

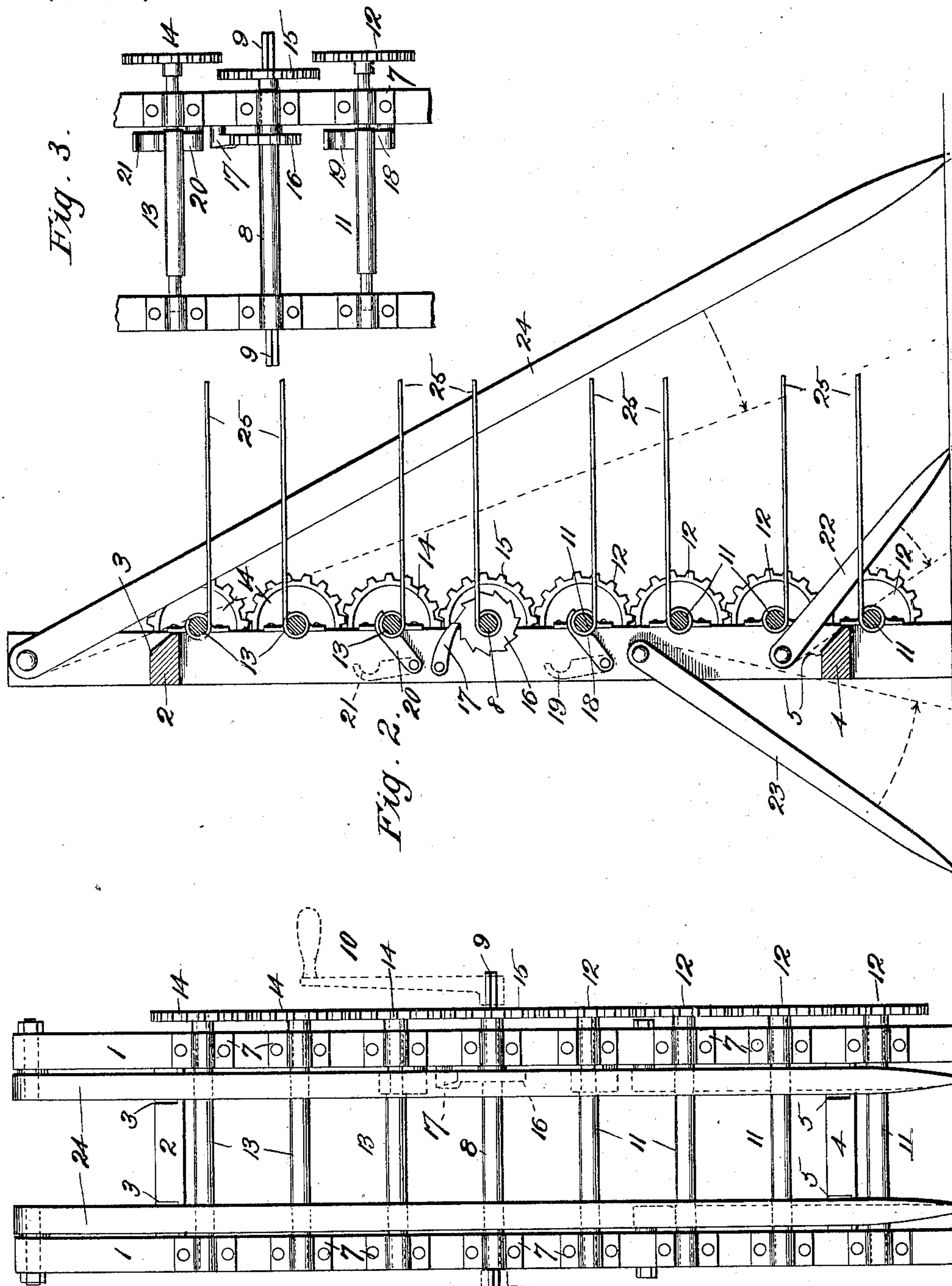
No. 609,086.

Patented Aug. 16, 1898.

J. N. DOZIER.  
WIRE STRETCHING MACHINE.

(Application filed Aug. 17, 1897.)

(No Model.)



Witnesses:  
F. G. Fischer  
G. Thorpe

Fig. 1

Inventor  
J. N. Dozier  
By Higdon & Higdon  
attys.



# UNITED STATES PATENT OFFICE.

JAMES N. DOZIER, OF LEXINGTON, MISSOURI.

## WIRE-STRETCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 609,086, dated August 16, 1898.

Application filed August 17, 1897. Serial No. 648,608. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES N. DOZIER, of Lexington, Lafayette county, Missouri, have invented certain new and useful Improvements in Wire-Stretching Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to wire-stretchers, and is designed particularly for use in building wire fences consisting of a series of horizontal wires.

The object of the invention is to produce a wire-stretcher which is simple, strong, durable, and inexpensive of manufacture and which is conveniently portable and positive and reliable of operation.

The invention consists in certain novel and peculiar features of construction and arrangement, as will be hereinafter described and claimed.

In order that the invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 represents a front view of a wire-stretching machine embodying my invention. Fig. 2 represents a vertical section of the same. Fig. 3 represents a detail view illustrating certain parts in different positions.

Referring to said drawings, wherein similar reference-numerals refer to corresponding parts, 1 1 designate a pair of vertical and parallel standards. 2 designates a cross-piece connecting the same at their upper ends and provided, preferably, with notches 3 in its front edge. 4 designates a similar cross-piece provided with similar notches 5.

7 designates a number of bearing-boxes which are bolted or otherwise secured to the front side of the standards 1, and 8 designates a shaft journaled at its opposite ends in a pair of said bearings, said shaft being arranged, preferably, at about half the height of the standards—that is, about the height of a low fence—and said shaft terminates in the squared end portions 9 in order that the crank-handles 10 may be mounted thereon to rotate the shaft, and thereby stretch the wires, as hereinbefore explained.

11 designates a series of shafts which are

journaled in bearings 7 below the shaft 8, and mounted rigidly upon their outer ends are intermeshing cog-wheels 12.

13 designates a series of shafts above the shaft 8, and said shafts are also journaled in the boxes 7 and provided at their ends with intermeshing cog-wheels 14.

15 designates a similar cog-wheel, which is mounted rigidly on the shaft 8 and meshes with the trains of gearing 12 and 14, so that, as hereinbefore intimated, the rotation of the shaft 8 will impart a corresponding movement to the shafts 11 and 13. The shaft 8 is also provided with a ratchet-wheel 16, and engaging the same is the dog or pawl 17, pivotally mounted on the adjacent standard 1, this dog or pawl being adapted to prevent the back rotation of the shaft by engaging successively each tooth of the wheel 16 as it rotates, and thereby preventing the slacking of the wires, as hereinafter referred to.

The shaft 11 next below the shaft 8 at one end is provided with a journal 11<sup>a</sup> of greater length than the width of its respective bearing-box in order that said shaft may be longitudinally adjusted, and thereby its cog-wheel 12 thrown out of engagement with the cog-wheel 15 of the shaft 8 when it is desired that the lower train of shafts shall cease to operate. The shaft is held normally in gear with the shaft 8 by means of the pivoted dog 18, which is mounted upon the adjacent standard, and is provided with a segmental recess 19 in its lower face for engagement with the extended journal of said shaft, being interposed between the bearing and the opposing shoulder of the shaft, and thereby preventing any longitudinal movement of the latter, as will be readily understood.

The shaft 13 next above the shaft 8 is also provided with an extended journal 13<sup>a</sup> in order that the train of gearing of which it is part may be disengaged from the shaft 8. Said shaft 13 is held normally in its operative position by means of a dog 20, pivoted to the adjacent standard and provided with a segmental recess 21 in order that it may fit snugly upon said journal and be interposed between the adjacent bearing and the opposing shoulder of the shaft, as explained with reference to the shaft 11.



In order to brace this wire-stretching machine in its vertical position, I employ a pair of forwardly and downwardly projecting braces 22, pivoted to the inner sides of the standards 1 and adapted, when folded toward  
 5 said standards, to rest within the notches 5 of the cross-bar 4. These braces are adapted to prevent the forward movement of the lower end of the machine, and to prevent rearward  
 10 movement at such end I provide a second pair of braces 23, which are pivoted above the braces 22 and project downwardly and to the rear. These braces also may be folded close to the standard.

15 To prevent forward movement of the upper end of the standard, I employ a pair of braces 24, which are pivoted at their upper ends to and between the upper ends of the standards 1 and project downwardly and forwardly to  
 20 the ground. These braces, by reason of the notches 3, may be folded toward the shafts, so as to make the machine conveniently portable.

The wires to be stretched (numbered 25)  
 25 are attached in any suitable manner at their ends to the shafts 8, 11, and 13, if it be desired to build a wire fence of full size, or to any number of shafts desired. They will be attached to the shafts preferably as shown,  
 30 owing to the fact that the companion shafts of each series will operate in opposite directions.

When thus arranged, by placing the cranks upon either end of the shaft 8, it is obvious  
 35 that two men can thoroughly and effectually

tension or stretch the wires in the required degree.

From the above description it will be apparent that I have produced a wire-stretching machine which embodies the features of ad- 40  
 vantage enumerated in the statement of invention.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is— 45

A wire-stretching machine, comprising a pair of standards 1 1, a cross-bar 2, provided with notches 3, pivoted braces 24 24, a cross-bar 4, provided with notches 5, a shaft 8, having squared ends, journaled upon said stand- 50  
 ards, and provided with a gear-wheel 15 and ratchet-wheel 16, and a pawl 17, engaging said ratchet-wheel, a series of shafts 11, geared together and to the shaft 8, and journaled upon said standards; the topmost of 55  
 said shafts being longitudinally adjustable to sever the geared relation between shafts 8 and 11, a series of shafts 13, geared together and to the shaft 8; the lowest of said shafts being longitudinally adjustable to sever the 60  
 relation between shafts 8 and 13, and dogs to lock adjustable shafts 11 and 13 in gear with the shaft 8, substantially as and for the purpose described.

In testimony whereof I affix my signature 65  
 in the presence of two witnesses.

JAMES N. DOZIER.

Witnesses:

CHARLES A. REX,  
 JAMES M. PRICE.