(No Model.) 2 Sheets—Sheet 1.

A. A. CUSHMAN & J. N. PARCELL.

FENCE MACHINE.

No. 505,876. Patented Oct. 3, 1893.

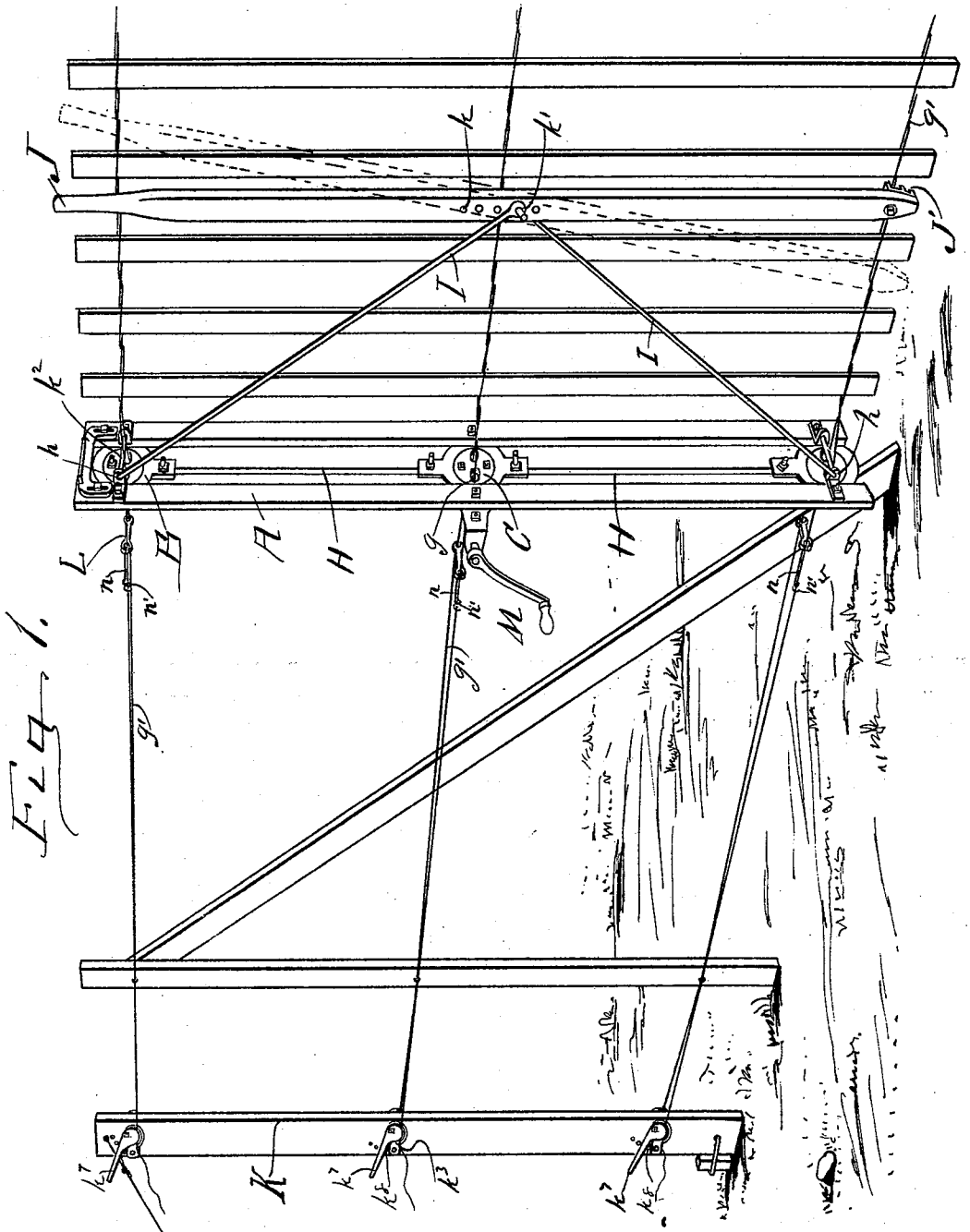

Fig. 1.

Witnesses.
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(No Model.) 2 Sheets—Sheet 2.

A. A. CUSHMAN & J. N. PARCELL.

FENCE MACHINE.

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Fig. 2.

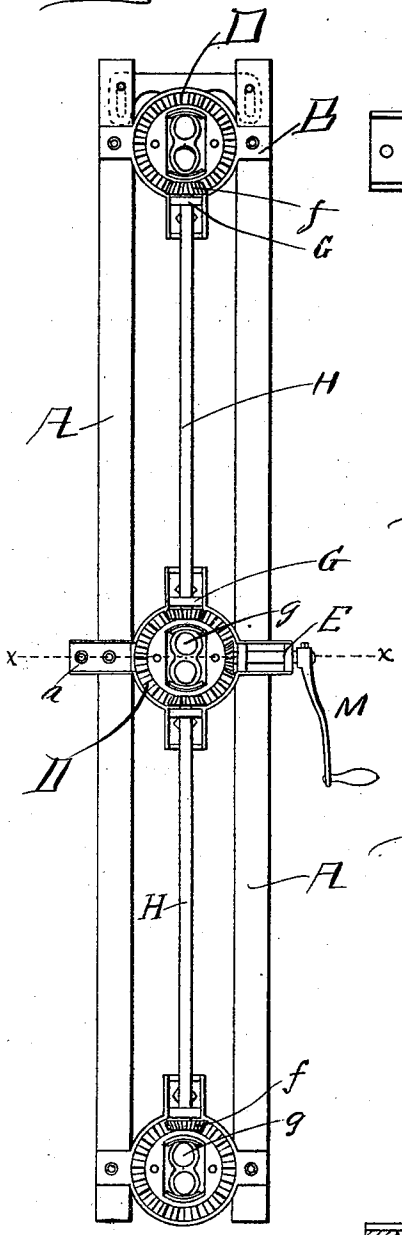


Fig. 3.

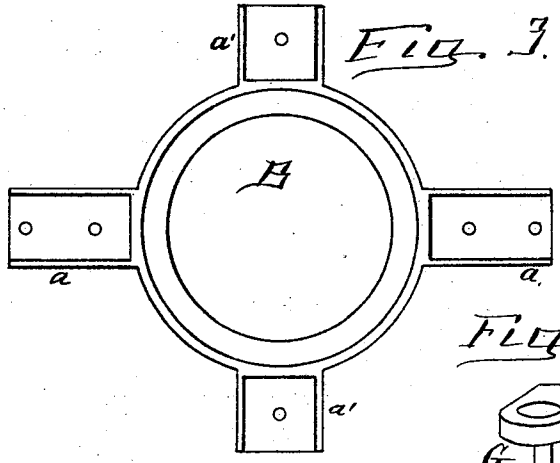


Fig. 7.

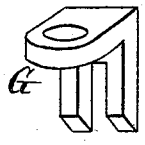


Fig. 4

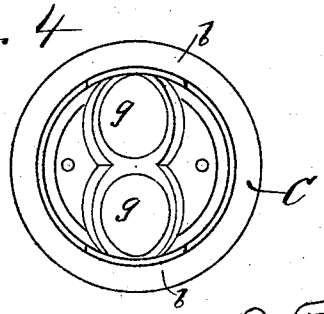


Fig. 8.

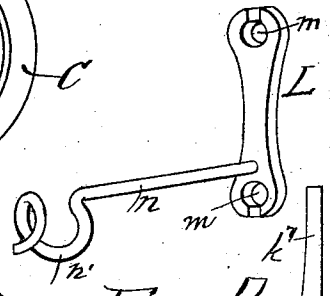


Fig. 5.

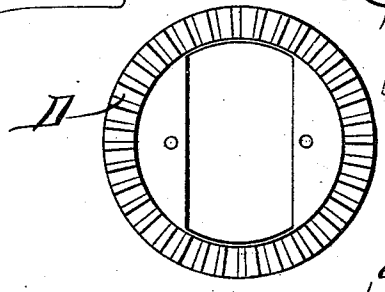


Fig. 9

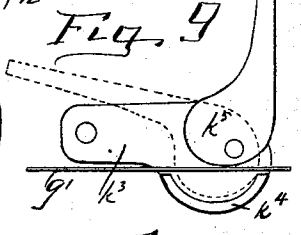


Fig. 6

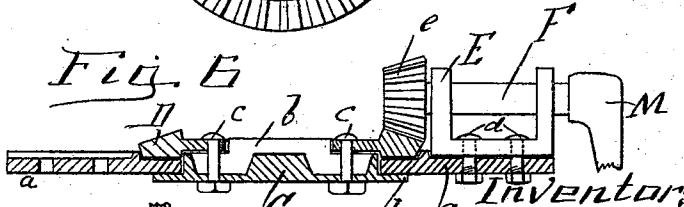
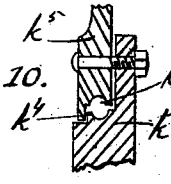


Fig. 10.



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UNITED STATES PATENT OFFICE.

AMOS A. CUSHMAN AND JAMES N. PARCELL, OF SHREVE, OHIO.

FENCE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 505,876, dated October 3, 1893.

Application filed June 28, 1893. Serial No. 479,039. (No model.)

To all whom it may concern:

Be it known that we, AMOS A. CUSHMAN and JAMES N. PARCELL, citizens of the United States, residing at Shreve, in the county of Wayne and State of Ohio, have invented certain new and useful Improvements in Fence-Machines; and we 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 of reference marked thereon, in which—

Figure 1 is a view showing a portion of a fence and illustrating the machine in operative position, also showing the tension post and its tension clamps. Fig. 2 is a side view of the machine. Fig. 3 is a detached view of the wire twisting wheel bracket. Fig. 4 is a detached view of the wire twisting disk. Fig. 5 is a detached view of the wire twisting wheel. Fig. 6 is a transverse view through line *x*—*x*, Fig. 2, except the frame is not shown. Fig. 7 is a detached view of one of the shaft brackets. Fig. 8 is a detached view of one of the wire spreader bars and its guide arm. Fig. 9 is a detached view of one of the tension clamps. Fig. 10 is a transverse section of one of the tension clamps.

The present invention has relation to fence machines, and it consists in the different parts and combination of parts hereinafter described and particularly pointed out in the claims.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings A represents the frame which is substantially of the form shown, and is preferably made of wood, said frame consisting of two parallel bars properly tied together by means of the brackets B, which brackets are provided with the arms *a* and *a'*.

To the brackets B are attached the wire twisting disks C, which disks are placed in the brackets B, substantially as illustrated in Fig. 6, the flanges *b* of the disks C abutting against the back faces of the brackets as shown in Fig. 6. Upon the front faces of the disks C are located the wire twisting wheels D, said wheels overlapping the brackets B, as shown in Fig. 6.

For the purpose of causing the disks C to rotate in unison with the wheels D, said parts are securely clamped together by means of the bolts *c* or their equivalents.

To one of the arms *a* is securely clamped the crank-shaft bracket E, by means of the bolts *d* or their equivalent, said bracket being so attached that it can be easily removed and placed upon a different or opposite arm for the purpose hereinafter described.

The crank-shaft F is provided with the pinion *e* which pinion meshes with the wire twisting wheel D as illustrated in Figs. 2 and 6.

To the arms *a'* are bolted or otherwise attached the shaft brackets G, which brackets are located as shown in Fig. 2, and are for the purpose of providing bearings for the connecting shafts H, which shafts are provided with the pinions *f*, said pinions meshing with the wheels D.

It will be understood that by our manner of connecting the different wheels D together all of said wheels will rotate in unison. The disks C are provided with apertures *g* through which apertures the different fence wires *g'* pass as illustrated in Fig. 1.

To the bars of the frame A are securely attached the flanges *h* which flanges are located substantially as shown in Fig. 1, said flanges being for the purpose of pivotally connecting the braces I, which braces are pivotally connected as shown at K' Fig. 1 to the operating lever J, which operating lever is located a short distance to the rear of the machine proper as illustrated in Fig. 1.

For the purpose of holding the operating lever in proper alignment, the flanges J' are provided, which flanges rest upon the lower fence wire *g'*, substantially as illustrated in Fig. 1.

For the purpose of adjusting the fence machine proper to a true vertical position upon inclined ground the operating lever J is provided with a series of apertures such as *k*, and the braces I are adjusted to the proper

aperture to bring the machine proper to a vertical position.

For the purpose of carrying the machine upon the wires g' the braces I are provided with the right-angled portions k^2, which right-angled portions extend across the disks C substantially as illustrated in Fig. 1.

In use the tension post or bar K is properly adjusted and anchored to which post are securely attached the tension brackets k^3, which tension brackets are provided with the grooved flange k^4.

To the tension brackets k^3 and the tension post K are pivotally attached the eccentrics k^5, which eccentrics are provided with the grooves k^6, said grooves being for the purpose of preventing any accidental displacement of the fence wires g'.

For the purpose of operating the eccentrics k^5 said eccentrics are provided with the levers k^7, and for the purpose of holding the eccentrics at the desired point of adjustment, so as to give the wires g' the proper tension the pins k^8 are provided which pins are attached to the tension post K.

When it is desired to move the fence machine along the wires the lever J is placed in the position shown in the dotted lines, Fig. 1, after which the lever is brought to a vertical position, which movement forces the machine forward and forms sufficient space to insert a picket between the fence wires.

For the purpose of spreading each set of the wires g', so that pickets can be easily adjusted, the bars L are provided which bars are provided upon their ends with the openings m said openings being so formed that the wires g' can be easily detached.

For the purpose of holding the bars L in proper position to spread the wires said bars are provided with the arms n which arms are provided with hooks n' to embrace one of the wires g'. It will be understood that all of the bars L will be moved along the wires by the machine proper.

When it is desired to operate the machine upon the opposite side of the fence, the crank M together with its shaft, pinion and bracket is placed upon the opposite arm a.

For the purpose of better illustrating the function of the bars L said bars are shown in Fig. 1 set or moved a short distance away from the frame of the machine.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the frame A, provided with the brackets B having the arms a and a', twisting disks C provided with the apertures g, the wheels D, the shafts H, the pinions f, the shaft F provided with the pinion e and crank M, the lever J provided with the flange J', the pivoted braces I, and the bars L provided with the arms n, substantially as and for the purpose specified.

2. The combination of a frame provided with a series of brackets carrying twisting disks, wheels fixed to said disks, brace rods pivoted to the frame, a lever provided with a series of apertures, a series of tensions, and means for rotating the disks, substantially as and for the purpose specified.

3. The spreading bars L provided with the apertures m, and having fixed thereto the guide arms n having the hooks n', substantially as and for the purpose specified.

4. The combination of the frame A, provided with brackets carrying the twisting disks, wheels fixed to and rotating with the twisting disks, gear wheels meshing with the disk wheels, rods pivoted to the frame, a lever provided with a series of apertures, a series of tension devices, and means for rotating the twisting disks, substantially as and for the purpose set forth.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

AMOS A. CUSHMAN.
JAMES N. PARCELL.

Witnesses:
L. T. CORNELL,
WALTER CAMPBELL.