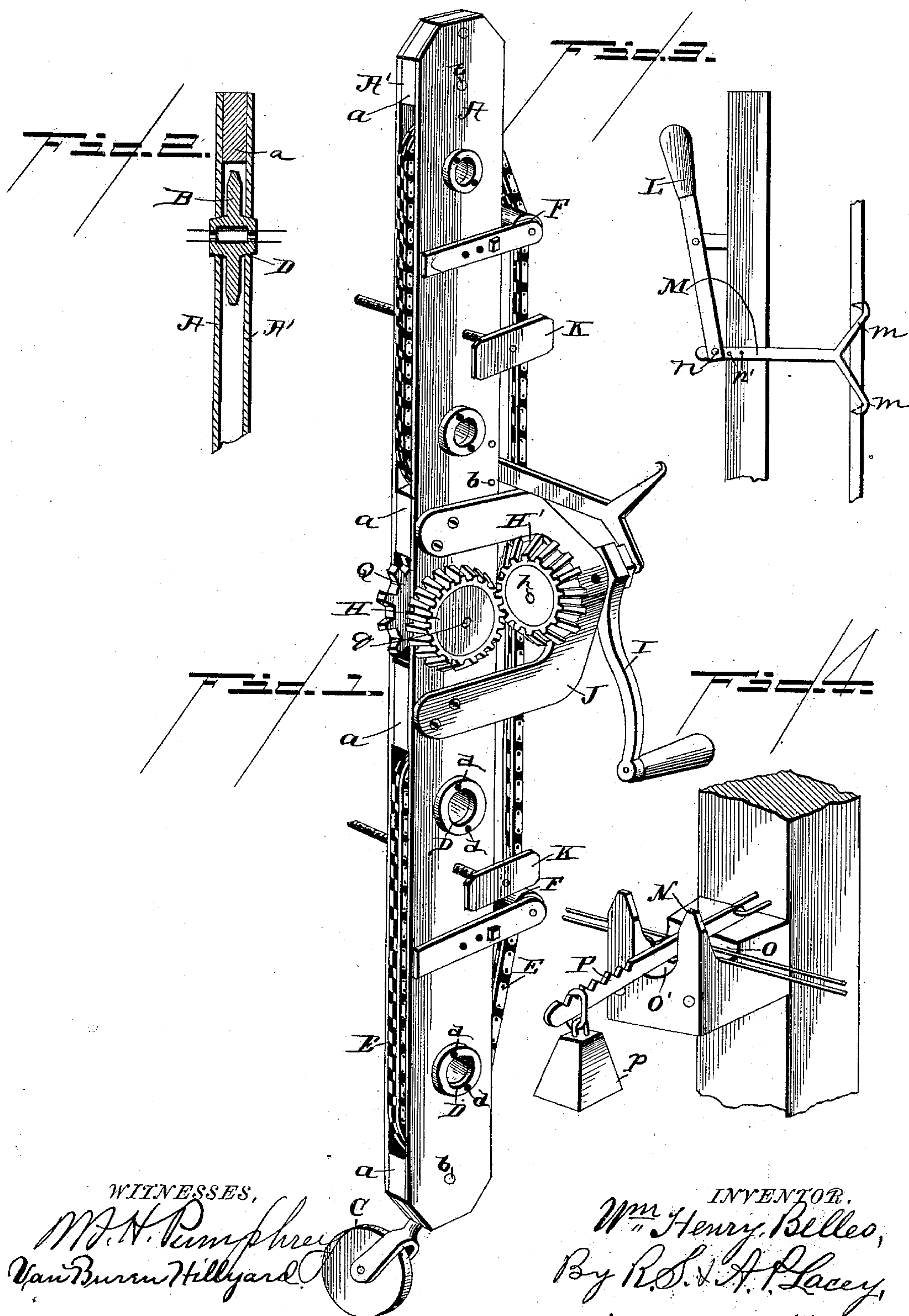


(No Model.)

W. H. BELLES.
FENCE MACHINE.

No. 392,001.

Patented Oct. 30, 1888.



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UNITED STATES PATENT OFFICE.

WILLIAM HENRY BELLES, OF ORION, MICHIGAN.

FENCE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 392,001, dated October 30, 1888.

Application filed August 14, 1888. Serial No. 232,703. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY BELLES, a citizen of the United States, residing at Orion, in the county of Oakland and State of Michigan, have invented certain new and useful Improvements in Fence-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to fence-making machines which are designed for twisting the longitudinal fence-wires about the pickets or palings, and has for its object to provide a machine that will be light, durable, and strong, and will perform its work in an efficient manner, and which will comprise a minimum number of parts and be compact, simple, and cheap in construction.

The improvement consists in the peculiar construction and combination of the parts, which will be hereinafter more fully described and claimed, and which are shown in the annexed drawings, in which—

Figure 1 is a perspective view of a machine embodying my invention; Fig. 2, a detail edge view showing the manner of journaling the wire-twisting wheels in the frame; Fig. 3, a detail side view of the devices for drawing the machine up and forcing the picket to be twisted in the cables up close in the fork between the strands of the cables, and Fig. 4 a detail perspective view of the tension device.

The frame is composed of two bars or plates, A A', preferably of thin metal, arranged parallel to one another and held at a proper distance apart by the blocks *a*, which are placed at suitable distances apart and secured to the plates by the bolts *b*. The wheel C, fastened to the foot of the frame, forms a rolling support for the machine and facilitates its transportation and movement from one picket to the other.

The twisting-wheels B—a suitable number being provided—have lateral journals D, which have bearings in suitable openings in the plates of the frame. The journals D are tubular, and

have flanges at their outer ends, which are provided with diametrically-opposite openings *d* for the passage of the strands composing the cables. The twisting-wheels are of a thickness to just fit between the plates of the frame, and are geared together in any desired manner, as by the sprocket chain E, which passes over and engages with the sprocket-teeth formed on the periphery of the twisting-wheels. On one edge of the frame the sprocket-chain passes back and forth over the twisting-wheels—that is, it passes over the front portion of one twisting-wheel, thence back over the rear portion of the next twisting-wheel, and so on. On the opposite edge of the frame the returning portion of the sprocket-chain extends in a straight line, being held from contact with the frame by passing over the two guide-rollers F F, located near the ends of the frame, as shown. The guide-rollers are journaled to the outer ends of the arms *f*, that are bolted to the frame.

The sprocket-wheel Q, located midway between the ends of the frame and journaled in the bars A and A', has one of its journals *q* extended and provided with the bevel-pinion H, which meshes with a corresponding bevel-pinion, H', on the shaft *h*. This shaft *h* is provided on its outer end with the crank I, and is journaled in the bracket J, which is secured to the frame.

The spacers K K (two being provided, one near the top, the other near the bottom, of the frame) are composed of threaded rods, which are screwed into the frame and have plates on their front ends, which are adapted to bear against the rear edges of the pickets.

The machine is held up against the picket, being bound in by the hand-lever L and the rod M. The lever is pivoted at its inner end to the frame, and is adjustably connected with the rod M by the bolt *n*, which is adapted to pass through one of a series of openings, *n'*, in the said rod M. The outer end of the rod is bifurcated or separated to form the two arms *m m*, which have hooks at their ends to grasp the edge of the picket already bound in.

The tension device comprises the casting N, having a longitudinal groove, O, and a transverse depression, O', in its upper edge, and the weighted lever P, having its inner end secured to the same support as the casting and adapted

to fit in the depression O' and rest on the fence-wires which pass through the groove O. The weight *p* is adjustable on the lever P to regulate the tension on the fence-wires.

5 The operation of the machine is manifest to any one skilled in the art of fence-making from the foregoing description of the construction and function of the several parts. However, it may be well to observe that the middle part
10 of the front portion of the drive-chain E is deflected and passes around the rear edge of the sprocket-wheel Q.

Having thus described my invention, what I claim, and desire to secure by Letters Patent,
15 is—

1. The hereinbefore described fence-making machine, composed of the frame having coincident openings in its side plates and having spacing-blocks bolted between the said side
20 plates, the wheel to roll on the ground and support the frame, the picket-spacers screwed into the frame near its ends, the twisting-wheels journaled in the said openings in the

frame, the sprocket-wheel arranged midway of the ends of the frame and journaled in its
25 side plates, the bevel-pinion on a journal of the said sprocket-wheel, the shaft having a corresponding bevel-pinion on its inner end and a crank on its outer end, the bracket forming a support for the said shaft, the hand-le-
30 ver, and the rod bifurcated at its outer end and especially connected at its inner end with the said hand-lever, all combined and arranged substantially as and for the purpose set forth.

2. The herein-described tension device for
35 wire fences, composed of the casting having a longitudinal groove and a depression in its upper edge, and the lever arranged on the said depression and having a weight adjustable on its outer end, substantially as described. 40

In testimony whereof I affix my signature in presence of two witnesses.

WM. HENRY BELLES.

Witnesses:

A. S. WARNER,
GEO. H. SEELEY.