J. Decker,

Sawing Shingles.

No. 113,746 Patented Apr. 18. 1871.

Fig: 1.

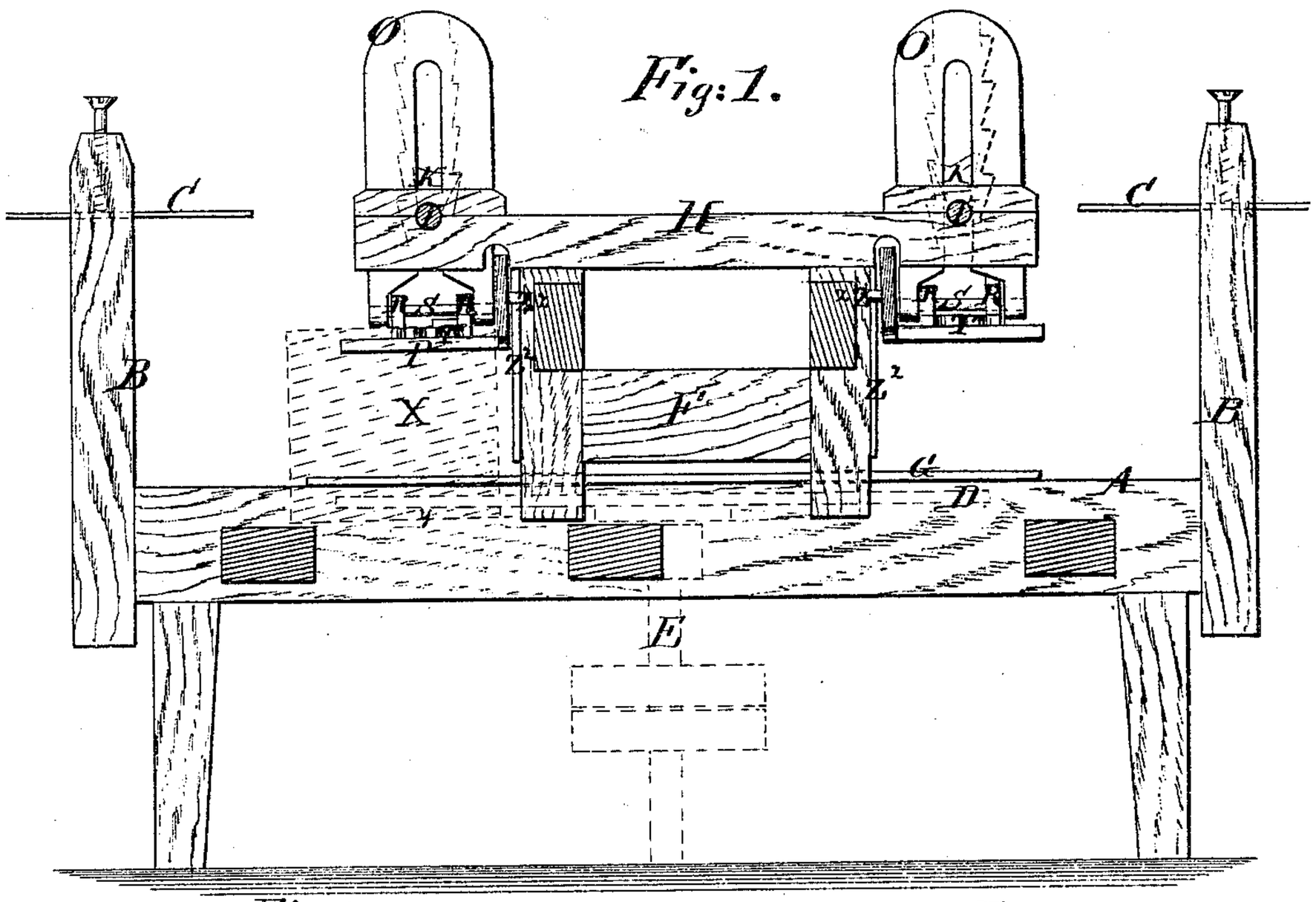


Fig: 2.

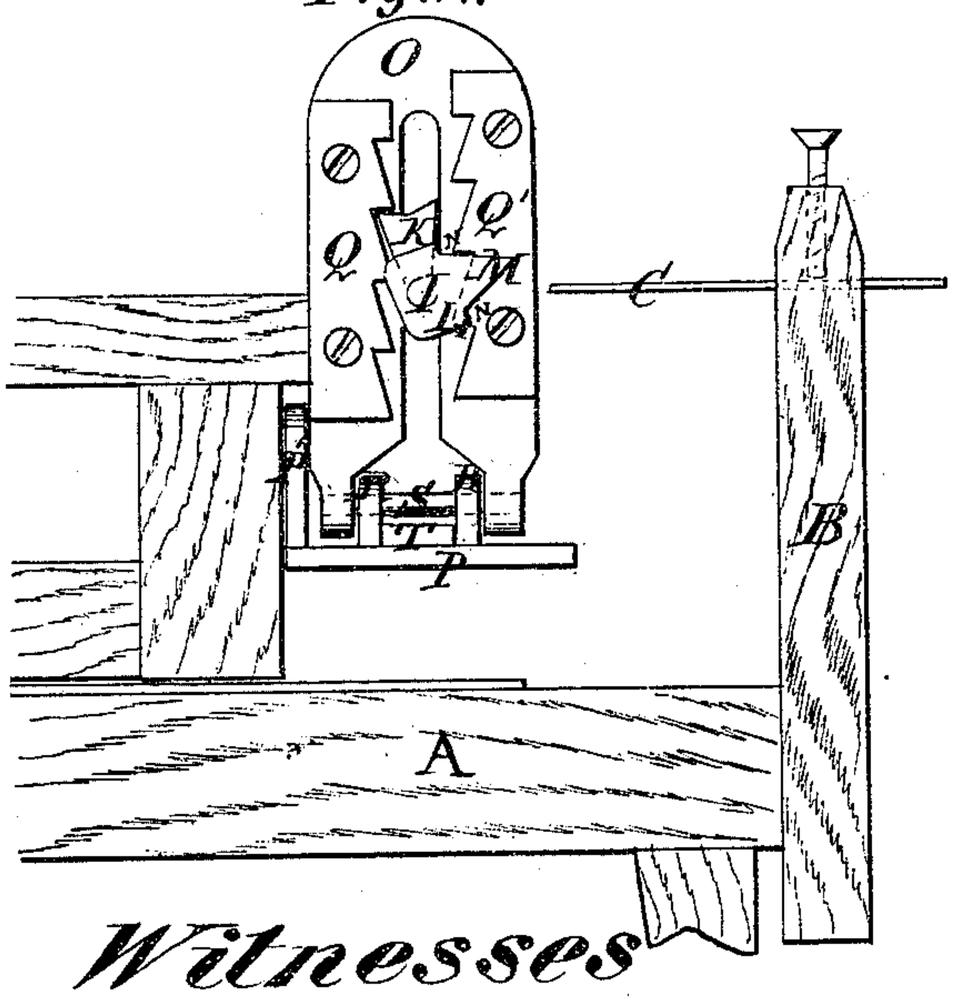
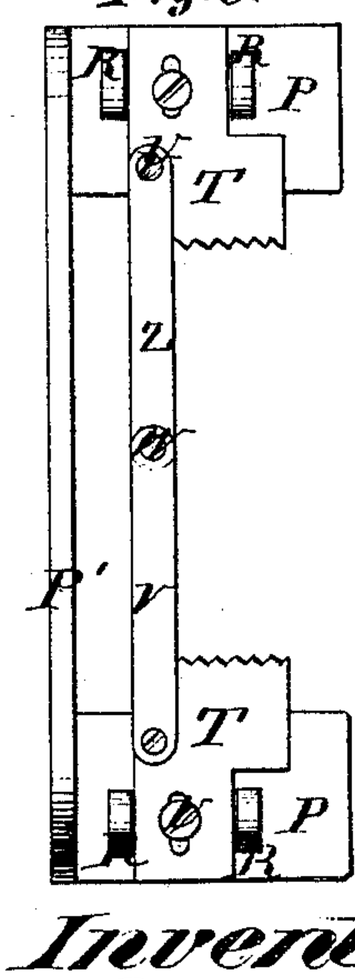


Fig: 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES DECKER, OF HOLMESVILLE, GEORGIA, ASSIGNOR TO HIMSELF AND F. McRAE, OF SAME PLACE.

IMPROVEMENT IN SHINGLE-MACHINES.

Specification forming part of Letters Patent No. **113,716**, dated April 18, 1871.

To all whom it may concern:

Be it known that I, JAMES DECKER, of Holmesville, in the county of Appling and State of Georgia, have invented a new and useful Improvement in Shingle-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in shingle-machines; and it consists in the application to a reciprocating frame moving over the saw, which works horizontally, of a set of holding-dogs at each end, provided with novel apparatus for automatically feeding the bolts and shifting them as required for changing the bolt relatively to saw at each cut, for cutting heads and points alternately.

Figure 1 is a longitudinal sectional elevation of my improved machine. Fig. 2 is a partial side elevation, and Fig. 3 is a plan of the holding-dogs.

Similar letters of reference indicate corresponding parts.

A represents the main frame of the machine, and B vertical posts rising up from the same—one at each end. Near the tops of these parts are adjustable horizontal shifting-bars C. The saw, which is to work within this frame, near the top, is indicated by the dotted lines D and the mandrel by the lines E.

F is a strong frame mounted on frame A, upon suitable ways, G, for sliding back and forth between the posts B, it being intended to work the said frame by means of a connecting-rod attached to it at one end and to a revolving crank at the other. The upper beams, H, of this frame overhang the ends and support in the said overhanging ends the shafts I, which carry near each end the pawls K, and at one end a plate, L, having a triangular-shaped point, M, at the base of which are shoulders N, which shoulders are caused alternately to strike against one of the shifting-bars C, for shifting the pawls K forward and back.

O represents slotted plates of metal, mounted one near each end of the shafts I, so that it may work vertically on the said shafts, which pass through the slots. These plates are for the support of the dog-holding plates P, also for feeding and tilting the bolts held by the dogs. The said plates are provided on one side with the ratchet-bars Q Q′—one on each side of the vertical slot for the shaft—which bars are so set that the teeth of one are intermediate vertically between those of the other; but the said plates are so arranged that the vertical distance of the teeth is alternately as the thickness of point and the head of the shingle, and the ratchet-bars for the respective ends are so arranged that the short space of one end is opposed to the long space of the other; also, the said teeth are arranged for supporting the plates O on the upper ends of the pawls K, which stand nearly vertical. The dog-holding plates P are jointed by ears R and a pin, S, to the lower ends of the plates O. These plates—one for each end of the bolt—are connected together by the plate P′, as shown.

The dogs T are plates of metal, each with a notched end presented toward the other, for clamping the bolt between them. They are arranged between the ears R, to slide to and from each other, and confined by bolts U, passing through slots in them and screwing into the plates P. They are connected together by the bars V, jointed to them and jointed together at W, and are caused to slide forward and back, for clamping the bolt or releasing it, by the bars V being moved from or to the right line.

The dotted lines X represent a shingle-bolt clamped between the dogs, and held in position for the saw to cut off a shingle, Y, as the frame F is moving to the right. When the frame has arrived at the end of its movement in the direction stated, the shifting-plate L at that end of the frame F will be caused to strike against the end of the bar C, which, being guided by the point M, will be brought against one of the shoulders N, and will turn the plate, the shaft, and the pawls K from the position occupied to the opposite one, thereby disengaging them from the rack-bar on one side of the plate O and engaging them with the bar on the other side, allowing the dog-holders to drop the distance required for feeding the bolt for the next shingle, one end dropping the distance of the thickness of the head of the shingle and the other the distance for the point.

When it goes back the other way, the bolt will be dropped in like manner, except the movements of the ends will be reversed as to the distance, the one which moved the most then now moving the least, and vice versa, thus alternately tilting heads and points, as required, for working the bolts up properly. The same operation of the holding and feeding apparatus at each end continues with the alternating actions described until the bolt is finished.

The dog-holding apparatus may be prevented from being swung on the shafts I or pawls K by the bolts Z, screwed into the plate P′, and having the heads so arranged with the guide-plates Z^2 as to hold them against the tendency of the saw to push them from it.

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

1. The combination, with the main frame A of a shingle-sawing machine having the saw arranged as described, of the reciprocating carriage F, and a set of feeding apparatus, substantially such as herein described, mounted on each overhanging end of the said carriage, all substantially as specified.

2. The combination of the slotted plates O, shafts I, pawls K, angle-plates L, spring shifting-bars C, and the ratchet-bars Q Q′, all substantially as specified.

JAMES DECKER.

Witnesses:

JOS. A. CRONK,

THOS. H. PALMER.