

(No Model.)

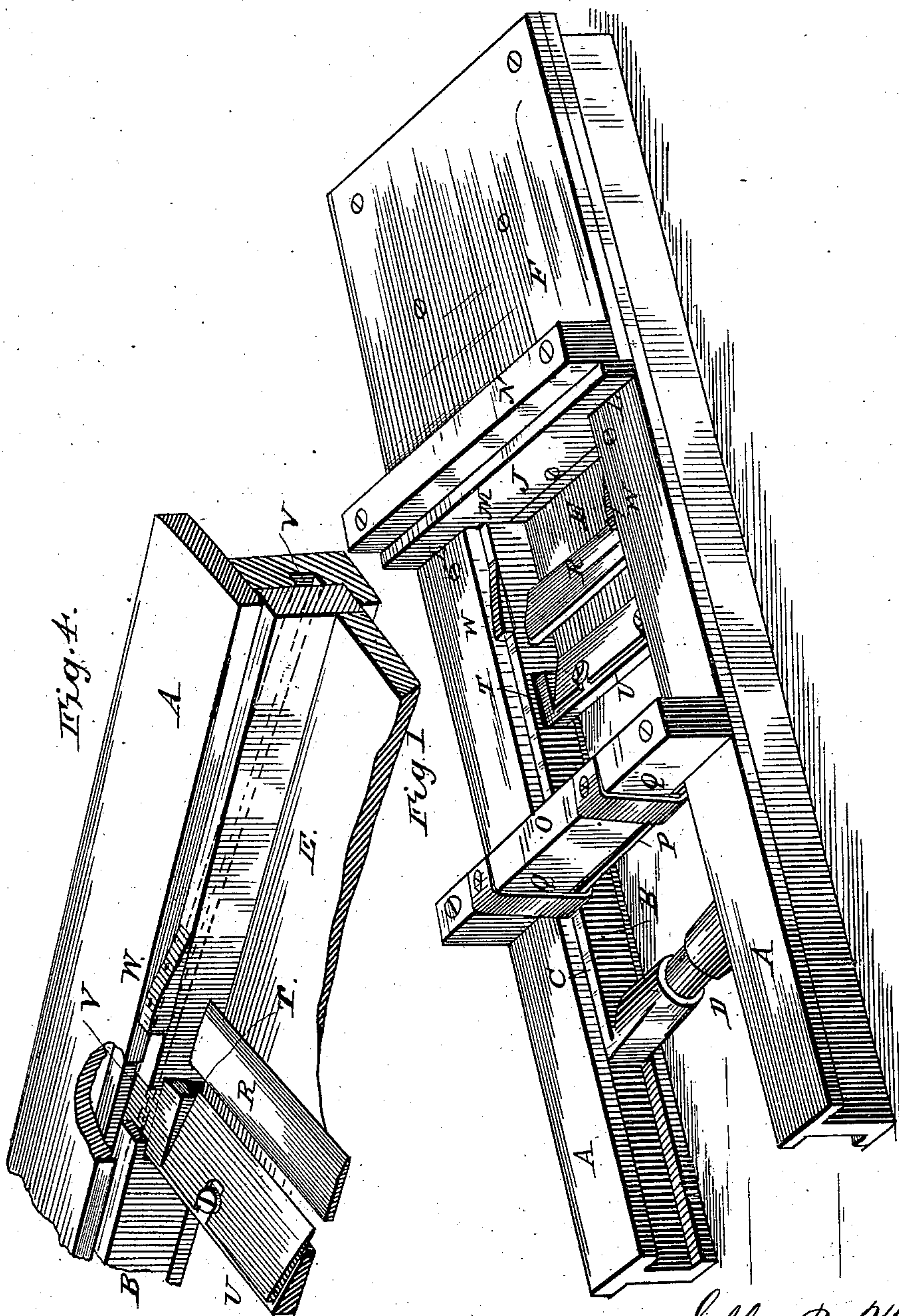
2 Sheets—Sheet 1.

E. B. HEWETT & G. F. JAMES.

SHINGLE MACHINE.

No. 295,006.

Patented Mar. 11, 1884.



WITNESSES:

Thos. S. Dietrich
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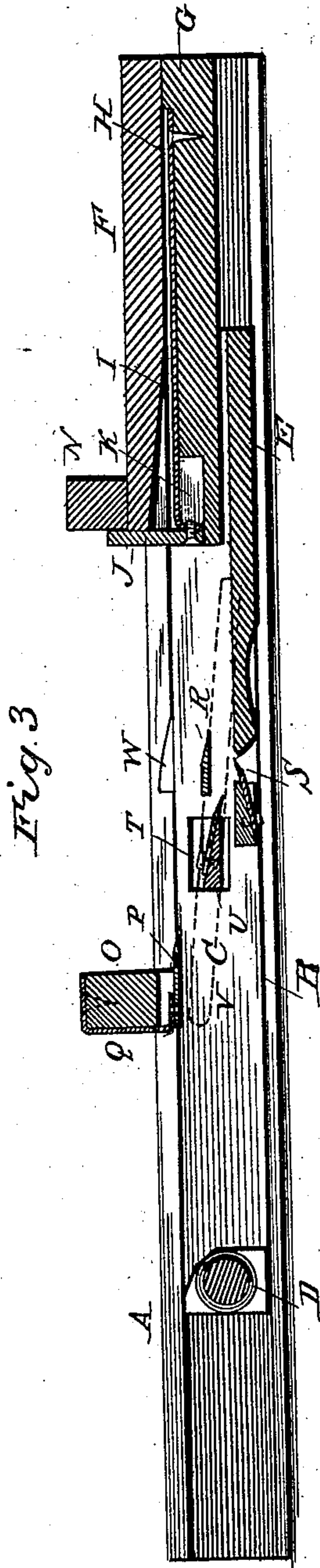
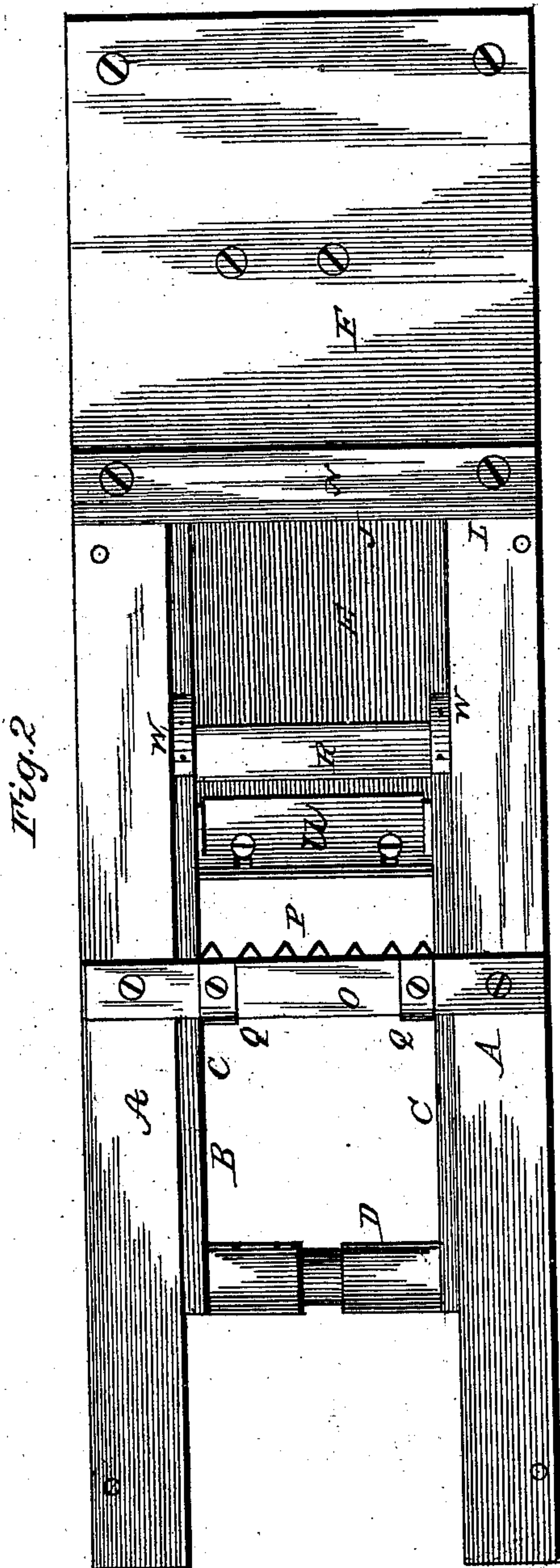
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2 Sheets—Sheet 2.

E. B. HEWETT & G. F. JAMES.
SHINGLE MACHINE.

No. 295,006.

Patented Mar. 11, 1884.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ELLIS B. HEWETT AND GALEN F. JAMES, OF TENINO, WASHINGTON TERRITORY.

SHINGLE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 295,006, dated March 11, 1884.

Application filed November 10, 1883. (No model.)

To all whom it may concern:

Be it known that we, ELLIS B. HEWETT and GALEN F. JAMES, citizens of the United States and residents of Tenino, in the county of Thurston and Territory of Washington, have invented certain new and useful Improvements in Shingle-Machines; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of our improved shingle-machine. Fig. 2 is a top view. Fig. 3 is a longitudinal vertical section; and Fig. 4 is a detail view of the cutter.

Similar letters of reference indicate corresponding parts in all the figures.

Our invention has relation to machines for cutting and shaving shingles; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letters A A indicate two parallel bars forming ways upon their inner sides, in which slides a frame, B, consisting of two parallel side pieces, C C, connected at one end by a cross-piece, D, to which the means for reciprocating the frame are attached, and at the other end by a plate, E. The inner ends—i. e., the ends farthest from the power which reciprocates the sliding frame—of the parallel bars or beams A are connected by means of a plate, F, about the length of one-third of the entire length of the beams, to the under side of which is fastened a plate or block, G, having a longitudinal recess, H, in its upper surface, in which a flat spring, I, is secured at the inner end of the recess, while a cross bar or plate, J, cut out at its ends to correspond to the shape of the ways and of the parallel sides of the frame, is fastened, the said cross-plate bearing with its lower edge against the bottom of a transverse recess, K, at the outer end of block G, while its cut-out ends form laterally-projecting lugs L, resting upon the upper sides of the parallel beams, and steps M, resting upon that portion of the side pieces of the sliding frame projecting from

under the flanges of the ways in the parallel beams.

A cross-piece, N, is fastened behind cross-plate J, at the end of plate F, and the parallel beams are connected at a distance from the aforesaid cross-piece equal to the length of plate E by means of a cross-piece, O, fastened to the upper sides of the parallel beams, and provided at its underside with a toothed plate, P, which is fastened to the lower ends of two or more springs, Q, the teeth of the plate pointing inward, and the springs being secured at their upper ends to the cross-piece, passing down its outer side.

A transverse knife or frow, R, is fastened between the parallel sides of the sliding frame at the outer end of its plate E, and above it to the thickness of the shingle to be cut, the thickness of the recessed end of block G being of the same thickness; and a transverse shaving-knife, S, is fastened under the frow, outside the end of plate E, and the side pieces of the sliding frame have transverse slots T at a height with the frow, a short distance to the rear of the same, in which slots the ends of a transverse upper shaving-knife, U, slides vertically, the said ends projecting through said slots into inwardly and downwardly inclined grooves V in the inner sides of the ways, extending from a short distance outside cross-piece O to inside the cross-plate J.

Two wedge-shaped blocks, W, are fastened upon the upper edges of the side pieces of the sliding frame, pointing with their points toward the inner end of the same, at a point above the frow.

When the machine is used, the block to be rived and shaved into shingles is placed between the two cross-pieces of the frame, the toothed plate holding one end and resting with its underside upon the plate in the sliding frame, the said frame having been drawn forward. As now the frame is forced back the frow will rive a slab off the block, which will pass under the frow, between the shaving-knives, the upper one of which will be brought closer to the lower one as the frame slides in, its ends sliding in the inclined groove, cutting one end of the shingle off thinner than the other. When the sliding frame now arrives at its inner point, the wedges upon the side pieces

will enter under the steps at the ends of the spring-actuated cross-plate, raising the same, and admitting the frow into the recess inside the plate, and allowing the shaving-knives to
5 pass to the end of the shingle, finishing the same, when it will fall out, the frame will be drawn out, the block settle farther down for a new shingle, and so forth, the thick ends of the wedges pushing the toothed plate back
10 at the end of each back stroke of the sliding frame, releasing the block from the same, and allowing it to settle down.

Having thus described our invention, we claim and desire to secure by Letters Patent
15 of the United States—

1. The combination, in a shingle-machine, of two parallel ways, a reciprocating frame having a frow and two shaving-knives, one of which has means for gradually bringing it
20 closer to the other, and provided with wedge-shaped blocks at the upper sides of its side pieces, above and slightly in front of the frow, and two cross-pieces forming a frame for holding the block to be cut up, one of which cross-
25 pieces has a spring-actuated cross-plate resting with its end upon the upper surfaces of the side pieces of the frame and of the parallel ways, adapted to be raised by the wedge-shaped blocks, allowing the frow to pass under
30 its lower edge, as and for the purpose shown and set forth.

2. The combination, in a shingle-machine, of two parallel ways having cross-pieces upon their upper sides, forming a frame for holding
35 the block, a plate having a toothed edge fastened upon the ends of flat springs under one of the cross-pieces, and a sliding cutter-frame having blocks upon its upper side engaging the plate and pushing it back at the back

stroke of the frame, as and for the purpose 40 shown and set forth.

3. The combination of two parallel ways having inwardly and downwardly inclined grooves in their inner sides, a plate fastened across the inner ends of the ways, a plate hav- 45 ing a transverse recess in its outer end, a longitudinal recess in its upper side, and fastened to the under side of the aforesaid plate, a transverse plate having its ends cut out to form steps and lugs, as described, fastened upon 50 the free end of a spring secured with its inner end in the inner end of the recess in the aforesaid plate, and bearing with its lower edge against the bottom of the transverse recess in the same plate, a cross-piece having a 55 spring-actuated toothed plate under its under side, and fastened upon the upper sides of the ways, a reciprocating frame sliding in the ways, having a plate at one end, transverse slots in its side pieces, near their middle, and 60 wedge-shaped blocks upon the upper sides of said side pieces, a transverse frow fastened at the outer end of the bottom plate of the frame a distance above the same, a stationary lower shaving-knife fastened below and to the rear 65 of the frow, and an upper shaving-knife sliding with its ends in the transverse slots in the frame and in the grooves in the ways, all constructed to operate as and for the purpose shown and set forth. 70

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

ELLIS B. HEWETT.
GALEN F. JAMES.

Witnesses:

WILLIAM F. JAMES,
ISAAC BLUMAUER.