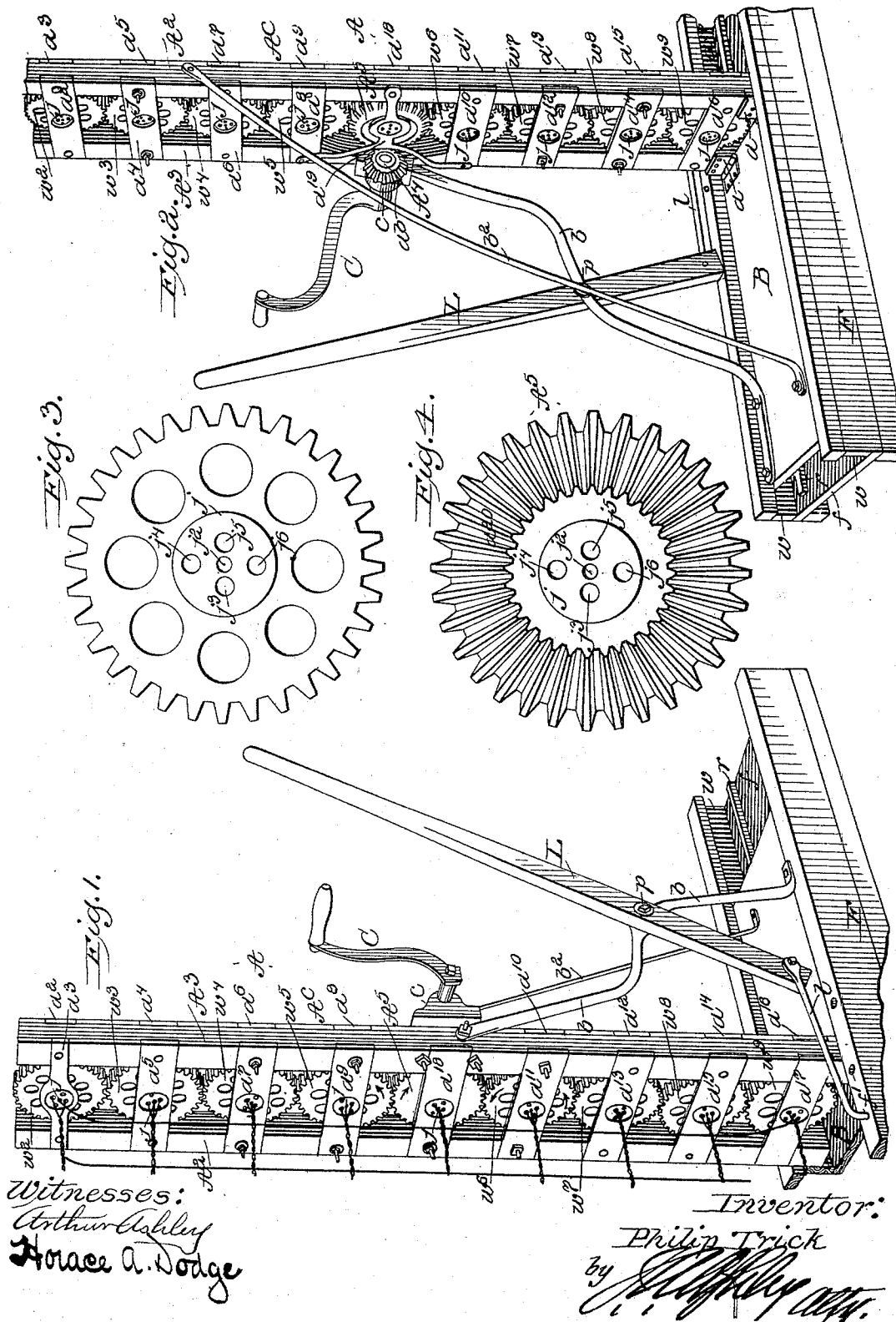


(No Model.)

P. TRICK.
WIRE FENCE MACHINE.

No. 495,533.

Patented Apr. 18, 1893.



UNITED STATES PATENT OFFICE.

PHILIP TRICK, OF CRESTLINE, OHIO.

WIRE-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 495,533, dated April 18, 1893.

Application filed September 27, 1892. Serial No. 447,055. (No model.)

To all whom it may concern:

Be it known that I, PHILIP TRICK, a citizen of the United States, and a resident of Crestline, in the county of Crawford, in the State of Ohio, have invented a new and useful Machine for Making Wire Fences, of which the following is a correct description.

The invention relates to a machine which is operated in the field, to intertwist the wires, when the fence is formed wholly of wire, or to twist the wires in connection with pickets or other upright parts, of metal or of wood, when the fence is to be of the compound or composite order,—the operation of inserting and intertwisting the wires progressing, and the machine moving step by step across the field, while the several lengths are secured, as they are completed, to the successive members of the previously-set line of posts.

The invention consists in various novel elements or novel combinations of elements in a machine for making wire fences, as will first be described with particular reference to its details of construction, and then distinctly summarized in the paragraphs which immediately follow such description.

In the accompanying drawings, which constitute a part of this specification: Figure 1 represents a perspective elevation of the machine. Fig. 2 represents a perspective elevation of the machine,—the view being taken in a direction opposite to that of Fig. 1. Fig. 3 is an elevation of one of the wheels of the upper or lower series of twisting gear-wheels, detached. Fig. 4 is an elevation of the central or midheight wheel, which serves as a gear-wheel, to actuate the upper and lower series of twisting-wheels, and also, in common with them, as a twisting-wheel.

The left and right parallel vertical columns A^2 and A^3 , (constituting the column of wheel-bearing standard A^c) of the machine A , between which the twisting-wheels are secured, are, at their bases, firmly fixed in or upon the horizontal base or platform B ,—any suitable angle-pieces, as a , or braces as b and b^2 , serving to secure them immovably in their position upon such base. The base or platform B is received by its longitudinal edges in opposite parallel recesses or ways w , in a supporting bed-frame F , and it has movement

within and along such ways, and upon parallel strips or rails r , which are fixed upon the bottom-plate or floor f , of the bed-frame F . A lever L , and the brace b , receive a pivot-pin p , at a point at a suitable distance above their lower extremity,—the lever thereby having movement upon the brace. The lower extremity of the lever L is provided with a loosely-attached hook l , which by its outer and free extremity is adapted to engage in suitable vertical openings f' in the rails or side-pieces of the bed-frame.

Upon the front face and upon the rear face of the columns A^2 and A^3 , are secured the upper series of transversely-extending horizontal journal-plates or bars $a^2, a^3, a^4, a^5, a^6, a^7, a^8$, and a^9 , and the similar lower series of journal-plates $a^{10}, a^{11}, a^{12}, a^{13}, a^{14}, a^{15}, a^{16}, a^{17}$,—the two series respectively receiving between them the journals of the gear-wheels w^2, w^3, w^4, w^5 , and w^6, w^7, w^8, w^9 .

At the mid-height of the columns A^2 and A^3 , is the intermediate or secondary and actuating gear-wheel A^5 , which, as already stated, serves, in common with the wheels above it and below it, as a twisting-wheel. This wheel is by its rear-journal received in a journal-plate a^{18} , which is similar to those above it and below it, but at its front its journal is received within the central opening of an outwardly-bent or concave journal-bar a^{19} , the bend or concavity conforming, as shown, to the configuration of the bevel-gear surfaces a^{20} , upon such wheel. In coincidence with the gear-wheel A^5 , is the primary gear-wheel or power-wheel A^4 , which is rigidly fixed upon the shank c , of a crank-arm or winch C , which is journaled in bearings $a b$, upon the front face of the column A^2 . As represented in the drawings, the journal-plates are secured to the columns by means of through-bolts and nuts, but it will be apparent that other means of attachment might be employed.

The cog-gear twisting-wheels, and the central or mid-height wheel, are each provided, upon each face, with a projecting journal j , through which extend a central perforation j^2 , and outer perforations j^3 and j^5 , and j^4 and j^6 ,—the perforations j^3 and j^5 being placed opposite to each other, and near to the central perforation j^2 , while the perforations j^4

and j^6 are also located opposite each other, and on opposite sides of the central perforation, but are at a greater distance from such central perforation than are the perforations j^3 and j^5 .

In the operation of the machine,—a wire being extended for instance, through the central perforation of the actuating gear-wheel A^5 , and additional wires through either or both of the two pairs of perforations outside the central perforation, revolution of the crank-arm C will cause such outer wires to be firmly intertwined with and about the central wire,—the groups of wires in the wheels w^5 and w^6 above and below, respectively, being, of course, twisted in the opposite direction to those in the actuating wheel, while the wheels of each pair, equally removed from and on opposite sides of the actuating-wheel, revolve in the same direction,—this direction being different in adjacent pairs. At a short distance from the machine, the first of a series of vertical wires may be inserted between the members of either or both of the two pairs of horizontal wires, the angularly-bent ends of such vertical wires extending horizontally along the horizontal wires, toward the machine, and being intertwined with such horizontal wires. If pickets alone be employed, it will usually be found economical of material to employ the pair of wires in the perforations j^4 and j^6 , alone; as these, being farther apart than the wires in the perforations j^3 and j^5 , will be best adapted to receive and to secure the pickets. As the process of twisting is continued, and it is desired to introduce vertical pickets or vertical wires, the hook of the lever being engaged with the holding-openings in the frame, actuation of the lever L will serve to advance the machine along its bed-frame, and along the fence-line.

When vertical rods, bars, or pickets, are to constitute a part of the structure, the platform and bed-frame will serve, through contact of such rods, bars, or pickets therewith,

to gage the height of such parts from the base-line of the fence.

A machine of this construction has been found to operate rapidly and effectively in the construction of a fence composed either wholly of wire, or of wire in connection with rods or pickets, as represented in United States Patent No. 483,186, granted to me September 27, 1892; upon reference to which the manner in which the machine is employed to secure vertical wires, or both vertical wires and wooden pickets in place, will more clearly appear.

The nature and the objects of the invention having been thus definitely indicated and the construction and operation of the apparatus in which it is embodied having been fully set forth, what is claimed is—

1. A machine for making wire fences which embraces a bed-frame or support which is provided with longitudinal ways, and with engageable openings; and a vertical column or standard which is mounted upon a base or platform which is movable within and along the longitudinal ways, and which is provided with a pivoted lever which is adapted to engage the openings in the bed-frame.

2. A machine for making wire fences which embraces a supporting bed-frame which is provided with longitudinal ways, and with engageable surfaces or openings; a platform or base which is received by its edges in the longitudinal ways in the supporting bed-frame; a vertical column or standard which is mounted upon the platform or base; and an operating lever which is pivoted to a fixed part which is secured to the base and to the column or standard, and which is adapted to engage the bed-frame, and which when thus engaged is operative to move the base and its superposed column or standard along the ways in the bed-frame.

PHILIP TRICK.

Witnesses:

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JNO. G. BARNEY.