

J. M. CARLISLE.
SHINGLE MACHINE.

No. 28,734.

Patented June 19, 1860.

Fig 1.

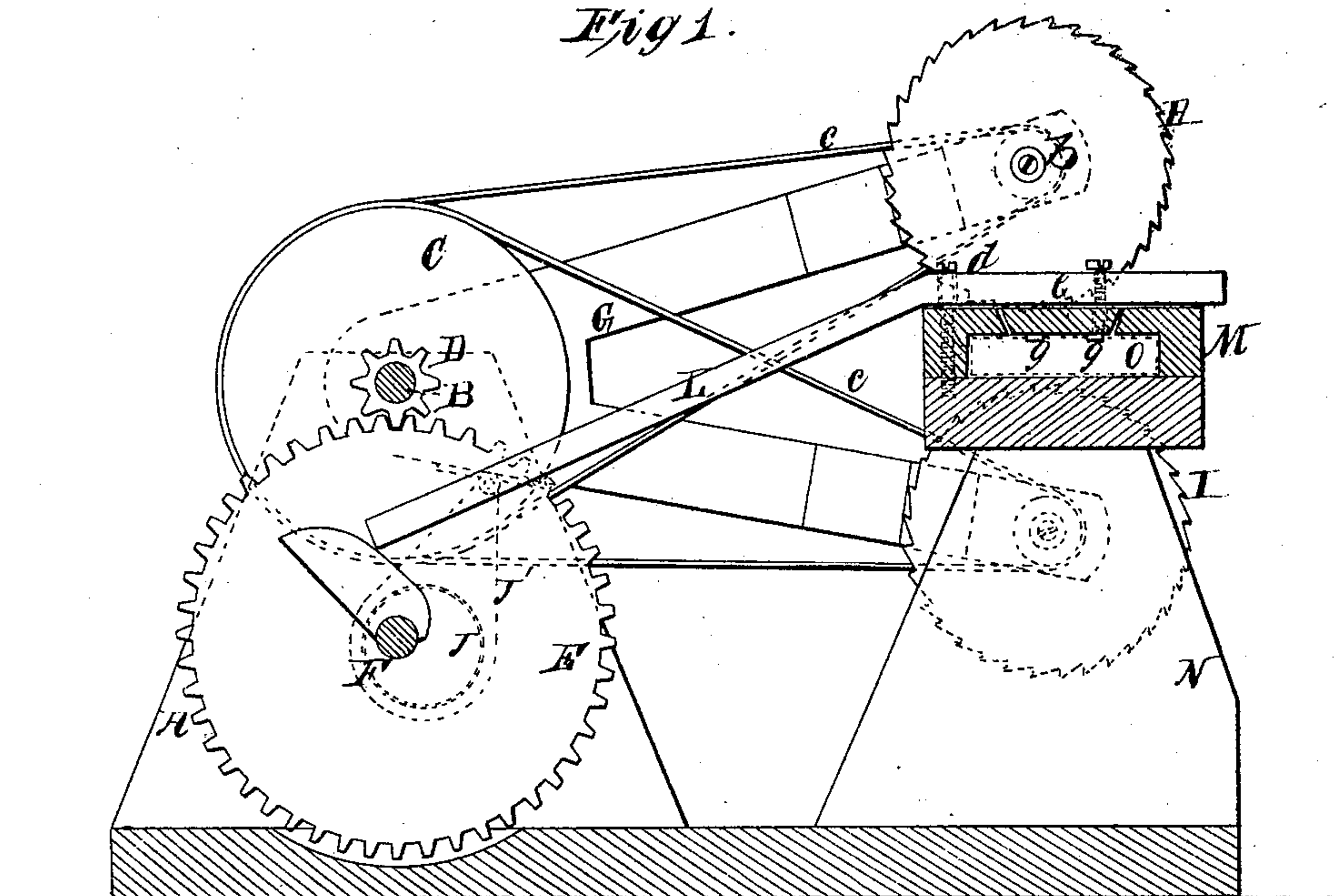
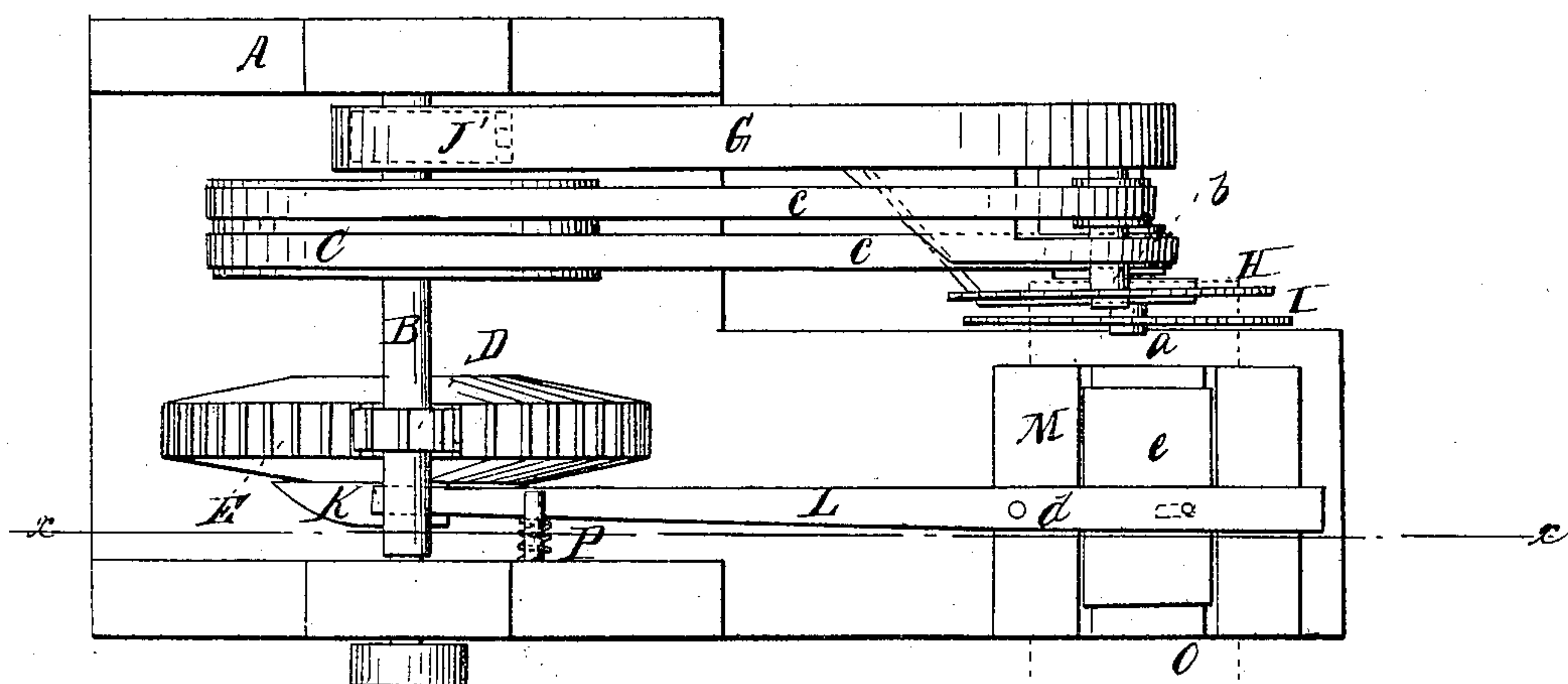


Fig 2.



Witnesses.
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JOHN M. CARLISLE, OF GREENWOOD, SOUTH CAROLINA.

MACHINE FOR SAWING SHINGLES FROM THE BOLT.

Specification of Letters Patent No. 28,734, dated June 19, 1860.

To all whom it may concern:

Be it known that I, JOHN M. CARLISLE, of Greenwood, in the district of Abbeville and State of South Carolina, have invented a new and Improved Shingle-Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention taken in the line x, x , Fig. 2. Fig. 2 is a plan or top view of the same. Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in the employment or use of two circular saws attached to the ends of a divaricated or forked vibrating arm and so arranged that two shingles will be cut in proper taper form at each vibration of the arm, and with but a single rectilinear feed movement of the bolt.

The object of the invention is to obtain a simple and rapidly working machine, one not liable to become deranged by use and which will perform better work than those hitherto devised for sawing shingles from the bolt, the latter result being obtained by the manner in which the saws cut the shingles from the bolt.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A represents a frame in the upper part of which a shaft B, is placed, having a pulley C, on it and a pinion D, the latter gearing into a wheel E, on a shaft F, which is placed in the frame A, below the shaft B.

On the shaft B, a divaricated or forked arm G, is placed loosely and allowed to work freely up and down on said shaft as a center, and in the outer ends of the arm G, saw-arbors a, b , are fitted, on which saws H, I, are placed. These saws are not in the same plane, as one arbor a , is longer than the other b , as shown clearly in Fig. 2. The arbors a, b , also are not in the same axial plane, b having an oblique position relatively with a , so that the cutting plane of the saw H, will have an oblique position relatively with that of I, as shown in Fig. 2. The two arbors a, b , are rotated by belts c, c , from the pulley C.

On the shaft F, directly below the arm G, there is placed an eccentric J, the form of which is shown clearly in Fig. 1, by the

dotted lines; and on this eccentric an arm J', is fitted, the outer end of said arm being connected to, or in contact with the forked arm G. On the same shaft and adjoining the wheel E, there is placed a cam K, which actuates a lever L, having its fulcrum d , on a box M, which is placed on an upright N. The box M, receives the bolt O, shown in red, from which the shingles are cut; and the top e , of the box is a slide to which the lever L, is attached by a bolt f , which is fitted loosely in the slide e , or in an oblong slot therein. P is a spiral spring which bears against the lever L, and has a tendency to keep the end of said lever, against which it bears toward the wheel E. The under side of the top e , of the box has ratchet-shaped spurs g , attached.

The operation is as follows: The bolt O, is gotten out of the proper dimensions to fit in the box M, and slide freely therein, and the shaft B, is rotated by any convenient power.

The eccentric J, and arm J', actuate the forked arm G, and the cam K, and spring P, actuate the lever L, giving it a lateral vibrating movement which causes the top e , of the box M, to have a reciprocating movement and the spurs g , to feed the bolt rectilinearly to the jaws H, I. As the forked or divaricated arm G, moves upward, the saw H, cuts a shingle from the bolt and leaves, in consequence of its obliquity, an oblique end on the bolt, and the saw I, then acts on the bolt, cuts a shingle therefrom with a straight cut, that is to say, with a cut parallel with the grain of the wood, and at right angles with the sides of the bolt. Two shingles are therefore cut from the bolt at each upward movement of the lever G, and the bolt O, is moved sufficiently at each vibration of lever L, to permit of two shingles being cut.

It will be seen that the oblique cut of the saw H, gives the taper form to the shingle. The straight cut accomplished by the saw I, is designed for the "weather" side of the shingle, for as this cut is made parallel with the grain or fiber of the wood the former are not bisected or ruptured, and consequently the shingles will be nearly equal to rived ones, especially if the bolts are of straight grained wood, not having the tendency to warp, as the generality of sawed shingles, which have the taper form given them by feeding the bolt obliquely to the

saw, alternately in opposite positions, and consequently causing the fiber or grain to be bisected at both sides of the shingles. The two saws perform the work rapidly
5 and well, and the device, it will be seen, is extremely simple and may be manufactured at a small cost.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is:—
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The employment or use of the two saws

H, I, having respectively oblique and parallel cutting planes relatively with the end of the bolt O, in connection with a rectilinear feed movement of the bolt; all being
15 arranged and operated substantially as and for the purpose set forth.

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Witnesses:

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