

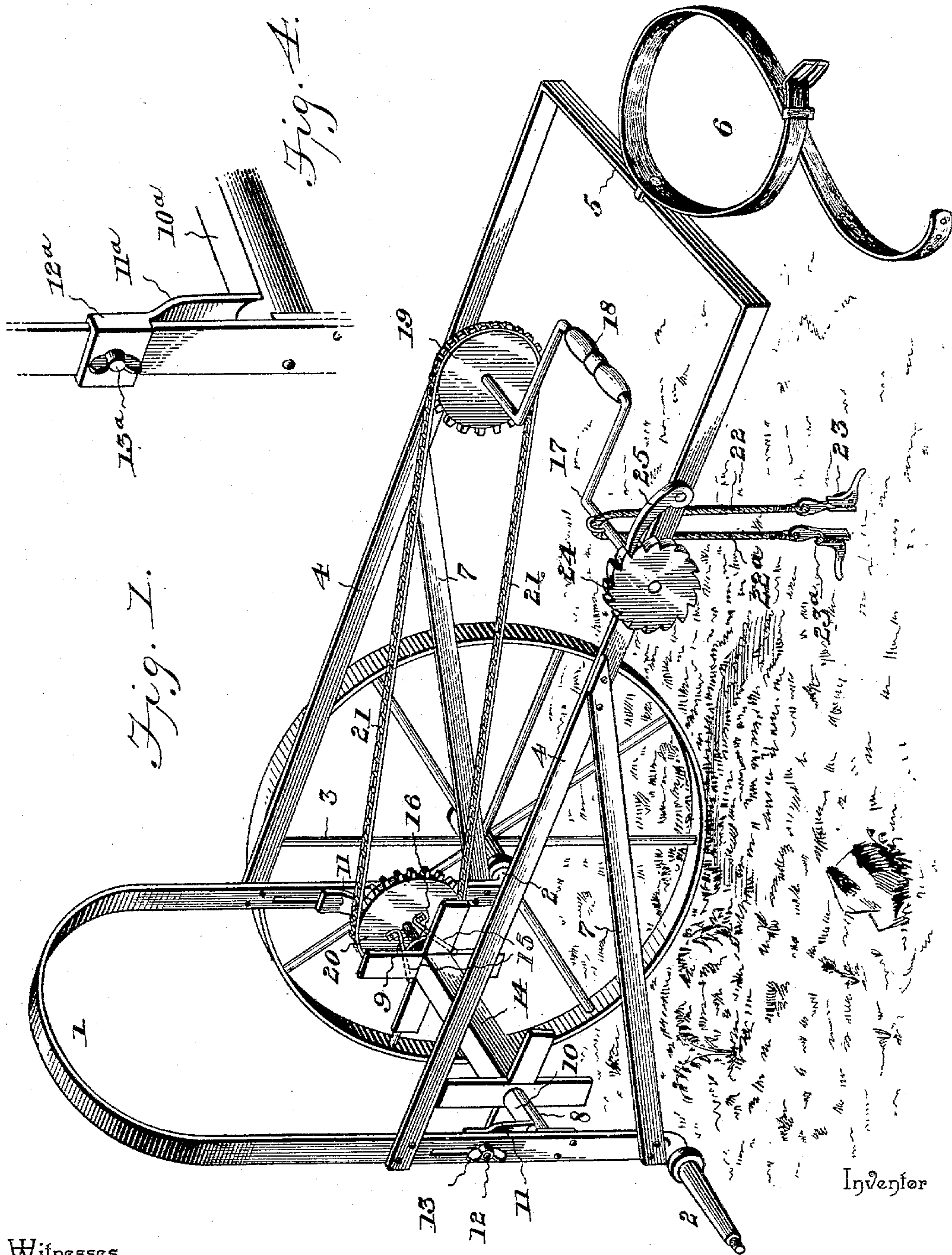
(No Model.)

2 Sheets—Sheet 1.

J. W. ALLEN.
WIRE FENCE MACHINE.

No. 597,931.

Patented Jan. 25, 1898.



Witnesses

E. H. Moore
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By *his* Attorneys,

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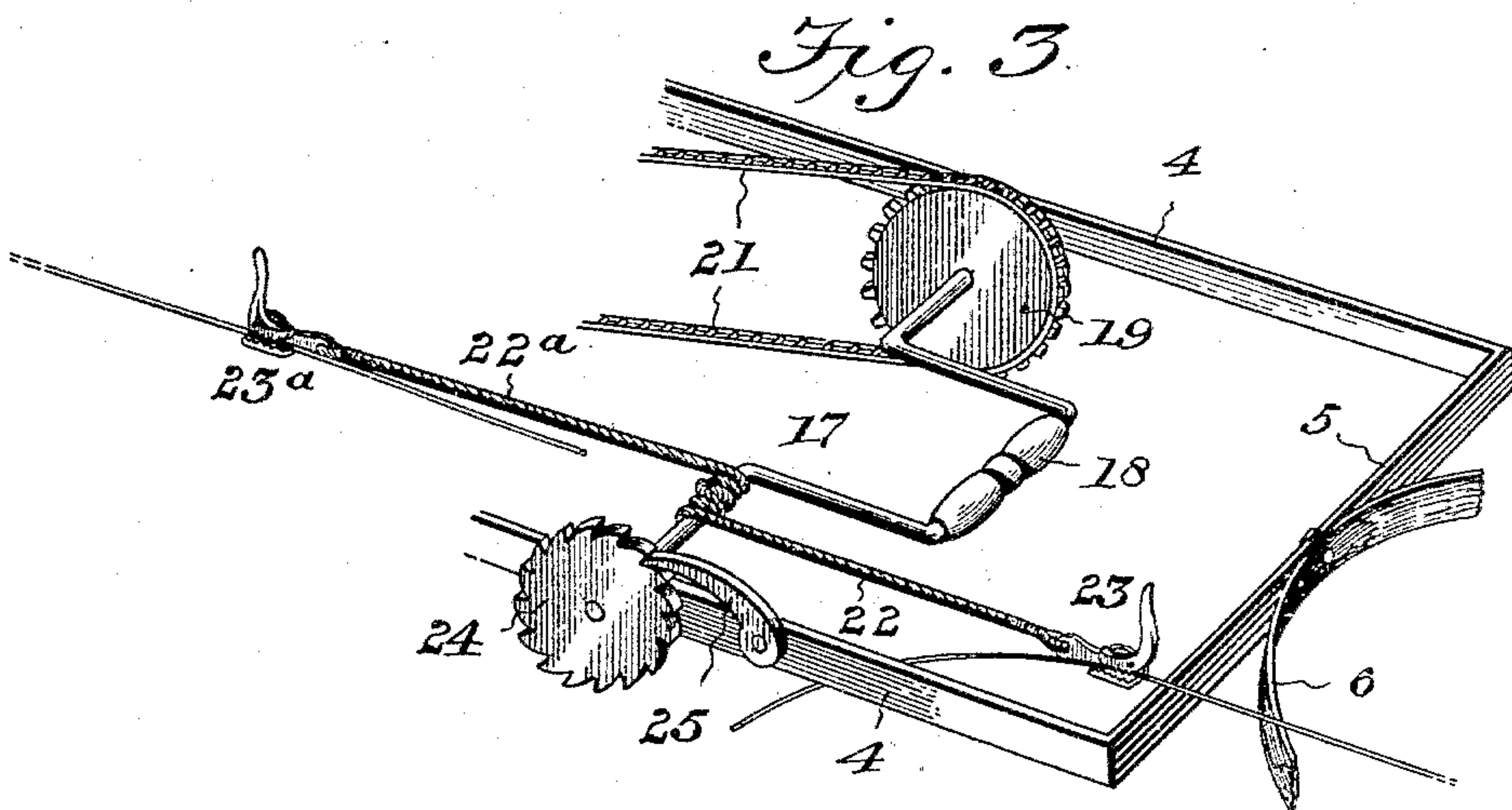
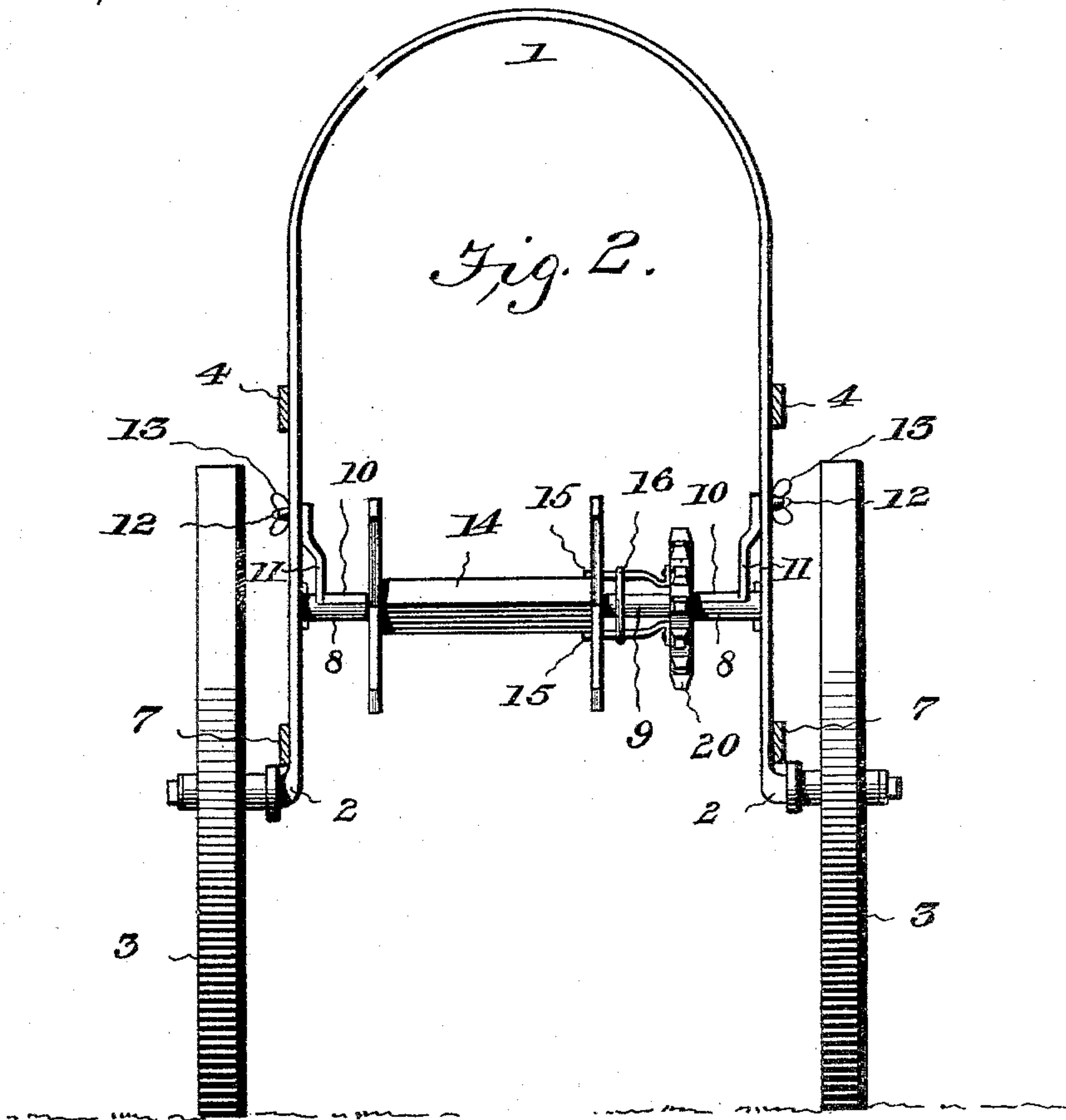
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Inventor

J. W. Allen,

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN W. ALLEN, OF SIPE SPRINGS, TEXAS.

WIRE-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 597,931, dated January 25, 1898.

Application filed August 18, 1897. Serial No. 648,682. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. ALLEN, a citizen of the United States, residing at Sipe Springs, in the county of Comanche and State of Texas, have invented a new and useful Wire-Fence Machine, of which the following is a specification.

My invention relates to a portable wire-fence machine and reel-carriage, and has for its object to provide a simple, compact, light, and comparatively inexpensive machine adapted to be transported with facility to enable a single operator to readily distribute and collect fence-wire, to stretch wire runners, to mend broken runners, and to perform other similar operations in connection with wire-fence construction.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a wire-fence machine constructed in accordance with my invention. Fig. 2 is a transverse vertical section of the same in the plane of the reel-spindle. Fig. 3 is a detail view showing the operation of the device as a wire-stretcher, the severed extremities of the broken wire being engaged with the object of drawing the same together for mending. Fig. 4 is a detail view showing a slightly-modified means for securing the removable bearing-caps in place.

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

The machine embodying my invention preferably includes an upright arched frame 1, consisting of a single bar or rod terminating in stub-axles 2, upon which the supporting or ground wheels 3 are mounted, one of these wheels being omitted in Fig. 1 in order to fully disclose the construction of the adjacent mechanism. Connected to this arched frame are side beams 4, secured at their rear ends to the arch and connected at their front ends by a cross-bar 5, which carries a belt 6, adapted to be buckled around the waist of the operator. Short braces 7 preferably extend from intermediate points of the side beams rearwardly to the arched frame contiguous to the plane of the stub-axles 2.

The sides of the arched frame 1 are provided with inwardly-extending open-topped bearings 8 for the reception of the extremities of a reel or spool spindle 9, and the upper sides of these bearings are adapted to be closed by means of removable caps 10, carried by arms 11, which are slidingly mounted upon the frame, the bolts 12 being fitted with thumb-nuts 13, by which the arms, and hence the bearing-caps, may be firmly clamped in their adjusted positions. It will be seen that the removability of the bearing-caps provides for the dismounting with facility of the spool or reel 14, inasmuch as the cap of the bearing at one side of the machine may be displaced, as indicated by dotted lines in Fig. 2, to allow that end of the spindle to be raised sufficiently to slide the spool or reel axially therefrom.

Carried by the spool-spindle is a clutch consisting of spring-arms 15, of which the normal tendency is to spread at their free inner ends, and fitted to slide upon said arms is a contracting-ring 16, which when slipped inwardly toward the free ends of the clamp-arms draws said extremities toward each other to engage the cross bars or arms at the contiguous end of the spool or reel, as clearly shown in Fig. 1.

Mounted upon the side beams, preferably contiguous to the cross-bar 5 and hence within reach of an operator around whom the belt 6 is buckled, is a driving-shaft 17, connected by gearing with the spool-spindle and provided with a crank 18, by which said spool-spindle may be rotated to reel wire thereon. In the construction illustrated said gearing consists of sprocket-wheels 19 and 20, fixed, respectively, upon the driving-shaft and the spool-spindle and connected by a traversing chain 21. Also attached to the driving-shaft are flexible connections 22 and 22^a, consisting of rope or its equivalent, terminating in wire-clutches 23 and 23^a, both of said connections being adapted to be coiled upon the driving-shaft when the latter is rotated by means of its crank, and a ratchet-clutch is preferably employed in connection with the driving-shaft to prevent backward rotation thereof, the form of clutch illustrated in the drawings consisting of a ratchet-wheel 24, engaged by a pawl 25.

From the above description it will be seen

that the spool or reel can be readily dismounted from the spindle provided for its reception to allow the substitution of a succeeding spool and that by the means provided wire
 5 may be distributed or reeled as required, the transportation of the supporting-frame being accomplished by the operator who manipulates the wire distributing and collecting mechanism. After having distributed wire
 10 to the desired extent, the initial or starting end thereof having previously been attached to a post or stationary object, the machine may be backed against a second stationary object, such as a post, contiguous to the terminal end of the wire, and one of the wire-clamps engaged with the wire to provide for the stretching of the wire by turning the driving-shaft 17. On the other hand, if it be
 20 desired to mend a broken runner the machine may be transported to the point at which the break has occurred and the oppositely-extending wire-clamps engaged, respectively, with the separated extremities of the broken wire, after which the turning of the driving-shaft will draw said ends together to provide for their proper connection.

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

In Fig. 4 I have shown a slightly-modified construction of means for securing the movable members of the spool-spindle bearings in place, in which the removable cap 10^a has its arm 11^a provided with a sleeve 12^a to fit
 35 slidingly upon the arm of the arch 1, said sleeve being secured at the desired adjustment by means of a set-screw 13^a.

40 Having described my invention, what I claim is—

1. In a machine of the class described, the combination with a supporting-frame, of a spool-spindle mounted thereon, means for
 45 driving said spindle, and a spool-clutch carried by said spindle and consisting of spring-arms yieldingly held in a separated position and adapted to terminally engage the terminal cross-bar of a spool, and a contracting-ring fitted to slide upon said arms, substantially as specified.

2. In a machine of the class described, the combination of an upright arched frame and forwardly-extending terminally-connected
 55 side beams, bearings arranged at opposite sides of the arched frame and having removable cap-plates, a spool-spindle removably mounted in said bearings and adapted to be withdrawn through the arched frame when
 60 released by the movable members of the bearings, and means for communicating rotary

motion to the spool-spindle, substantially as specified.

3. In a machine of the class described, the combination with a supporting-frame, of
 65 aligned bearings carried thereby and consisting of fixed open-topped members, caps removably fitted upon said fixed members, arms carrying said removable caps and slidingly mounted upon the supporting-frame, and
 70 means, including thumb-nuts, for locking the arms in their adjusted positions, a spool-spindle removably mounted terminally in said bearings, and means for communicating rotary motion to the spindle, substantially as
 75 specified.

4. In a machine of the class described, the combination with an upright arched frame terminating in stub-axes for the reception of supporting or ground wheels, side beams extending forwardly from the arched frame and connected at their front ends by a cross-bar carrying a belt adapted to encircle the waist of an operator, a spool-spindle removably mounted in bearings supported by the sides of the
 80 arched frame, a driving-shaft mounted in bearings upon said side beams contiguous to their front ends and having a crank-arm within reach of an operator whose waist is encircled by said belt, and operating connections
 85 between the driving-shaft and the spool-spindle, substantially as specified.

5. In a machine of the class described, the combination with a portable supporting-frame, a spool-spindle mounted upon said
 95 frame contiguous to one end, a waist-belt secured to the frame at the other end, and adjustable means for locking a spool against independent rotation upon said spindle, of a driving-shaft mounted transversely upon
 100 the frame contiguous to its belt-carrying end and provided with an intermediate crank-arm within reach of an operator whose waist is encircled by said belt, operating connections between the driving-shaft and the spool-spindle, clutch mechanism for preventing backward rotation of the driving-shaft, and wire-clamps connected, by flexible oppositely-extending means, with the driving-shaft at one side of said crank-arm, and adapted to be
 110 reeled in opposite directions thereon, said clamps being adapted for engagement respectively with the separated extremities of a severed or broken wire, substantially as specified.

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

JOHN W. ALLEN.

Witnesses:

N. A. PALMER,
 W. C. MARTIN.