

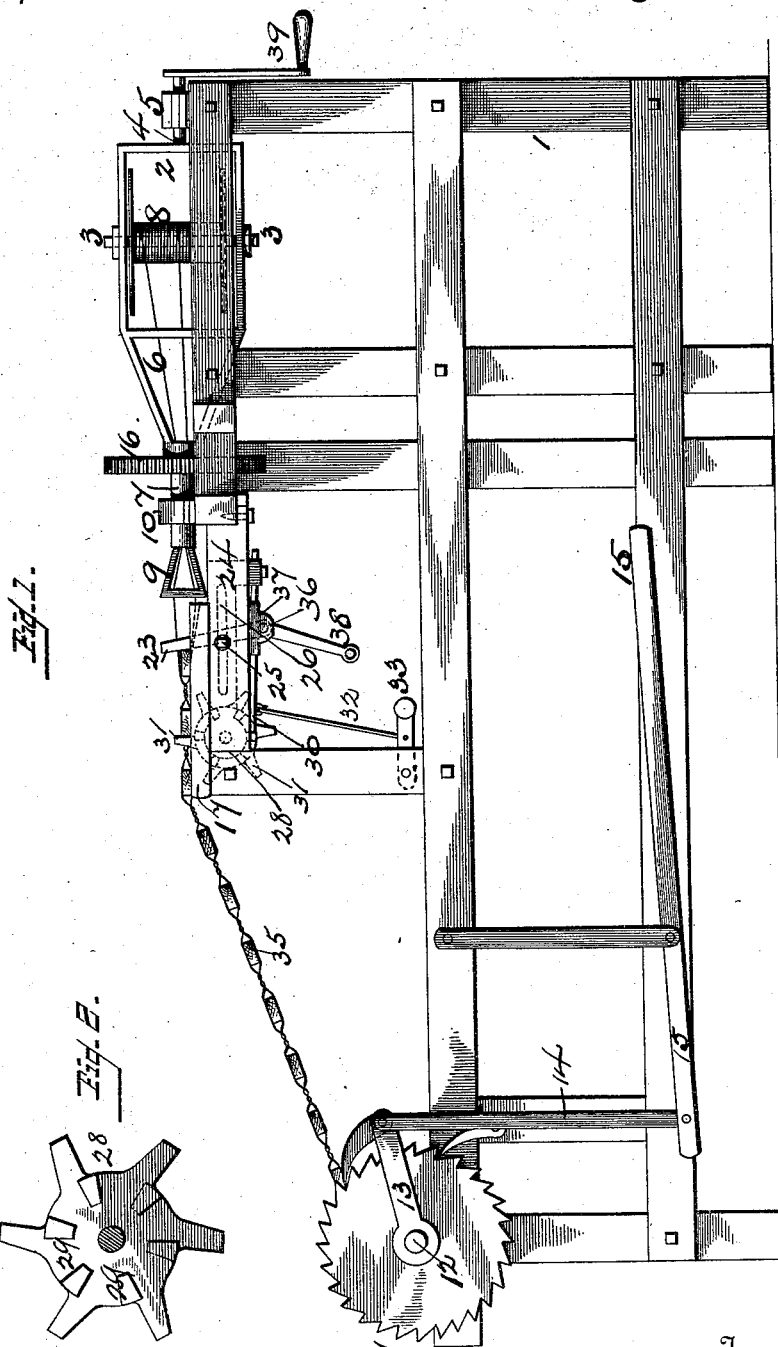
(No Model.)

3 Sheets—Sheet 1.

W. VAN HORN.
FENCE MACHINE.

No. 347,400.

Patented Aug. 17, 1886.



Witnesses

Wm. H. Seiden

C. E. Jones

Inventor

William Van Horn

By his Attorney *Chas. J. Gooch*

(No Model.)

3 Sheets—Sheet 2.

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Fig. 3.

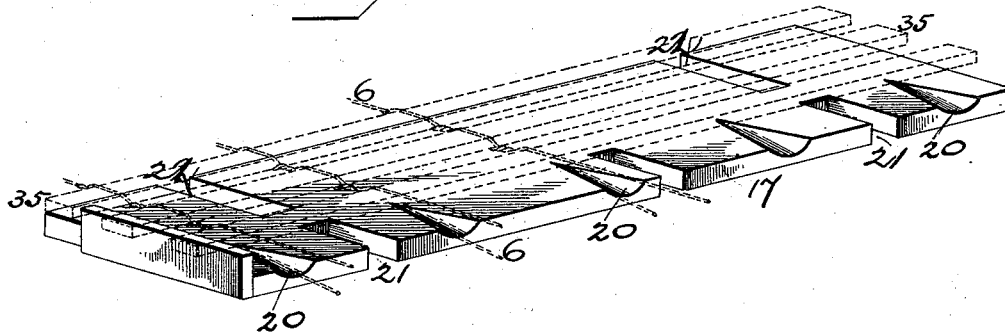


Fig. 4.

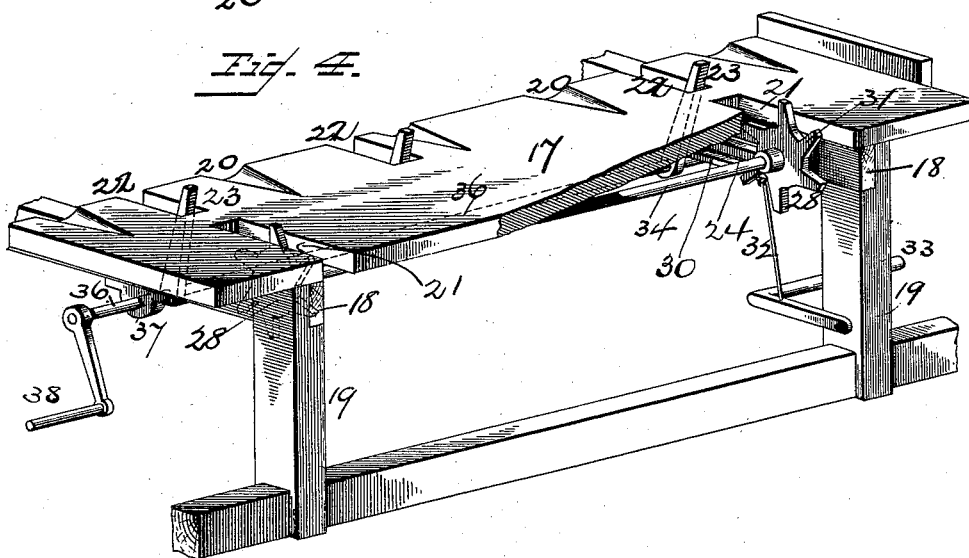
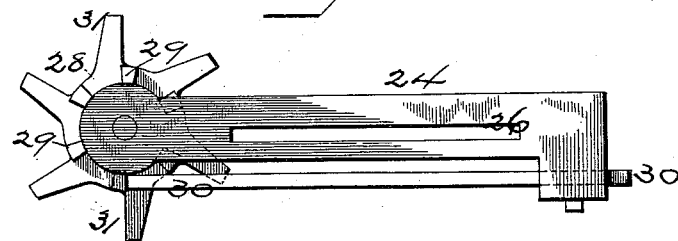


Fig. 5.



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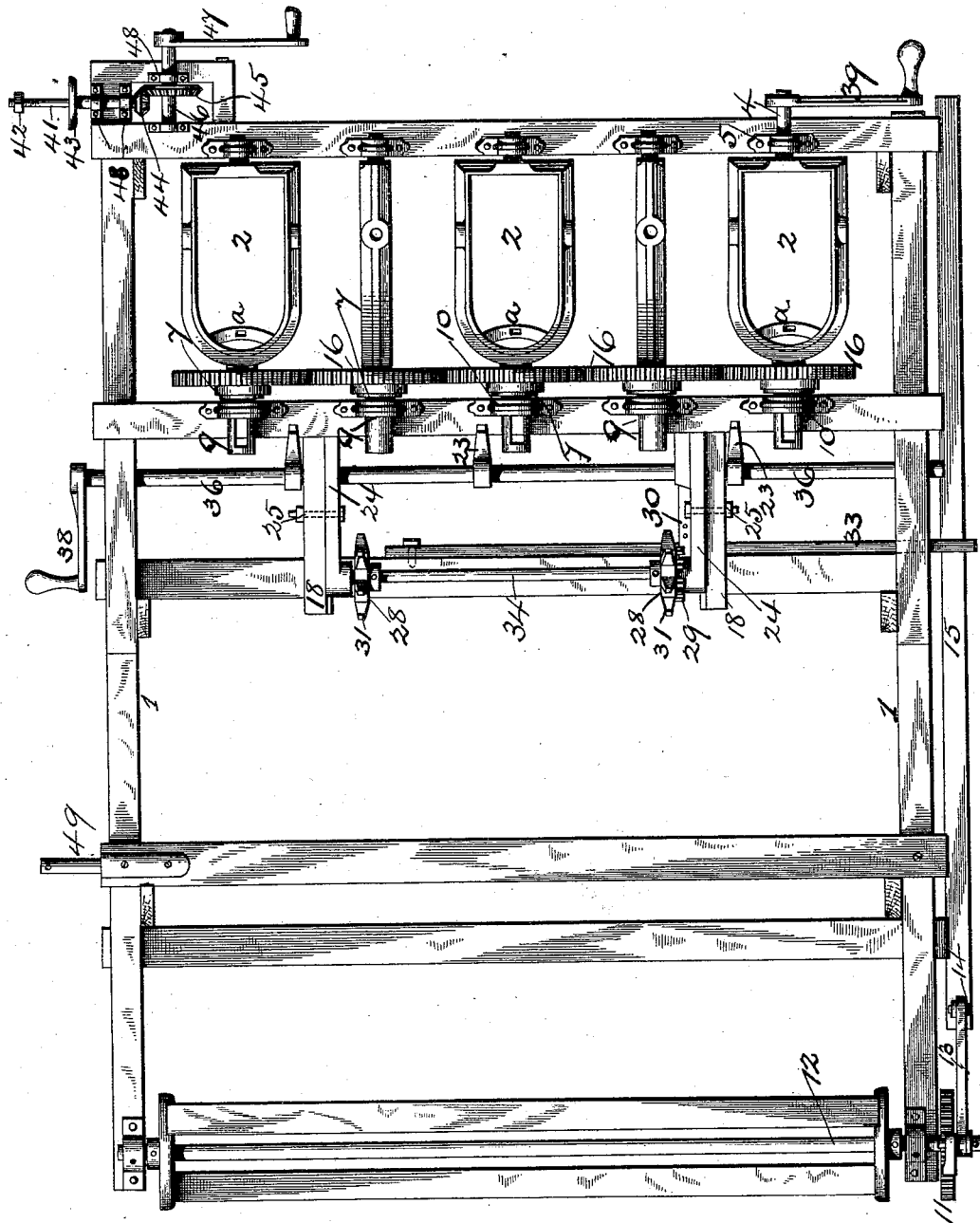
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3 Sheets—Sheet 3.

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FIG. 6.

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UNITED STATES PATENT OFFICE.

WILLIAM VAN HORN, OF PIQUA, ASSIGNOR TO LEVI S. MOHLER, L. T. SHELLABARGER, AND JACOB SENSEMAN, ALL OF COVINGTON, OHIO.

FENCE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 347,400, dated August 17, 1886.

Application filed May 22, 1886. Serial No. 203,014. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM VAN HORN, a citizen of the United States, residing at Piqua, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Fence-Machines; and I do hereby 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.

This invention relates to that class of fence-machines known as "stationary or bed-loom machines," and is designed as an improvement upon the fence-machine patented to me the 12th of February, 1884, No. 293,382.

The objects of my present improvements are to make a gage that will be more easily operated and more reliable as to the spacing of the pickets, and also to secure an easier method of placing the pickets between the wires. I attain these objects by means of the mechanism herein shown and described.

In the accompanying drawings, Figure 1 represents a side elevation of my improved machine. Fig. 2 represents an elevation of the gage-wheel. Fig. 3 represents a rear perspective view of a table or board upon which the pickets are slid when placing them between the wires. Fig. 4 represents a perspective front view of said table and the rotary gage-wheels placed upon a detached portion of the frame-work and in working connection with each other. Fig. 5 represents one of the gage-wheels in connection with its slotted box and spring-pawl. Fig. 6 represents a top plan view of the machine with the table removed.

1 represents the frame-work of the machine.

2 is a spool-frame having a slotted cross-bar, *a*, for supporting and guiding the wire in its passage from the spool to the twister-head; 3, the spool-spindle.

4 is the rear shaft of the spool-frame.

5 is the journal-box within which the shaft 4 rotates.

6 represents the wires for wiring the pickets.

7 represents a hollow shaft, through which the wires 6 pass from the spools 8 to the twister-head 9.

10 is the journal-box of the hollow shaft 7.

11 is a ratchet-wheel placed upon the end of the baling or bundling shaft 12.

13, 14, and 15 represent the levers for operating the shaft 12 and wheel 11, respectively.

16 is a gear-wheel by which the series of spool-frames 2 are connected and operated in unison. The working connection of the gear-wheels and spools and other parts above referred to being fully described in the specification describing the machine patented to me the 12th of February, 1884, No. 293,382, needs no further description herein.

I will now proceed to describe my present improvements upon the aforesaid invention.

In Fig. 1 is shown an end view of the table or board 17, upon which the pickets are placed and slide during the process of wiring the same. This table rests upon runners 18, which are secured to uprights 19, forming a part of the framing of the machine, as clearly shown in Fig. 4. The board or table 17 is recessed or cut away at 20 to permit of one wire of each strand resting within said recesses and, being below the surface of the board or table, to allow of the easy passage of a picket between the wires. Said table is also slotted at 21, to make room for the gage-wheels, and at 22 for the beater-arms or slat-pushers 23.

24 represents a slotted box, which is placed against the inner face of the runners 18, a hole being bored through said runners 18, and a bolt, 25, passed through said hole and the slot 26 in the box 24, so as to adjustably hold said boxes in position. By loosening said bolt the boxes 24 may be pushed in or pulled out from the twister-heads 9, so as to thereby increase or decrease the distance between the twister-head 9 and the rotary gage-wheel 28.

29 represents ratchet-teeth formed on the outer face of the gage-wheel 28. It is not essential that such teeth shall be on both of the gage-wheels.

30 represents a spring-pawl so arranged as to come in contact with one of the ratchet-teeth 29 at the same instant that one of the gage-arms 31 on the circumference of the wheels stands about perpendicular, and thus locks the wheels. This is easily arranged by having the number of the arms 31 and the number of ratchet-teeth 29 the same, and by the length of the spring-pawl. When the end of the spring pawl 30 rests against the adjacent ratchet-tooth 29, the gage-wheels 28 are locked and cannot rotate; but by means of the

rod 32 and the lever 33, hinged to the upright 19, or any other suitable device for pulling the spring-pawl downward and from contact with the ratchet, the gage-wheel is unlocked and can easily revolve as the ends of the shaft 34, upon each end of which are secured one of the gage-wheels 28, operate loosely in the boxes 24. The arms 31 around the circumference of the wheels 28 serve to gage the distance between and space the several slats or pickets 35.

36 represents a shaft held to the under side of the runners 18 by means of a box, 37. Upon this shaft are securely placed the beater-arms or slat-pushers 23. A picket being placed between the wires in front of said beater-arms, it is by them on the shaft 36 being rocked through the medium of the crank 38 on said shaft forced down tight between the bight of the wires.

The operation of the machine is about as follows: A picket having been placed between the wires in front of the beater-arms 23, the crank 38 is pressed downward until the beater-arms press the picket out tight into the bight of the wires, whereupon the crank 39 on the rear of the twister-frame 2 is operated so as to rotate the twister, and thus twist the wires tight upon the picket. The lever 33, or its equivalent, is then pressed downward, so as to disengage the spring-pawl from the adjacent ratchet-tooth, whereupon the gage-wheel 28 will be unlocked. Then, by placing the foot upon the treadle or lever 15 and operating the baling-shaft 12, the wires are drawn through and the fence drawn forward and wrapped upon the baling-shaft. The pressure of the picket against the upright arm 31 of the gage-wheel will cause the gage-wheel to revolve, and such upright arm will go down and the next arm will rise to an upright position in front of the last picket. The end of the spring-pawl 30, striking against the next ratchet-tooth, locks the gage-wheel and prevents any further rotary motion. The picket is thus stopped at the proper place to give the desired uniform space. The advantage of this arrangement is in the fact that the gage-arms 31 on the gage-wheels 28 recede from the picket when rotating, and never drag against the edge of the picket, as do pivot or pin spacers. The advantage of the board or table is apparent, in that it holds the picket in position against the gage-arms 31, and affords an easy and rapid means for placing the pickets between the wires.

41 represents a short shaft, upon which, when it is desired to wind the wire from a reel onto a spool, said spool is slid, the nut 42 and disk 43 serving to retain said spool in place.

44 represents a bevel-pinion on the inner end of the shaft 41, said pinion engaging with a bevel-wheel, 45, on the shaft 46, to which rotary movement is imparted by hand or otherwise through the medium of crank 47. These shafts are journaled in suitable boxes,

48, on a portion of the framing. The empty spool having been secured upon the shaft 41, and the wire from the reel connected with said spool, the crank 47, keyed to the shaft 46, is revolved, whereupon said shaft is correspondingly rotated, and such rotary movement, through the medium of the bevel-pinions 44 45, communicated to the shaft 41 and the reel thereon, whereby the wire is drawn from the reel and coiled around the spool.

49 represents a swift, upon which the spool is held while the wire is being unwound therefrom onto the spool secured on the shaft 41.

Having thus described my invention, what I claim is—

1. In a fence-machine, a pair of rotary gage-wheels, each having around its periphery a plurality of gage-arms, and on the outer face of one or both thereof a corresponding number of ratchet-teeth, a spring-pawl to engage said teeth, and mechanism connected with said pawl for releasing it from engagement with the ratchet-teeth, substantially as and for the purpose set forth.

2. The combination of the rotary gage-wheels, a shaft carrying said gage-wheels and having bearings in adjustable end supports, and means, substantially as described, for securing said end supports in position.

3. The combination of a pair of rotary gage-wheels for gaging the distance between the pickets, adjustable boxes for supporting and adjusting said gage-wheels in position relatively to the twisters, and a spring-pawl for engaging said wheels and holding them in operative position, and means, substantially as described, for disengaging said pawl from the gage-wheel with which it engages.

4. A table for supporting the pickets while being wired, having wire-receiving grooves or recesses and slots, in combination with the gage-wheels and the picket beaters or pushers arranged to operate in the slots, substantially as described.

5. The combination of the slotted picket support or table, the rotary gage-wheels, a shaft carrying said wheels, adjustable boxes for supporting and adjusting said gage-wheels and their shaft in position, the beater-arms, and mechanism, substantially as described, for releasing said gage-wheels and for actuating the beater-arms, as and for the purpose set forth.

6. The combination of a pair of rotary gage-wheels, for gaging the distance between the pickets, picket beaters or pushers, and mechanism, substantially as described, for adjustably supporting and for releasing said gage-wheels and for actuating said picket beaters or pushers.

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

WILLIAM VAN HORN.

Witnesses:

SAMUEL O. BARTMESS,
GEO. W. MILLER.