

(No Model.)

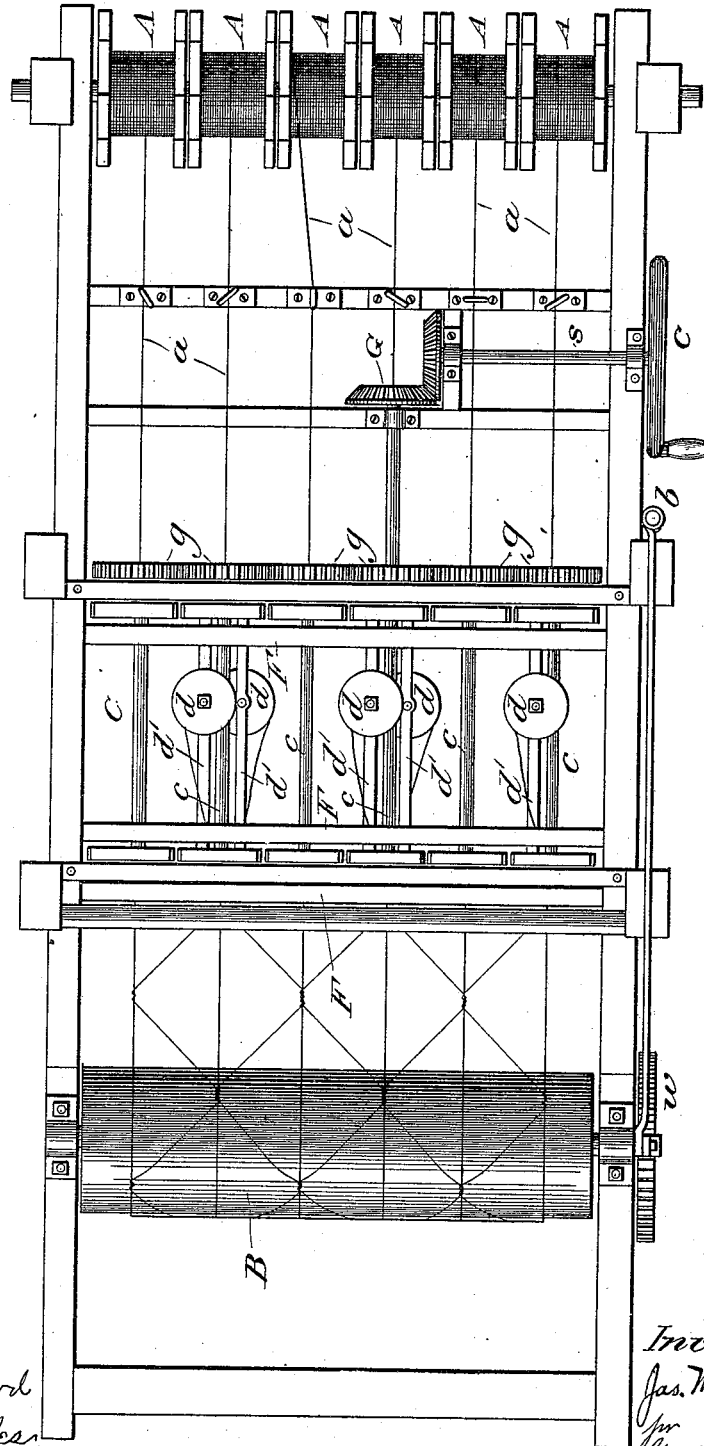
3 Sheets—Sheet 1.

J. M. SNYDER.
WIRE FENCE WEAVING MACHINE.

No. 419,480.

Patented Jan. 14, 1890.

Fig. 1.



Witnesses:

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C. J. Pollock

Inventor:

Jas. M. Snyder
per
Geo. W. Bullard,
attorney

(No Model.)

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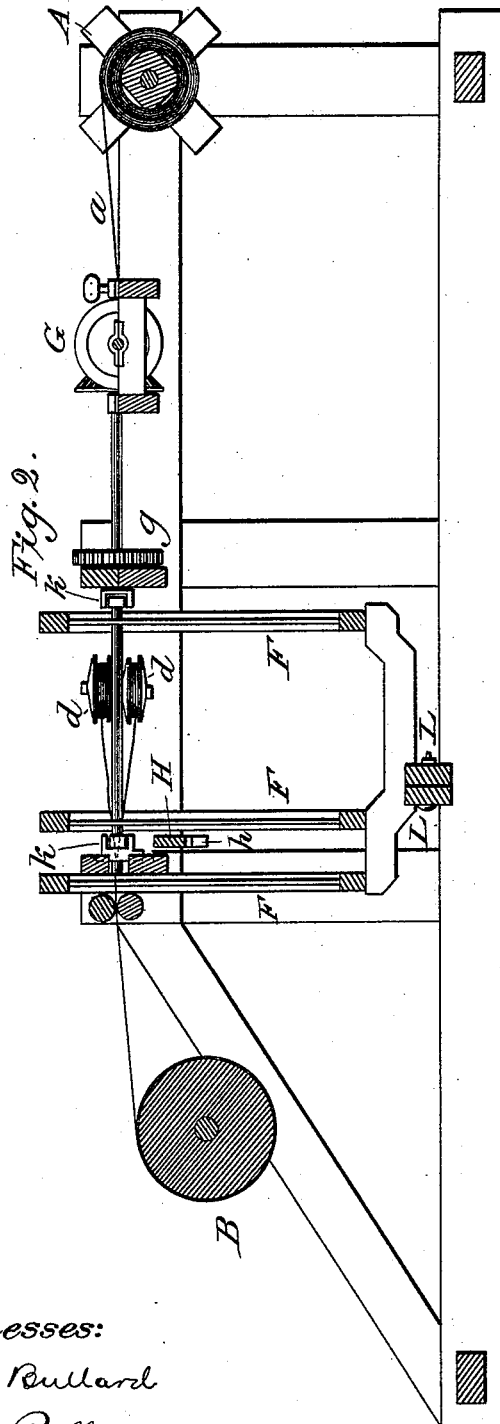
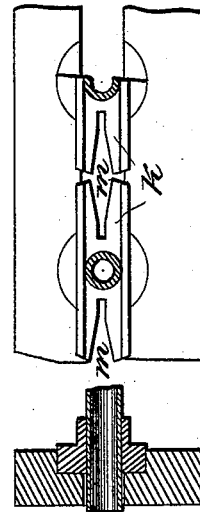


Fig. 3.



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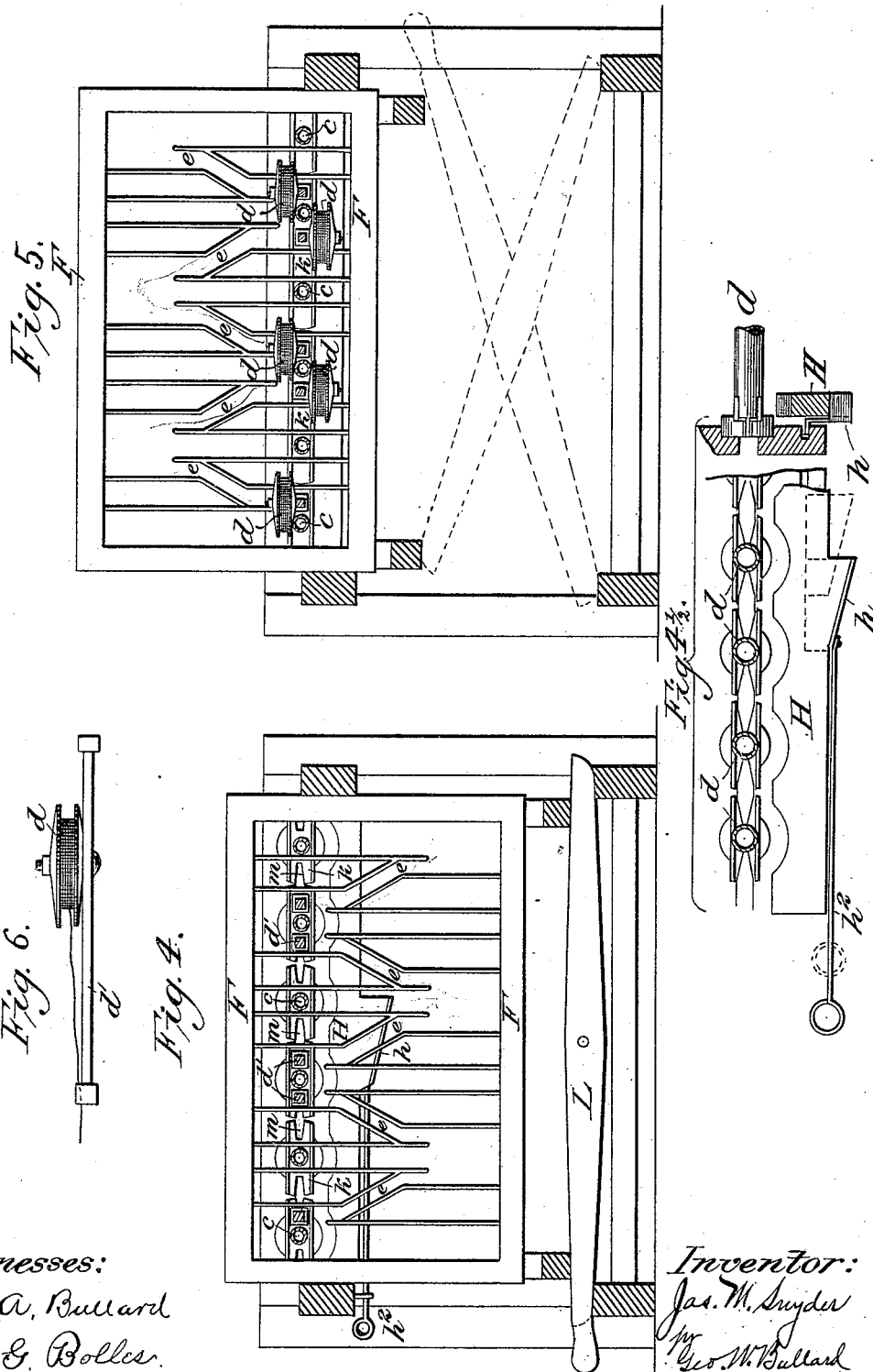
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per
Geo. W. Ballard
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UNITED STATES PATENT OFFICE.

JAMES M. SNYDER, OF SPRINGFIELD, ILLINOIS.

WIRE-FENCE-WEAVING MACHINE.

SPECIFICATION forming part of Letters Patent No. 419,480, dated January 14, 1890.

Application filed December 10, 1888. Serial No. 293,208. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. SNYDER, a citizen of the United States, residing at Springfield, in the county of Sangamon and State of Illinois, have invented a new and useful Improvement in Wire-Fence-Weaving Machines, of which the following is a specification.

My invention relates to wire-fence-weaving machines in which the straight tension-wires are woven together with an interlacing diagonal mesh-work of wire.

The object of my invention is the rapid and strong weaving of wire fences, in which all the wires in their composition are woven together into a firm body of net-work. I attain this object by means of the machine shown in the accompanying drawings, which are to be considered a part of this specification.

Figure 1 is a plan view of the machine. Fig. 2 is a longitudinal section. Fig. 3 is a detail of the shifting-shaft. Figs. 4 and 5 are transverse sections. Fig. 4½ is a detail, partly in elevation and partly in cross-section, of the clamp-operating device; and Fig. 6 is a detail of the shifting-shaft and spool.

The machine is constructed of a strong frame-work of wood, as indicated in the different drawings. The tension or anchor wires of which the fence is made are put on the reels, as shown at A A A. The wires *a a a* are then passed from the reels through the twisting-shafts *c c c* and to the roller B, on which the fence is rolled as woven. The shafts *c c c* are made of gas-pipes, (hollow,) so that the wires *a a a* may pass through and the shafts be revolved about without twisting them. Between each two of these shafts is placed a stationary sliding shaft, on which is bolted a spool or small reel of wire, as indicated at *d' d* on the drawings, and as shown in Fig. 6. From these spools *d d d* is supplied and woven the diagonal interlacing mesh-work between the tension-wires *a a a*. They are shifted to and from each of the twisting-shafts *c c c* alternately by means of the shifting-frames F F F. Two of these frames are used to shift *d' d d' d* back and forth, while the third nearest the front end of the machine is used to hold the interlacing

wires close to the tension-wires *a a a* while being twisted around them.

The construction and operation of the frames F F F are shown in the cross-sections, Figs. 4 and 5. In Fig. 1 the frames are down and the spools *d d d* are in the position therein shown, while Fig. 5 represents the frames F F F raised up, which, by means of the slides *e e e*, shifts *d' d* to the other twisting-shafts for the purpose of weaving the wires about them. The frames F F F are raised and lowered by means of the levers L L and the handle *l*, the weight of the frames being balanced by a counter-weight, cord, and pulleys when desired.

The machine is operated by the crank-wheel C, which, by means of the shaft *s*, turns the side gears G, one of which is on one of the shafts *c*. The shafts *c c c* are all geared together by means of cog-gearing *g g g* of equal size, making all turn evenly and regularly, one revolution of C causing one revolution of *c c c*. The mesh-work is moved forward at each operation by means of the roller B, which is turned the desired distance by means of the ratchet-wheel *w* and lever *b*.

The machine is held from being operated by means of a clamp-bar H, which, by means of a slide incline *h* and handle *h'*, is pressed up against the slide-guide of the twisting-shafts *c c c*. (Shown more plainly in Fig. 3 at *k*.) The clamp is also used to hold the guides in line, so that the shafts *d'* may be easily shifted back and forth. After turning the roll B forward the desired distance the shafts *d' d' d'*, with spools *d d d*, are shifted from the shafts *c c c* just woven upon to those to be woven on, the clamp H is lowered, and the wheel C turned any desired number of rounds, the clamp H again tightened and the roller B turned forward, and the shafts *d' d' d'*, with spools *d d d*, shifted back again to the former shafts *c c c*. The operation is thus continued until any desired length of fence is woven.

The spools *d d d* and the reels A A A can readily be removed and refilled when exhausted and the new wire connected with that in the woven work, making all strong and continuous for any desired length.

The slide-guides *k k* at the front end of the

machine are made forked to allow the wires to come near the twisting-shafts and to twist them around the wires *a a a*. This is shown at *m m*, Fig. 3. The slide-guides are rigidly
5 secured to the hollow shafts *c*.

A special merit of this machine may be mentioned, viz: By increasing the width and number of twisting-shafts a fence can be woven of any height composed of from two
10 to any number of tension-wires *a a a*; also, as a matter of economy a number of the wires *a a a* may be left out of the upper part of the fence where they are not needed to guard against the approach of smaller animals.

15 I am aware that machines for weaving wire-fences and mesh-work have been used and patented previous to my invention. I therefore do not claim my invention, broadly; but

What I do claim as new and useful, and desire to secure by Letters Patent, is—
20

1. The combination, in a wire-fence-weaving machine, of the hollow twisting-shafts *c c c*, with gearing *g g g*, the shifting-shafts *d'* and spools *d*, and frames *F F F*, operated by the levers *L L* and *l*, the clamp *H*, the roller
25 *B*, the reels *A A A*, and crank-wheel *C*, all substantially as described, and for the purposes set forth.

2. The combination, in a wire-fence-weaving machine, of the twisting hollow shafts *c c c*, with the forked slide-guides *k k*, and the shifting-shafts *d' d' d'* and spools *d d d*, substantially as described and set forth.
30

JAMES M. SNYDER.

Witnesses:

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