No. 704,396. Patented July 8, 1902.

E. E. STEWART.

FENCE MAKING MACHINE.

(Application filed Jan. 20, 1902.)

(No Model.)

Fig. 1.

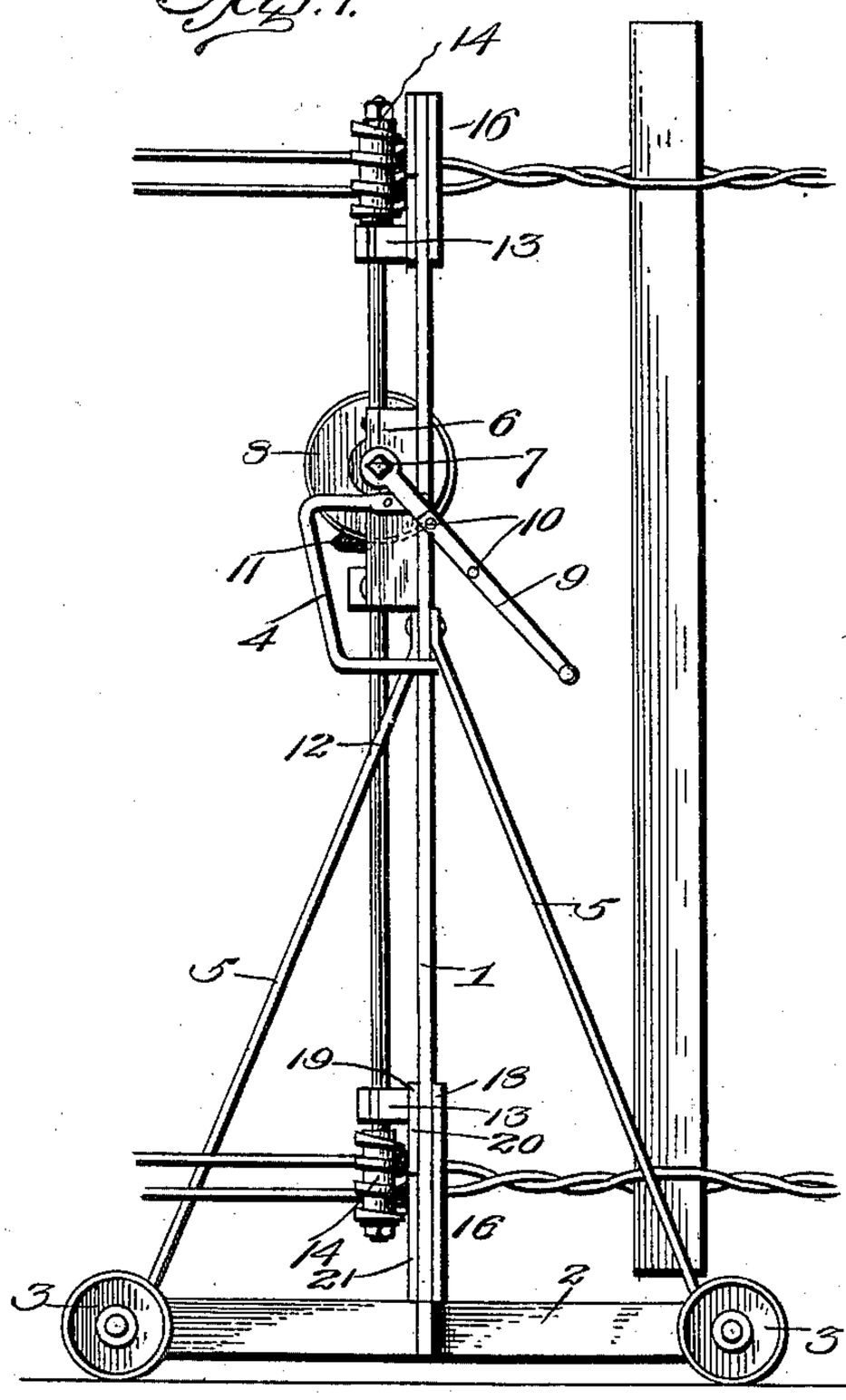


Fig. 2.

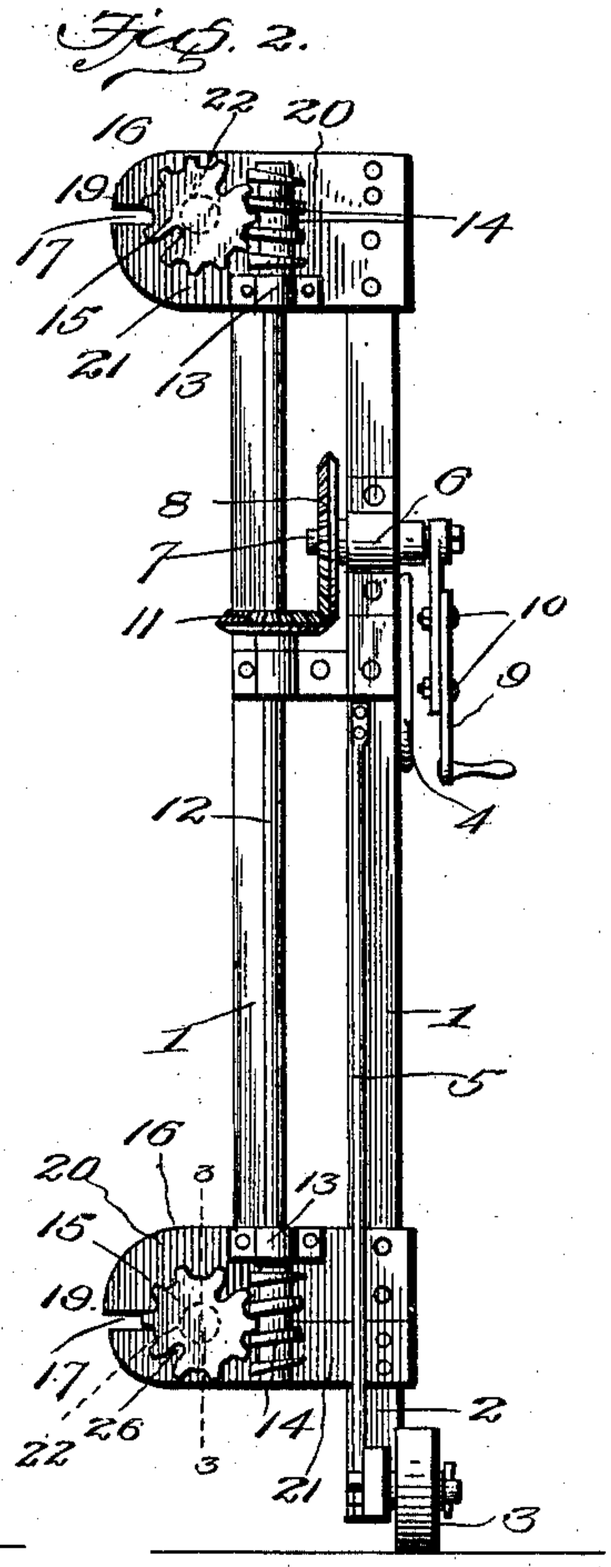


Fig. 3.

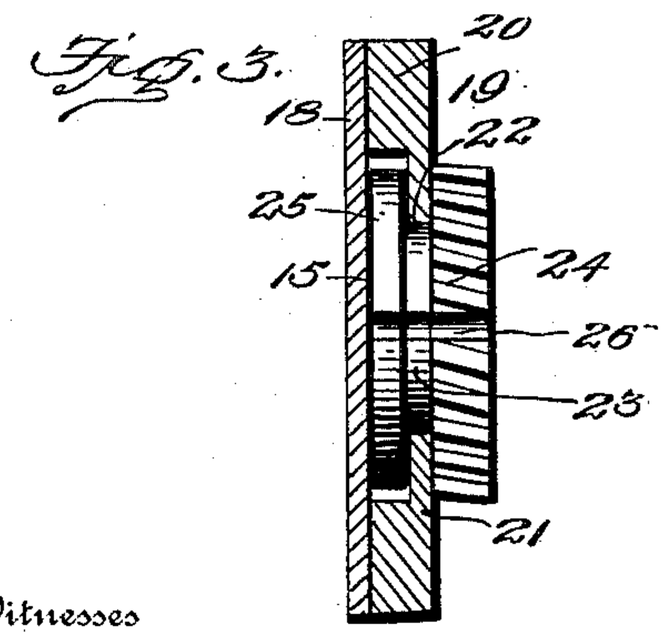
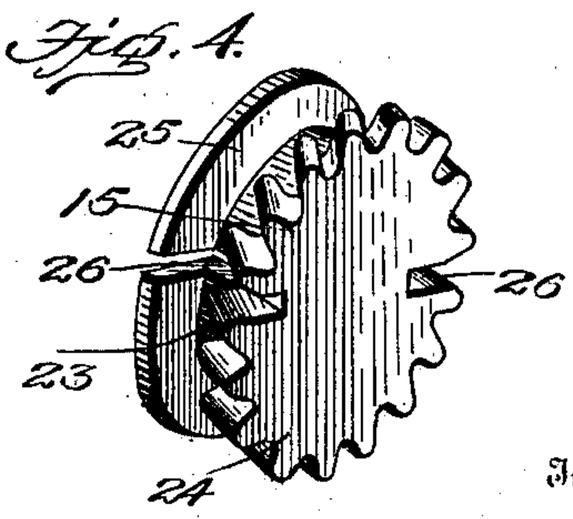


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

ELZA E. STEWART, OF NEW RUMLEY, OHIO.

FENCE-MAKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 704,396, dated July 8, 1902.

Application filed January 20, 1902. Serial No. 90,446. (No model.)

To all whom it may concern:

Be it known that I, ELZA E. STEWART, a citizen of the United States, residing at New Rumley, in the county of Harrison and State of Ohio, have invented certain new and useful Improvements in Fence-Making 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.

This invention relates to fence-making machines, and particularly to a machine for making wire and picket fences.

The object of the invention is to provide a transportable machine which may be readily and conveniently operated and which is simple and inexpensive of construction and of maximum efficiency in use.

With this and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists of certain novel features of construction and combination and arrangement of parts, which will be hereinafter fully described, defined in the appended claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a fence-making machine embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a section on the line 3 3 of Fig. 2. Fig. 4 is a detail of a twister-head.

Referring now more particularly to the drawings, the numeral 1 represents a vertical supporting-frame, which may be constructed of wood or metal, or both, as desired, and which is mounted at right angles upon a suitable supporting-base 2, having wheels or rollers 3, adapting the machine to be easily and conveniently moved along in constructing a line of fencing. At one side the frame is provided with a loop-handle 4 for convenience in drawing or pushing the machine along. The frame 1 in practice stands at a right angle to the line of fencing under construction, while the base 2 extends parallel therewith, as will be readily understood. The frame is braced by rods or bars 5, extending from the base.

Journaled in a bearing 6 on the frame is a short horizontal drive-shaft 7, which carries at one end a gear-wheel 8 and at the other end a hand-crank 9, which crank is composed of two parts adjustably united by bolts 10, whereby the handle may be adjusted as to length to vary the applied leverage according to the size of the fence-wires which are to be twisted to secure the pickets or slats.

The gear-wheel 8 meshes with a horizontal pinion 11 on a vertical shaft 12, journaled in bearings 13 on the frame and carrying at its upper and lower ends worm-gears 14, which drive the slotted twister-heads 15. The upper and lower bearings 13, in which the ends of the said shaft 12 are journaled, are mounted upon upper and lower transverse supports 16, which carry the said twister-heads 15. Each support 16 is formed with a slot 17 at its outer end for reception of the fence-wires to be twisted and is composed of parallel side plates 18 and 19, the plate 19 being longitudinally divided to form upper and lower independently-removable sections 20 and 21, which are notched or recessed at 22 in their meeting edges to receive the twister-head 15.

Each twister-head has a cylindrical body portion 23, serving as a journal to fit and turn within the opening formed by the said recesses 22, the walls of which constitute a bearing for said head. On one side of this body portion are worm-teeth 24, which mesh with the gear 14, and on the opposite side of said body portion is an annular flange 25, which occupies a space or chamber between the plates 18 and 19, as shown in Fig. 3, and holds the twister-head from displacement. Each twister-head is accordingly made applicable and removable upon the detachment of one of the sections of the plate 19. Slots 26 are formed in the twister-head to receive and hold the fence-wires while they are being twisted.

In operation the machine is arranged along the line of fencing, as shown in Fig. 1, the pickets placed one by one in position between the fence-wires, and the latter placed in the slots of the twister-heads. Upon then operating the crank-handle the twister-heads will be revolved, and the wires will be twisted thereby in the well-known way to secure the pickets.

It will of course be understood that any desired number of the twister-heads may be used, according to the height of the fence, ar-

rangement of the wires, and number of strands to be twisted together, &c.

From the foregoing description, taken in connection with the accompanying drawings, it is thought that the construction, operation, and advantages of my improved fence-making machine will be readily apparent without requiring an extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. In a fence-making machine, the combination of a supporting-frame, a shaft journaled vertically in the frame and provided with a pinion and with worm-gears, a horizontal drive-shaft carrying a gear-wheel meshing with the pinion, an operating device connected to said drive-shaft, bearings upon the frame, and twister-heads having worm-gears meshing with the worm-wheels on the vertical shaft, journals turning in said bearings and flanges to hold said wheel against displacement, substantially as described.

2. In a fence-making machine, the combination of a supporting-frame, a shaft journaled vertically in the frame and provided with a pinion and with worm-gears, a horizontal drive-shaft carrying a gear-wheel meshing with the pinion, an operating device connected to said drive-shaft, twister-head supports and bearings upon the frame, each consisting of opposing side plates, one of said plates being divided and having coinciding segmental notches, and twister-heads, each having gear-teeth to mesh with a worm-gear, a journal turning in the bearing formed by the walls of said notches, and a flange arranged between the plates and holding the head against displacement, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ELZA E. STEWART.

Witnesses:
S. B. GRISSINGER,
A. L. AGER.