(No Model.)

W. M. BARGER.

MACHINE FOR STRETCHING AND REMOVING FENCE WIRE.

No. 495,873. Patented Apr. 18, 1893.

Fig. 1.

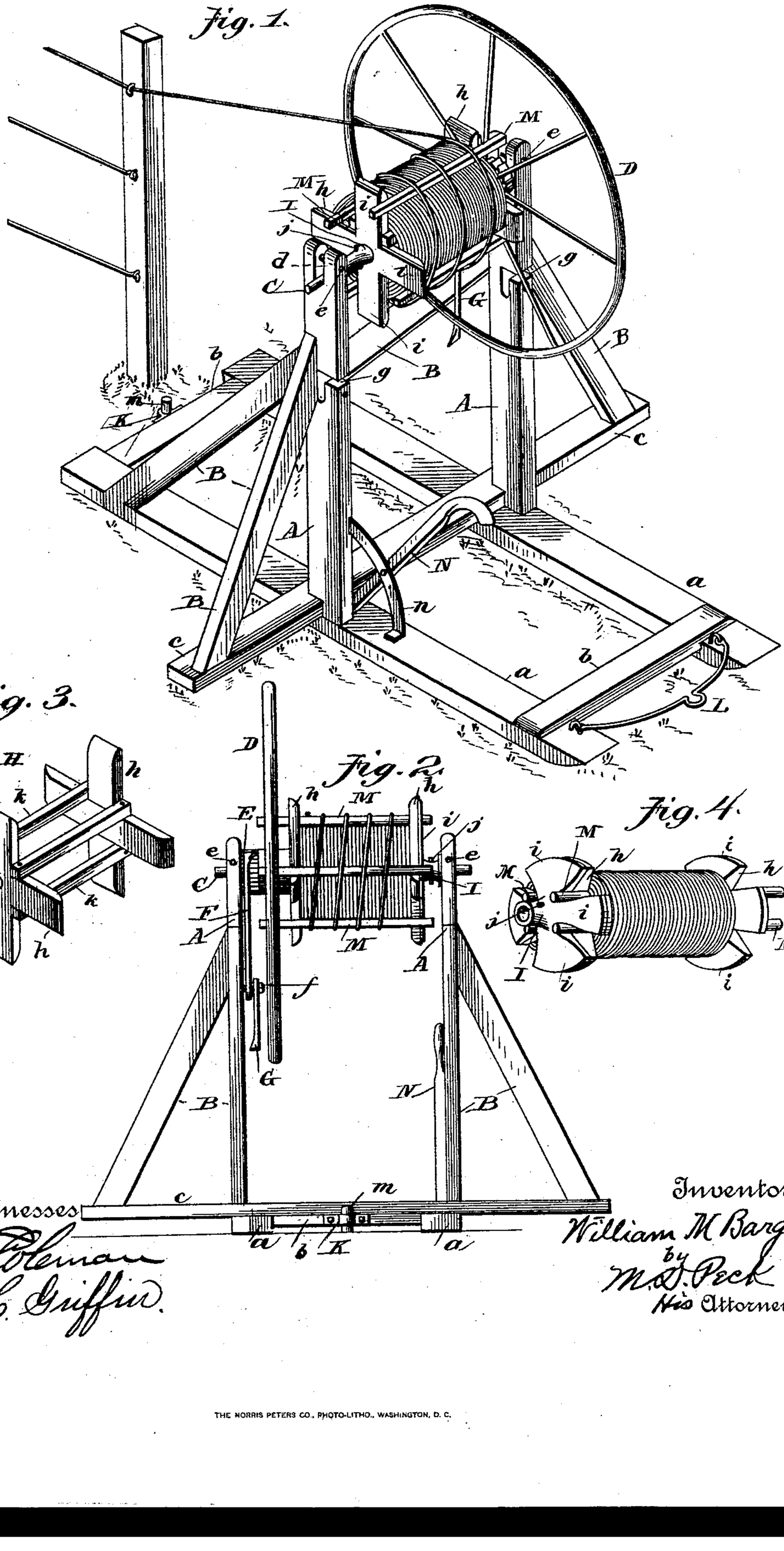

Fig. 3.

Fig. 2.

Fig. 4.

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MACHINE FOR STRETCHING AND REMOVING FENCE-WIRE.

SPECIFICATION forming part of Letters Patent No. 495,873, dated April 18, 1893.

Application filed February 20, 1893. Serial No. 463,091. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. BARGER, a citizen of the United States, residing at Webster City, in the county of Hamilton and State of Iowa, have invented certain new and useful Improvements in Machines for Stretching and Removing Fence-Wire; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

The object of my invention is to provide a simple, effective, and inexpensive machine for stretching the wires of fences along the fence posts, straining the wires taut while they are being fastened to the posts, and also for regularly rerolling the wire on a reel, in taking down a fence, so that it can be again unrolled when required in resetting a fence, and also in providing means of handling the spools, and the invention consists in the construction hereinafter described and more particularly pointed out in the claims.

Referring to the drawings, Figure 1, is a perspective view of my machine, showing the end of a wire fence. Fig. 2, is a rear end view of the machine. Fig. 3, a perspective view of one form of spool on which the wire is wound; and, Fig. 4, a similar view of another form of spool with certain attachments hereinafter referred to.

Similar letters of reference indicate like parts in the several figures of the drawings.

The base or support of the machine is in the form of a sled, consisting of the two side runners *a*, united by the end cross pieces *b*, and the center cross piece *c*. The standards A are supported on the side runners *a*, and are held firmly in a vertical position by the braces B, the lower ends of which are secured to the runners *a*, and to the cross piece *c*, which projects over the sides of the runners.

The standards A, are provided at their upper ends with notches *d*, which serve as bearings for the shaft C, the latter being held from vertical movement by pins *e*, passing across the notches and over the shaft. On the inside and near the standard A, at one side of the machine, a hand-wheel D is keyed or otherwise firmly secured to the shaft C, and the hub of this wheel is provided on its end, nearest the standard A, with ratchet teeth E in which either of the pawls F or G are adapted to engage. The pawl F is longer than the pawl G, the former being intended for use when the shaft C is supported in the notches *d*, at the top of the standards, and the latter when the said shaft is supported in the notches *g*, cut in the standards A, some distance lower down. The pawls F and G are pivoted on a common pin *f*, supported in the standard A.

The object of having two sets of bearings for the shaft C is to permit the spool to be brought nearly to the plane of the several wires of the fence; but the lower bearings *g*, are always used when it is necessary to wind wire onto the spool in taking down a fence, as the staples of the parts are removed and the wire is wound from off the ground.

H represents the usual form of spool on which wire is received from the factory, and consists of the end cross-pieces forming four arms *h*, and the connecting bars *k*, secured to the ends in the angles formed by the cross pieces. The spool is provided with a central aperture *l*, through the arms through which the shaft C passes when the spool is placed on the machine for use.

A hub I is provided with four radiating arms *i*, preferably corresponding in length and width with the arms *h*, of the crossed pieces on the ends of the spool. The hub I is adapted to fit on the shaft C and be secured thereon by a pin *j*, or other suitable device, in order that the hand wheel D, shaft C and hub I may all turn together when necessary. The form of spool illustrated in Fig. 4, is substantially the same as that in Fig. 3, the principal differences being, that the barrel and ends are integral like an ordinary spool for cotton, and that the ends are notched out to give them somewhat the form of a Maltese cross. The arms *i*, on the hub correspond substantially in outline with the arms formed on the spool by notches.

K is an eye or staple secured to the rear end of the sled, for the purpose of anchoring the machine by means of a bar *m*, driven through the eye into the ground, and L is a

bent bar secured to the opposite end of the sled to which a horse may be attached to move the machine from one point to the other.

The operation is as follows: In building a fence the machine is taken to one end of the fence line and a spool of wire placed on the shaft C. At the same time the hub I may be be placed on the shaft and secured thereto by the pin *j*. The spool of wire will now be free to turn on the shaft C between the hub I and the hub of the hand wheel D. The wire may now be unwound from the spool and the end of the wire taken to the other end of the fence line, or the end of the wire may be secured to the end post and the machine drawn to the other end of the fence line. In order to strain the wire taut, the machine is first anchored by driving the bar *m*, through the staple into the ground and then stay bars M are laid across the spool over the remaining wire so that their ends will engage the arms *i*, of the hub I on one end of the spool, and the arms or spokes of the hand-wheel D at the other end of the spool, and thus lock the spool to the hand-wheel and hub. By turning the hand-wheel D, the spool can now be caused to turn and wind on the wire until all the slack is taken up, when the wire can be stretched and made taut and be secured in proper position on the posts by staples, or otherwise. The slack wire drawn in after the stay bars M are placed in position, will be wound over said bars, and the spool held against reverse movement by the ratchet and pawl mechanism. When it is required to wind the fence wire into a spool, the empty spool and the hub I are placed on the shaft C, the hub being pinned to the shaft to turn with it. The stay bars M are then placed in the angles formed by the arms of the spool, the hub I, and the hand-wheel D, thus locking the parts together to have a common rotation. The wire then having been released from the fence posts and lying on the ground can be wound on the spool by turning the hand-wheel D.

In order that the wire may be wound regularly on the spool, the sled support being anchored at one end by the pin through the eye K, and the other end being free, the operator may move the sled either to the right or left by means of the handle N secured to the machine and supported by the brace *n*. When the spool is full, the hub I is first removed from the shaft C, when the spool can be also easily removed. The projecting ends of the stay bars M serve as hand-holds in moving and handling the spool of wire and remain within the coil until the spool is again placed on the shaft C, for unwinding the wire, when the stay bars are held in the hub and hand-wheel and lock the parts together as before.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a machine for stretching and rerolling fence wire, a supporting frame having bearings one above another and a shaft adapted to be adjusted in said bearings and to carry a spool of wire, in combination with a hub having radial arms and removably secured on said shaft, and stay bars extending lengthwise of the spool and engaging the arms of the hub, as set forth.

2. In a machine for stretching and rerolling fence wires, a supporting frame, and a shaft journaled in bearings on said frame and adapted to carry a spool of wire, combined with a hand-wheel secured to the shaft, a hub, having radial arms, removably secured to the said shaft, and stay-bars extending lengthwise of the spool and engaging the arms of the hub, the spool, and those of the hand-wheel, substantially as and for the purpose set forth.

3. In a machine for stretching and rerolling fence wires, a supporting frame, and a shaft journaled in bearings on said frame and adapted to carry a spool of wire, combined with a hand-wheel secured to the shaft and provided with ratchet-teeth on its hub, a hub, having radial arms, removably secured on said shaft, stay-bars extending lengthwise of the spool and engaging the arms of the hub, the spool and the hand-wheel, and a pawl pivoted on the supporting frame to engage the ratchet-teeth on the hub of the hand wheel as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM M. BARGER.

Witnesses:
LOUIS FRANK,
WILL HALVORSEN.