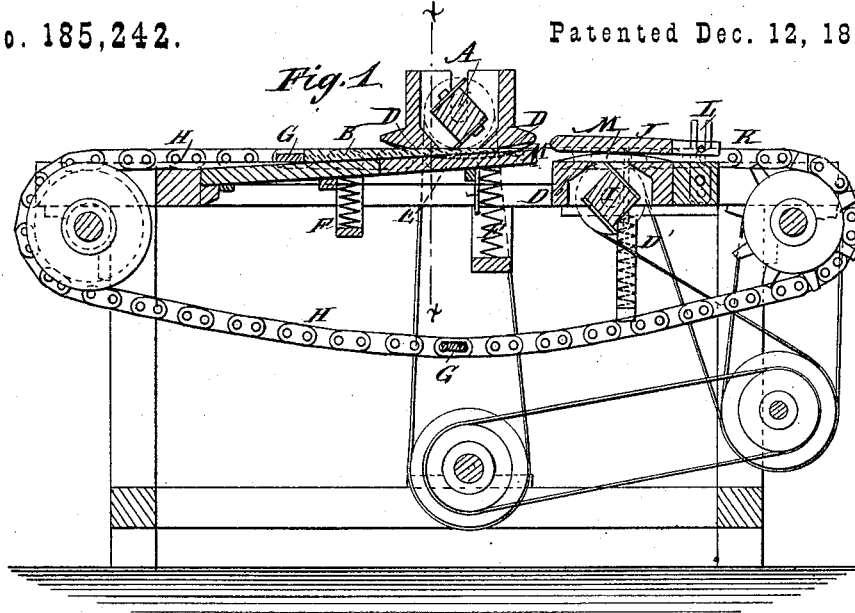


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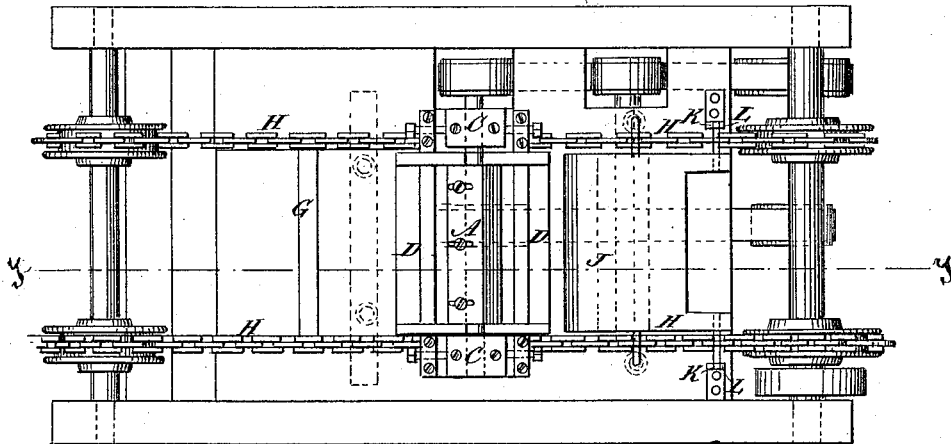
MACHINES FOR PLANING SHINGLES.

No. 185,242.

Patented Dec. 12, 1876.



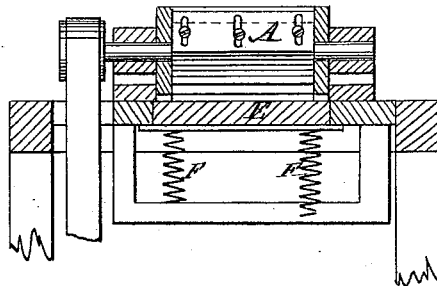
*Fig. 2*



*Fig. 3*

WITNESSES:

*C. Neveu*  
*J. Goethals*



INVENTOR:

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# UNITED STATES PATENT OFFICE

WILLARD A. KITTS, OF OSWEGO, NEW YORK.

## IMPROVEMENT IN MACHINES FOR PLANING SHINGLES.

Specification forming part of Letters Patent No. 185,242, dated December 12, 1876; application filed April 4, 1876.

*To all whom it may concern :*

Be it known that I, WILLARD A. KITTS, of Oswego, in the county of Oswego and State of New York, have invented an Improvement in Machines for Planing Shingles, of which the following is a specification :

My invention relates to machinery for planing taper-sawed shingles, both sides at one operation, in which the shingles are passed along the planing-knives by push-bars worked by endless chains; and it consists of rotary planers in stationary bearings, one for each side of the shingle, and spring-pressers, for pressing the shingles against the planers, one planer being arranged a little in advance of the other, with its presser below, to plane the upper side, while the other planer, a little farther on, has its presser above to plane the under side, the arrangement being such that the taper shingles can be presented to planers in stationary bearings. The invention also consists of guides attached to the frames of the planers for pressing the push-bars of the endless chains away from the planers, so as to pass them without touching the knives.

Figure 1 is a longitudinal sectional elevation of my improved shingle-planing machine, the section being taken on the line *y y* of Fig. 2. Fig. 2 is a plan view, and Fig. 3 is a transverse section, taken on line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the rotary planer for planing the upper side of the shingle B. It is mounted in stationary bearings C, and has guides D to gage the shingle to it, and under it is a movable table, E, pressed up by springs F, to yield to the varying thickness of the shingle and keep it pressed up to the planer. The shingles are pushed along by the push-bars G, carried by the endless chains H. From planer A they pass along to the planer I, also mounted in

stationary bearings, and over which is a spring-pressed plate, J, to accommodate the varying thickness of the shingles and keep them pressed down to the gages D', so as to be dressed by the planer. This plate may be weighted, so as to work the same as by the springs. It has studs or pins K working in slotted uprights L to keep it in position against the tendency of the shingles to displace it, and at the same time allow it to rise and fall freely.

The table E is supported against this action by the guide D' of the planer I.

M represents the guide to the planers for protecting them from the bars G, said guides being attached to the guides D D' at each end, so that they press the bars away from the planers.

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

1. The combination of the yielding and spring-pressed bed E with the planer A, arranged in stationary bearings, substantially as specified.

2. The combination, with planers A I, of the guides D D, arranged substantially as and for the purpose specified.

3. The combination of the planer A, spring-pressed bed E, planer I, and weighted or spring-pressed presser J, substantially as specified.

4. The combination, with planers A I and guides D D, of the horizontal plates J, provided with studs or pins working in slotted uprights, substantially as and for the purpose set forth.

WILLARD A. KITTS.

Witnesses :

WILLIAM J. TURCK,  
G. D. SCHERMERHORN.