

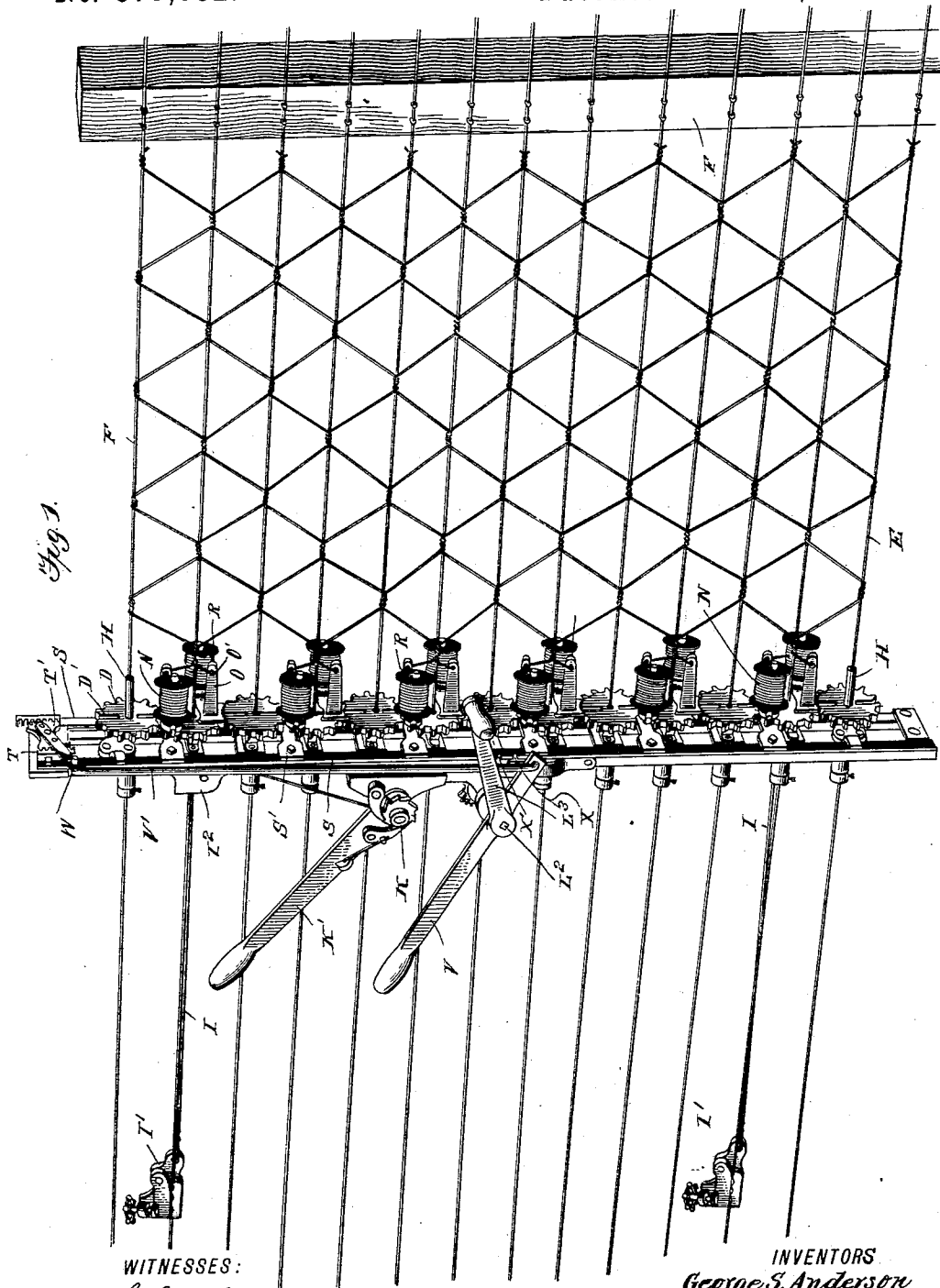
(No Model.)

2 Sheets—Sheet 1.

G. S. & R. ANDERSON.
WIRE FENCE MACHINE.

No. 573,632.

Patented Dec. 22, 1896.



WITNESSES:

J. C. Shaw.

Chas. E. Brock,

INVENTORS

George S. Anderson

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ATTORNEYS

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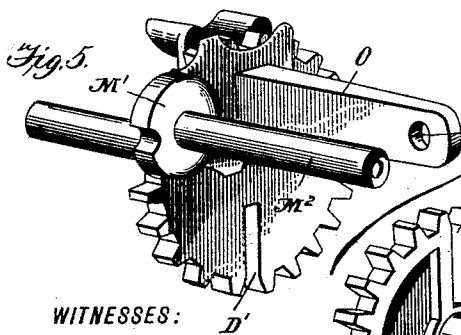
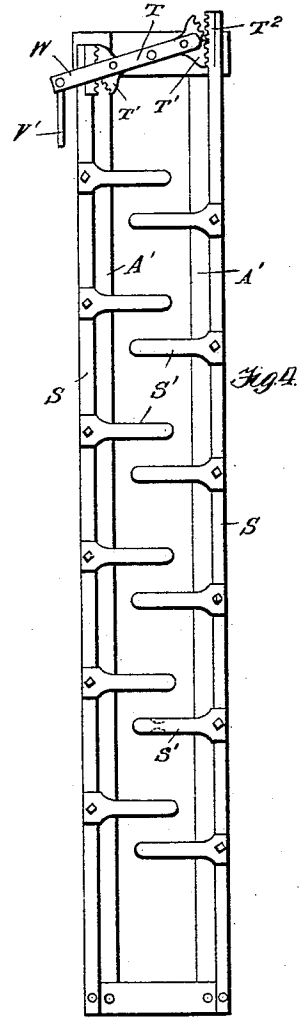
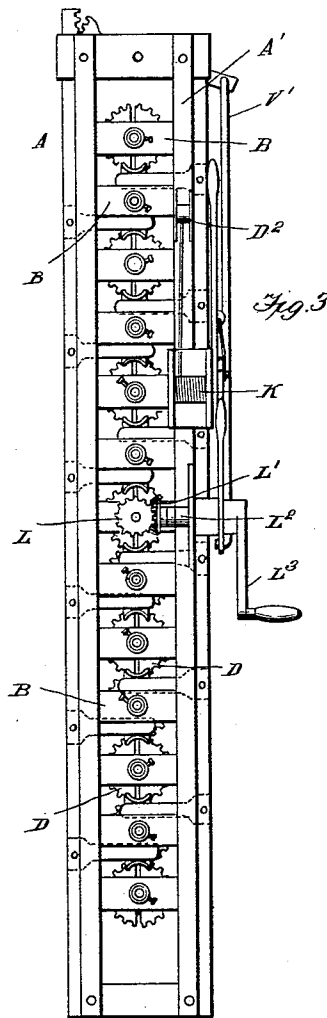
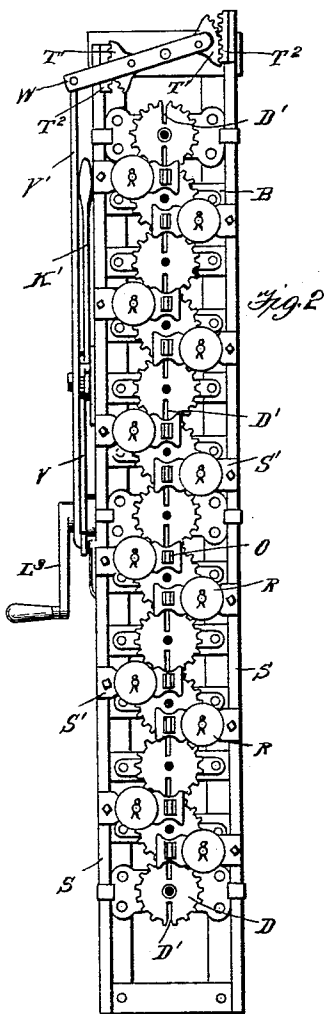
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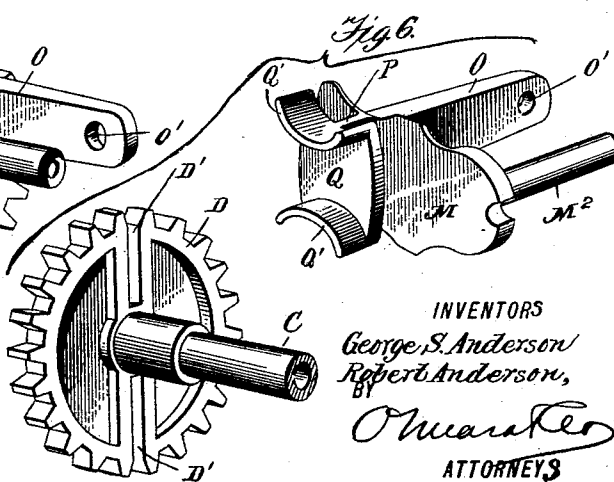
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UNITED STATES PATENT OFFICE.

GEORGE S. ANDERSON AND ROBERT ANDERSON, OF JEFFERSONVILLE,
INDIANA, ASSIGNORS TO SAMUEL WATSON, OF DUBLIN, INDIANA.

WIRE-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 573,632, dated December 22, 1896.

Application filed July 31, 1896. Serial No. 601,197. (No model.)

To all whom it may concern:

Be it known that we, GEORGE S. ANDERSON and ROBERT ANDERSON, residents of Jeffersonville, in the county of Clark and State of Indiana, have invented a new and Improved Wire-Fence Machine, of which the following is a specification.

This invention is an improved fence-machine for manufacturing a woven-wire or mesh fence upon the horizontal strands after they have been attached to the post.

The object of our invention is to provide an exceedingly cheap and simple fence-making machine, the main frame of which and, in fact, all of the parts are constructed of metal; and another object of our invention is to provide a machine which is suspended upon the top and bottom wires, so as to avoid the use of a bed-plate or bottom track, and another object of our invention is to provide an improved means whereby the machine can be easily moved along said wires during the operation of the machine.

Another object of our invention is to provide an improved construction of pinions, whereby accidents are entirely avoided.

With these various objects in view our invention consists in the peculiar construction of the various parts and their novel combination or arrangement, all of which will be fully described hereinafter, and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a view showing our invention in use. Fig. 2 is a front face view. Fig. 3 is a rear face view. Fig. 4 is a view showing the main frame and shifters, the pinions and spool-carriers being removed. Fig. 5 is a view showing the pinion and spool-holder combined. Fig. 6 is a view showing such parts detached.

In carrying out our invention we employ a main frame A, consisting of two upright pieces A', connected by means of a series of cross-pieces B, in which are journaled the tubular shafts C of the pinions D, said pinions having radial slots D' at diametrically opposite points and extending nearly to the center of the same. Passing through the tubular shafts C are the horizontal strands E, said strands being secured at one end to

the post F and connected at the opposite end to a suitable wire-stretching device, (not shown,) whereby they are all kept at a uniform tension.

The top and bottom pinions carry a tube H within the tubular shafts, said tubes serving as a suitable support for the entire mechanism and rendering it extremely easy to move the machine along, and in order to move said machine we employ two cables I, which are made fast at their rear ends to the second wires from the bottom and top by means of a suitable clamp I', and at their forward ends said cables are connected to a shaft K, mounted in brackets attached to the rear side of the main frame, said shaft being operated by a ratchet-lever K', so that by operating the said shaft the cable can be wound thereon and the machine turned rearward, said cables passing over guide-sheaves I², near the top and bottom of the main frame upon the rear side thereof.

All of the pinions intermesh with each other, and by operating one of them they all revolve in unison, each pair revolving in opposite directions, as clearly understood, and in order to operate said pinions we arrange a beveled gear L upon the rear end of the tubular shaft of the central pinion, and meshing with said beveled gear is a similar gear L', mounted upon the end of a shaft L², which is operated by the crank L³, so that by operating the said crank all of the pinions are operated simultaneously. Each alternate pinion carries two wire reels and guides, there being six pairs of such reels and guides shown in the accompanying drawings, but it will of course be understood that any desired number can be employed according to the height of the fence to be made. These reel-carriers and guides are connected to the pinions by means of the radial slots D', and described in detail the combined reel-carrier and guide comprises a plate M, having an essentially circular boss M' at one side, and from which projects a spindle M², upon which is mounted the wire reel or spool N, and near the opposite end is arranged an arm O, having an eye or opening O' at the free end, said arms extending parallel with the spindle M². Upon the rear face of the plate is produced a nar-

row web P, which connects with another plate Q parallel with the face of the plate M, the upper and lower edges of said plate Q being curved in the form of a semicircle and provided with flanges Q', as most clearly shown.

The web P is adapted to slide in the radial slot D', and the plate M is adapted to rest upon the forward face of the pinion D, while the plate Q is intended to rest upon the rear face, the flanges Q' resting upon the spindle of the pinion with which it is engaging.

The wire reel or spool N is placed upon the spindle or spool-holder and the wire thereof passed through the eye of the guide-arm and attached to the strand about which it is to be woven.

As before stated, each alternate pinion has two combined spool-holders and guides connected therewith through the medium of the radial slots, and it will be observed that the spools and guide-arms are arranged upon opposite sides of the longitudinal center of the machine, so that as the crank L³ is operated the shaft L² will be revolved, likewise the gears L' and L, and consequently all of the pinions, and as these pinions are revolved the spool-holders will of course be revolved about their respective strands of wire and thereby coil the wire R, carried by said spools, around the horizontal strands. After the wire R has been twisted several times around the strands E it will be necessary to so shift the spool-holders as to operate upon the next lower or higher strand for the purpose of producing proper mesh, and in order to so shift the spool holders and guides we employ parallel shifter-bars S, sliding upon opposite sides of the main frame, each carrying alternate shifter-arms S', which are adapted to engage the flanges Q' upon the plates Q and move the spool-holder up or down, according to the direction of the shifter bar and arm, it being of course understood that as one shifter-bar, with its arms, is moved up the opposite shifter-bar and its arms are moved downward, and in order to effect this we employ a lever T, which is pivoted at the upper end of the machine and carries two segments T' at each end adapted to engage the rack-bars T², carried at the upper ends of the shifter-bars S. It will thus be seen that as one bar is moved up the other bar will be moved down, and as these bars have the shifter-arms arranged alternately it is clear that these alternate arms will be brought into proximity with each other, and thereby secure a pair of combined wire carriers and guides in proper connection with the proper pinion.

In order to so raise and lower the shifter-bars, we employ a lever V, which is mounted also upon the shaft L² and connects at its

lower end with a rod V', which connects at the top to the upper end of a supplemental lever W, extending from the lever T.

In constructing our device we also propose to make the tubular shafts of the pinions integral with all of said pinions, thereby avoiding the use of set-screws and similar contrivances and preventing any possible derangement of the mechanism by their loss or misplacement.

It will thus be seen that we provide an exceedingly cheap, simple, and durable form of fence-machine, one which will entirely dispense with the use of a track or bed-plate, one which can be quickly and easily moved along the horizontal strands of the fence, and one in which the spool holder and guide are formed integrally and arranged in the proper manner for producing a fence in which the mesh will be extremely strong and tight.

In order to prevent the shifter-bars from falling back, we employ a dog X, which is pivoted to the side of the main frame and is adapted to engage one of a pair of notches X', according to the position of the shifter-bars.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a wire-fence machine, the combination with the main frame, of a series of intermeshing pinions, the upper and lower pinions having elongated tubular shafts whereby the machine is supported upon the upper and lower ends of the fence, the winding-shaft arranged upon the main frame, a lever for operating said winding-shaft, the guide-sheaves and cables, said cables passing over the guide-sheaves and attached to the winding-shafts, the rear ends of said cables being adapted to be secured to the wire strands, substantially as shown and described.

2. In a wire-fence machine, the combination with the main frame, of the shifter-bars carrying arms arranged in alternate order, the operating lever and rod, the lever tipped upon the top of the frame and carrying the tooth-segments which are adapted to engage the rack-teeth at the upper ends of the shifter-bars, the intermeshing pinions slotted as described, the combined reel-holder and guide-arm, means for operating the intermeshing pinions, together with means for moving the machine along the horizontal strands, said machine being supported upon said strands, substantially as shown and described.

GEORGE S. ANDERSON.
ROBERT ANDERSON.

Witnesses:

FRANK DEAN,
THOS. B. RADER.