

(No Model.)

C. SCHULZE.
WIRE STRETCHING DEVICE.

No. 536,939.

Patented Apr. 2, 1895.

Fig. 1.

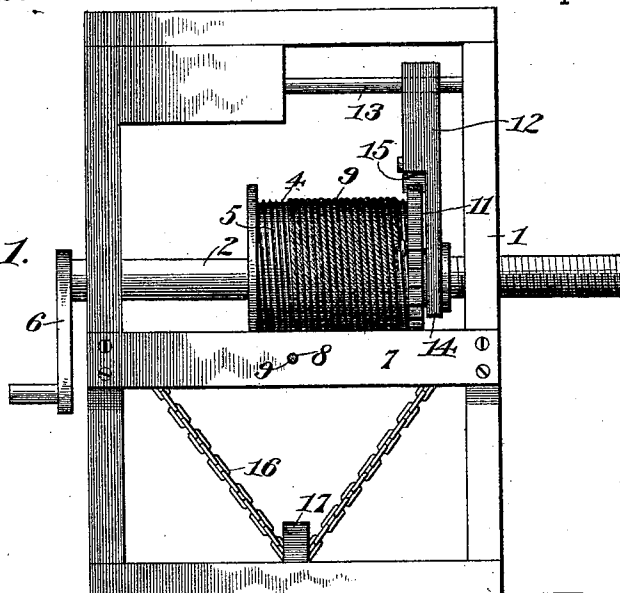


Fig. 2.

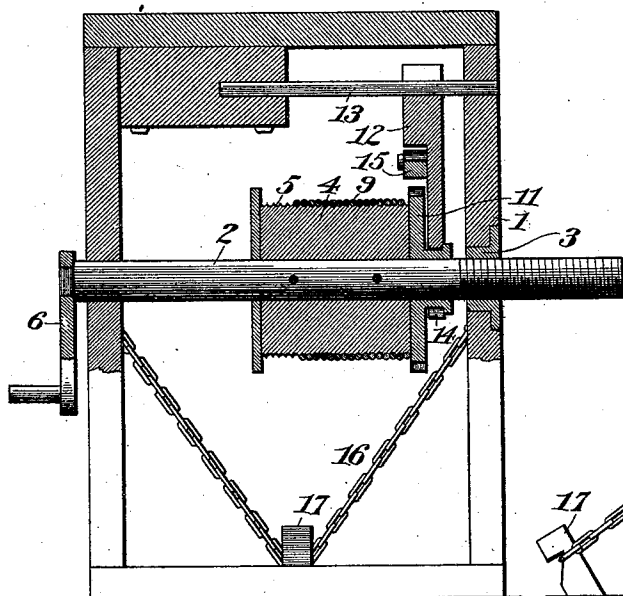
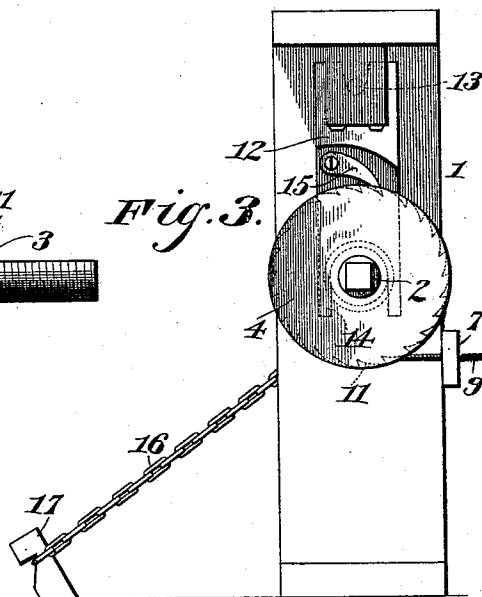


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES SCHULZE, OF DEER PLAIN, ILLINOIS.

WIRE-STRETCHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 536,939, dated April 2, 1895.

Application filed April 20, 1894. Serial No. 508,350. (No model.)

To all whom it may concern:

Be it known that I, CHARLES SCHULZE, of Deer Plain, county of Calhoun, State of Illinois, have invented certain new and useful Improvements in Wire-Stretching Devices, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce an improved device for stretching wire or drawing a load, in which it is necessary to obviate all side draft of any sort and to keep the force directly in a straight line. It may, in its broad aspect, be said to be a machine for centralizing the draft of a pulley.

In the accompanying drawings, Figure 1 is a front view of my machine. Fig. 2 is a central vertical longitudinal section thereof; and Fig. 3 is a side view thereof with the side removed.

Referring to the figures on the drawings, 1 indicates a frame, which may be made of suitable dimensions and material. It carries, in suitable bearings, a revoluble shaft 2 which is smooth at one end and screw threaded at the other. An internally screw threaded box 3 is adapted to receive the screw threaded end of the shaft and to cause it to be moved longitudinally across the frame by its rotation. Upon the shaft is firmly secured a drum or pulley 4 which is preferably provided with a spiral groove 5 of the same pitch as the screw upon the shaft. The shaft is provided with suitable means for rotating it, the simplest being a crank handle 6, upon one end thereof.

7 indicates a guide plate provided with a central aperture 8 through which a cable 9, that is wrapped around the spiral of the drum, is passed. The end of the cable next to the drum is preferably firmly secured thereto by any suitable means, so that by the rotation of the drum, force may be exerted to draw the cable through the aperture in the guide plate. The drum preferably is provided with a ratchet wheel 11, although it need not necessarily constitute a part thereof or, in

fact, be immediately connected thereto. A pawl carriage 12 is borne contiguous to the ratchet wheel and preferably moves upon a smooth, fixed shaft 13 secured in the upper side of the frame and is provided with a box 14 in its lower end, whereby it is firmly held in proximity to the drum and is driven by the rotation of the screw end of the shaft 2.

15 indicates a pawl carried upon the pawl carriage and adapted to control the movement of the drum.

16 indicates an anchor brace, as for example, a chain carried upon the rear of the frame and adapted to be secured as to an anchor 17.

In operation, rotation is imparted to the shaft which carries the drum, the cable having been properly wound upon the spiral of the drum, its end passing through the aperture 8 directly opposite that portion of the drum where it leaves the same. Consequently, the pull of the drum upon the cable is direct. The pitch of the spiral on the drum and that of the screw being the same, the draft upon the cable will constantly remain direct, the drum being driven in either direction just so far as to keep the draft upon the cable central. By the rotation of the shaft 2 the pawl carriage is at the same time operated so that the pawl is at all times ready to be used to check the backward rotation of the drum.

What I claim is—

The combination with a frame, screw threaded shaft, box and drum, of a ratchet wheel upon the drum, a traveling pawl carriage and pawl actuated by the screw of the shaft, a cable winding upon the drum, and mechanism for driving the shaft, substantially as set forth.

In testimony of all which I have hereunto subscribed my name.

CHARLES SCHULZE.

Witnesses:

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