A. I. SPINNEY.

SKEWER POINTING MACHINE.

APPLICATION FILED JAN. 15, 1915.

1,175,831.

Patented Mar. 14, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

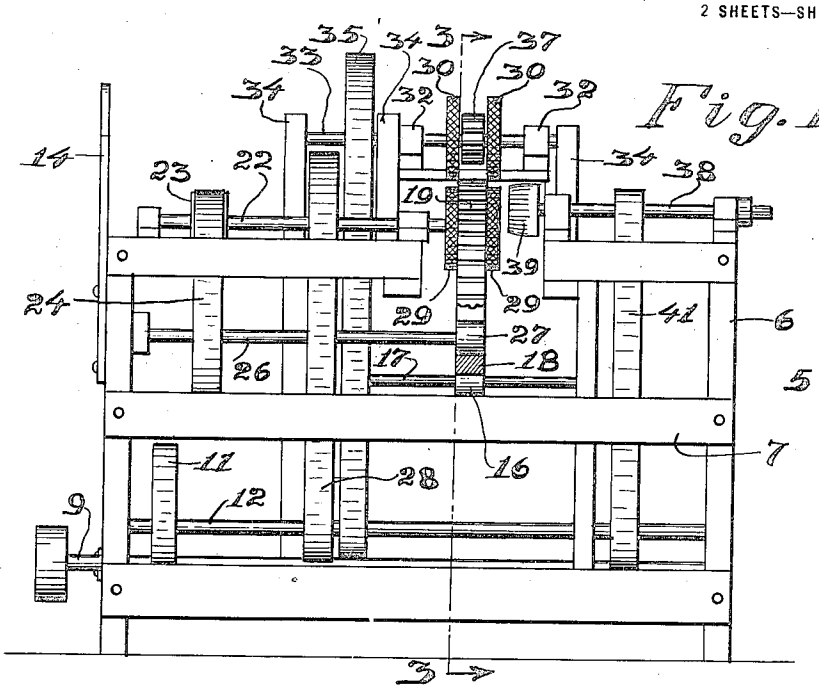


Fig. 2.

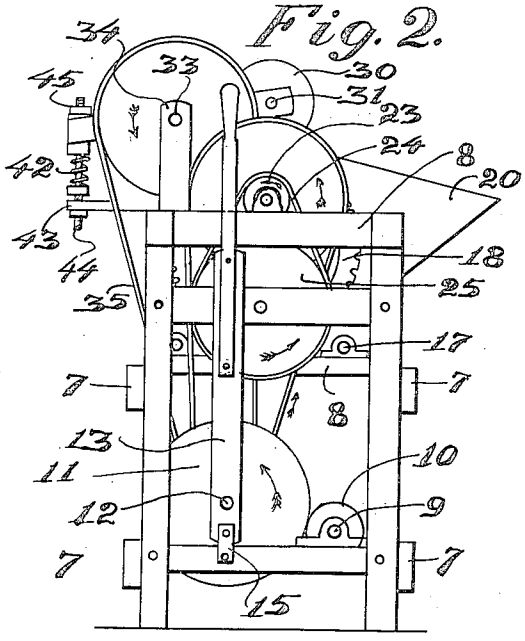
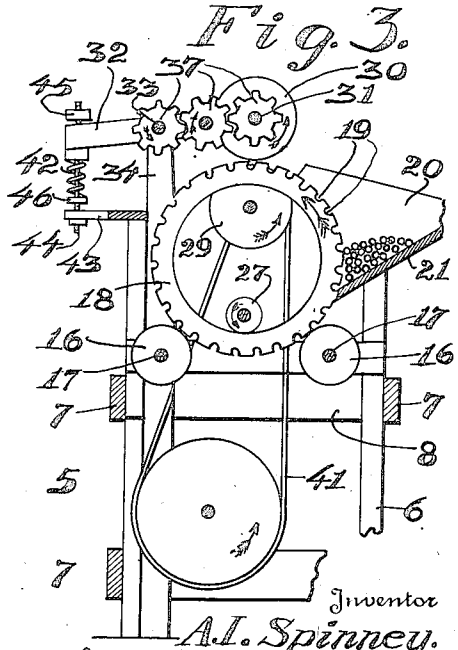


Fig. 3.



Witnesses

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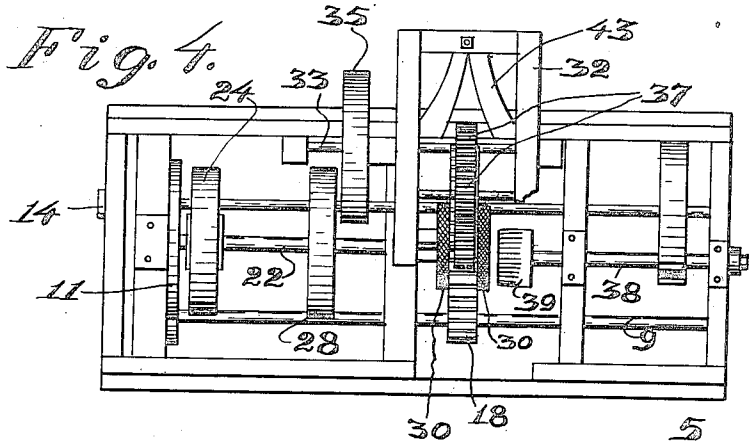
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2 SHEETS—SHEET 2.

Fig. 4.



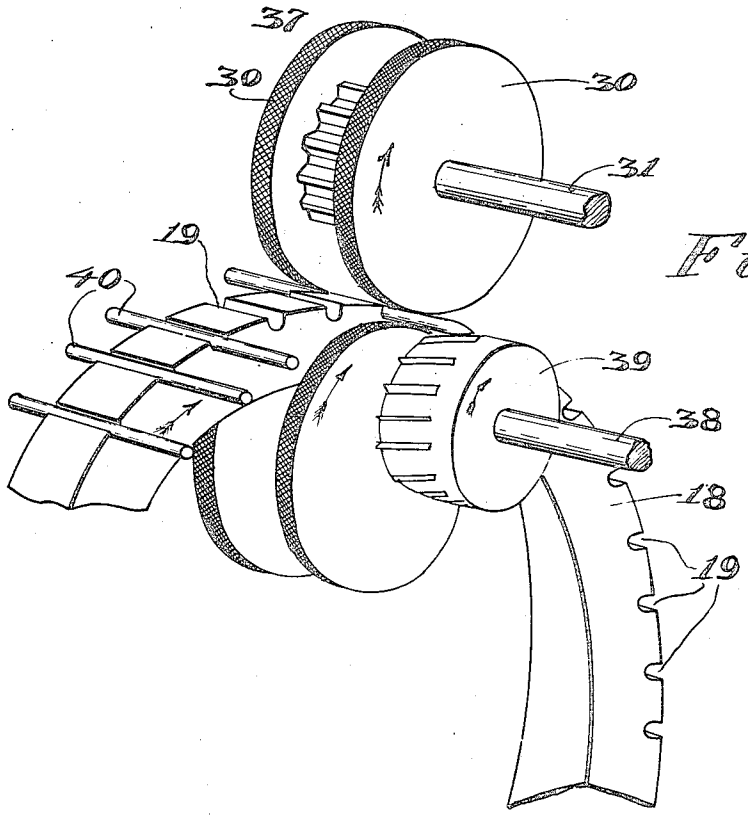


Fig. 5.

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UNITED STATES PATENT OFFICE.

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SKEWER-POINTING MACHINE.

1,175,831. Specification of Letters Patent. Patented Mar. 14, 1916.

Application filed January 15, 1915. Serial No. 2,414.

To all whom it may concern:

Be it known that I, ALMON I. SPINNEY, a citizen of the United States, residing at Allens Mills, in the county of Franklin and State of Maine, have invented certain new and useful Improvements in Skewer-Pointing Machines; 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.

This invention relates to machines for pointing wooden pins such as meat skewers, tooth picks and the like.

The invention has for its object to provide a machine of this character embodying a rotary cutter and a novel type of feeder of annular formation for feeding the pins or blanks to the rotary cutter.

Another object is the provision of a machine of this character embodying novel and efficient means for imparting rotational movement to the pins during their movement past the rotary cutter to insure accurate pointing of the pins.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts as will be hereinafter specifically described, claimed and illustrated in the accompanying drawings, in which:

Figure 1 represents a front elevation, partly in section, of the machine. Fig. 2 represents an end elevation thereof. Fig. 3 represents a transverse vertical sectional view on the line 3—3 of Fig. 1. Fig. 4 represents a top plan view of the machine, partly in section, and Fig. 5 represents an enlarged fragmental detail view of the cutter and feeder mechanism.

Referring to the drawings in detail, wherein similar reference numerals designate corresponding parts throughout the several views, the numeral 5 indicates generally a suitable frame structure including a plurality of corner posts 6 and longitudinal and transverse side and ends rails 7 and 8 respectively. A suitable drive shaft 9 is rotatably supported in the lower portion of the frame 5 and carries a friction wheel 10 adapted to mesh with the wheel 11 keyed on a shaft 12 rotatably mounted at one end in a relatively stationary bearing and supported at its opposite end in a lever 13 having a handle 14 at its upper end and pivotally secured at 15 in the lower portion of the frame structure, whereby when the lever is operated the relatively large friction wheel 11 is moved into and out of mesh with the smaller wheel 10.

A pair of spaced rollers 16 are mounted upon shafts 17 rotatably supported centrally within the frame 5. A feed ring 18 of annular formation is supported upon the pair of rollers 16 and is formed with a plurality of transverse peripheral recesses or grooves 19 adapted to receive the pins disposed within the hopper 20. The bottom wall 21 of the hopper is inclined so as to feed the pins downwardly to the feed ring 18 by gravity and is also recessed to receive the ring.

A shaft 22 is rotatably mounted in suitable bearings secured in the upper portion of the frame structure 5 and carries a pulley 23 over which is trained a belt 24 passing over a pulley 25 on the feed ring drive shaft 26 rotatably supported in the frame structure 5 intermediate the shafts 12 and 22. The shaft 26 is extended to a point adjacent the center of the frame structure and carries a wheel or pulley 27 frictionally engaging the inner concave surface of the feed ring 18 for imparting rotary motion to the latter during the operation of the machine. The shaft 22 is driven from the shaft 12 by a belt 28 trained over pulleys secured upon these shafts. The inner end of the shaft 22 passes through the ring 18 and a pair of spaced rollers or disks 29 are secured thereon and arranged upon opposite sides of the ring 18 and are adapted to engage the pins in the grooves 19, as clearly illustrated in Fig. 5. A second pair of rollers or disks 30 are arranged above the disks or rollers 29 and are keyed upon a shaft 31 rotatably mounted within the free ends of a substantially U-shaped rocker frame 32 pivotally supported upon a shaft 33 mounted in the upper ends of a pair of supports 34 carried by the frame structure 5. The shaft 33 is extended a distance laterally of one of the supports 34 and carries a pulley over which is trained a belt or other suitable flexible driving connection 35 also engaged over a pulley carried by the lower shaft 12. The upper pair of disks or rollers 30 are driven from the shaft 33 by a train of gears 37.

A cutter shaft 38 is rotatably mounted in the upper portion of the frame structure 5 and is disposed longitudinally of the latter and carries a cutter head 39 in which is ar-

ranged a plurality of cutter blades adapted to engage the ends of the skewers 40 positioned in the grooves 19 in the ring 18 to form points thereon. The cutter shaft 38 is driven from the lower shaft 12 by a belt or other driving connection 41 arranged over suitable pulleys secured to said shafts.

The upper set of rollers or disks 30 is normally retained in close relation to the lower pair of disks 29 by the tension of a spring 42 disposed between a bracket 43 carried by the frame structure 5 and the web portion of the rocker frame 32 and coiled about a bolt 44 slidably mounted in the bracket 43 and web portion of the rocker frame 32. The upward movement of the adjacent end of the frame 32 is limited by an adjustable nut 45 threaded upon the bolt 44 and the tension of the spring 42 against the web portion of said frame may be varied by adjusting a nut 46 also threaded upon the bolt 44.

What is claimed is:—

1. A pointing machine comprising a frame structure, a hopper supported in said frame structure, a feed ring rotatably supported in said frame structure adjacent said hopper and having a plurality of peripheral transverse grooves, a rotary cutter arranged adjacent said feed ring, a shaft rotatably mounted in said frame structure and extending through said feed ring, a pair of disks non-rotatably secured on said shaft, a second shaft rotatably mounted in said frame structure, a U-shaped member pivotally supported on said second mentioned shaft, a pair of disks rotatably mounted in said U-shaped member and disposed above said feed ring, and driving connections between the second mentioned shaft and the second mentioned pair of disks.

2. A pointing machine comprising a frame structure, a feed ring rotatably supported in said frame structure and having a plurality of peripheral transverse skewer receiving grooves, a rotary cutter arranged adjacent said feed ring, a pivoted member supported in said frame structure, disks rotatably mounted in the inner extremity of said pivoted member, and means coöperating with said disks to guide skewers past said rotary cutter.

3. A pointing machine comprising a frame structure, a feed ring rotatably supported in said frame structure and having a plurality of peripheral transverse skewer receiving grooves, a rotary cutter arranged adjacent said feed ring, a U-shaped member pivotally supported in said frame structure, a pair of disks rotatably mounted in the inner extremity of said U-shaped member, and a pair of disks rotatably mounted in said frame structure below the first mentioned disks.

4. A pointing machine comprising a frame structure, a feed ring rotatably supported in said frame structure and having a plurality of peripheral transverse skewer receiving grooves, a rotary cutter arranged adjacent said feed ring, a U-shaped member pivoted centrally in said frame structure, a pair of disks rotatably mounted in the inner extremities of the parallel portions of said U-shaped member, and a pair of disks rotatably mounted beneath the first mentioned disks.

5. A pointing machine comprising a frame structure, a feed ring rotatably supported in said frame structure and having a plurality of peripheral transverse skewer receiving grooves, a rotary cutter arranged adjacent said feed ring, a U-shaped member pivotally supported in said frame structure, a pair of disks rotatably mounted in said U-shaped member and disposed above said feed ring, driving means for said disks, a pair of disks rotatably mounted below the first mentioned disks and arranged upon a relatively stationary axis.

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

ALMON I. SPINNEY.

Witnesses:
CLYDE C. NORTON,
JOHN W. SEAVEY.