

(No Model.)

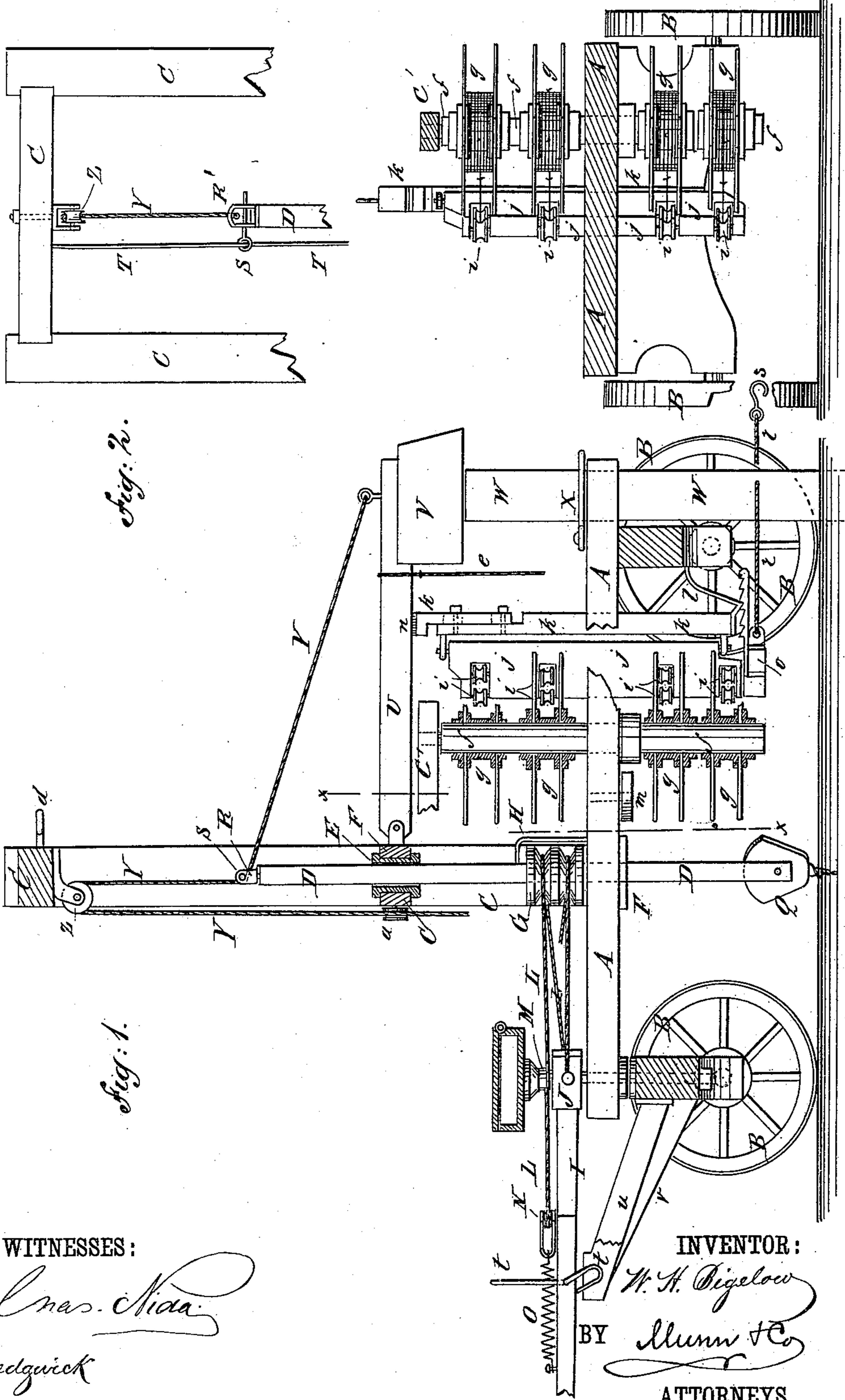
2 Sheets—Sheet 1.

W. H. BIGELOW.

MACHINE FOR BUILDING WIRE FENCES.

No. 337,119.

Patented Mar. 2, 1886.



WITNESSES:

*Chas. Mida*  
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INVENTOR:

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BY *Allen & Co*  
ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

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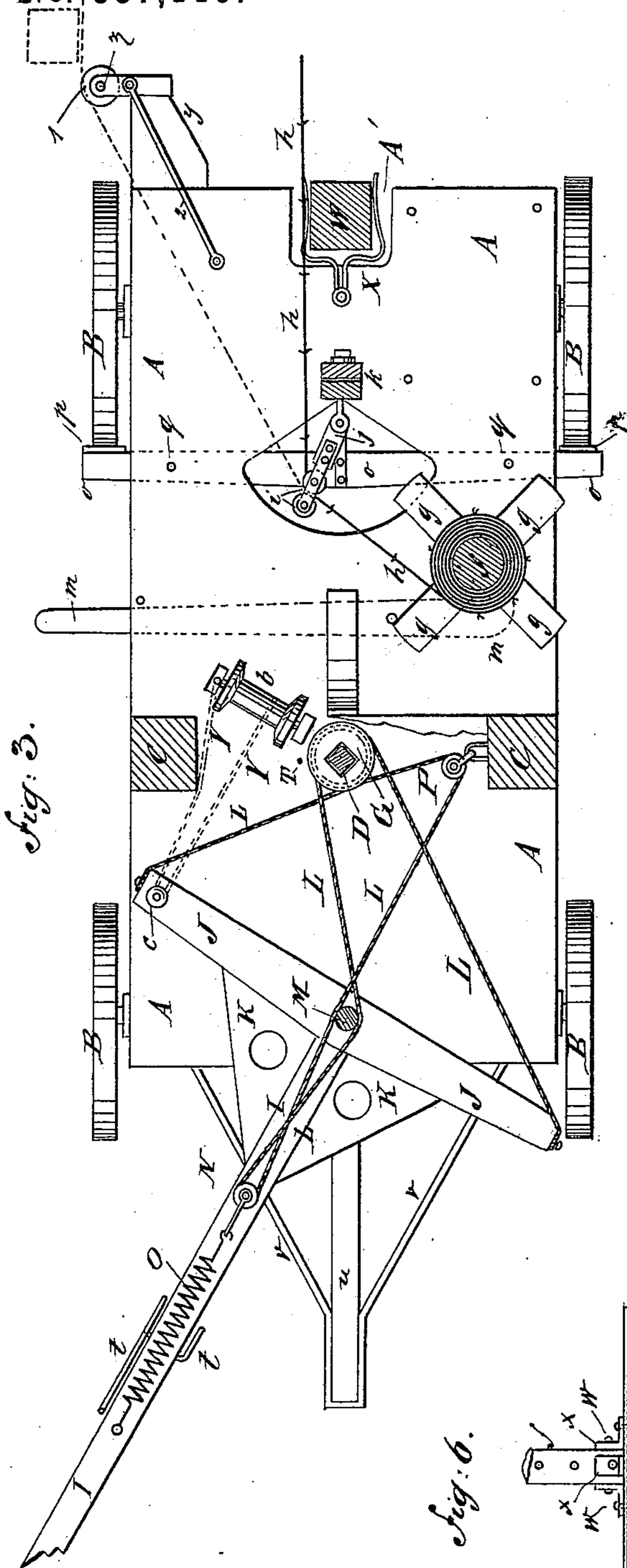


Fig. 3.

Fig. 4.

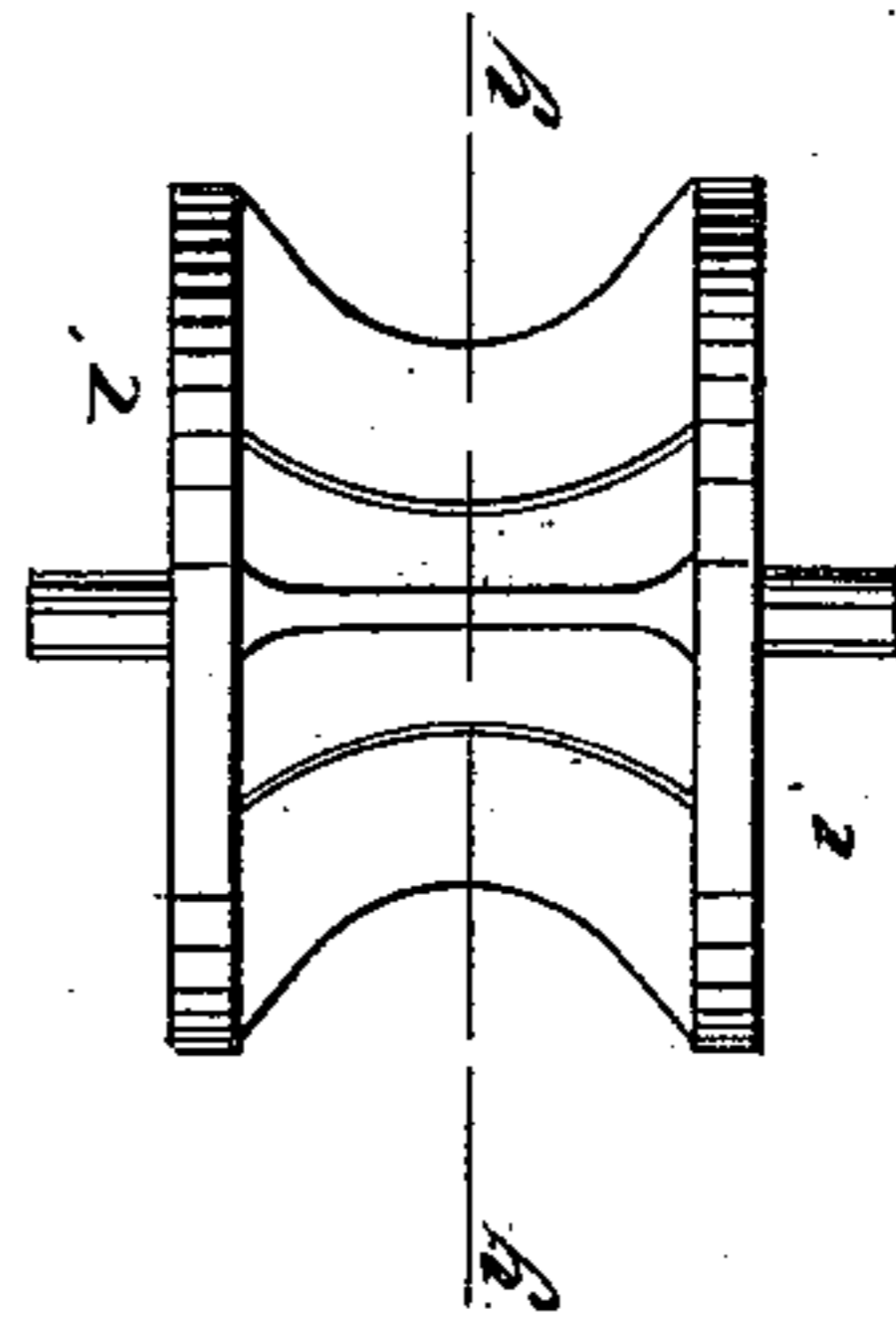


Fig. 5.

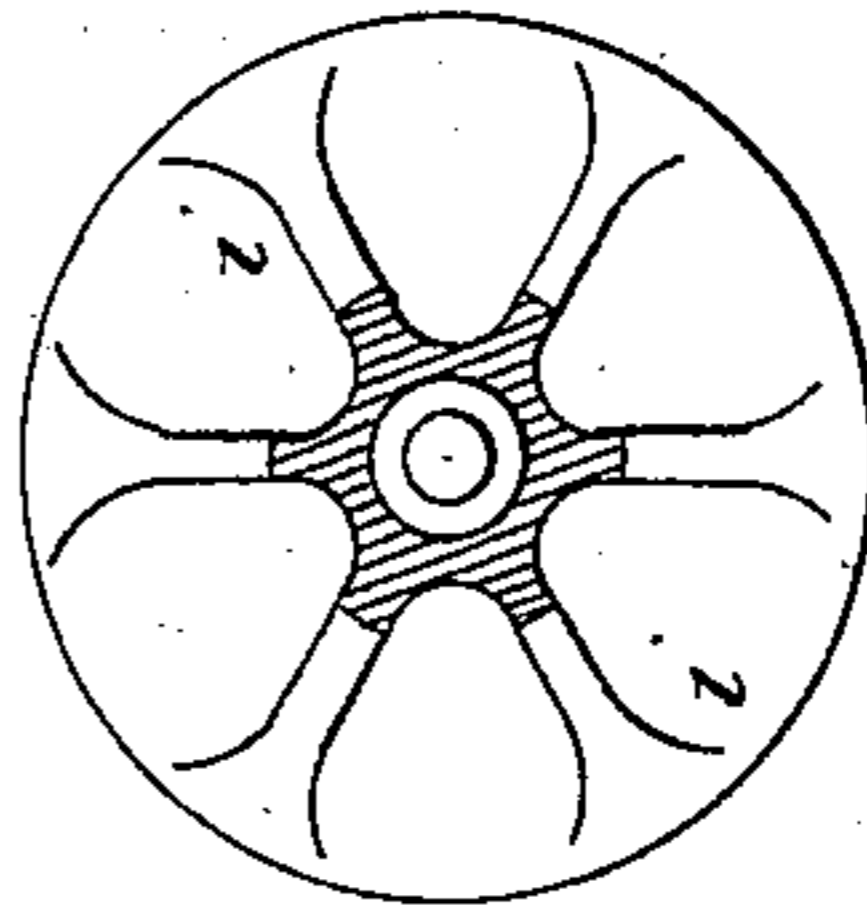
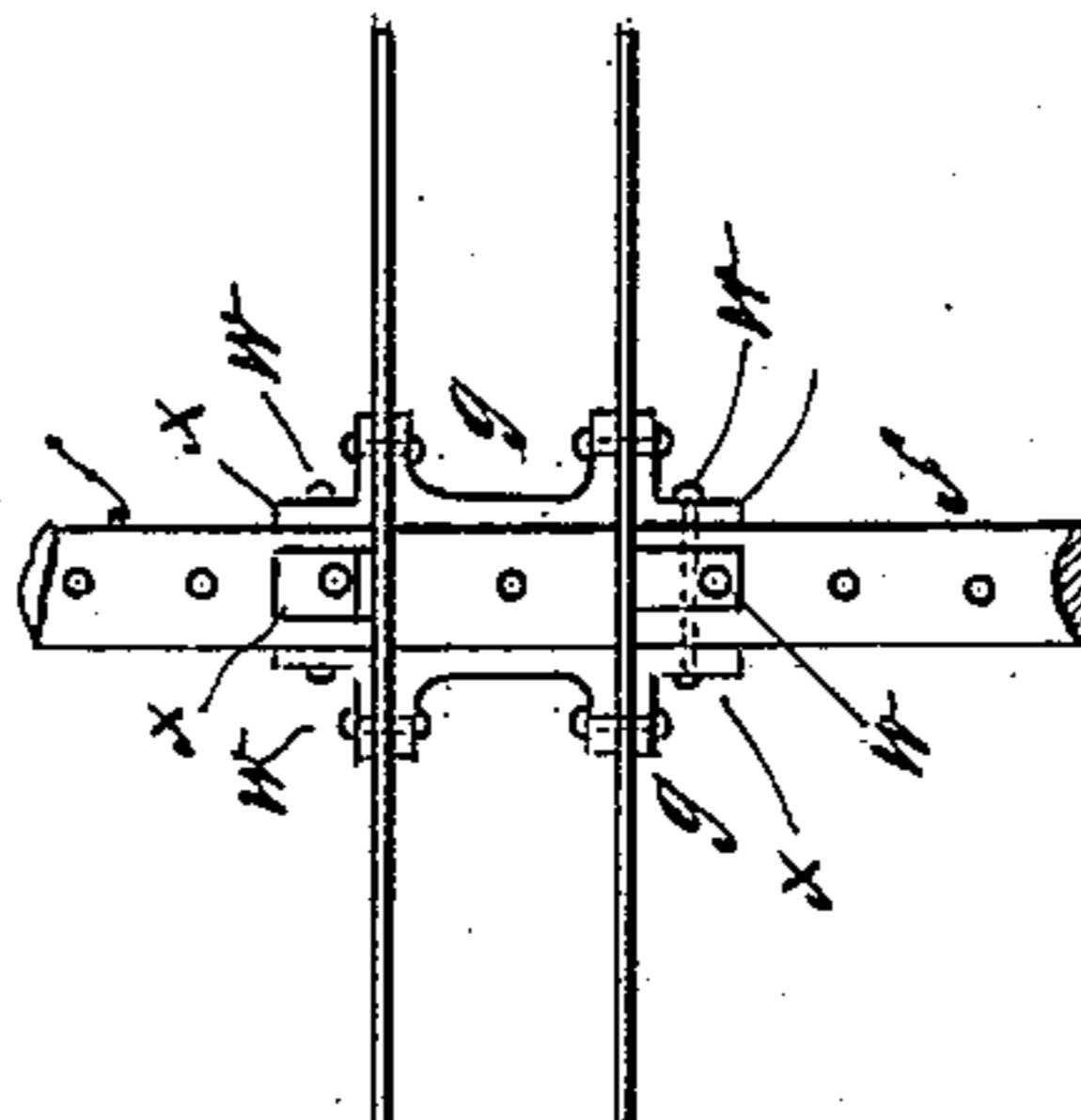


Fig. 6.



WITNESSES:

*Cnas. Naa.*  
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# UNITED STATES PATENT OFFICE.

WILLIAM H. BIGELOW, OF WORTHINGTON, MINNESOTA.

## MACHINE FOR BUILDING WIRE FENCES.

SPECIFICATION forming part of Letters Patent No. 337,119, dated March 2, 1886.

Application filed July 2, 1885. Serial No. 170,488. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. BIGELOW, of Worthington, in the county of Nobles and State of Minnesota, have invented certain new and useful Improvements in Machines for Building Wire Fences, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of one of my improved fence-building machines. Fig. 2 is a front elevation of the same, partly in section, through the line *x x*, Fig. 1. Fig. 3 is a sectional plan view of the same. Fig. 4 is a side elevation of one of the guide-pulleys for the wire. Fig. 5 is a sectional plan view of the same, taken through the line *y y*, Fig. 4. Fig. 6 is a side elevation of one of the wire-reels, shown as applied to a part of the reel-shaft.

The object of this invention is to facilitate the building of wire fences.

The invention consists in the construction and combination of various parts of the machine, as will be hereinafter fully described, and then pointed out in the claims.

A represents the frame or platform of the machine, which is mounted upon wheels B, or upon runners, for convenience in being moved from place to place.

To the side parts of the platform or frame A are attached the lower ends of the posts of a vertical frame, C.

D is a square shaft, which slides vertically in square holes in the sliding collars E. The collars E revolve in bearings F, attached to the platform A and to a cross-bar of the vertical frame C, so that the said shaft can have both a vertical and a rotary movement.

G is a double pulley, which has a square hole formed through it to receive the square shaft D, and allow the said shaft to slide up and down through it freely, while the said pulley will carry the said shaft with it in its revolution. The pulley G is held from being raised by the shaft D by a keeper, H, attached to the platform A, and which projects over the upper end of the said pulley.

To the upper side of the forward end of the platform A is pivoted the rear end of the sweep

I, which has a cross-bar, J, attached to its pivoted rear end, the connection being strengthened by angular braces K, attached to the said sweep and cross-bar.

To the right-hand end of the cross-bar J is attached the end of a rope or chain, L, which passes around one part of the double pulley G, passes thence across the left-hand side of the sweep-pivot M, and around a pulley, N, the block of which is attached to the end of the spring O. From the pulley N the rope L passes across the right-hand side of the sweep-pivot M, to and around a pulley, P, the block of which is secured to the left-hand post of the vertical frame C, passes thence to and around the other part of the double pulley G, and its end is secured to the left-hand end of the cross-bar J, so that the square shaft D will be rotated by turning the sweep I upon the pivot M. The forward end of the spring O is connected with the sweep I by a pin, hook, or other suitable support, that will allow the said spring to be readily slackened when desired.

Q is an ordinary earth-auger, which is secured to the lower end of the square shaft D detachably, so that it can be replaced by a larger or smaller auger, as the desired size of the post-holes to be formed may require.

To the upper end of the square shaft D is swiveled a clevis, R, to receive the hoisting-rope, hereinafter described. The clevis R is held from turning with the shaft D by an eye-pin, S, which passes through the arms of the said clevis, and the eye of which receives and slides upon a vertical rod, T, attached to the cross-bars of the vertical frame C, so that the hoisting-rope will not be twisted by the revolution of the said shaft D.

To the rear side of a cross-bar of the vertical frame C is hinged the inner end of a hammer-arm, U, to the outer end of which is attached the hammer-head V for driving a post, W. The post W is placed in a recess, A', in the rear end of the platform A, and is held erect, while being driven, by a forked spring or holder, X, attached to the said platform A.

The platform A and the hammer-arm U are made of such a length that when the machine is in position for the hammer U V to drive a post, W, the auger D Q will be in position to bore the next hole.

To the outer end of the hammer-arm U, or

to the hammer-head V, is attached the end of the hoisting-rope Y, which passes through the clevis R, over a pulley, Z, pivoted to supports attached to the top cross-bar of the vertical frame C, thence around a pulley, *a*, pivoted to supports attached to a lower cross-bar of the frame C, thence around a pulley, *b*, pivoted to supports attached to the platform A, thence around a pulley, *c*, pivoted to the upper side of the right hand end of the cross-bar J, and its other end is attached to the bearing of the pulley *b* or other suitable support. With this construction, when the sweep is swung to the left, the rope Y is drawn taut, raising the shaft D to withdraw the auger Q from the ground, and raising the hammer U V into a vertical position. When the sweep I is swung to the right, the rope Y is slackened, allowing the auger to be forced into the ground, and allowing the hammer to be dropped, when desired, upon the post to be driven. When the sweep I is swung to the left, the spring O should be slackened; or the pulley G might be connected with the shaft D by a ratchet-wheel and pawl, so that the said pulley can be turned back without rotating the said shaft. When the hammer U V comes to a vertical position, it is caught by a spring-catch, *d*, attached to the top cross-bar of the frame C, and is held in that position until withdrawn from the said catch *d* by the operator by means of a trip-cord, *e*, attached to the said hammer and hanging in such a position that it can be conveniently reached and operated.

To the platform A and to a bar, C', attached to the vertical frame C, is pivoted an upright shaft, *f*, to which are attached as many reels *g* as it is desired to have strands *h* of wire in the fence. The reels *g* are secured to the shaft *f* by pins or screws *w*, passing through lugs *x* attached to the said reels and into holes in the said shaft *f*. Numerous holes are formed in the shaft *f* to receive the pins or screws *w*, so that the reels *g* can be adjusted at any desired distance apart and at any desired distance from the ground as the number of wires to be used may require, or the reels *g* can be secured in place by set-screws passing through the lugs *x* and resting against the shaft *f*; but the former construction is preferred as holding the reels in place more securely. From the reels *g* each wire *h* passes between a pair of guide-pulleys, *i*, pivoted to supports attached to the edge or secured in slots formed in the edge of a vertical frame or plate, *j*, which is hinged at its other edge to a post, *k*, secured to the platform A and further strengthened in position by a brace, *l*, attached to its lower end and to the rear axle of the carriage, or other substantial support. The guide-pulleys *i* are formed with concaved ribs, as shown in Figs. 4 and 5, having spaces between them to receive the barbs when barbed wire is used, and thus allow barbed wires to be run through the said pairs of guide-pulleys with the same facility as plain wires.

When it is desired to strain the wires *h* be-

fore securing them to a post by staples or other suitable fastenings, the reels *g* are held from revolving freely by a lever-brake, *m*, pivoted to the platform A and held against the shaft *f*, or a collar placed upon the said shaft. The hinged plate *j* swings in an opening in the platform A, and may be swung to one or the other side, as may be necessary to lead the wires along the desired side of the posts.

To brackets *y*, secured to a rear corner of the platform A, is secured an upright shaft, *z*, upon which are placed guide-pulleys 1, to receive the wires *h*, so that the machine can be used for applying wires to posts already in the ground. The shaft *z* is strengthened against the strain of the wires *h* by braces 2, attached to the said shaft and to the platform A.

To the upper end of the post *k* is attached a rubber block, *n*, to serve as a cushion to stop the descent of the hammer U V when the post W has been driven to the desired depth.

The post *k* is made in two parts halved to each other and fastened together by bolts, as shown in Fig. 1, one or both the overlapped parts being slotted to receive the fastening bolts, so that the said post can be readily lengthened and shortened so as to allow the hammer U V to drive the posts W to a less or greater depth, as may be required. The posts W should be a little larger than the holes formed by the auger D Q, so that the said posts W will stand firm when driven into place.

*o* is a brake-bar, provided with brake-shoes *p*, and attached to the lower ends of rods *q*, the upper ends of which are attached to the platform A.

To the brake-bar *o*, upon the opposite sides of and equally distant from its center, are attached the ends of a forked or branched cord, *r*, which has one or more hooks, *s*, secured to it in such positions that when hooked upon posts W, previously driven, and the machine is drawn forward the said cord *r* will be drawn taut and made to apply the brake *o p* to the wheels B and stop the machine in proper position for the auger D Q to bore another hole, and for the hammer U V to drive a post into the hole last bored.

When the machine is to be driven forward, the sweep I is swung around to a position parallel with the length of the machine, and is secured in place by a lever-catch, *t*, which is pivoted to the said sweep I. The lower part of the lever-catch *t* is made with two arms to be swung down upon the opposite sides of the upper end of the bar *u*, the top of which is upon a level, or nearly so, with the lower side of the sweep I. The lower end of the bar *u* is attached to the forward side of the forward axle of the carriage, and the said bar is strengthened against side strain by the inclined braces *v*. The forward ends of the braces *v* are attached to the opposite sides of the forward end of the bar *u*, and their rear ends are attached to the end parts of the forward side of the forward axle of the carriage.

When operating the machine, the draft is

applied to the outer end of the sweep I; but when drawing the machine from place to place the draft can be applied to the rear part of the said sweep or to a separate tongue provided for that purpose.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a fence-building machine, the combination, with the platform A, of the vertical shaft *f*, the horizontal reels thereon, the vertical post *k*, the horizontally-swinging support J, hinged thereto, and the horizontal guide-rollers *i i*, journaled in one vertical edge of said support, substantially as set forth.

2. The combination, with the platform A, 15 the vertical shaft *f*, and the horizontal reels *g*, of the horizontally-swinging support J, provided with a series of guide-rollers, *i i*, formed with spaced concaved peripheral ribs to receive the barbs of the fence-wires, substantially as set forth. 20

WM. H. BIGELOW.

Witnesses:

L. M. LANGE,

R. B. PLOTTS.