(No Model.)

C. E. MILLER.

FENCE MACHINE.

No. 348,570. Patented Sept. 7, 1886.

Fig. 1.

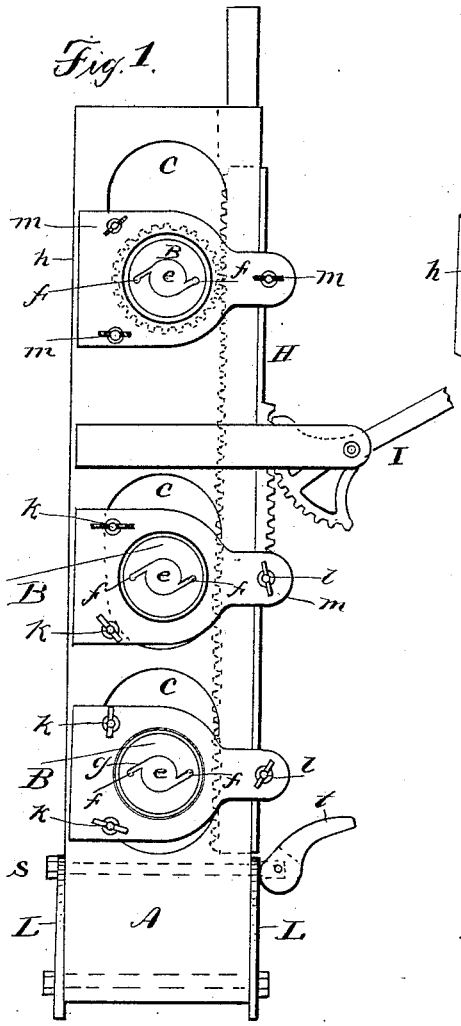


Fig. 4.

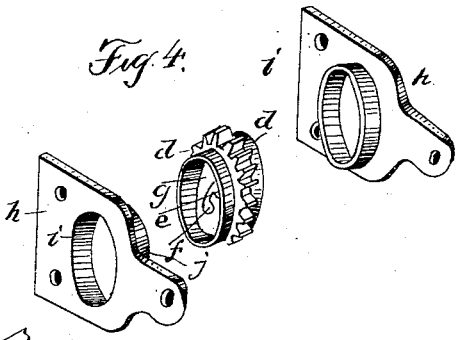
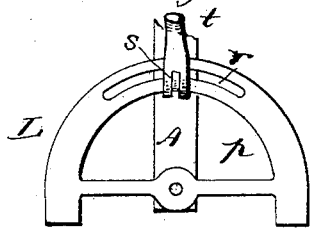


Fig. 3.



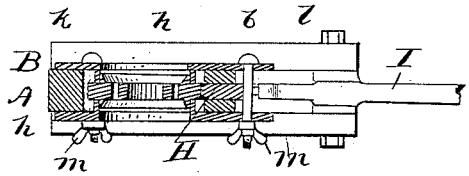


Fig. 2.

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UNITED STATES PATENT OFFICE.

CHARLES E. MILLER, OF INDIANAPOLIS, INDIANA.

FENCE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 348,570, dated September 7, 1886.

Application filed June 21, 1886. Serial No. 205,820. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. MILLER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improved Fence-Machine, of which the following is a specification.

My invention relates to improvements in that class of machines for building combined slat-and-wire fences in which a series of wire-twisting disks mounted in a common support and arranged to be operated simultaneously are applied directly to the several strands of wire in the field when stretched from post to post.

The objects of my improvements are, first, to provide means for adjusting the wire-twisting disks relatively to each other and to their common support, whereby the pairs of wire strands which sustain the slats may be arranged at different distances apart; second, to permit the easy passage through the twisting-disks of knots or splices in the wire; and, third, to provide improved means for supporting the machine in position, all as hereinafter fully described.

The accompanying drawings illustrate my invention.

Figure 1 is a side elevation. Fig. 2 is a section. Fig. 3 is a partial elevation at right angles to the elevation shown in Fig. 1. Fig. 4 is a perspective view of one of the twisting-disks and its supporting-plates.

A is the supporting-frame, which consists, preferably, of a single plank about two inches thick and eight inches wide, and having a longitudinal groove, *b*, in one edge and a series of slotted openings, *c c c*.

B B B are the twisting-disks. Each of said disks consists of a cog-wheel having on opposite sides projecting flanges *d d*, and having a large central hole, *e*, and two smaller holes, *f f*, each of said smaller holes being connected with the larger one by an inclined slot, *g*. Disks B are each adjustably secured to the frame A, in the slotted openings *c*, by a pair of plates *h h*, each having a central opening, *i*, and an annular flange, *j*. Plates *h* embrace the sides of the frame A, and are mounted opposite each other on said frame, the flanges *j j* forming bearings in which the flanges *d d* on the disk rest and turn. Said disks are secured in place by means of bolts *k k* and *l*, the bolts passing through the plates and each having a thumb-nut, *m*, by means of which the plates are clamped against the sides of the frame.

H is a rack-bar adapted to slide in the groove in the edge of the frame A and to intermesh with the cogs on the disks B. Said bar is held in place in the groove by the bolts *l*, as clearly shown in Fig. 2. For the purpose of sliding bar H up and down, and thereby simultaneously turning the disks B, said bar is provided on its outer edge with cog-teeth, which intermesh with corresponding teeth on a segment-lever, I, which is pivoted between brackets *n*, secured to the frame A.

J is a stop, which determines the length of movement of bar H.

L L are braces for the purpose of furnishing a broad base for the support of frame A, and for the purpose of permitting the adjustment of said base to uneven or inclined ground. The construction is as follows: Each brace consists of a light bar of iron, bent to form an arc of a circle, having its center in the cross-bar *p*, which unites the ends of said arc. The braces are each provided with a slot, *r*, and are pivoted through bar *p* to the edge of frame A. A bolt, *s*, passes through the slots *r*, and through the frame, sliding loosely therein. A cam-lever, *t*, is pivoted to the end of bolt *s*, and the braces and frame are clamped securely together by the downward movement of said lever in an obvious manner.

The operation of my device is as follows: The several pairs of wires between which the slats are embraced in this class of fencing are attached to the first fence-post at such distances apart as the builder may wish, after which the several twisting-disks B, with their supporting-plates, are adjusted in frame A to corresponding distances from center to center. The pairs of wires are then passed through the large holes in the centers of the disks, and the wires are separated and passed through the slots *g* into the holes *f*. The wires are then made fast to a distant post or tension device in the usual manner. Cam-lever *t* being raised, frame A is set plumb, the braces L L swinging on their pivots and adjusting themselves to the surface on which the machine sets. The operator then pushes lever I downward with his foot, thus clamping the braces rigidly to

the frame. The operator now forces lever I downward, thus revolving each disk B a half-revolution. A slat is then placed in the bight thus formed, and the lever is thrown and the disks turned in the opposite direction, thus securing the slats by the crossing of the wires in the well-known manner common to this class of machines, the machine being moved along the wires as the work progresses. When a splice or other enlarged place is found in the wires, they are thrown from the small holes *f* into the central hole in the disk, and the splice is thus easily passed.

I claim as my invention—

1. In a fence-machine, the combination of the main frame having a series of vertical slots, the series of twisting-disks, each adapted to receive and hold a pair of fence-wires on opposite sides of the center of said disk, and arranged within said slots, the bearing-plates for the disks adjustably secured to the sides of the frame, and intermediate mechanism connecting the disks, whereby they are turned simultaneously, all substantially as specified.

2. In a fence-machine, the twisting-disk B, provided with cog-teeth on its periphery and having the holes *e f f*, and slots *g g*, flanges *d d*, plates *h h*, having flanges *j j*, and clamping-bolts *k k* and *l*, frame A, and rack-bar H, all combined and arranged to co-operate as specified.

3. In a fence-machine, frame A, braces L L, having slot *r*, bolt *s*, and cam-lever *t*, all combined and arranged to co-operate as specified.

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