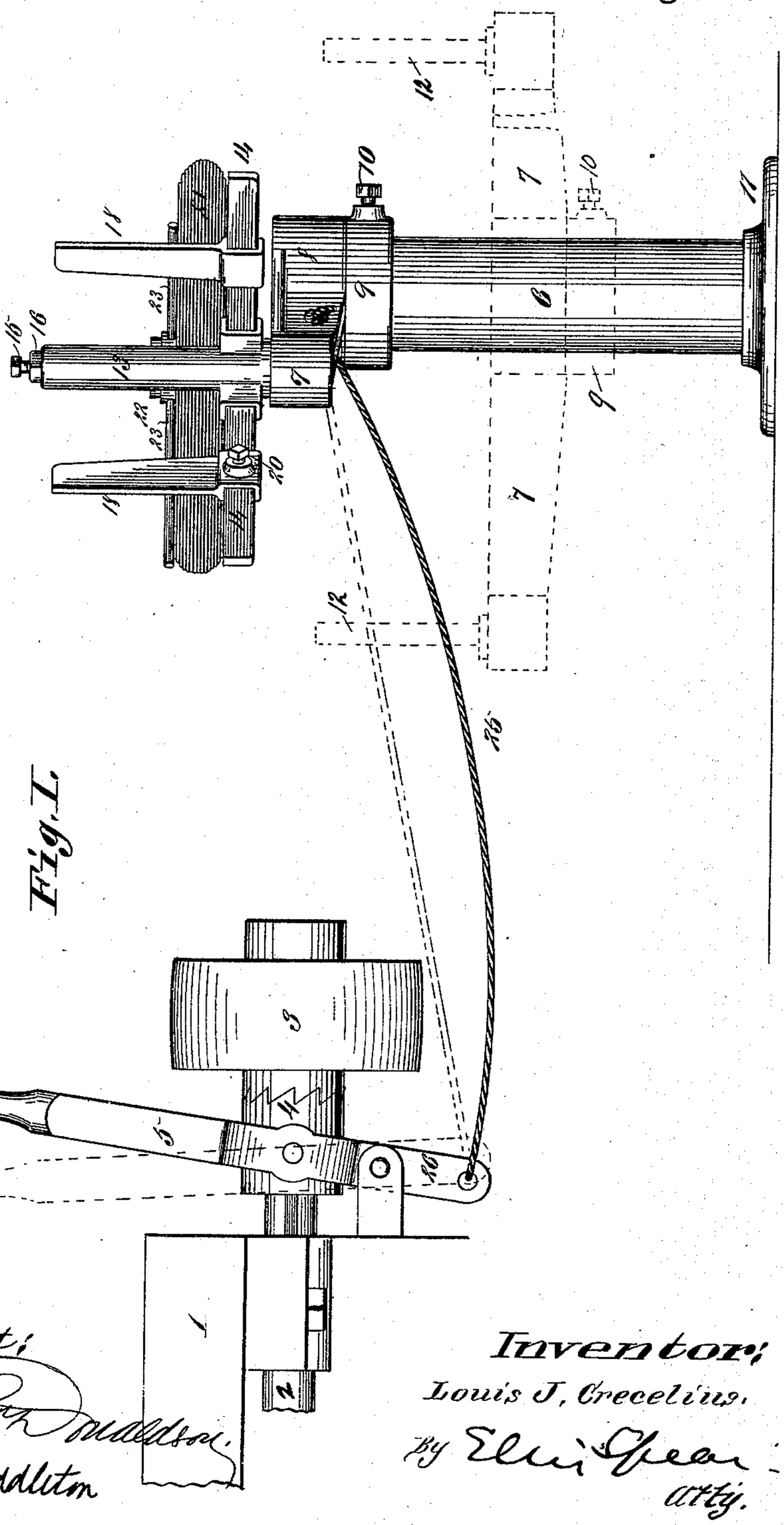
(No Model.) 2 Sheets—Sheet 1.

L. J. CRECELIUS.

REEL STAND AND STOP FOR WIRE WORKING MACHINES.

No. 388,479. Patented Aug. 28, 1888.



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Inventor;
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Fig. II.

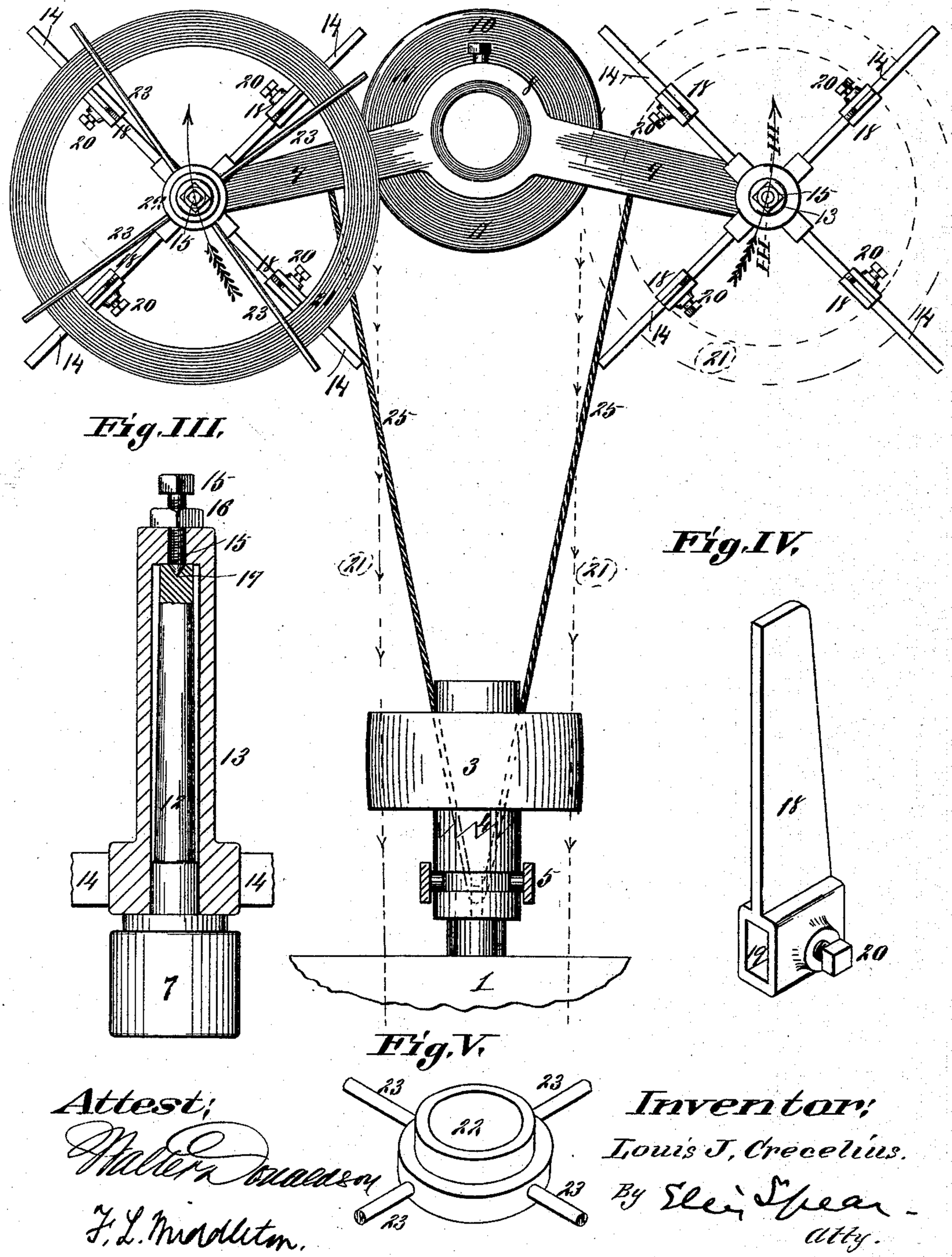

Fig. III.

Fig. V.

Fig. IV.

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UNITED STATES PATENT OFFICE.

LOUIS J. CRECELIUS, OF ST. LOUIS, MISSOURI.

REEL-STAND AND STOP FOR WIRE-WORKING MACHINES.

SPECIFICATION forming part of Letters Patent No. 388,479, dated August 28, 1888.

Application filed November 21, 1887. Serial No. 255,809. (No model.)

To all whom it may concern:

Be it known that I, LOUIS J. CRECELIUS, of St. Louis, in the State of Missouri, have invented a new and useful Improvement in Reel-Stands and Automatic Stops for Wire-Working Machines; and I do hereby declare that the following is a full, clear, and exact description of the same.

Figure I is a side view of the stand, showing a portion of one end of a barb-wire machine to which it is applied. Fig. II is a top view of same. Fig. III is a vertical section of the wire-reel sleeve, taken on line 3 3, Fig. I. Fig. IV is an enlarged perspective view of one of the adjustable arms of the wire-reel. Fig. V is an enlarged perspective view of the device for holding the wire on the reel.

My invention relates to an improved adjustable stand provided with one or more reels for holding coils of wire that are to be fed to a machine for making barbed wire or the like, the same being constructed in such a manner that should the wire or wires become tangled, or should they not feed freely for any other reason, the reel will throw the machine out of gearing, giving the operator a chance to remove the difficulty before a breakage takes place. I also obtain neatness and economy of space by my improved stand by the single pillar or support thereof having adjustable arms for placing any desired number of reels on the stand.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, 1 represents part of the bed-plate of a barb-wire machine; 2, part of the main driving-shaft; 3, the loose driving-pulley; 4, the clutch, and 5 the lever for moving the clutch into and out of engagement with the pulley.

It will be understood that the sliding member of the clutch is made to turn with the shaft, and that when it is moved into engagement with the pulley part of the clutch the shaft will be turned, and when it is moved out of engagement with the pulley part of the clutch the shaft will be stopped.

6 represents a post or standard, upon the upper end of which is loosely mounted one or more swinging or revolving arms, 7. I have shown two of these arms connected by a ring, 8, fitting over the upper end of the post, and held from vertical movement downward by a collar, 9, secured to the post by a set-screw, 10. The post may have a suitable base, 11, by which it may be secured to the support upon which it rests.

On the outer end of each arm 7 is a spindle, 12, over which fits a sleeve, 13, having radiating arms 14. The sleeve 13 turns upon the spindle as the wire is taken off, and I prefer to provide a center for them to turn on, consisting of a conical pointed screw or pin, 15, passing through the upper end of the sleeve, and held from turning by a jam nut, 16. The conical point of this screw fits in a conical recess, 17, in the upper end of each spindle 12. With this arrangement the sleeve is permitted to turn freely and the amount of friction is reduced.

Adjustably secured to the horizontal arms 14 are vertical adjustable arms 18, having sockets 19, fitting in the arms 14, and provided with set-screws 20, by which they are secured to the arms 14 at any suitable point. These arms 14 and 18 constitute the reels of the stand. The coils of wire 21 are placed over the arms 18 and adjusted upon the arms 14. (See Fig. II.) The wire may be kept from being thrown off the reels by means of collars or rings 22, having radial arms or rods 23. The collars fit over the upper ends of the sleeves 13, and the arms or rods 23 rest upon the wire. (See Fig. II.)

It will be understood that, while the post 6 supports the reels through means of the arms 7 and ring 8, either reel is at liberty to move toward the machine, the ring 8 turning on the post.

25 represents a cord, rope, rod, or chain connecting each arm 7 with a lower extension, 26, of the lever 5.

Now, in case the feed of the wire on either reel should become clogged, such reel will be pulled toward the machine by the unusual tension of the wire, the ring 8 turning on the post, and as this takes place the rope connected to the opposite arm will pull the lever 5 into the position shown in dotted lines in

Fig. I, and in doing this will disengage the clutch, and the machine will stop, giving the operator a chance to remove the obstruction to the feed of the wire.

In this connection I do not confine myself to any particular form of clutch, as my device is adapted to any of the well-known forms; but I prefer a friction-clutch in stopping or starting the barbed-wire machine in case of disarrangement of the wire as it is fed to the machine or of the exhaustion of the same.

Should the feed of the wire from the other reel become clogged, it will be drawn toward the machine, and the other rope will throw the machine out of gear. With this arrangement it is impossible for an accident to happen from the clogging or tangling of the wires, and uniformity in the wire product is insured. I have shown two reels—one reel for a strand-wire and one for barb-wire; but it is evident that additional spools might be added when two strand-wires or two barb-wires are required, as shown in Fig. I.

I claim as my invention—

1. In combination with the driving clutch or stop of a wire-machine, a reel mechanism consisting of a supporting-post, an arm swiveled to the post, a reel supported on the arm, and a connection between the arm and clutch or stop, substantially as and for the purpose set forth.

2. In combination with the driving clutch or stop of a barb-wire machine, the reel mechanism consisting of a supporting-post, arms swiveled to the post, reels supported on the arms, and ropes connecting the arms to the clutch or stop, substantially as and for the purpose set forth.

3. In a wire-working machine, the combination, with a driving-clutch, of a feed-reel mechanism consisting of a post, arms swiveled on the post, spindles on the outer ends of said arms, and reels on said spindles consisting of sleeves fitting over the spindles, horizontal arms secured to the spindles, and vertical arms secured to the horizontal arms, and a connection, 25, between the swiveled arm and the driving-clutch, substantially as and for the purpose set forth.

4. In a feed-reel mechanism for wire-machines, the combination of the post, arms swiveled on the post, spindles on the outer end of the arms, sleeves fitting over the spindles, screws in the upper ends of the sleeves, having conical points fitting in conical holes in the upper ends of the spindles, and horizontal arms on the sleeves, substantially as and for the purpose set forth.

5. In a feed-reel mechanism for barb wire machines, the combination of the post, arms swiveled on the post, spindles on the arms, sleeves fitting over the spindles, horizontal arms secured to the sleeves, vertical arms secured to the horizontal arms, collars 22, fitting over the sleeves, and arms 23 on the collars, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LOUIS J. CRECELIUS.

Witnesses:
JOSEPH LLOYD,
EDWARD V. RINGO.