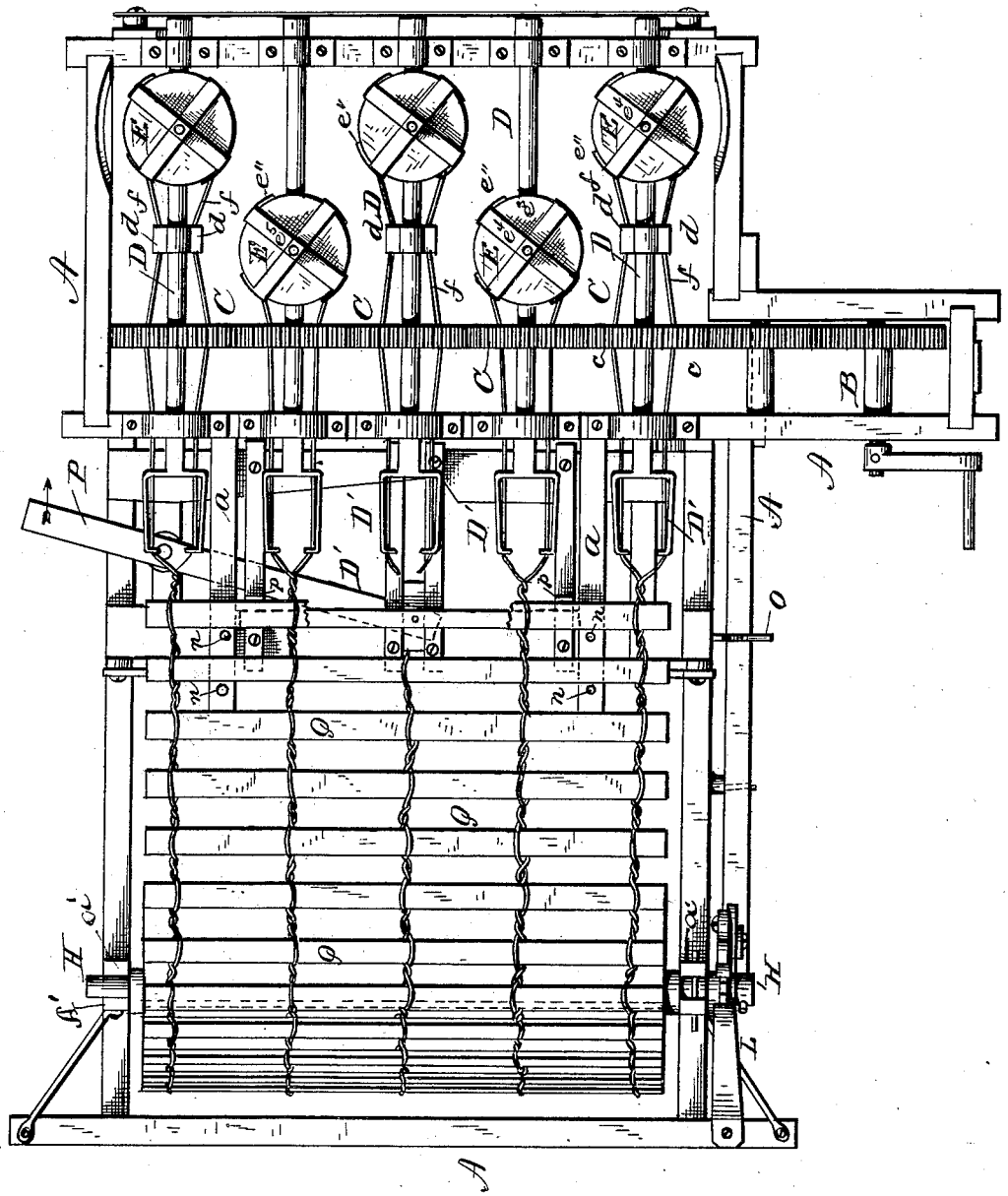
(Model.) 3 Sheets—Sheet 1.

W. H. H. FRYE.

MACHINE FOR MANUFACTURING FENCES.

No. 264,683. Patented Sept. 19, 1882.

Fig. 1.



WITNESSES

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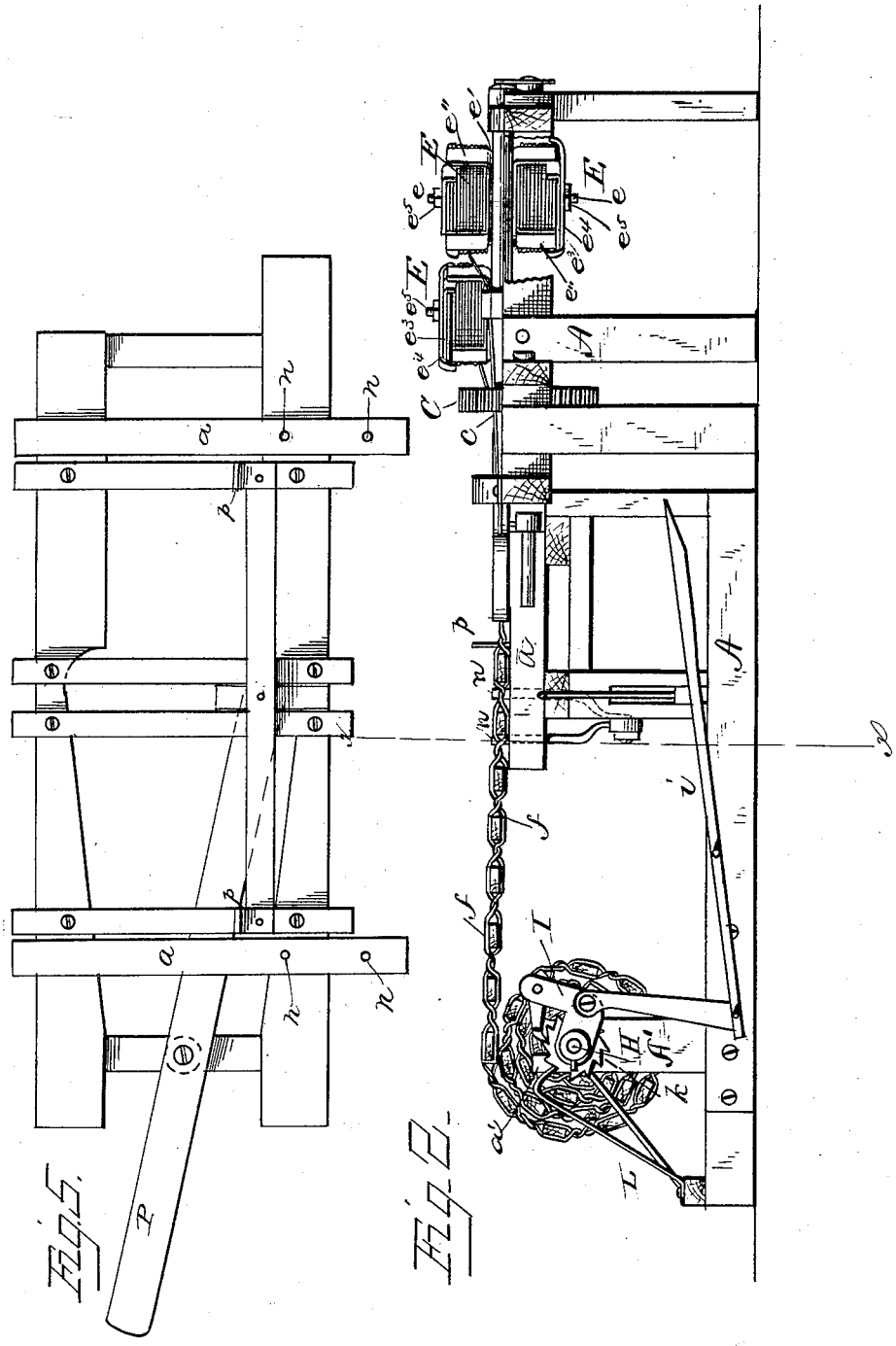

Fig. 2.

Fig. 5.

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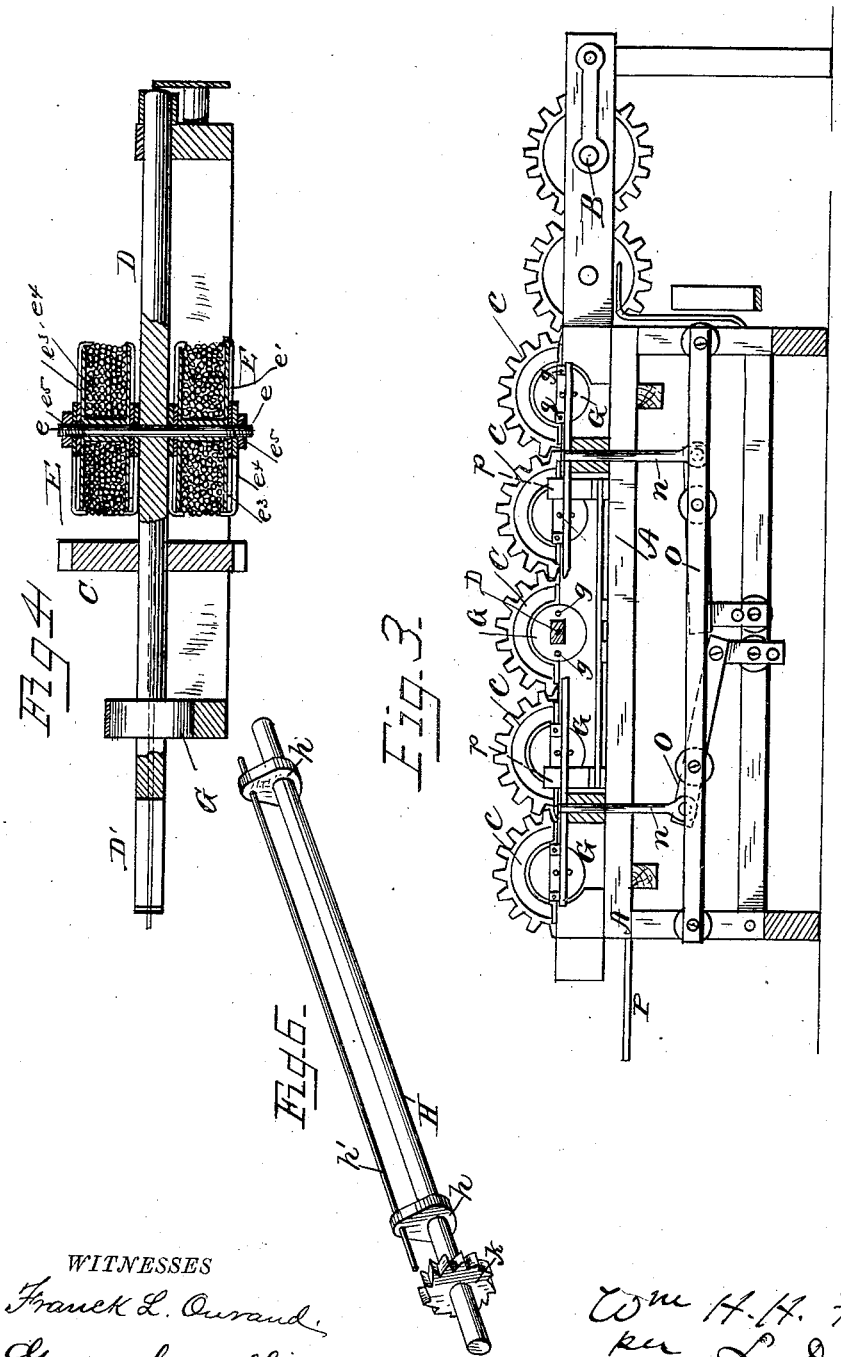

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UNITED STATES PATENT OFFICE.

WILLIAM H. H. FRYE, OF KANSAS CITY, MISSOURI.

MACHINE FOR MANUFACTURING FENCES.

SPECIFICATION forming part of Letters Patent No. 264,683, dated September 19, 1882.

Application filed April 29, 1882. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM H. H. FRYE, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Machinery for Manufacturing a Combination Farm-Fence; and I do hereby 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a plan view. Fig. 2 is a side elevation. Fig. 3 is a transverse section on line *x x*, Fig. 2. Fig. 4 is a longitudinal section through the shaft D, including the spools E, enlarged. Fig. 5 is a plan of the frame carrying the pins operated by the lever which hold the palings in position while the wires are being twisted. Fig. 6 is a detail of the shaft and key or rod by which the end of the fencing is held and wound when being made.

The object of this invention is to provide a machine on which fence-wires can be twisted about the paling, and the fencing so made can be spooled, ready for transportation; and the novelty consists in the peculiar construction of the machine which I have used to carry out these points, all as will now be more fully explained.

In the accompanying drawings, A denotes any convenient frame on which to mount the operative parts of the machine. Power is communicated from any suitable source by means of shaft B. This operates the train of gear-wheels C, which are attached respectively to shafts D, and said wheels may be so meshed with each other as to turn in the same direction, or half one way and half the other, or in alternately-opposite directions, or in any way relative to each other that may be desired.

Upon each shaft D, to the rear or back side of said wheels, are fixed, one on each side, the wire-spools E. Each spool consists of a spindle, *e*, fixed to the shaft D.

Revolving on the lower end of the spindle is the bottom plate, e', and outside the upwardly-extending and fixed fingers e'', so that when the wire *f* is wound on the spindle the bottom and side of the wire so spooled will be wholly protected.

For the top of the spool there is the detachable cover e^3, held by spider e^4 and clamping-nut e^5. The two wires *f* which are drawn out of these spools will pass respectively through the guides *d*, one on each side of shaft D, when said spools are placed at any considerable distance from the gears C; but when the spools come near to the gears said guides may be dispensed with. This arrangement is now shown by placing the guides on alternate shafts. The wires *f* will then pass also through holes *c* in the gear-wheel C and holes *g* in the bosses G, which are just behind the arms D′ and near the front end of shaft D and the gear-wheels C. The wires thence continue through the ends of said arms D′ and forward to the spooling mechanism in the front part of the machine, where the front end or part of the fencing is attached to the shaft H of the spooler or bale-former. For the purpose of so attaching the fencing thus, there is placed through ears *h*, toward the end of shaft H, a key or rod, *h′*. The front paling is placed outside of H, and the key or rod *h′*, being put into the ears *h*, will securely hold the end of the fencing while the fencing is being wound into a bale or bundle. The revolution of this shaft is caused by pawl I, operated by any suitable power, as treadle *i* or otherwise. This pawl, working on the ratchet-wheel *k*, drives the shaft H as fast as the needs of the machine demand, while the spring-detent L, engaging on said ratchet, prevents any backward movement of the shaft. This shaft is properly mounted in the frame to take a full measure of the manufactured fencing. When the wires *f* have been put in the position aforesaid those of each pair extend parallel to each other from rear to front of the machine.

The operation of working the fencing is as follows: The shafts D having been turned sufficiently to make a twist in the wires near the ends of arms D′, a paling, Q, is thrust between ends of arms D′, which now stand edgewise, said paling being placed sufficiently near the twist aforesaid that the paling may lie flat on the timbers *a*. The paling can then be moved forward by arms *p* of the lever P toward and against the rear studs, *n*, which have been thrust up through the timber, having holes

which act as guides for the studs, by the double-acting lever O, and when thus secured the shafts are caused to turn, and this motion twists the wires tight upon the paling. When a sufficiently-large bale or bundle has been wound on the shaft H the wires near the front part of the unwound fencing are cut, the shaft lifted from its bearings, and when the key or rod h' has been removed, as is easily done by the fingers or an instrument, the shaft H is also readily pulled out of the bale, which is then secured together properly for transportation. When this is accomplished the studs n are dropped, the forward shaft, H, is rotated, the wires and paling are drawn forward slightly till the rear stud n has been passed, when the studs are again raised and the paling comes against the front one. Then a second paling is placed between the wires, like as was the first, and the operation is repeated, and thus continually the product is caused to be carried forward and wound on shaft H.

As many shafts D, and consequently as many lines of parallel wires, may be used as are desired.

I secure by this mechanism a very cheap, strong, and desirable article for use, one that can be very readily handled as an article of commerce, and is light and strong for use.

Having thus described my invention, what I consider new, and desire to secure by Letters Patent, is—

1. In a wire-fence-paling machine, the combination of shafts D, having wire-spools E, as described, one on each side, guide-bosses G, and arm D′, combined with gears C, having wire-holes c, substantially in the manner and for the purposes set forth.

2. In a wire-fence-paling machine, the combination of the wire-twisting mechanism, as described, with the lever P, having arms p, the timbers a, having holes which guide the studs n, and lever O, substantially as described.

3. In combination with shaft D, a wire-spool, E, consisting of spindle e, bottom plate, e', arms e'', cover e^3, spider e^4, and clamping-nut e^5, substantially as set forth.

4. In a wire-fence-paling machine, the combination of the wire-twisting mechanism, as described, with shaft H, having a removable key, h', pawl I, ratchet k, treadle i, and detent L, substantially as and for the purposes set forth.

5. In a wire-and-paling-fence machine, substantially as described, the spooling or baling shaft H, detachable and provided with ears h, and a removable rod or key-piece, h', substantially as described.

6. In a wire-fence-paling machine, the combination of shafts D, having wire-spools E, guide-bosses G, and arms D′, the gear-wheels C, having wire-holes c, the lever P and arms p, the lever O and studs, with the shaft H, the pawl I, ratchet k, and the treadle i, substantially as described.

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

WILLIAM H. H. FRYE.

Witnesses:
WALTER A. POWELL,
C. W. CHASE.