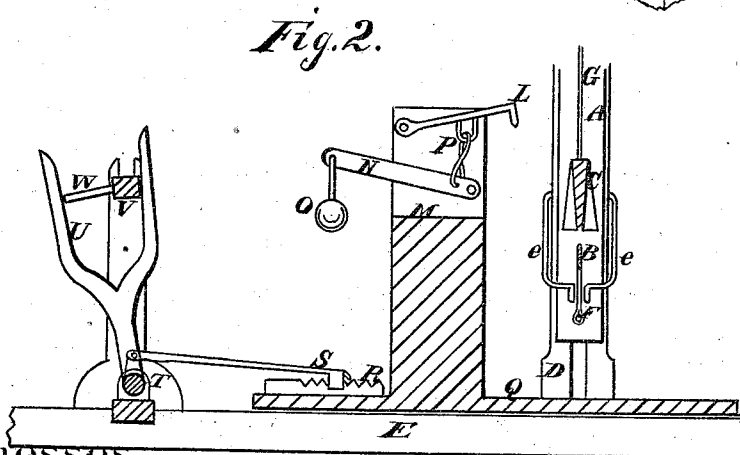
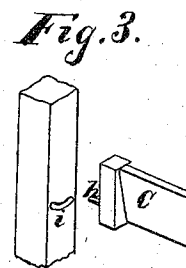
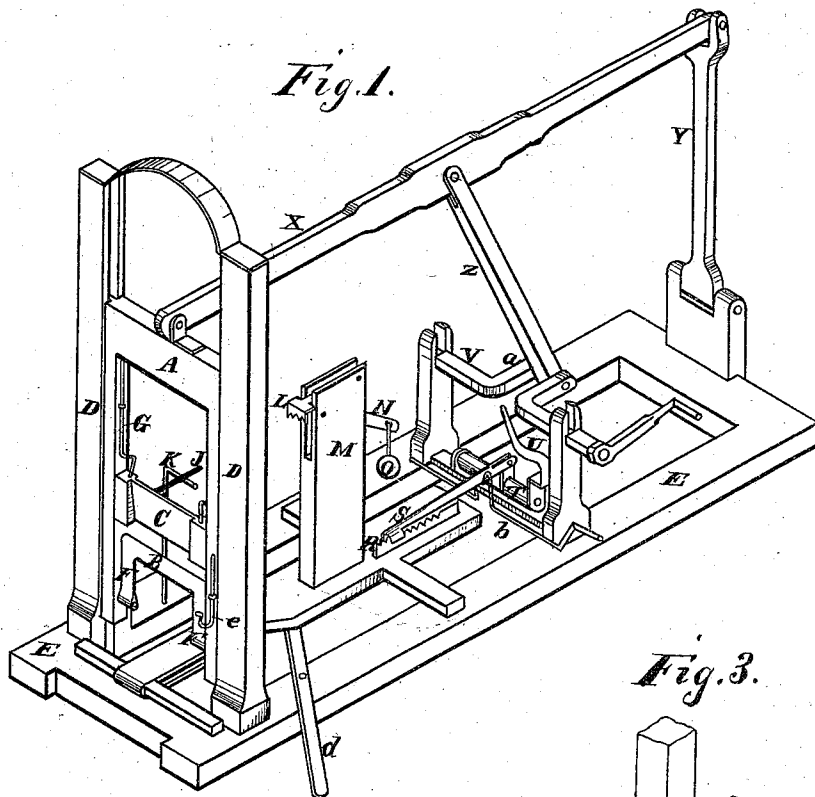


D. SHANKLAND.

Machines for Riving Shingles.

No. 149,611.

Patented April 14, 1874.



Witnesses
Geo. H. Strong.
John L. Borne

Inventors
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UNITED STATES PATENT OFFICE.

DAVID SHANKLAND, OF WATSONVILLE, ASSIGNOR OF ONE-HALF HIS RIGHT
TO CHARLES A. GATES, OF GILROY, CALIFORNIA.

IMPROVEMENT IN MACHINES FOR RIVING SHINGLES.

Specification forming part of Letters Patent No. **149,611**, dated April 14, 1874; application filed
February 23, 1874.

To all whom it may concern:

Be it known that I, DAVID SHANKLAND, of Watsonville, Santa Cruz county, State of California, have invented a Machine for Riving Shingles; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention without further invention or experiment.

My invention relates to improvements in riving shingles, clapboards, or shakes from bolts of timber, and in a novel machine for doing this work.

Referring to the accompanying drawings for a complete description of my mechanism, Figure 1 is a perspective view of my machine. Fig. 2 is a sectional elevation.

A is a sliding frame, which carries the knife B and river or frow C. The frame A moves vertically up and down between the guides D D, which are secured to suitable base-timbers E, these timbers also supporting the other parts of the mechanism. The knife B is made with two downward-extending arms, F F, as shown, and at their lower ends these extensions are pivoted to the sides of the frame, so that the knife can easily spring and accommodate itself to the direction of the grain of the wood. Springs *e e* upon each side of the knife maintain its vertical position, and serve to bring it back if it should get out of this position while making a downward stroke. Above the knife is the frow C, which is a wedge-shaped piece of metal, supported by spring or other rods G, which extend from its top to the upper part of the frame A. The frow has a pin, *h*, at each end, which moves in a transverse slot, *i*, in the inside of the frame A. This, with the method of suspending the frow by the rods, allows it a movement from side to side. An arm, J, projects from one side of the frow, and when the slide A moves down, forcing the knife and frow through the block, this arm J comes in contact with a post, K, upon the frame, and by this means it moves the frow to one side with a sort of twist, which throws off the shake at the end of each movement. In order to hold the block or bolt of wood from which the shakes are to be cut, I employ a dog or clamp, L, which is hinged to

the back of the vertical post M, and projects slightly in front of it. Another lever, N, is pivoted below L, and has a weight, O, at its rear end to keep it down. A link, P, connects the two, so that the weight holds the dog L down firmly upon the bolt. The post M stands upon a base, Q, which slides forward and back between guides, and serves as a back to steady the bolt. Suitable catches upon this base in front of the post M hold the bottoms of the bolts. In order to feed the bolt forward regularly, the sliding base Q is provided with a rack, R, in the rear of the post M, and a pawl, S, which is hinged to an arm upon the rock-shaft T, meshes into it. From the rock-shaft T a forked arm or lever, U, extends upward, so that one leg is upon each side of the main shaft V of the machine. A short arm, W, projects from the shaft V and strikes one arm of the lever U alternately upon one side and the other as it rotates, thus giving to the lever an oscillating motion, which is communicated through the rock-shaft T to the pawl, thus operating to feed the table or base Q forward. The frame A is moved up and down by a lever, X, which has its front edge hinged to it. The rear end of the lever is hinged to a post, Y, as shown, and a connecting-rod, Z, from its center connect with the crank *a* upon the driving-shaft V.

When the bolt is all split up, and it is necessary to move the slide back to receive another, the pawl S is thrown out of contact with the rack by means of a crank-shaft, *b*, as shown. A horizontal lever, *d*, then serves to move the slide back.

The whole device is simple, easy to operate, and rapid.

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

1. The knife or cutter B with its arms F F, pivoted as shown, to allow the knife to follow the grain of the wood in making a cut, substantially as herein described.

2. The frow C with its suspending-rods G, the arm J, and post K, or equivalent device, for giving a twisting motion to the frow and throwing off the piece, substantially as described.

3. The holding device for the bolt, consist-

ing of the dog L hinged to the post M, and the weighted lever N connected with the dog L, the whole serving to hold and steady the bolt while being cut, substantially as herein described.

4. The forked lever U with the operating-arm W, together with the rock-shaft T, pawl S, and the rack R upon the slide Q, when the

whole operates as a feeding apparatus for the bolt, substantially as herein described.

In witness whereof I hereunto set my hand and seal.

DAVID SHANKLAND. [L. S.]

Witnesses:

JOHN L. BOONE,

C. M. RICHARDSON.