coupling the same, said clutch adapted to hold one end of the wire during winding. 40 45 50

3. In a device for winding or coiling wire, a frame, an arbor mounted therein, a chuck connectible with said arbor, an elbow, said frame having also thereon means for removably receiving and holding the horizontal limb of said elbow, said chuck being adapted to support and hold therein one end of the wire to be coiled, and a spindle having its inner end adapted to be clamped in said chuck, the vertical limb of said elbow being formed with a bearing for removably supporting the outer end of said spindle. 55 60

CHARLES A. SCHOLL.

Witnesses:

JOHN A. WIEDERSHEIM,
N. BUSSINGER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."