

No. 705,843.

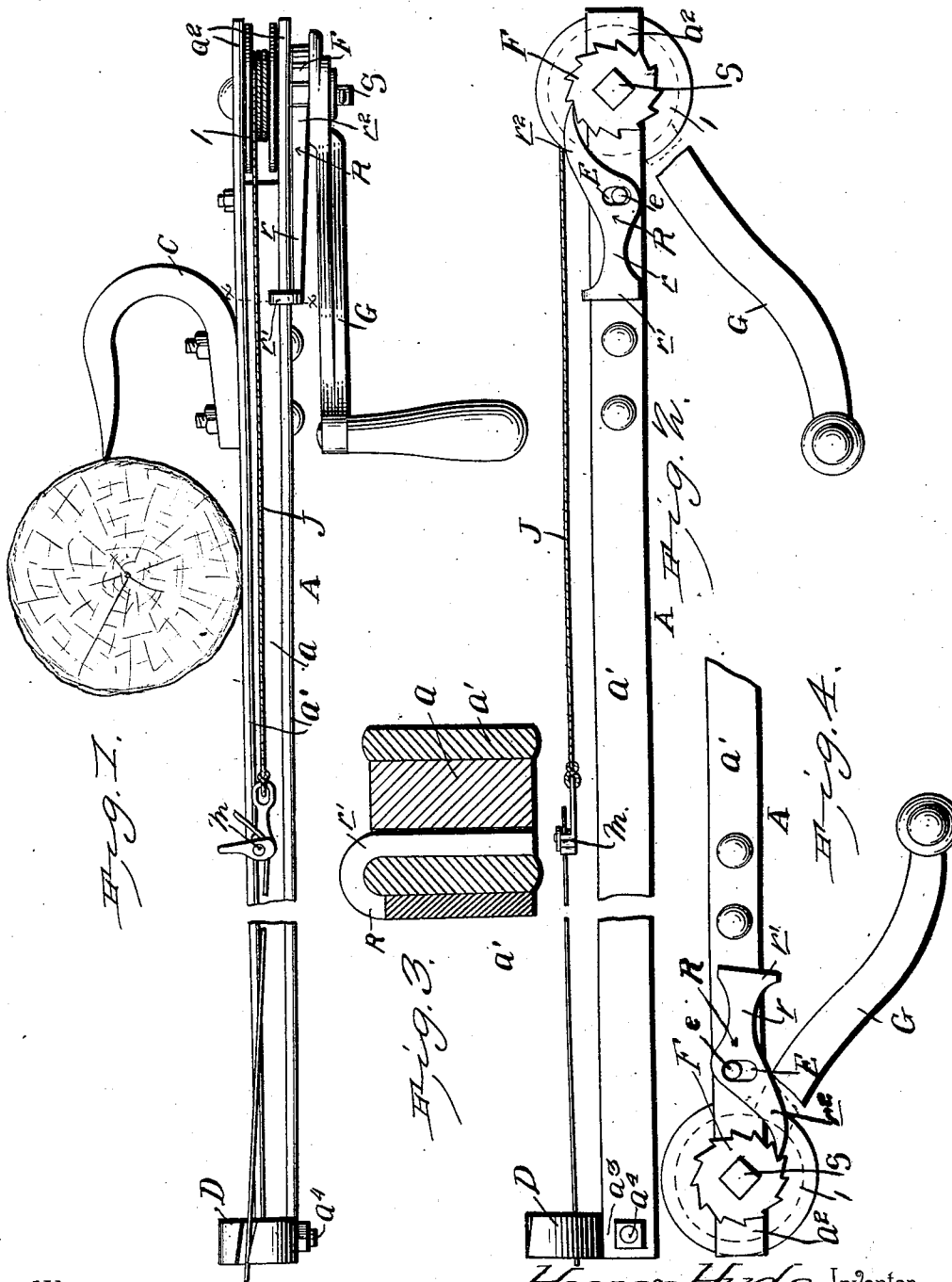
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WIRE STRETCHING MACHINE.

(Application filed Feb. 3, 1902.)

(No Model.)



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UNITED STATES PATENT OFFICE.

HOOPER HYDE, OF NASHVILLE, TENNESSEE.

WIRE-STRETCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 705,843, dated July 29, 1902.

Application filed February 3, 1902. Serial No. 92,486. (No model.)

To all whom it may concern:

Be it known that I, HOOPER HYDE, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented a new and useful Barbed-Wire-Stretching Machine, of which the following is a specification.

My invention is an improved wire-stretcher adapted for use in building and repairing wire fences and for analogous purposes; and it consists in the peculiar construction and combination of devices hereinafter fully set forth and claimed.

In the accompanying drawings, Figure 1 is a top plan view of a wire-stretcher embodying my improvements. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical transverse sectional view taken on the plane indicated by the line *x x* of Fig. 1. Fig. 4 is a detail side elevation showing one end of the stretcher in an inverted position.

In the embodiment of my invention I provide a bar A, which is of suitable length, in practice usually of the length of forty inches. This bar may be of any suitable construction. As here shown it comprises an intermediate wooden bar *a* and iron bars *a'* on opposite sides thereof, which are riveted or bolted together, and the ends of which project beyond the ends of the bar *a*. The projecting ends *a''* of the iron bars *a'* form bearings for a shaft S. A drum I is disposed between the ends *a''* and secured on the said shaft, so that it is rotated thereby, and the said shaft also carries a ratchet-wheel F and a crank G. The ratchet-wheel and crank are disposed on one side of one of the iron bars *a'*. On the opposite side of the bar A, at a suitable distance from the shaft S, is a hook C. In practice the same is bolted or otherwise suitably secured to the bar A, and the said hook is adapted to engage a fence-post when the stretcher is in use and together with the wire which is being stretched forms the sole support of the stretcher. At the end of the bar A opposite the shaft S is a wire-guide D. The same has its lower end fitted between the projecting ends *a''* of the iron bars *a'* and secured by a bolt or rivet *a'''*, and the said wire-guide projects upwardly from the bar A and at its upper end extends laterally beyond the side of the bar A on which the

hook C is disposed. A suitable rope or chain J has one end attached to the drum I. The said rope or chain is the stretcher element, is adapted to be wound on the said drum and unwound therefrom, and is provided at its free end with a clamp M of suitable construction for engaging the wire to be stretched. It will be understood that the hook C having been secured to a post, the bar A disposed in line with the fence, and the wire having been passed through the guide B and attached to the clamp M, said wire will be stretched when the crank G is turned to rotate the drum I, and thereby wind the stretcher element thereon.

A ratchet-wheel F is engaged by a gravity-pawl R to prevent reverse rotation of the drum I while the wire is being stretched. The said pawl has a rearwardly-extending arm *r*, which lies against the outer side of the proximate iron bar *a'*, and at the rear end of the said arm the same is provided with a vertically and laterally extended hook *r'*, which engages the inner side of the iron bar *a'* and is disposed to move in a recess in the wooden bar *a*. The rearwardly-extending arm *r* of the pawl is heavier than the engaging arm *r'* thereof. When the stretcher is in the position shown in Fig. 2, the hook *r'* forms the pivot of the pawl, and the latter acts by gravity to engage the ratchet-wheel, as will be understood. The pawl is provided near its center with a slot E, in which is a bolt *e*. The size of the slot is such as to enable the pawl to play loosely on the bolt *e* when the stretcher is in the position shown in Fig. 2. When the stretcher is in an inverted position, as shown in Fig. 4, the bolt *e* forms the pivot of the pawl, and the counterweighting-arm *r* of the pawl keeps the same in engagement with the ratchet-wheel. Hence the wire-stretcher may be used in either position, as will be understood.

Having thus described my invention, I claim—

1. In a wire-stretcher, a bar comprising an intermediate section, side sections secured on opposite sides thereof, having their ends projecting beyond the ends thereof, a hook on one side of said bar, a wire-guide secured between the projecting ends of the side sections at one end of said bar, a drum disposed between the projecting ends of the side sections,

at the opposite end of the bar and having its bearings therein, a ratchet-wheel revoluble with the drum and disposed on the outer side of one of the side sections, a pawl having a slot and on the outer side of the last-mentioned side section, a pivot in said slot, the pawl being loose thereon, engaged with the ratchet-wheel and provided with a counterweighting-arm extending rearwardly from said pivot, said counterweighting-arm having at its rear end a vertically and laterally extended hook engaging the inner side of the last-mentioned side section, disposed to move in a recess in the intermediate section, and forming a loose pivot at the rear end of the counterweighting-arm, substantially as described.

2. In a wire-stretcher, the combination of a support, a drum, a ratchet-wheel revoluble with the drum, a pawl having a slot, a pivot in said slot, the pawl being loose on said pivot, engaged with said ratchet-wheel and having a counterweighting-arm extending rearwardly

from said pivot and provided with a vertically and laterally extended hook disposed to move in a recess in the support and forming a loose pivot at the rear end of the counterweighting-arm, for the purpose set forth, substantially as described.

3. In a wire-stretcher, a bar comprising an intermediate section, side sections secured on opposite sides thereof having their ends projecting beyond the ends thereof a hook on one side of said bar, a wire-guide secured between the projecting ends of the side sections at one end of said bar, a drum disposed between the projecting ends of the side sections at the opposite end of the bar and having its bearings therein, means to rotate said drum and means to prevent reverse rotation thereof when the stretcher is in operation, substantially as described.

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Witnesses:

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