(Model.)

H. F. SNYDER.

Machine for Sawing Shingles.

No. 240,048. **Patented April 12, 1881.**

Fig. 1.

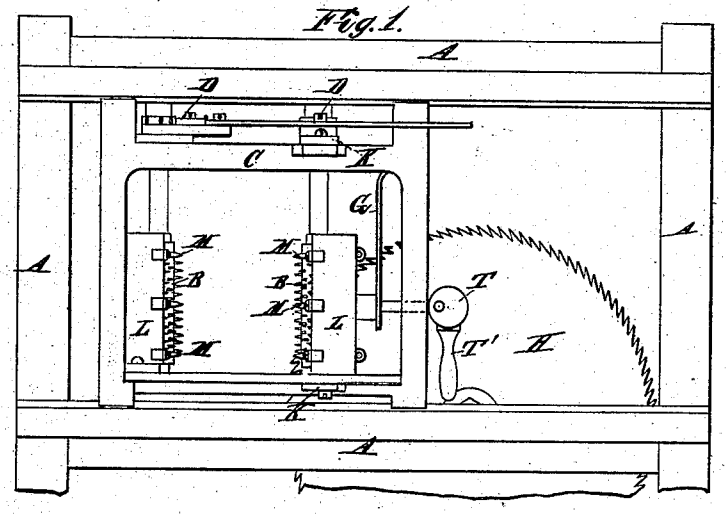


Fig. 2.

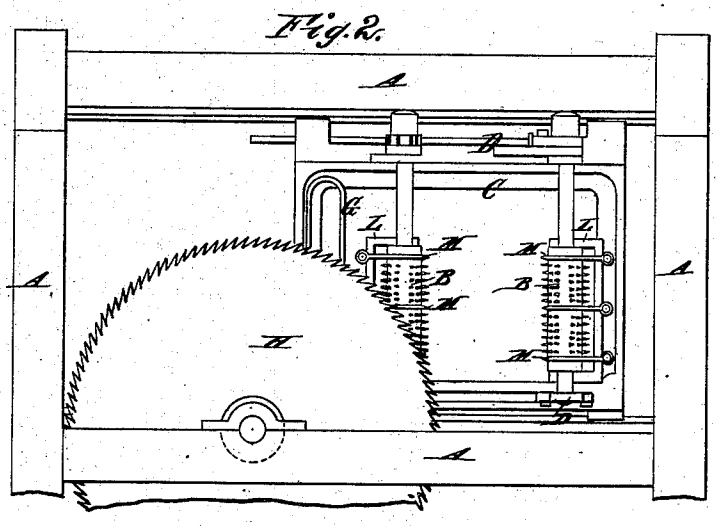


Fig. 4.

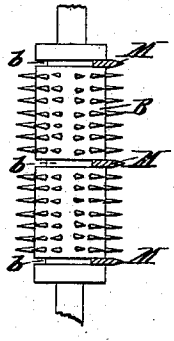
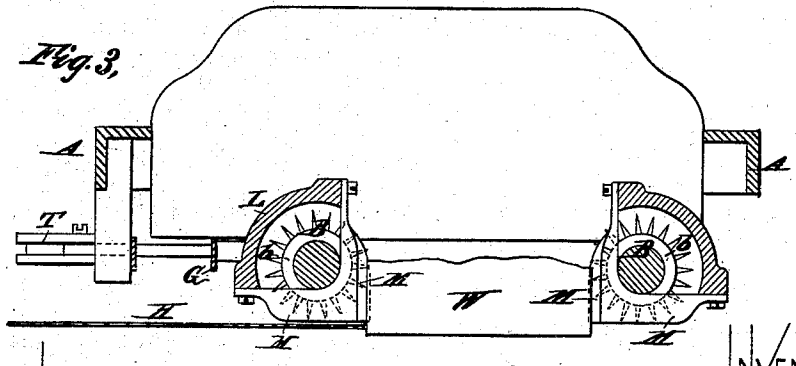


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

HENRY F. SNYDER, OF WILLIAMSPORT, PENNSYLVANIA.

MACHINE FOR SAWING SHINGLES.

SPECIFICATION forming part of Letters Patent No. 240,048, dated April 12, 1881.

Application filed July 13, 1880. (Model.)

To all whom it may concern:

Be it known that I, HENRY F. SNYDER, a citizen of the United States, residing at Williamsport, Lycoming county, in the State of Pennsylvania, have invented certain new and useful Improvements Relating to Machines for Sawing Shingles and Analogous thin Articles, of which the following is a specification.

The bolt of wood having been previously sawed to the exactly proper length is seized between spurred rolls, technically "bradded rolls," which are turned a little at each reciprocation of the carriage, so as to feed out a proper thickness of wood to be sliced off by the saw at the next presentation thereto. I have devised means in connection therewith for increasing the firmness of the hold on the wood without interfering with the action of the device. It is especially important near the close of the treatment of each bolt, when the bradded rolls begin to lose their effect. Machines with my improvement can hold the wood firmly until the bradded rolls so far loose their hold as to cease to properly move forward the wood. My improvement enables my machine to get from one to three more shingles from each bolt.

The following is a description of what I consider the best means of carrying out the invention.

The accompanying drawings form a part of this specification.

Figure 1 is a front elevation, by which I mean a view from the side on which the bolts of wood are introduced. Fig. 2 is a rear elevation. Fig. 3 is a horizontal section of a portion on a larger scale. Fig. 4 is an elevation, partly in section, of one of the bradded rolls.

Similar letters of reference indicate like parts in all the figures. The drawings show the novel parts with so much of the other parts as is necessary to indicate their relations thereto.

A is the fixed frame-work; B B, the bradded rolls, mounted in a traversing carriage, C, reciprocated as usual, with ordinary and long-approved provisions D for moving the rolls a little distance apart and together, and for partially rotating the rolls at the proper periods. Each roll B is partially encircled by a rigid casing, L, of cast-iron or other suitable material. Each casing is stiffly supported on the same parts which support the bearings of its respective roll—that is to say, one casing L is fixed direct on the carriage C. The other casing L is fixed on the horizontally-turning frames or links K K.

M M are what I term "knife-blades," in the form of stout plates of steel or other suitable material, cut or otherwise formed L-shaped, as represented, and bolted firmly in horizontal positions one above another. The inner edges or backs of the knife-blades M M are received in grooves *b*, turned or otherwise produced, one above another, in the respective rolls B. The outer edges, which are presented toward the wood, are sharpened and form corresponding narrow grooves in the bolts W. These bolts or blocks, actuated by the bradded rolls, move forward to the saw guided not only by the bradded rolls, but also by these knife-blades. The motion toward the plane of the saw is effected by sliding on the thin edges of the knife-blades. It follows that the hold afforded by the bradded rolls is re-enforced, and the block is greatly supported by its sliding on the knife-blades. In the last portion of the forward movement the support of the block lies almost entirely in the knife-blades. The spurs or brads on the bradded rolls at that stage serve only as means for propelling the block forward.

H is the saw.

T is an eccentric, provided with a handle, T'. By turning it one of the rolls is drawn apart from the other by the turning of the frames K and the corresponding movement of the back frame L, and knife-blades M, to allow the removal of the used-up block or bolt W and the insertion of another.

G is a spring which forces the bradded rolls together.

Modifications may be made in many of the details. The bradded rolls may be made of different diameters, and the spurs or brads thereon of different lengths. There may be more or less of the knife-blades M. The rolls may be turned by different means. The rolls may be turned uniformly, so as to slice off the wood in pieces of uniform thickness from one end to the other, or they may be fed alternately more at one end or the other as required for making ordinary shingles.

Parts of the invention may be used without the rest. I can mount the knife-blades so that

they shall be rigidly supported without being let into the grooves *b* of the rolls; but I prefer the whole arrangement shown.

Some of the advantages due to certain features of the invention may be separately enumerated.

First, by reason of the knife-blades M M, arranged in combination with the rolls B, carriage C, and saw H, I am able to more firmly support the bolt W at all stages of the treatment, and more especially when the bradded rolls commence to lose their hold in the last part of the treatment.

Second, by reason of the grooves *b* in the feed-rolls B, I am able to extend the knife-blades continuously past the rolls and to preserve the proper width thereof to afford ample strength with only a moderate length of the spurs or brads on the rolls, and to insure that the intermittently-turned feed-rolls B *b* and knife-blades M shall mutually steady and support each other during the time that the saw is acting on the wood.

I claim as my invention—

1. The parallel guides M M, surrounding two sides of the rolls B and lying in grooves therein, adapted to be impressed in the ends of the grain of the wood and to allow the wood to be moved forward truly thereon, in combination with separate means for feeding forward the wood and for presenting it to the saw, as herein specified.

2. The bradded rolls B, provided with annular grooves *b*, which grooves receive the backs of the guiding knife-blades M, partially surrounding the rolls, as and for the purposes herein specified.

In testimony whereof I have hereunto set my hand at Williamsport, Pennsylvania, this 6th day of July, 1880, in the presence of two subscribing witnesses.

HENRY F. SNYDER.

Witnesses:
C. W. WEIS,
H. D. HEISER.