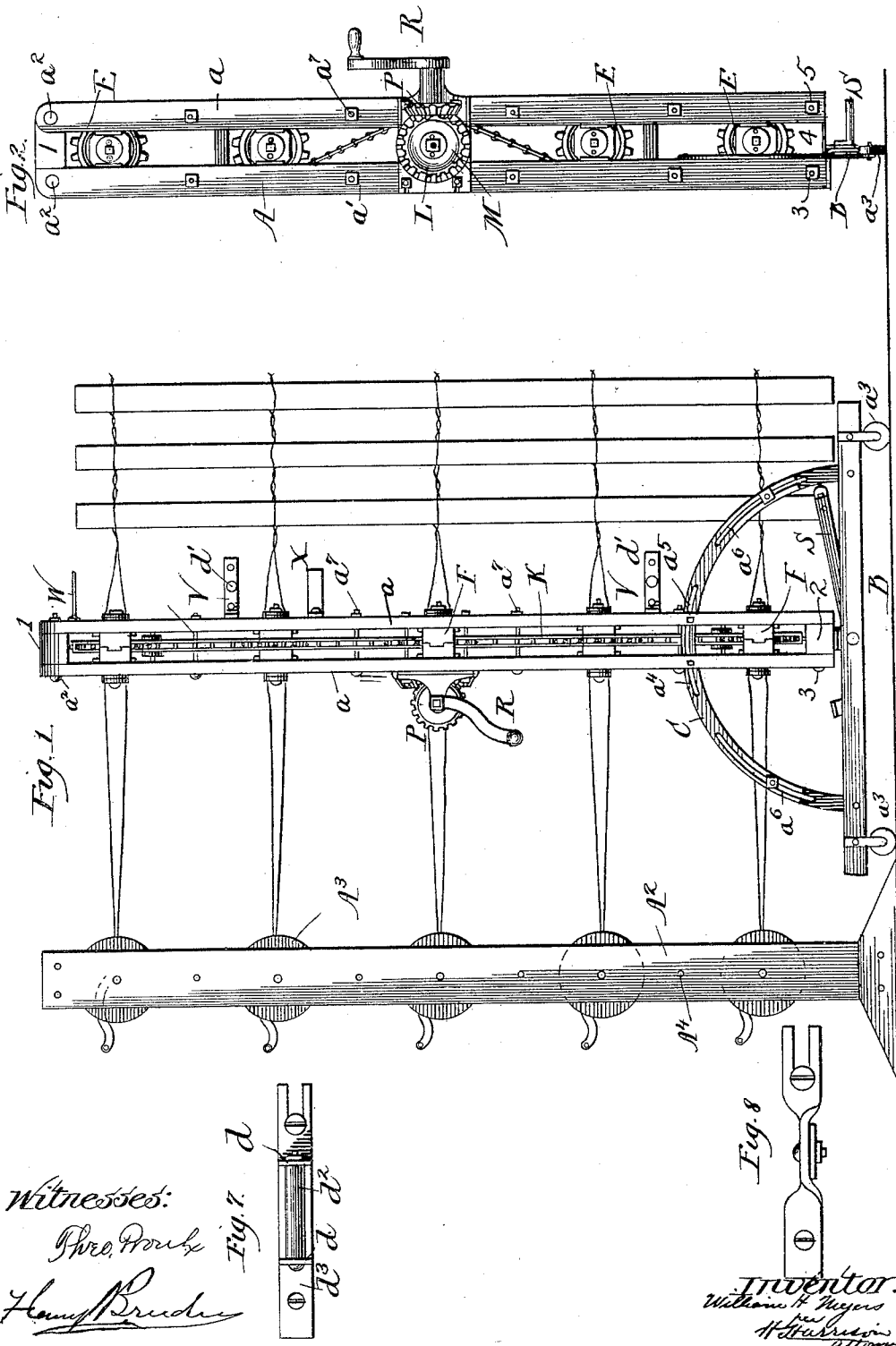


W. H. MYERS.
REVERSIBLE FENCE MACHINE.

No. 462,724.

Patented Nov. 10, 1891.



Witnesses:

Thos. H. Myers

Henry B. Myers

Inventor.
William H. Myers
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Attorney

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Fig. 6

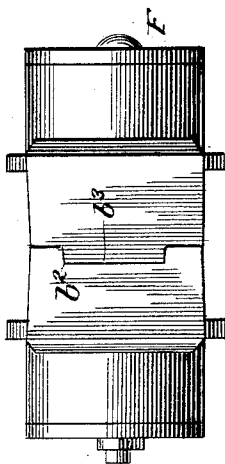


Fig. 3

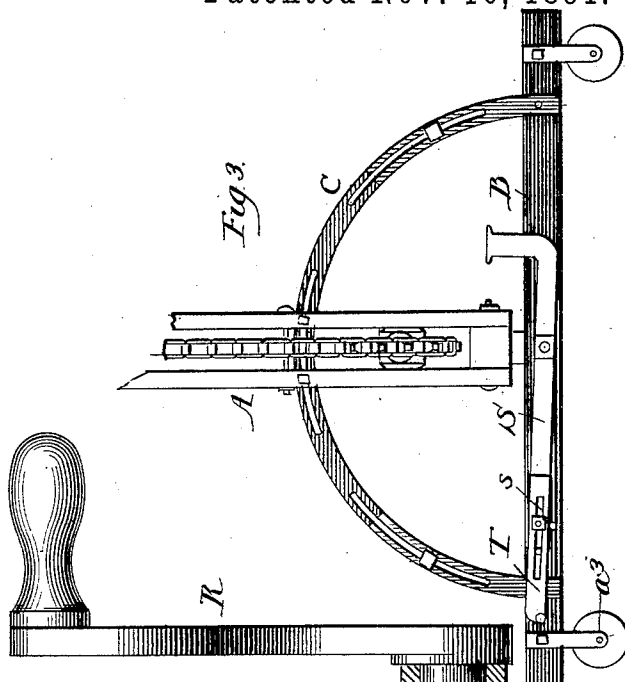


Fig. 4

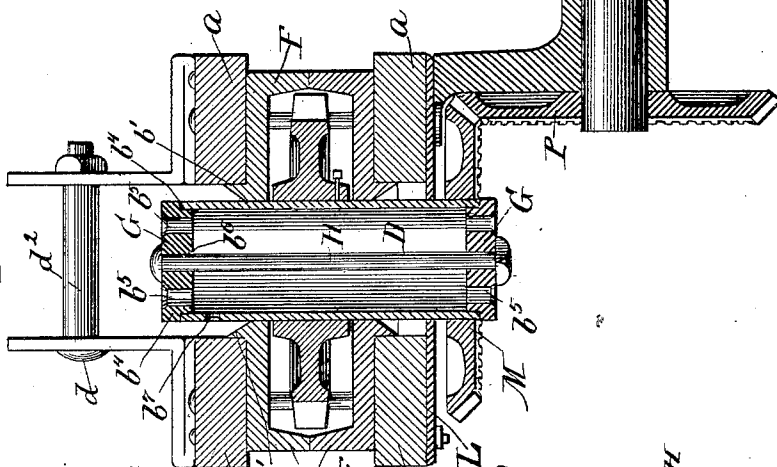
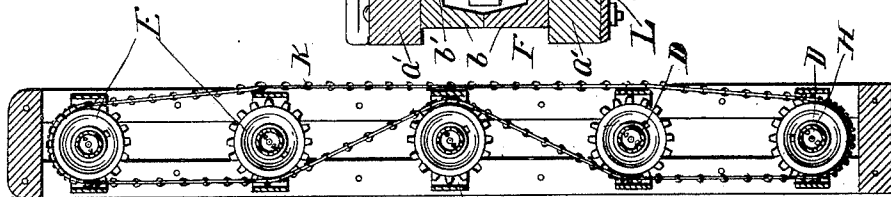


Fig. 5



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM H. MYERS, OF NORTH MANCHESTER, INDIANA.

REVERSIBLE FENCE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 462,724, dated November 10, 1891.

Application filed October 28, 1889. Serial No. 328,489. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. MYERS, a citizen of the United States, residing at North Manchester, in the county of Wabash and State of Indiana, have invented certain new and useful Improvements in Adjustable and Reversible Fence-Machines, of which the following is a specification, to wit:

My invention relates to improvements in adjustable and reversible fence-machines; and it consists in the particular construction and arrangement of the parts, as will be hereinafter fully described, and pointed out in the claims.

To enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe my improvements, referring to the accompanying drawings, in which—

Figure 1 is a side view of my machine. Fig. 2 is a front view. Fig. 3 is a view of the platform and arched plate. Fig. 4 is a cross-section through Fig. 1. Fig. 5 is a sectional view through the center. Fig. 6 is a detail view of the boxing. Fig. 7 is a face view of the bumper, and Fig. 8 is a front view of the gage.

Similar letters and figures refer to like parts throughout the several views.

A is the frame, made of metal or any other suitable material, and consists of four upright pieces *a a a' a'*. One set *a a'* are in front on a line parallel with and a short distance apart from each other, and directly a short distance back are the other set *a* and *a'*, similarly placed, making two pairs *a a* and *a' a'*. The upper ends of the four pieces are hinged or pivotally secured by bolts *a²* to a cross-piece or block 1. At the bottom end the pieces *a a* are secured or connected by a bolt 3 to the cross-piece 2, the pieces *a' a'* being secured to a similar cross-piece by a bolt 5, so as to leave a space 4 from front to rear between the cross-pieces, so that one pair can swing out or away from the other to allow the gearing or boxing to be inserted or removed at will. The cross-pieces are pivoted or hinged to the platform B or to a plate connected to the platform, the platform being provided with rollers *a³ a³*, so that said platform can be moved to and fro at will. Mounted on the said platform and rigidly secured to it is an arched plate C,

which passes up through the slit 4 between the upright pieces *a a* and *a' a'*. The said plate at the top of the arch is provided with a slot *a⁴*, having screw-bolts *a⁵* passing through one of the upright pieces of the frame, preferably the piece *a*, whereby the machine can be adjusted to suit the inclination of the ground and held in a perpendicular position. I have also shown the arched plate in sections, the sections being connected together by the slots *a⁶ a⁶*, having screw-bolts to hold the sections rigidly together and at the same time allowing similar adjustment as obtained by means of the slot at the top of the arch. The sections will telescope or slide by each other, but are held at any point by means of the screw-bolts. The respective pairs of upright pieces *a a* and *a' a'* have screw-bolts *a' a'* passing from one side to the other—that is, one pair *a a* have screw-bolts passing through from one part *a* to and through the other part *a* and the pair *a' a'* having similar bolts passing in a similar manner as *a a*. The said screw-bolts are for the purpose of allowing the respective parts of each pair to be moved to and from each to permit the boxing to be inserted and removed and placed at any given point and when set held rigidly in position. This enables me to adjust the wire to any given point on the pickets.

D is a metal tube or gas-pipe, which passes between the pairs *a a* and *a' a'*, upon which pipe is a sprocket-wheel E, which wheel is rigidly held on the pipe by means of a set-screw *a⁸*. By loosening the screw the sprocket-wheel can be adjusted to any point on the pipe or entirely separated therefrom, thus making the pipe or tube a portable hub. Any number of sprocket-wheels and pipes may be used, as desired.

F is a boxing consisting of two parts *b b*, one on each side of the sprocket-wheel, the parts being formed or provided with ears or flanges *b' b'*, bearing against the several upright pieces of the main frame A, thereby preventing the boxing from slipping sideways. The parts *b b* of the boxing are provided each with a depression *b²* and a lug or projection *b³*, fitting or meshing closely with each other, as clearly seen in Fig. 6 of the drawings. This construction prevents the

parts from slipping apart and holds them in position with each other. The boxing is provided on each side with a hole or opening, through which passes the metal tube or gas-pipes. The number of boxings will correspond to the sprocket-wheels.

At each end of the tube or pipe D is a die G G, formed with flanges $b^4 b^4$, resting and bearing against the outer end of the pipe or tube. Each die is provided with wire-holes $b^5 b^5$ and rod or bolt-holes $b^6 b^6$.

H is a rod which passes through the tube and the dies, headed at one end and screw-threaded and secured and held by a nut. The rod holds the several parts together and permits the same to be adjusted and separated at will. By reason of the die-plates being flanged and held and adjusted by the rod the body of the tube or pipe forms a cup, into which batting saturated with oil or other lubricant is inserted and removed, b^7 being an oil-hole for the insertion of oil without removing the die-plates. The object of inserting the batting is to hold the oil so as to lubricate the wire as it passes through, making the wire pass easily through the machine and preventing it from rusting. This construction avoids the necessity of oiling the wire by means of a rag held in the hand, as is done in operating many other machines. The boxing holds the tube, die-plates, and sprocket-wheels in position, while the boxing itself is clamped and held in position by the frame.

The respective parts D, G, and H, just described, form as a whole what I call a "twister."

K is an endless sprocket-chain which runs as shown in the drawings, one portion of the chain running inside of the frame and boxing in a zigzag direction, contacting and meshing with all the sprocket-wheels, the other portion of the chain running entirely outside of the frame. L is a plate to hold the beveled gear in position. It is placed on one side of the frame and is formed with slots $c c$, having screw-bolts whereby the plate is adjusted and one part of the frame removed at will.

M is a beveled gear, which encircles the tube D, being flanged and held in position by one of the die-plates G and bolt H. P is also a bevel-gear meshing with gear M and having the crank R. When the crank is turned, the whole device will be operated.

While I have shown a sprocket endless chain, I may without departing from my invention use in lieu thereof a series of gear-wheels meshing one with the other operated by the crank in the same manner as the chain, this construction being preferable when iron pickets or wire loops are used. S is a foot-lever hinged or pivoted to one side of the platform B. At one end the lever has a slot s , upon which rests a small slotted piece or plate T. A screw-bolt passes through the slots, whereby the lever can be lengthened or shortened at will, thereby regulating the space between the different pickets.

V V are bumpers, which consist of plates

adjustably secured to the frame and having two arms $d d$, provided with holes $d' d'$ at suitable distances, and a hollow pipe d^2 , through which passes a rod d^3 , headed at one end and having a nut at the other, whereby the bumper can be adjusted to suit the space between the pickets.

At the top of the machine is a level or gage W, provided with a slot for removably securing it to the frame.

X is a picket-carrier or spring which holds the picket and carries it up to the proper position. At the end of the bumpers, gage, and carrier is a slot to enable one to open the frame without removing either one of them.

The wire-tension consists of two pieces of frame-work $A^2 A^2$, set up opposite each other, between which are a series of sheaves or blocks $A^3 A^3$ equal to the number of wires to be placed on the slats. Said blocks revolve on journals or are journaled in the frame so as to revolve.

$A^4 A^4$ are bolts which pass through the pieces of frame-work $A^2 A^2$ from piece to piece, which permit the said parts to be moved to and from each other. When moved toward each other, the compression will cause friction upon the blocks or rollers $A^3 A^3$, or, rather, sides thereof, thereby regulating the tension.

The manner of operation is as follows: I place the wire on a reel and pass it through the die-plate. From thence it is stretched along the line to any required distance to the tension, the end of the wire being placed in a hole in the tension block or roller. The roller is then turned and a sufficient amount of wire reeled thereon, and the same operation is repeated with each die-plate and roller. The pickets are then placed in the holder under and against the bumpers. The machine is then pushed up to the place of beginning and the crank turned, when the picket will be wired. The crank may be turned as many times as desired to make any number of twists. By pressing the foot upon the lever S its end will drop behind the picket and hold it securely while wiring the next picket, and, if desired, a similar lever may be used on the top of the machine. This operation can be repeated as long as desired and needs no further detailed description, as the operation is clearly seen from the drawings and foregoing description.

What I claim as new, and desire to secure by Letters Patent, is—

1. In an adjustable and reversible fence-machine, a frame composed of two pairs of upright pieces pivoted to a cross-head at the top and fastened to separate cross-pieces at the bottom, with a space between the bottom cross-pieces, in combination with a platform, means for supporting the frame upon the platform, and wire-twisting devices, substantially as shown and described.

2. The combination of the frame A, having the upright pieces $a a a' a'$, pivoted at top to

a head and each pair fastened at the bottom to separate cross-pieces, forming a space 4, the platform B, twister D G H, boxing F, having flanges $b' b'$, and sprocket-wheel E, substantially as shown and described.

5 3. In an adjustable and reversible fence-machine, the boxings F and the twisters within the boxings, in combination with the frame A, having pieces $a a' a'$ pivoted to a cross-head at the top and fastened to cross-
10 pieces at the bottom, said boxings being located within and sustained by the frame, substantially as shown and described.

15 4. In an adjustable and reversible fence-machine, the boxing F, having the flanges b' , depressions b^2 , and lugs b^3 , in combination with frame A, having uprights $a a' a'$, and twister D G H, substantially as shown and described.

20 5. The adjustable bumper V, having the arms $d d$, provided with holes $d' d'$, hollow pipe d^2 , and rod d^3 , in combination with the frame A, having upright pieces $a a' a'$ piv-

oted to the cross-head at the top and each pair fastened to separate cross-pieces at the
25 bottom, substantially as shown and described.

6. The combination of the adjustable foot-lever S, having slot s and screw-bolts, plate T, platform B, frame A, having upright
30 pieces $a a' a'$, and wire-twisting devices mounted in said frame, substantially as shown and described.

7. The combination of the adjustable sectional arched plate C, with the platform B, and frame A, having the upright pieces $a a' a'$
35 a' pivoted at their top to a cross-head and secured at their bottom in pairs to separate cross-pieces, forming a slit, substantially as set forth.

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

WILLIAM H. MYERS.

Witnesses:

J. D. SPURGEON,
A. P. SMITH.