W. GOLDIE.

Shingle-Cutting Machine.

No. 209,472. **Patented Oct. 29, 1878.**

Fig. 1.

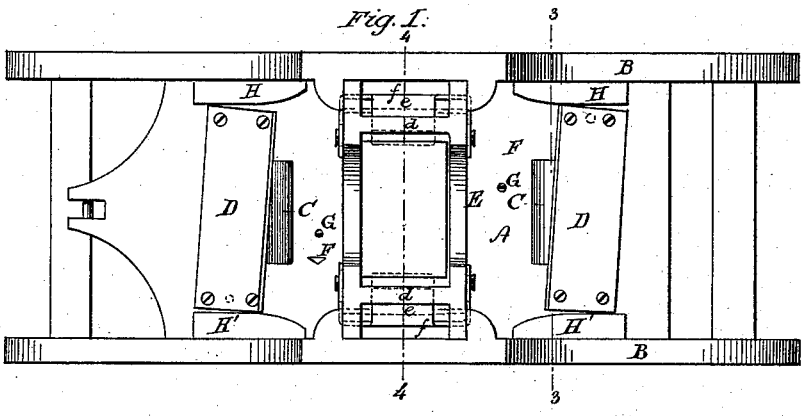


Fig. 2.

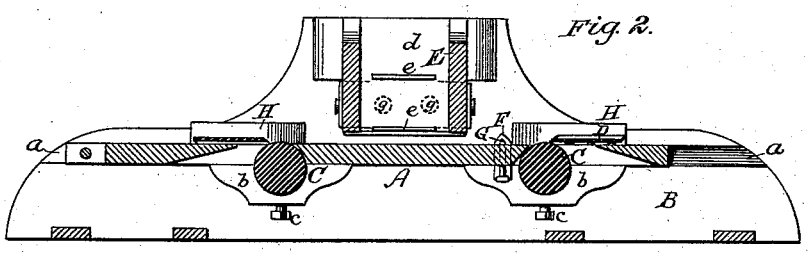


Fig. 3.

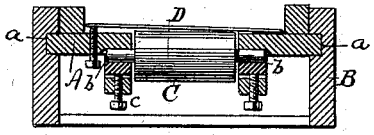


Fig. 4.

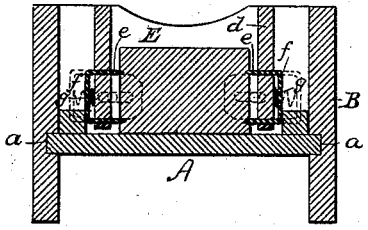
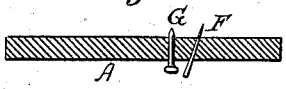


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM GOLDIE, OF FENTON, MICHIGAN.

IMPROVEMENT IN SHINGLE-CUTTING MACHINES.

Specification forming part of Letters Patent No. **209,472**, dated October 29, 1878; application filed May 9, 1878.

To all whom it may concern:

Be it known that I, WILLIAM GOLDIE, of Fenton, in the county of Genesee and State of Michigan, have invented an Improvement in Shingle-Cutting Machines, of which the following is a specification:

The nature of my invention relates to certain new and useful improvements in the construction and operation of that class of cutting-machines employed in cutting shingles, the term "cutting" being used in contradistinction to the term "sawing;" and the invention consists in providing the machine with a knife for beveling off the thick ends of the shingles; and, further, in the combination and arrangement of the parts for holding the block and cutting the shingles therefrom, all as fully hereinafter explained.

In the accompanying drawings, which form a part of this specification, Figure 1 is a top plan of my improved machine; Fig. 2, a central longitudinal section of the same; Fig. 3, a cross-section on the line 3 3; Fig. 4, a cross-section on the line 4 4; and Fig. 5 a cross-section through a portion of the bed, showing the marking-spur and beveling-knife.

Like letters denote corresponding parts.

A represents the bed of the machine, adapted to receive a reciprocating motion in grooves *a* in the cheeks B of the device. Suitably journaled in bearings *b* below the bed, and capable of vertical adjustment by means of the set-screws *c*, are two rollers or drums, C, one being placed near each end of the bed, as shown in Figs. 1 and 2, and so arranged that their upper peripheries will be presented through corresponding openings in the bed, and upon the same plane, or slightly above, with the top of the bed. Secured transversely and diagonally are the cutters or knives D, one end of each being raised above the plane of the bed in order to give the proper bevel to the shingle.

The longitudinal center of the cutting-edges of these knives is placed directly over the longitudinal and vertical center of that part of the rollers or drums as is presented above the opening in the bed, so that the shingle being cut is compressed between the top of the drum and the under side of the knife to prevent curling or shaking.

E is a frame, box, or well, open at top and bottom, and secured between the sides or cheeks B at a sufficient distance above the bed, and about midway between the two ends of the machine, to allow the knives to pass under it. This box is provided with two vertical partitions, *d*, which are perforated, as shown in Fig. 4, to allow the sheet-studs *e* to pass through. These studs are connected to a plate, *f*, between which and the partition is interposed the spring *g*.

A cutter, F, is secured in the bed of the machine, and a spur, G, is also secured in the same manner. To the bed, at each end, and in close proximity to the cutters D, are secured the curved or wedge-shaped blocks H H′.

In practice the bolt from which it is designed to cut the shingles is placed in the box E. The first movement of the bed to the right or left brings the cutter F in contact with the corresponding lower corner of the bolt and chamfers it off, while the spur G will mark a line to show how much of the shingle being made should be laid to the weather. In the further progress of the bed the blocks H H′ come in contact with plates *f* and force the sheet-studs *e* into the bolt, holding firmly between the studs and the drum C under the knife D, which latter then cuts the shingle so compressed, leaving it firm and without "shakes." When the bed has completed its movement the blocks H H′ will recede from their contact with the plates *f* with the return movement of the bed, and the springs *g* will withdraw the studs and allow the bolt to drop onto the bed, when the continued motion on the return of the bed will bring the knives, cutters, and spurs upon the opposite end of the bed into action, the blocks on that end forcing inwardly with the sheet-studs *e*, so that at each reciprocating motion of the bed two complete shingles are made with thin butts, chamfered or beveled to allow a gentle flow of the water off them, marked to show as much as should be exposed to the weather.

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

1. In combination with the reciprocating knife or cutter-bed of a shingle-cutting machine, the knife F, for the purpose of beveling off the weather side of the shingle at the butt, substantially as herein specified.

2. In a shingle-cutting machine, the combination, with the reciprocating bed A, of the box E, supported centrally over such bed, the spring-plates *f*, carrying studs *e* at the sides of the box, and the wedge-blocks H H′ on each end of the reciprocating bed, substantially as described and shown.

3. In a shingle-cutting machine, the combination of the reciprocating bed A, having inclined cutting-knife D, roller C, and wedge-blocks H H′ at each end, with the box E mounted centrally over such bed and provided with spring-plates *f* and studs *e*, substantially as described and shown.

WILLIAM GOLDIE.

Witnesses:
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