

UNITED STATES PATENT OFFICE.

FREDERIC T. GRANT, OF GARDINER, MAINE.

SLIVER-MACHINE.

Specification of Letters Patent No. 28,470, dated May 29, 1880.

To all whom it may concern:

Be it known that I, FREDERIC T. GRANT, of Gardiner, in the county of Kennebec and State of Maine, have invented a new and useful Machine for Making Slivers of Fine Shavings of Wood for Upholstery and Various other Uses; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a plan view of machine. Fig. 2 is a side elevation. Fig. 3 is a side sectional elevation. Fig. 4 are sectional and facial views of sliding block A. Fig. 5 is a sectional view of sliding block A, showing position of slitters α , also beveled slot in which said slitters are placed.

The nature of my invention consists in the peculiar construction of the machine whereby the wood to be manufactured into slivers or fine shavings is firmly held and regularly moved up and brought in contact with the slitters and cutting knife in sliding block A. Also the form and arrangement of slitters α whereby the wood is cut or slit in fine and uniform widths, without liability of clogging. Also the peculiar form of the lower end of cap o, o , attached to cutter knife c, c , whereby the sliver or shaving is curled or twisted.

To enable others skilled in the art, to make and use my invention, I will proceed to describe its construction and operation.

In drawing Fig. 1, is sliding block A, to which is attached cutting knife c, c and slitters α , which block is moved up and down between slides d, d , being connected to crank on balance wheel E, by rod F.

G, G, are feed rolls, grooved lengthwise, for holding and feeding up the wood to be slit and cut to block A, which feed rolls are moved and operated by worms H, H, on shaft I, to which shaft I is attached ratchet wheel J, which is moved a proper distance every revolution of balance wheel E, by operation of cam L, through rod m , and levers n, n , thus moving feed rolls at proper time and proper distance.

Upper feed roll G, is capable of being raised or lowered by gear wheels o, o , to vary the distance between feed rolls to accommodate the various lengths of wood to be manufactured.

p, p , are pressure bars secured between the feed rolls G, G, and sliding block A, for the purpose of holding the wood being manufactured after it has been released from feed rolls G, G, so as to allow it to be moved forward by the succeeding piece of wood placed between feed rolls, thereby allowing the same to be all worked up.

In drawing Fig. 2 are shown gear wheels on feed rolls G, G, also worms and ratchet wheel on shaft I. Also cam L, on shaft K, with connecting rod m , and levers n, n . Also gear wheel o used for raising upper feed roll G.

In drawing Fig. 3 are shown position of wood in process of being manufactured (marked S,) being held in position by feed rolls G, G. Also section of sliding block A, showing position of cutting knife c, c and slitters α .

In drawings Figs. 4 and 5 are shown more distinctly the form and position of cutting knife c, c , with cap q, q , attached; also of slitters α . Cutting knife c, c , is in form of common plane iron, with cap with concave end as shown in Fig. 7, attached. Slitters α are made of a suitable metal for obtaining a cutting edge, and of a corresponding thickness to the width of sliver or shaving desired to be made, and are placed, with cutting points alternately reversed, in slot in sliding block A, said slot having a beveled or enlarged mouth at point 10 in Fig. 3, and are confined there by screw or otherwise.

The object of the beveled or enlarged mouth in the slot in which the slitters α are placed is to allow the dust and waste to pass freely from said slitters, thereby preventing them from getting clogged.

The object of the concave end of cap o, o , is to cause the sliver or shaving to be more closely curled or twisted as it comes from the wood.

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

The combination of the feed rolls G, G, operated by worms H, H, and cam L, or their equivalents, and pressure bars p, p , for the purposes specified.

FREDERIC T. GRANT.

Witnesses:

CHAS. B. CLAP,
CHAS. P. WALTON.