(No Model.)

W. A. PARMELEE.

ROPE MOLDING MACHINE.

No. 346,679. Patented Aug. 3, 1886.

Fig. 1.

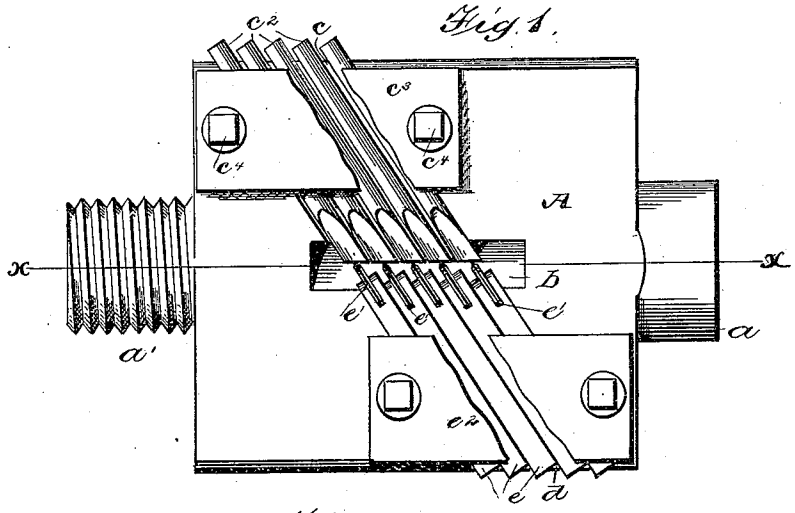


Fig. 2.

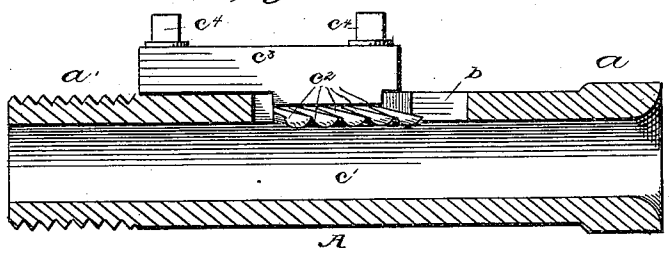


Fig. 3.

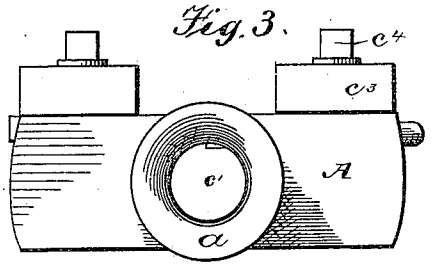


Fig. 4.

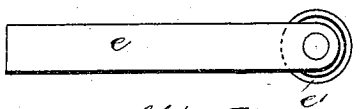
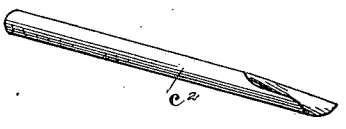


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM A. PARMELEE, OF NEW HAVEN, CONNECTICUT.

ROPE-MOLDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 346,679, dated August 3, 1886.

Application filed April 10, 1886. Serial No. 198,488. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. PARMELEE, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Wood Working Machinery for Spiral Turning, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to cutter-heads for cutting one or more spiral grooves in a wooden rod or bar.

The object of the invention is to provide a cutter-head which shall automatically cut and feed a bar or rod; and it consists in providing the head with one or more cutting bits or tools and one or more feeding wheels or disks, constructed and arranged to operate substantially as hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a face view of the cutter-head. Fig. 2 is a longitudinal central section taken on the line *x x* of Fig. 1. Fig. 3 is an elevation of the front end of the cutter-head. Figs. 4 and 5 are detail views of one of the cutting-bits and one of the feeding rollers and its supporting-bar.

Like letters of reference refer to like parts in all of the figures of the drawings, in which—

A designates the cutter-head, having arms *a a'* at opposite ends thereof, one serving as the feed-mouth, and the other, which is exteriorly threaded, as an arm to support the head, said arm screwing into a hollow spindle or mandrel provided with a driving-pulley, and having its bearings in a suitable block. The head has a transverse opening, *b*, which connects with lateral recesses *c d* in the face of the head, and with a longitudinal passage, *c'*, through the center thereof, said recesses being on opposite sides of the opening *b*. In the recess *c* is placed one or more bits, c^2, which are held in place by a plate, c^3, clamped thereon by any suitable means—such as screw-bolts c^4. I preferably provide the bottom of this recess with grooves, in which the bits rest. It is obvious that by making the shanks angular it would require less pressure of the plate to hold them in place. The recess *d* is provided with one or more rods or bars, *e*, in the inner end of each of which is a roller, *e'*, having a sharp edge, which bears firmly against the rod being cut, and feeds it as rapidly as it is cut. A plate, e^2, similar to the plate c^3, and held by like means, is provided for securing the bars *e*.

The number of the bits is regulated by the number of grooves to be cut and the space that is desired between the grooves. The pitch of the grooves is regulated by the angle at which the bits stand to the line of feed. It is obvious, however, that the shanks of the bits may be out of line with the cutting-edges thereof and still get the same result.

The operation of my cutter-head is as follows: The bits and rollers being placed in position, by turning the threaded arm into a mandrel having a female screw to receive it, power is then applied to revolve the mandrel and its attached head at the desired speed—say one hundred revolutions to the minute. The operator then feeds the rod or bar to the cutter by hand, or by means of clamps (not shown) provided for this purpose.

It is obvious that the form of the cutting-edge of the bit can be changed at pleasure.

Having thus described an embodiment of my invention, I would have it understood that I do not limit to the exact form or proportion of parts herein shown and described, but reserve the right to make such changes in the construction as fairly fall within the scope of my invention.

Cutter-heads of different sizes are required to cut rods of different sizes.

What I claim, and desire to secure by Letters Patent, is—

1. In a cutter-head for cutting a spiral groove, substantially as described, a longitudinal feed-passage, within the plane of the circumference of which projects a cutting-bit, and a feed-roller secured to and moving with the head, substantially as described.

2. In combination with a cutter-head having a longitudinal feed-passage, a lateral opening connecting therewith, lateral recesses, and securing plates or bars, with one or more cutting-tools and one or more feed-rollers, which stand longitudinal to the line of the feed-passage, substantially as and for the purpose set forth.

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

WILLIAM A. PARMELEE.

Witnesses:

EDWARD A. ANKATELL,

EDWARD F. STEVENS.