No. 696,906. Patented Apr. 1, 1902.

H. C. LAND.

WIRE REELING AND STRETCHING MACHINE.

(Application filed Aug. 14, 1901.)

(No Model.) 3 Sheets—Sheet 1.

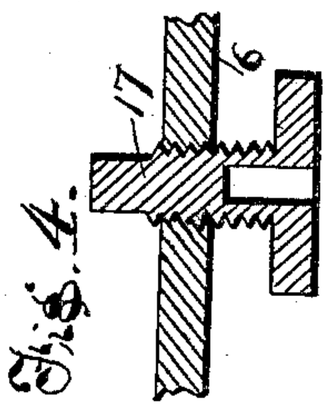

Fig. 4.

Fig. 1.

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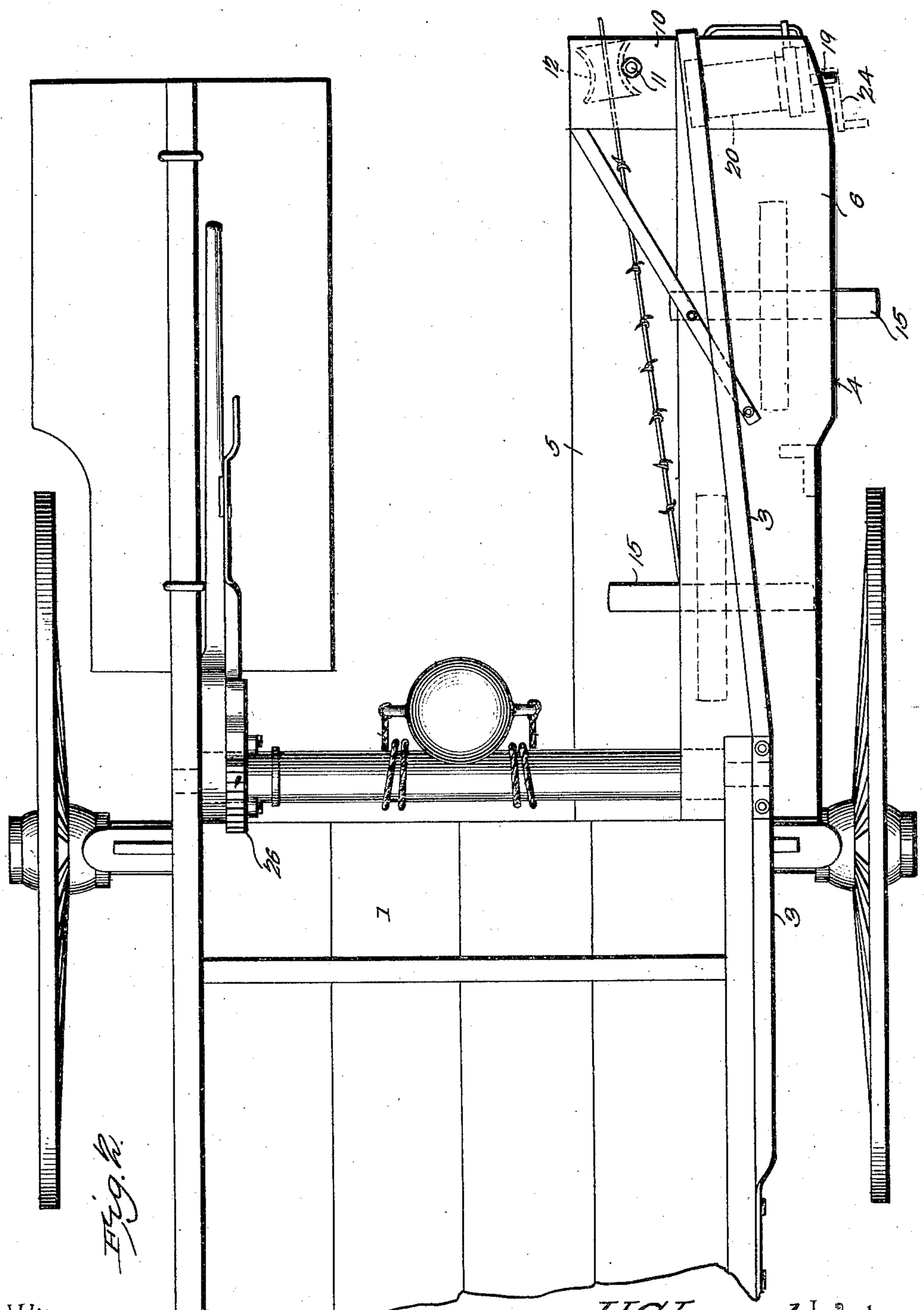

Fig. 2.

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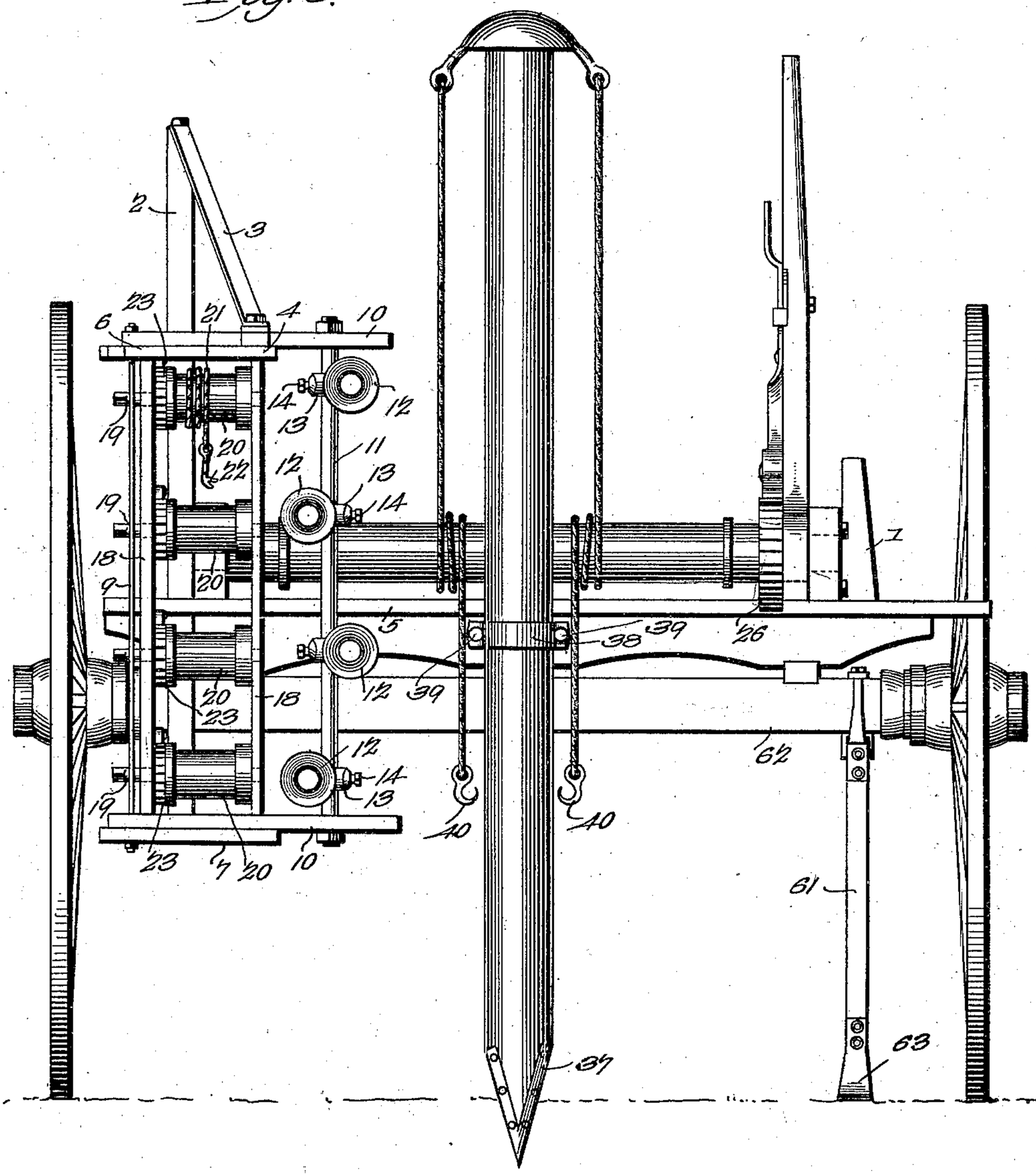
Fig. 3.



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UNITED STATES PATENT OFFICE.

HENRY CLAY LAND, OF NEWTON COUNTY, MISSISSIPPI.

WIRE REELING AND STRETCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 696,906, dated April 1, 1902.

Application filed August 14, 1901. Serial No. 72,058. (No model.)

To all whom it may concern:

Be it known that I, HENRY CLAY LAND, a citizen of the United States, residing in the county of Newton and State of Mississippi, have invented a new and useful Wire Reeling and Stretching Machine, of which the following is a specification.

The invention relates to improvements in wire-reeling machines.

The object of the present invention is to improve the construction of wire-reeling machines and to provide a simple and comparatively inexpensive one designed to be applied to and operatively carried by the rear portion of a wagon-body, which may be used for transporting spools of barbed wire and other material employed in the construction of fences.

A further object of the invention is to provide a wire-reeling machine of this character which will also be capable of stretching a series of fence-wires and of holding the same while they are being stapled or otherwise secured to the fence-post and of supporting the wires at the desired elevation to maintain the desired interval between them.

The invention consists in the construction of arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of the rear portion of a wagon-body, showing the improved mechanism applied thereto, the adjacent wheel being broken away in parts. Fig. 2 is a top plan view of the arrangement of parts shown by Fig. 1. Fig. 3 is an end elevation of the improved mechanism. Fig. 4 is a detail sectional view of a part of the mechanism.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a wagon-body of any preferred form and having the improved mechanism applied to the rear portion thereof. If desired, the improved mechanism may be applied to a wagon-body as found in the market, with the additions which will be hereinafter explained, or in the primary construction of the mechanism the framework may be extended to form such body and provided with the usual running-gear and means for attaching draft-animals, by which the machine will be drawn or transported from place to place.

At one side of the body 1 is an upright 2, and bolted to the top of the same is an arch-brace 3, having its forward extremity secured to the body in advance of the mechanism and its rear extremity attached to the top portion of the rear end of a framework 4 for holding the reels and stretching mechanism. This framework 4 comprises an intermediate horizontally-disposed platform 5 and upper and lower plates 6 and 7, which have an intermediate vertically-arranged angle-brace 8 secured thereto. The upper and lower plates 6 and 7 are also connected at suitable intervals by other strengthening devices, such as tie-rods 9, and at the rear portion the upper and lower plates 6 and 7 have inwardly-projecting supporting-strips 10, which are terminally engaged by an upright bar 11, on which a plurality of funnel-shaped guides 12 are adjustably mounted, the front and rear extremities of the guides being flared, as clearly shown by dotted lines in Fig. 2, and each guide is provided with a collar 13 at one side, movable on the bar 11 and held in its adjusted position by a set-screw or bolt 14, which passes through the collar to impinge on the said bar. It is intended that the guides be adjusted at any angle in a horizontal plane to suit the direction of the wire fed therethrough and to properly guide the wire in relation to the posts to which it is applied.

In the upper and lower portions of the framework 4 wire-carrying spools or reels 15 are mounted and held upon spindle-rods 16, which are engaged at one terminal by adjusting caps 17 to tighten against the adjacent reel or spool-head to prevent too slack movement of the spool or reel or to regulate the rotation of the latter in such manner as to prevent the wire from running off the same too rapidly. The caps 17 are well-known structural devices, and one of the same is clearly shown by Fig. 4, the said caps being used in this instance as a convenient means for securing the reels in place and regulating the tension thereof. The spindle-rods and reel or spool are arranged in staggered relation, as indicated by Fig. 2, so that the wire strands fed therefrom may be clear of adja-

cent spools or reels, particularly the strands from the front spools or reels. The framework 4 extends partially above and partly below the horizontal plane of the body 1, so that the reels or spools and the strands that are fed therefrom may be brought in proper position relatively to the posts to which the said strands are applied. The platform 5 provides means for supporting an operator for convenience in arranging the spools in the framework or otherwise threading and manipulating the strands.

At the rear end of the framework 4, adjacent to the outer side of the same, are two vertical supports 18, which are secured to the upper and lower plates 6 and 7 and spaced apart from each other a suitable distance. The supports 18 provide bearings for the opposite extremities of the shafts 19 of winding-drums 20, adapted to be supplied with cables 21 or the like having terminal grab-hooks 22, only one of these cables and grab-hooks being shown. The grab-hooks 22 will be of such form as to accurately engage the wires trands, having barbs, for instance, to exert a stretching tension on the strand, though it will be understood that the machine is equally adapted for use with smooth wire strands. Each winding-drum 20 has a ratchet-and-pawl mechanism 23 for obvious reasons, and the outer ends of the shafts 19 are extended beyond the outer support 18 and squared or otherwise angularly shaped to removably receive an operating crank-handle 24. (Shown in dotted lines in Fig. 1.)

The present form of the machine is shown as equipped with four reels or spools 15 and a like number of guides 12 and winding-drums 20; but it will be understood that the number of said parts may be increased or decreased at will, and, furthermore, the entire complement of such devices need not necessarily be used at one time, particularly in repairing or adding extra strands or runners to a fence already put up. By having the reels or spools, guides, and drums at different elevations the elevation of a strand to be applied to the fence-post may be more nearly compensated for or better accommodated to facilitate the erection of the fence, particularly in the stretching operation, and by this means also complex adjusting mechanisms or attachments are dispensed with.

When the wire strands are fed out, the machine will be propelled along the line the fence is to be erected, and if posts have already been placed the said strands can be quickly stretched over and secured to the same. The wagon is also designed to be provided with means for erecting the posts in the ground, so that a fence may be quickly built.

In order to steady the rear portion of the wagon during the wire-stretching operation, a brace 61 is employed. This brace 61 is movably attached at its upper end to the rear axle 62, and its lower end is provided with a fork 63 for engaging the ground.

Having thus described the invention, what is claimed as new is—

1. In a machine of the class described, the combination with a wagon having a framework located at the rear end of the body, wire-carrying spools mounted on the framework, a series of vertically-adjustable guides mounted on the framework and located in rear of the wire-carrying spools, and a vertical series of wire-stretching devices also mounted on the framework, substantially as described.

2. In a machine of the class described, the combination of a wagon having a framework extending from the rear portion of the wagon-body and provided with spindle-rods adapted to receive spools of wire, a vertical rod located in rear of the spindle-rods and provided at intervals with wire-receiving guides, said guides being adjustably secured to the vertical rod and capable of vertical adjustment, and means for stretching a series of wires, substantially as described.

3. In a fence-making machine the combination of a body having a rearwardly-extending framework which extends above and below the plane thereof and comprising upper and lower plates and an intermediate platform to support an operator, and wire feeding and stretching devices disposed in said framework.

4. In a fence-making machine, the combination of a wagon-body having an upright at the rear portion thereof, a framework supported by said upright and rear portion of the body and extending outwardly to the rear from the latter, an arch-brace secured to the body, upright and rear portion of the framework, and wire feeding and stretching devices carried by said framework.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HENRY CLAY LAND.

Witnesses:
WILL IZOID COLE,
ISAAC ALEXANDER LEACH.