

(No Model.)

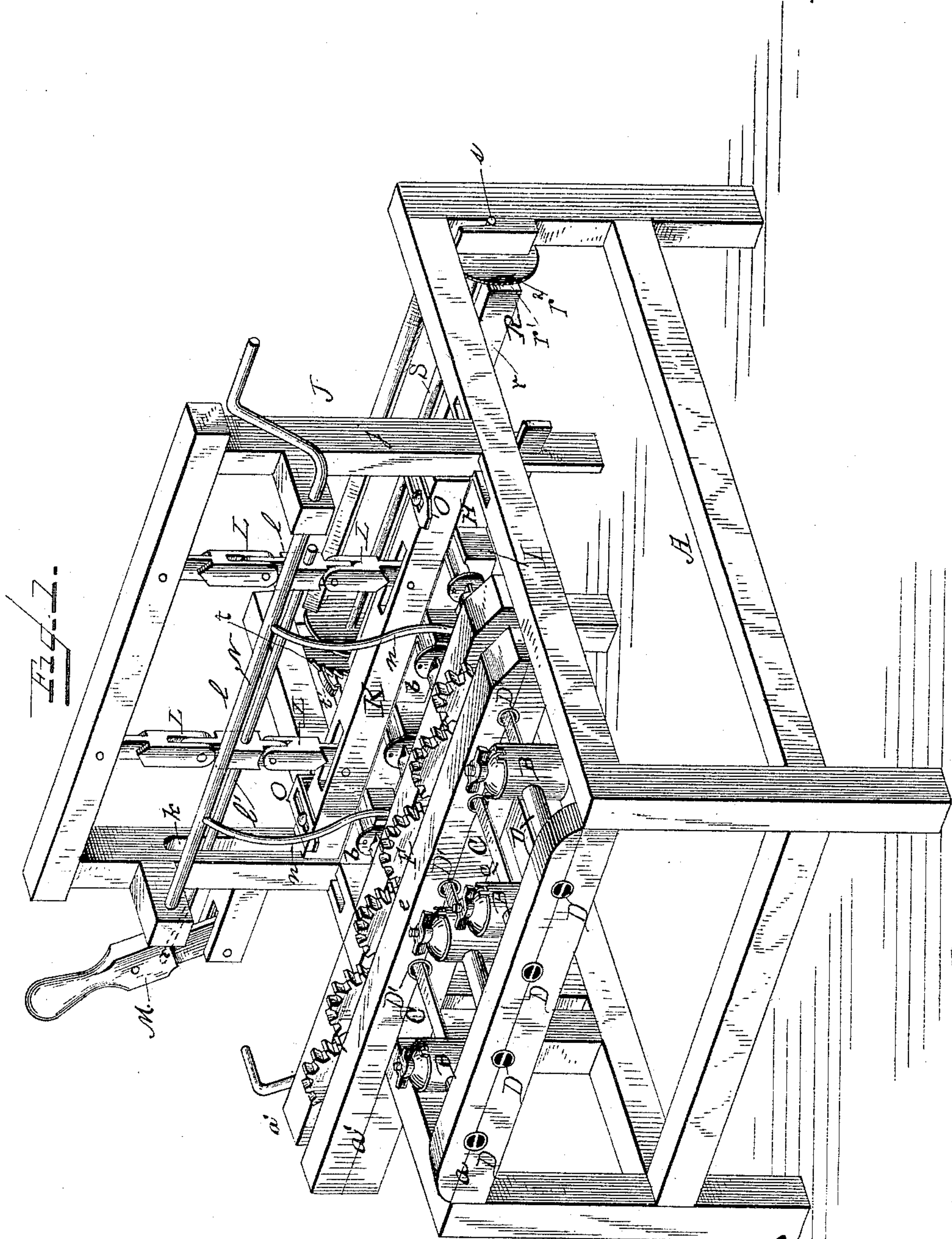
2 Sheets—Sheet 1.

W. I. BRANT.

MACHINE FOR MAKING COMBINED SLAT AND WIRE FENCES.

No. 327,859.

Patented Oct. 6, 1885



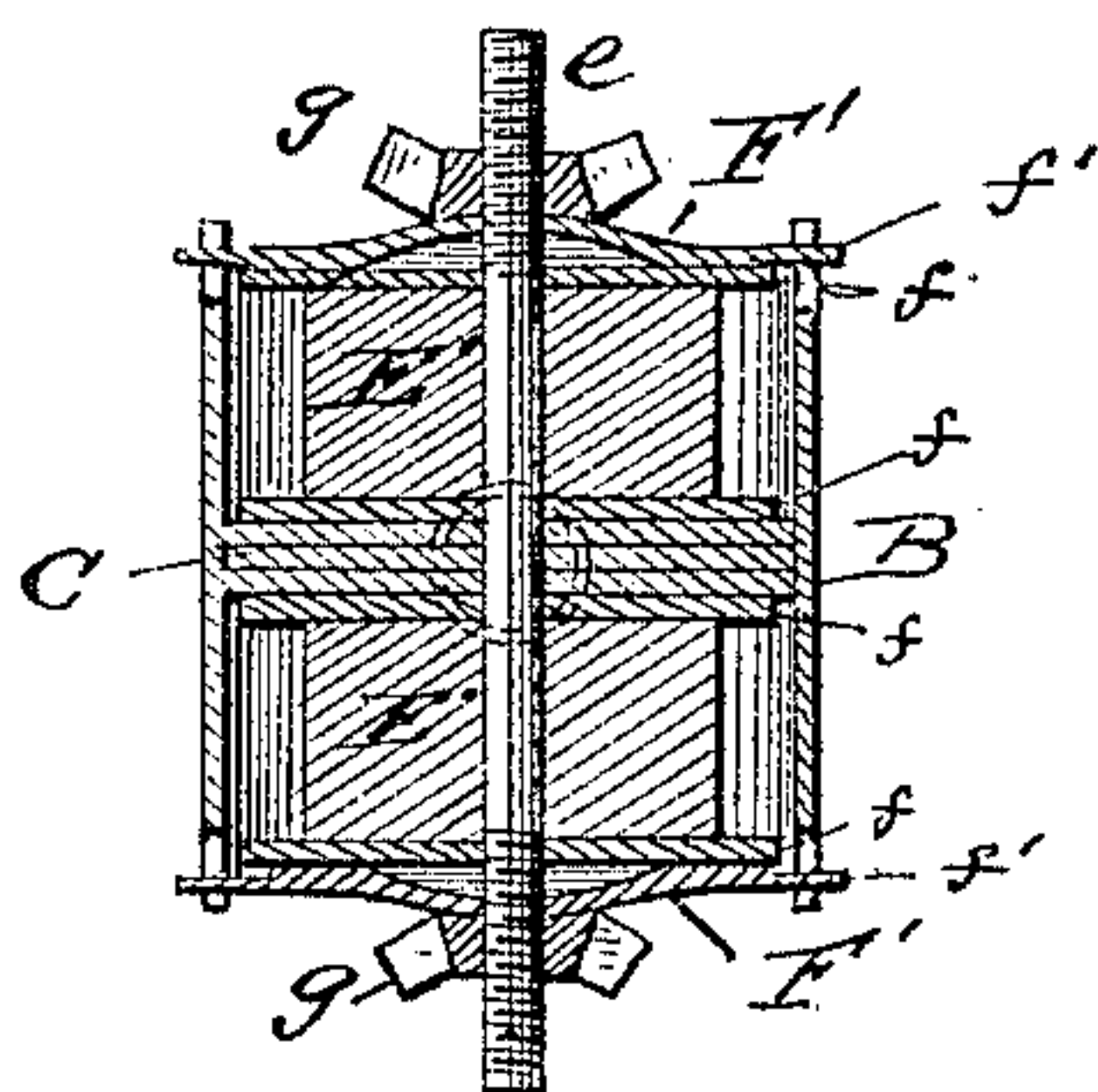
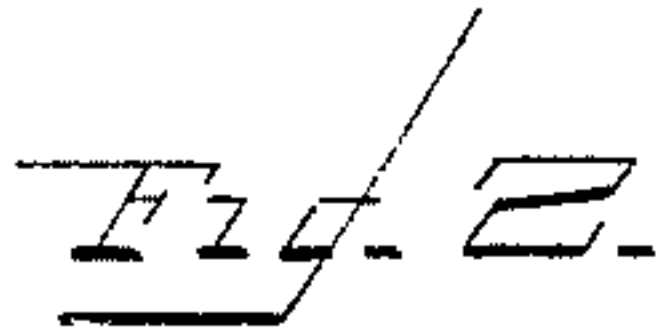
WITNESSES.
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2 Sheets—Sheet 2.

MACHINE FOR MAKING COMBINED SLAT AND WIRE FENCES.

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William J. Brant,
INVENTOR
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UNITED STATES PATENT OFFICE.

WILLIAM I. BRANT, OF COVINGTON, OHIO.

MACHINE FOR MAKING COMBINED SLAT AND WIRE FENCES.

SPECIFICATION forming part of Letters Patent No. 327,859, dated October 6, 1885.

Application filed September 18, 1884. Serial No. 143,370. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM I. BRANT, a citizen of the United States of America, residing at Covington, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Machines for Making Combined Slat and Wire Fences; 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.

My invention relates to certain new and useful improvements in machines for manufacturing combined slat and wire fences; and my invention consists more especially in the construction and combination of the parts, as will be hereinafter fully set forth, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view. Fig. 2 is a sectional view, and Fig. 3 is a detailed view.

A represents a frame, which is provided with transverse cross-bars, by means of which the longitudinal strips are connected to each other.

At the front of the apparatus, between the cross-bars $a a'$, are mounted upon shafts a series of boxes, B, preferably four in number, which contain spools of wire. These boxes B are rigidly secured to longitudinal shafts C, which shafts are made up of flat strips c , each of which carries at its end a disk, b , which is perforated. The flat strips c are rigidly attached to the tubes D D'. These tubes D D' rotate in bearings between the strips $a a'$ and $a' a'$, and are connected rigidly to one side of the boxes B, which are each provided with a slot, c' , at a point opposite the point of attachment.

To the tube D', through which the flat shaft also passes, is attached a gear-wheel, F, which intermeshes with adjacent gear-wheels attached to similarly constructed shafts, so that they may be operated to turn in unison. The shaft D' forms journals for the gear-wheels F, said journals being supported between the transverse strips $a' a'$.

The boxes B, which are attached to the tubes D, and also to the flat shaft C, which is enlarged at this portion, are provided with transverse bolts e , which are screw-threaded at both ends and pass through openings in the central shaft. Thus each box is divided into two compartments, within which are placed the spools E', around which wire is wound. The spools E' are provided with metallic plates $f f$, upon which bear spring tension devices F', which consist of the circular dished plate having side projecting pieces, f , which engage with the recess formed on opposite sides of the boxes. The wire, which is coiled around the spools E', presses out of the slots c' of these boxes into the tube D', adjacent to each side of the flat shaft C, and thence through the perforations in the plate B at the end of the flat shaft.

Tension of the spools is regulated or adjusted by turning set-screws g , so as to bear with greater or less pressure upon the spring-tension plate F'.

Near the center of the frame A is secured a cross-bar, H, which has attached thereto a number of cross-pieces, I, which correspond with the number of boxes employed, said cross-pieces being attached directly in front of the shaft C. One end of these cross-pieces, I is recessed, as shown at i . Immediately above the bar H and cross-pieces I is attached a frame, J, which consists of vertical standards j , which are provided with slots k , in which operates a vertical reciprocating presser-bar, K, which is attached to the upper cross-beam of the frame J, by toggle-joints L L.

The center blocks, $l l$, of the toggle-joints are attached by means of set-screws under the transverse-shaft $l' l'$, which is pivoted to the lever M, attached to the frame. By drawing the lever M downwardly from the frame the presser-bar is depressed.

To the side of the frame J are secured projecting arms, in which is journaled a transverse shaft, N, which is provided with two downwardly-projecting arms, $n n$, which are curved, as shown, and serve the purpose of pressing the slats of the fences under the presser-bar K.

To the upper edge of the presser-bar K,

near the ends of the same, are secured two adjustable gages, O O, by which the distance between the slats may be regulated.

To the opposite ends of the frame is remov-
5 ably secured in side brackets a knockdown frame, R, which consists of transverse slats r , having dovetailed ends r' , which engage with dovetailed recesses r'' , formed in the edges of the end plates, S. Through these end
10 plates passes a shaft, s , which carries near its outer end a ratchet-wheel, t , with which engages a pawl, t' , attached to the arm T, which is connected to the foot-lever T'. By depressing the foot-lever the reel is caused to
15 rotate, and will wind the fence thereon.

When the reel becomes full it may be removed from the frame, and by withdrawing the shaft and by removing the end plates, S, outwardly, the transverse bars will become
20 detached from the end plates, and the reel will collapse, thus allowing it to be removed from the coil of fencing.

The operation of my invention is as follows: The wires, after being carried from the spools
25 of each shaft and perforated head thereof, are attached to a picket, which is forced under the presser-bar by operating the shaft N, to cause the arms n thereof to move the said picket beneath said bar. The lever M is then operated
30 to effect the descent of the presser-bar, which rigidly holds the picket beneath the same. The crank-shaft operating the gear-wheel F is then turned, which causes the wire to be twisted a predetermined number of
35 times. A second picket is now placed between the wires at a point where the twist ends. The lever M is again operated to cause the ascent of the presser-bar, which releases the first picket, and the shaft N is again operated
40 to cause its fingers to move the second picket beneath the bar, this movement having this result by reason of the comparatively rigid wire-connection between the pickets in forcing the first-mentioned picket from beneath said
45 picket-bar to contact with the gages O. By this means the regularity of the position of the pickets is insured and necessity of removing them from beneath the presser-bar obviated. After a sufficient number of turns
50 have been made the presser-bar is raised and the foot-lever depressed, which causes the completed section of the fence to be wound upon the reel.

It will be obvious that when the completed

fence has attained such length as to enable it
55 to be attached to the reel it will be further fed by the movement of said reel.

I claim—

1. In an apparatus for manufacturing slat fences, a series of shafts, D' D', rigidly attached
60 to tubes D D, divided longitudinally and provided with spool-containing boxes, slotted, as described, the shafts being turned in unison by a series of gear-wheels rigidly attached thereto, a cross-bar provided with a series of grooved
65 supports, above which operates a presser-bar carrying gages, and a shaft with fingers for feeding the slats under the presser-bar, and a reel for winding the fencing thereon, the parts being organized and combined substantially
70 as shown, and for the purpose set forth.

2. In a machine for manufacturing slat and picket fences, as described, spool-boxes, each slotted, as described, and divided into
75 two compartments to independently receive spools, and notched at their upper edges, in combination with tension devices, arranged to bear upon the ends of the spools, each consisting of a dished plate having projecting por-
80 tions to engage with the notches, and a retaining-bolt with set-screws, as shown.

3. In a device for manufacturing combined wire and slat fences, the rotary flat shaft, tube D, secured thereto and longitudinally divided
85 thereby, said shaft being provided with a spool-carrying box rigidly attached to it and intersceted by a bolt, with tension devices for retaining the spools within the box, substantially as shown.

4. In a device for making combined slat
90 and wire fences, as described, a series of shafts carrying the spools of wire, and provided with gear-wheels for rotating the same in unison, a vertically-reciprocating presser-bar operated by a toggle-joint, a shaft provided with
95 projecting fingers for passing the slats under the presser-bar, and a removable and collapsible reel, constructed as described, and provided with a ratchet-wheel, an operating-lever for rotating the same, so as to draw and wind
100 the fence upon and toward the reel, substantially as shown, and for the purpose specified.

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

WILLIAM I. BRANT.

Witnesses:

ADAM BRANT,

PETER S. COLBERT.