

(No Model.)

W. S. BARKER.
FENCE MACHINE.

No. 411,635.

Patented Sept. 24, 1889.

Fig. 1.

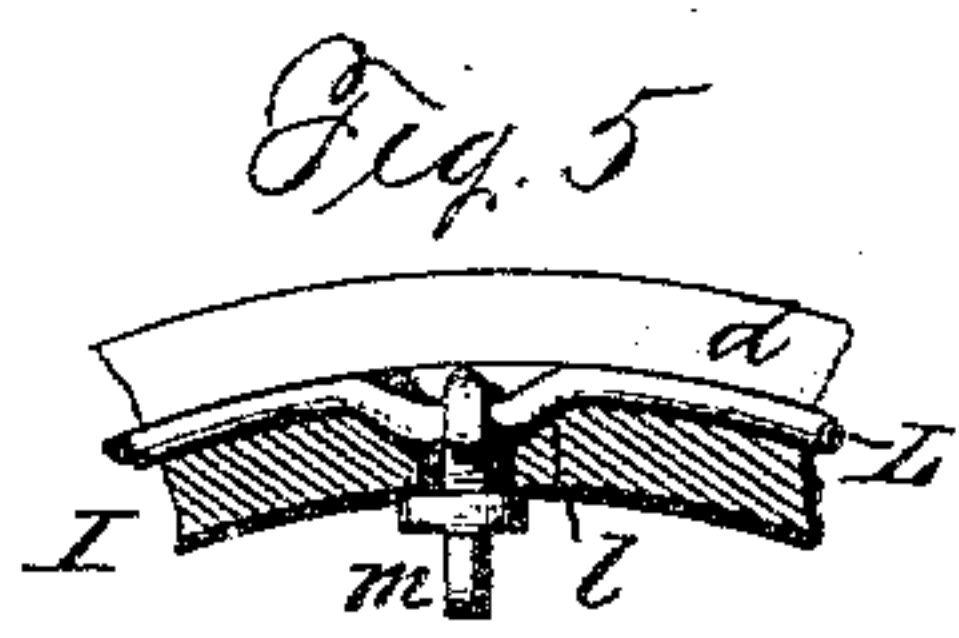
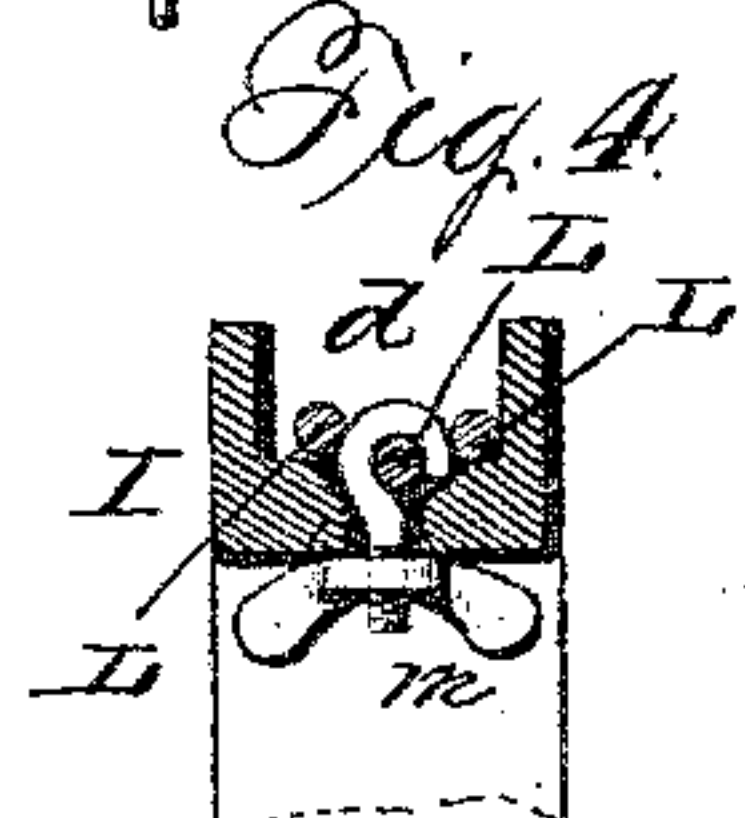
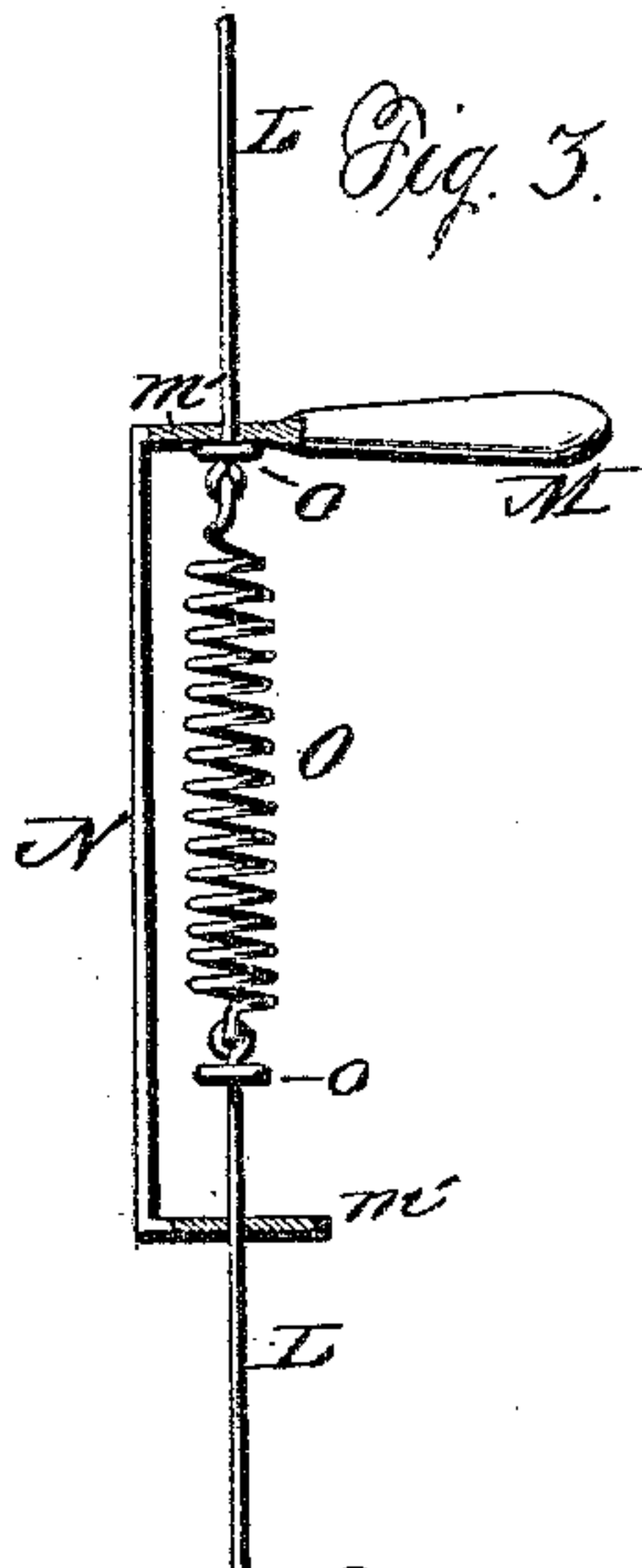
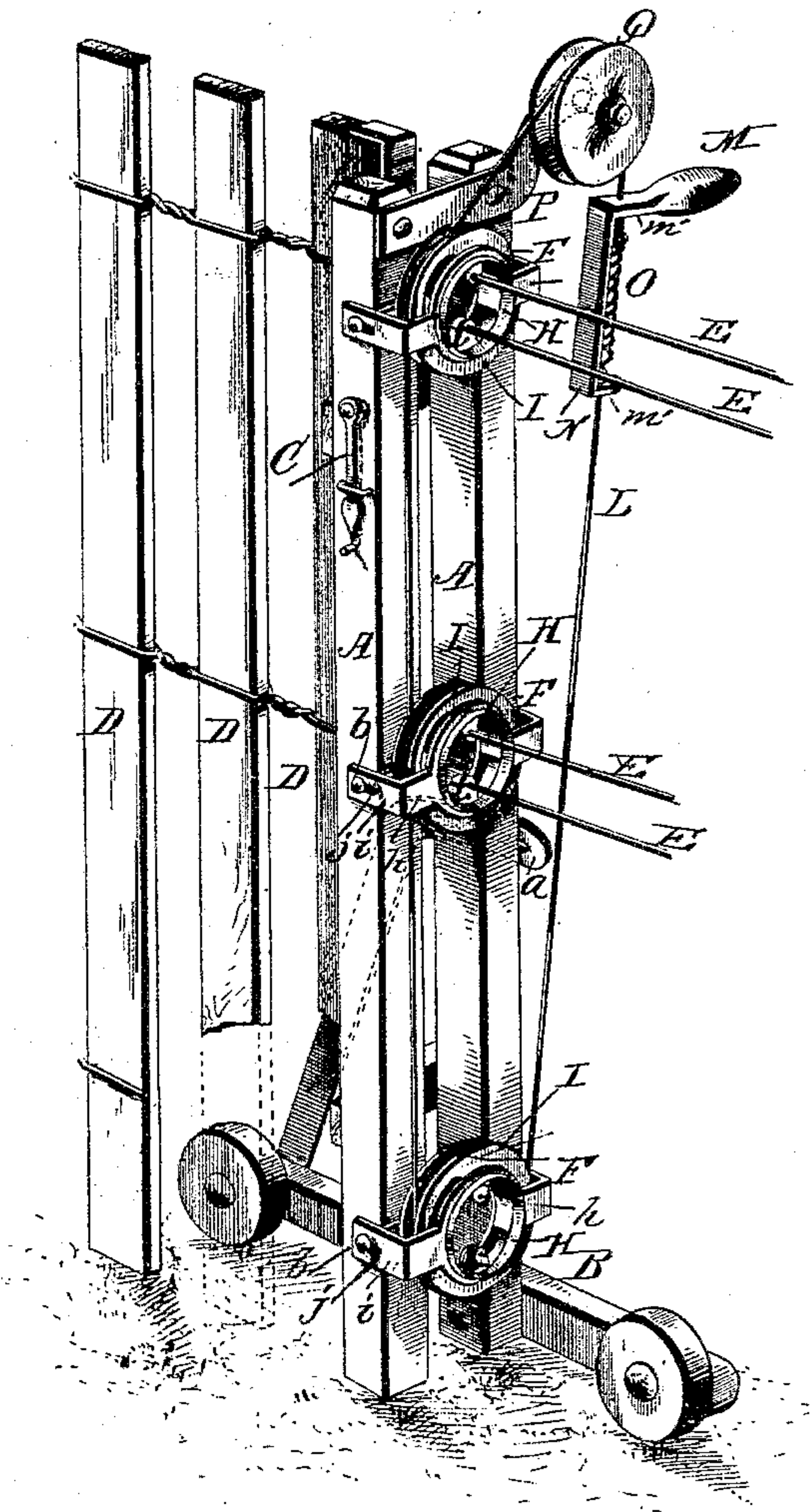
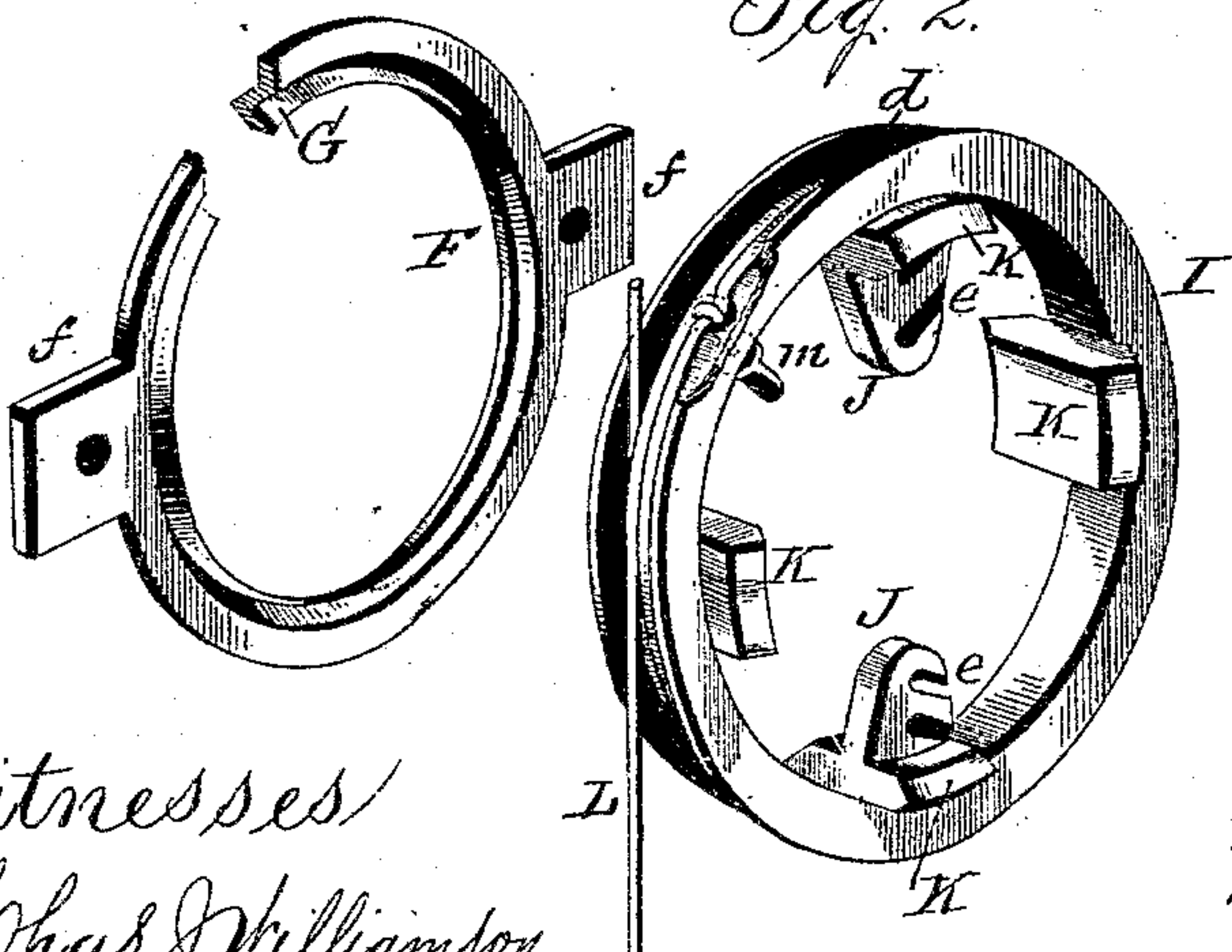


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM S. BARKER, OF TROY, OHIO.

FENCE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 411,635, dated September 24, 1889.

Application filed August 13, 1889. Serial No. 320,597. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. BARKER, a citizen of the United States, residing at Troy, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Fence-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention relates to certain new and useful improvements in fence-making machines; and it has for its object to improve upon prior devices of this character, and to provide for a proper tension at all times on the wire-driving belt. The novelty in the present instance resides in the peculiarities of construction and the combinations, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of a fence-making machine embodying my invention. Fig. 2 represents in perspective detail portions of my improved twister and its supporting bracket or frame. Fig. 3 is a detail in side elevation, with portions in section, showing the spring-connection in the operating-belt. Fig. 4 is a section through the rim of the twister, showing the manner of connecting the wire thereto. Fig. 5 is a section through the rim at right angles to the section in Fig. 4, showing the manner of attaching the wire to the rim and the depression in which it is seated.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the uprights of the frame supported on a suitable wheeled support B, suitably braced, as shown in Fig. 1. The uprights should be so connected with the support that they may be turned thereon to change the inclination of the uprights—for instance, by means of a slotted arm *a*, with

suitable means for holding the parts in their adjusted positions.

Attached to one of the uprights A is a plumb C of known construction.

D are the pickets of the fence, and E the binding-wires.

Attached to the outer face of the uprights A are the brackets or frames F. As each twister and its support is the same, and as there may be as many employed as necessary, a description of one of the said twisters and its support and manner of operation will suffice for all. The frame F is composed of a circular rim, from opposite sides of which project the arms *f*, perforated, as shown, to receive the screws or other fastenings by which they are attached to the uprights A. The outer face of this frame is formed with a circular or annular substantially V-shaped groove G, as shown best in Fig. 2.

H is a bracket having lateral arms *h* and arms *i* at right angles thereto, the ends of the arms *i* being provided with elongated slots *j*, as shown in Fig. 1, through which pass the screws or bolts *b*, which serve to secure them to the uprights A and provide for adjustment of the same to compensate for wear. These brackets or frames F and H have their rims arranged in the same plane, so that their openings shall be coincident, and the inner face of the rim of the bracket H has a circular groove *c*, as shown in Fig. 2, for a purpose hereinafter described.

I is the twister-wheel formed with a circumferential groove *d*, in which the wire belt is designed to be arranged, as will be hereinafter set forth. This wheel or twister is composed of a rim without hub, leaving the center entirely open, as shown, and projecting inward toward said center are the lugs J, which are provided with the openings *e* to receive the wires, the said openings having side slots for communication therewith, as shown. Projecting laterally from the rim of the twister-wheel are the lugs K, having beveled ends, as shown in Fig. 2, and these lugs are designed to work in the grooves in the adjacent faces of the brackets F and H. Two of these lugs are shown in Fig. 2 as being integral with the lugs J; but they may be formed separate, if desired. I deem the separated lugs prefer-

able to a continuous flange, as it lessens the frictional contact and resistance of parts and requires less power to operate the twisters.

In practice the parts are assembled by first
5 attaching the bracket F to the outer face of the uprights A, then placing the twister-wheel in place, with the lugs on one side thereof in the groove of the bracket F, then placing the bracket H in place, with its grooves receiving
10 the lugs upon the opposite side of the wheel, and then securing the arms *i* of the bracket H in place on the outer edges of the uprights, as shown in Fig. 1.

In the drawings I have shown three twist-
15 ers on the frame; but the number may be varied to suit the circumstances. The twisters are operated by means of a wire band or belt L, wound around and attached to the twister-wheels in the circumferential grooves there-
20 of, each wheel having in its groove a depression *l*, and through the rim at this depression passes a thumb-screw *m*, having a hooked outer end designed to engage the wire, and by turning up the screw the wire will be drawn
25 taut into the depression. The wire is provided with a suitable handle M, which in some cases may be attached directly to the wire; but I greatly prefer the construction illustrated more clearly in Fig. 3, wherein the
30 handle M is shown as projecting laterally from the bar N, which is formed with an arm *m'* at each end, through a hole in each of which the ends of the wire band L pass. Each end of this wire is formed with an eye, as
35 shown in Fig. 3, and a washer or plate *o* is held from displacement by means of the eyes. The eyes are so arranged in relation to the arms *m'* that the handle may have a limited movement on the wire, as illustrated in Fig.
40 3, the ends of the wire being connected between the said arms *m'* by means of a coiled spring O, the said spring being for the purpose of keeping the wire at a proper tension all the time.

45 The operation of building the fence will be readily understood, being similar to other devices of this class, the movement of the handle M up and down causing the twisters to revolve and twist the wires around the
50 pickets.

Any wear between the grooves in the brackets and the lugs on the twister-wheels may be readily compensated for by means of the adjustment provided in the brackets H.

55 An arm P is attached to the upper ends of the uprights A, and carries a grooved pulley or roller Q, over which the wire band is passed, as shown in Fig. 1.

What I claim as new is—

1. In a fence-machine, the combination, 60 with the twisters and a wire band connected therewith for operating the same, of a handle through which said band passes and a spring connecting the ends of the band and engaged by the handle, substantially as shown and 65 described.

2. In a fence-machine, the combination, with the twisters and the wire band connected therewith for operating the same simultaneously, of the bar provided with a 70 handle and having lateral arms through which the wire band passes, and a spring connecting the ends of the wire between said arms, as set forth.

3. The combination, with the brackets hav- 75 ing grooves upon their adjacent faces, of the twister-wheel provided with lateral lugs working in said grooves, substantially as described.

4. The combination, with the brackets hav- 80 ing grooves in their adjacent faces, one of said brackets being adjustable, of the twister-wheel provided with lateral lugs, substantially as shown and described.

5. The combination, with the brackets hav- 85 ing grooves upon their adjacent faces, of the twister-wheel having lateral lugs engaging said grooves and inwardly-projecting lugs having openings for the passage of the fence-wires, substantially as described. 90

6. The combination, with the brackets composed of a rim and securing-arms with circular grooves in the adjacent faces of the rims, of the twister-wheel consisting of a ring hav- 95 ing projecting therefrom laterally lugs having beveled ends working in said grooves, and lugs projecting toward the center of the ring and provided with openings for the passage of the fence-wires, substantially as shown and described. 100

7. The combination, with the twister-wheel provided with peripheral groove and having depression within said groove, of the wire ar- 105 ranged in said groove, and the thumb-screw passed through the rim of the wheel and having a hooked end engaging the wire and binding it in said depression, as shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence 110 of two witnesses.

WILLIAM S. BARKER.

Witnesses:

CHAS. J. WILLIAMSON,
CHAS. H. FOWLER.