A. M. KENDALL.

Machine for Making Wooden Pins.

No. 206,882. Patented Aug. 13, 1878.

Fig. 1.

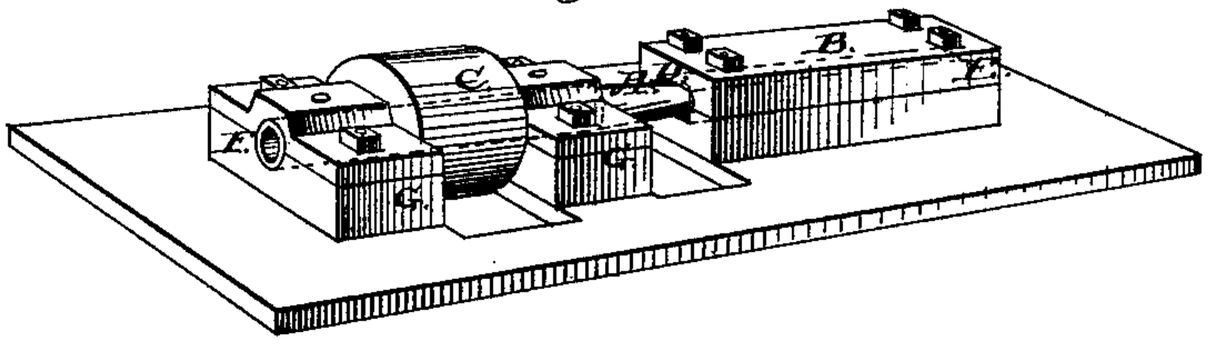

Fig. 2.

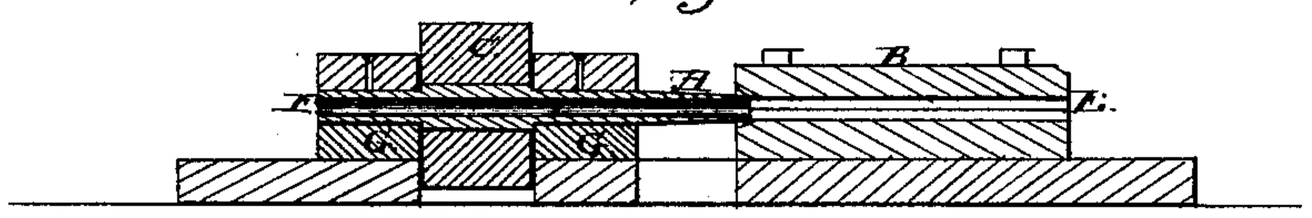

Fig. 3.

Fig. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

AMOS M. KENDALL, OF DAVENPORT, IOWA.

IMPROVEMENT IN MACHINES FOR MAKING WOODEN PINS.

Specification forming part of Letters Patent No. **206,882,** dated August 13, 1878; application filed November 24, 1877.

To all whom it may concern:

Be it known that I, AMOS M. KENDALL, of Davenport, in the county of Scott and State of Iowa, have invented a new and useful Improvement in Plug-Cutters, of which the following is a specification:

The invention relates to a machine for the manufacture of plugs for plugging screw-holes in wood after the screws have been inserted. Heretofore such plugs have been made in two ways. The first is by having an instrument something like a gouge with a half-circle cutting-edge fitted to a bit-stock, and boring through a thin board, which produces a smooth round plug sufficient to fill one hole; but those are objectionable, as the instrument with which they are cut compresses the wood, so that they swell, and are very liable to show through the finish. The second is by cutting a strip at right angles with the grain to any length desired, and dressing with a plane first square and then rounded to the size desired. The objections to these are that they are not usually round or of a uniform size, and the time consumed in their manufacture makes them expensive.

The object of my invention is to make from square strips, cut at right angles with the grain to any length desired, a perfectly round piece of wood, uniform in size, without compressing the timber, such pieces to be used for plugging screw-holes in wood, said strips being made by the machine and in the manner shown by the accompanying drawings.

The invention consists in the combination of a revolving cutting-shaft with a square stationary hollow tube, the cutting end of the shaft to be inserted into the end of the square tube, so that the cutting is done inside the square. This prevents splitting, and allows the material to pass through free and without sticking on the end of the cutter or revolving with the same; and it finally consists in the construction of the several parts.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a perspective of a device embodying my invention. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is the cutting-shaft. Fig. 4 is the article made.

A is a hollow steel cutting-shaft, sharpened at the cutting end to a smooth cutting-edge, the sharpening to be done on the outer surface, and mounted upon suitable bearings or boxes G, and driven by the pulley C. B is the square stationary feed-tube, made of steel or chilled cast-iron, to prevent wearing at the point D, where the cutting is done.

The operation of the device is as follows: First, square strips are cut at right angles with the grain just the size to fit the tube B, the strips to be any length desired. Power is applied to the pulley C, and the shaft is driven at a high rate of speed. The square strips are then pressed into the square tube B, at E, one after the other, the cutting being done at the point D, the plug-strips passing out at F perfectly round and true—the article desired—the chips passing out at D.

To adjust the machine properly, the tube B must be long enough to prevent the square strips from springing in any direction while being pressed through, as they would be liable to split or break, and must also be on a straight line with the cutting-shaft; otherwise the strips would draw to one side and bind or not cut full, the opening in the tube being a trifle larger than in the cutting-shaft. The hole or opening in the shaft *a* is a little smaller at the cutting end D than at F, and has the beveling or sharpening done entirely on the outer side, so as to bring the cutting-edge on a line with the inner circle of the shaft. This prevents the plug from binding, and leaves the wood in its natural state.

I am aware that blocks of wood have been turned at right angles with the grain, and used for bungs in barrels, casks, &c.; but they would be useless as plugs, as they are made tapering, and only of sufficient length to fill one hole. Screw-holes being usually less than one-quarter inch in depth by one-half inch in diameter, the time consumed in adjusting so small a plug would render it of no value.

My improvement consists in cutting any number of plugs desired in one strip. I then put the glue around one end of the strip, and then insert it into the hole to be plugged, then cut it off with a chisel or saw, which process saves time and timber.

What I claim is—

The combination of a hole-cutting revolving shaft, made of the best cast-steel, sharpened at the cutting end to a thin smooth edge, mounted on iron bearings, and a square hollow tube, the cutting end of the revolving shaft to be inserted into the end of the square tube, as shown at D, Fig. 1, so that the cutting is done inside the square tube B, as herein set forth and described.

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Witnesses:

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