A. R. SPROUT.

MACHINES FOR MAKING WOODEN PINS.

No. 193,428. Patented July 24, 1877.

FIG. I

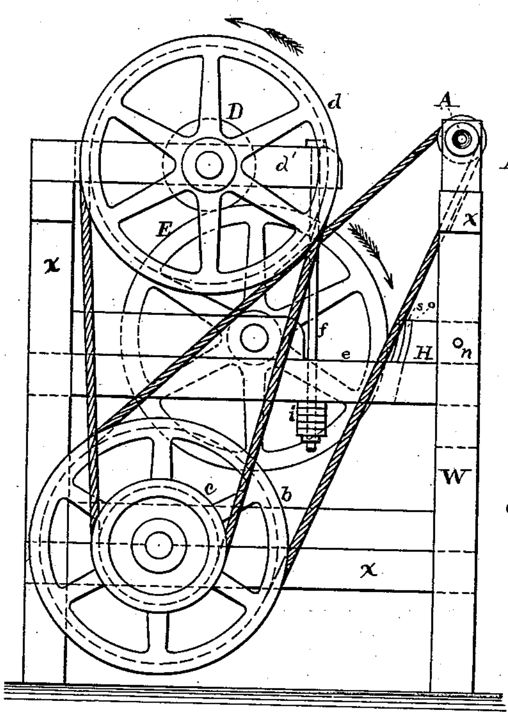


FIG. II

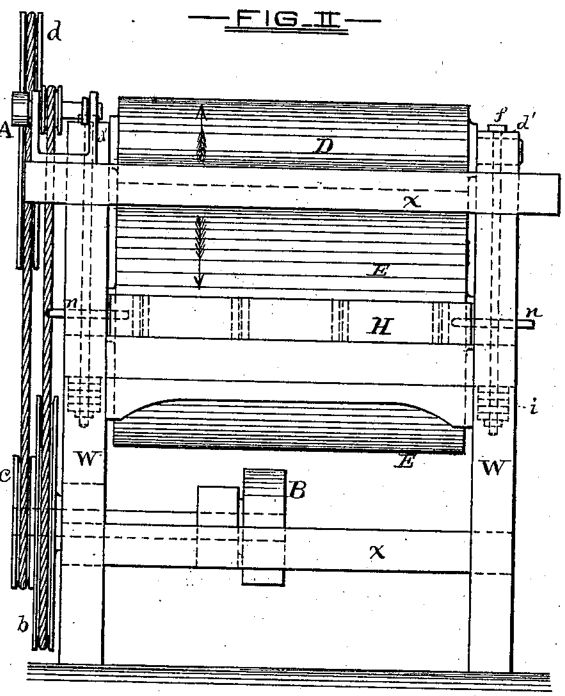
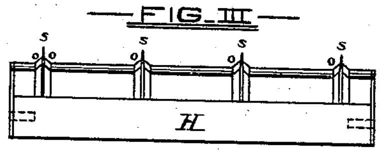


FIG. III



WITNESSES.

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UNITED STATES PATENT OFFICE.

A. RENSSELAER SPROUT, OF PICTURE ROCKS, PENNSYLVANIA.

IMPROVEMENT IN MACHINES FOR MAKING WOODEN PINS.

Specification forming part of Letters Patent No. **193,428**, dated July 24, 1877; application filed July 2, 1877.

To all whom it may concern:

Be it known that I, A. RENSSELAER SPROUT, of Picture Rocks, in the county of Lycoming and State of Pennsylvania, have invented a new and useful Improvement in Machines for Making Wooden Pins, which is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of the machine; Fig. 2 is a front elevation of same; and Fig. 3 is a view of the bar that holds the cutters.

The object of my invention is to provide a machine for rapidly forming round wooden pins with rounded and compressed ends, which I design for use chiefly in the formation of cells for egg-carriers, but which are adapted for other uses, such as dowels for joiners and cabinet-makers.

In the drawing, *x x* represents the frame of the machine, made of iron or wood. Power is applied to the pulley B on the same shaft with which are the pulleys *b c*, communicating motion to the hollow mandrel A and the pulley *d* that operates the friction-roller D, this latter giving motion by frictional contact to the drum or cylinder E. The roller D is journaled into supporting-pieces *d'*, which are connected to the cross-braces *e* of the frame by a rod or bolt, *f*, having rubber washers *i*. The elasticity thus afforded compensates for any irregularity in the surfaces of the roller and drum.

H represents the bar to which the cutters *s* are attached, and is retained in place by the pin *n*, which passes through the posts W. The knives or cutters are set at right angles to the drum or cylinder, to the convexity of which the edges conform. On one or both sides of each cutter are beveled cheek-plates *o o*, which are also concaved to conform to the drum. The knives are secured to the bar H as far apart as the lengths of pins are designed to be, and are arranged to permit of removal for sharpening.

My machine operates as follows: Prepared strips of wood are rounded by passing through the hollow mandrel A, and are then dropped between the revolving drum and cutters, which divides them into as many pins as there are spaces. In this operation the rod is rolled on the cutting-edges by the action of the drum, which, at the same time, presses the cut ends against the beveled cheek-plates. Thus the pins are cut and the ends rounded by compression in one operation and without breaking the grain. The use of hot glue readily swells the ends of pins compressed in this manner, forming a wedge or clinch in the hole at the end of the pin.

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

1. The friction-roller D, supported on slightly-yielding frame-pieces, connected, by rods having rubber washers, to the brace which supports the drum E, as shown and described, and for the purpose named.

2. The removable bar, cutters *s*, and beveled cheek-plates *o*, the edges of both being concaved to conform to the face of the drum or cylinder E, as and for the purpose specified.

3. The roller D, communicating motion to the drum E by frictional contact, in combination with the knives or cutters *s*, with beveled cheek-plates, having edges concaved and at right angles to the face of the drum, as shown and described.

4. In a machine for making wooden pins with rounded and compressed ends, the combination of the hollow mandrel A, drum E receiving its motion from a friction-roller, cutters *s*, with beveled cheek-plates attached to the movable bar, all arranged and operating substantially as shown and described.

A. RENSSELAER SPROUT.

Witnesses:

JAMES LAIRD,

G. T. PEARSALL.