

H. Woodman's Imp^d Shingle-Machine

73219 *Fig. 1.*

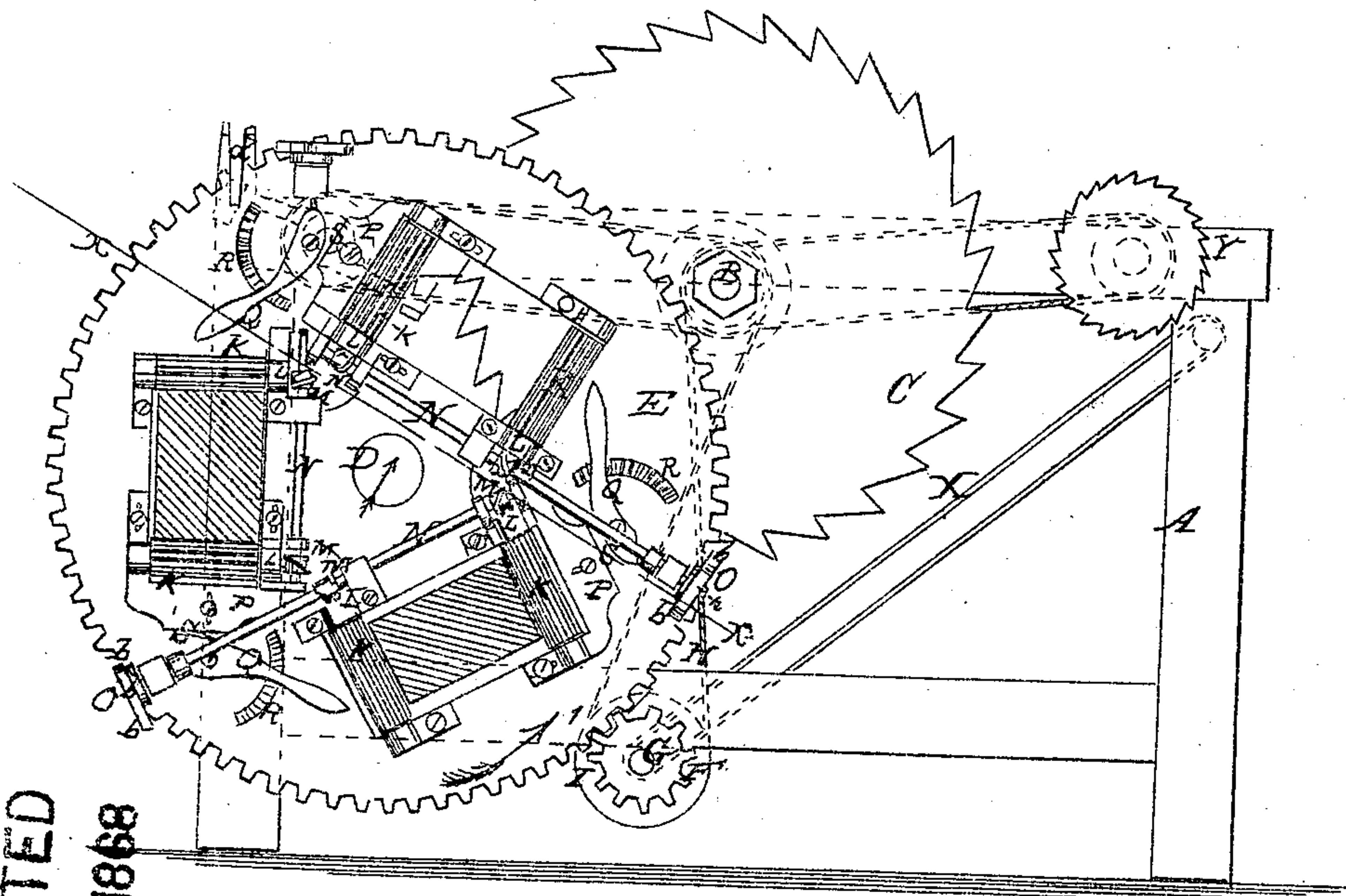


Fig. 2.

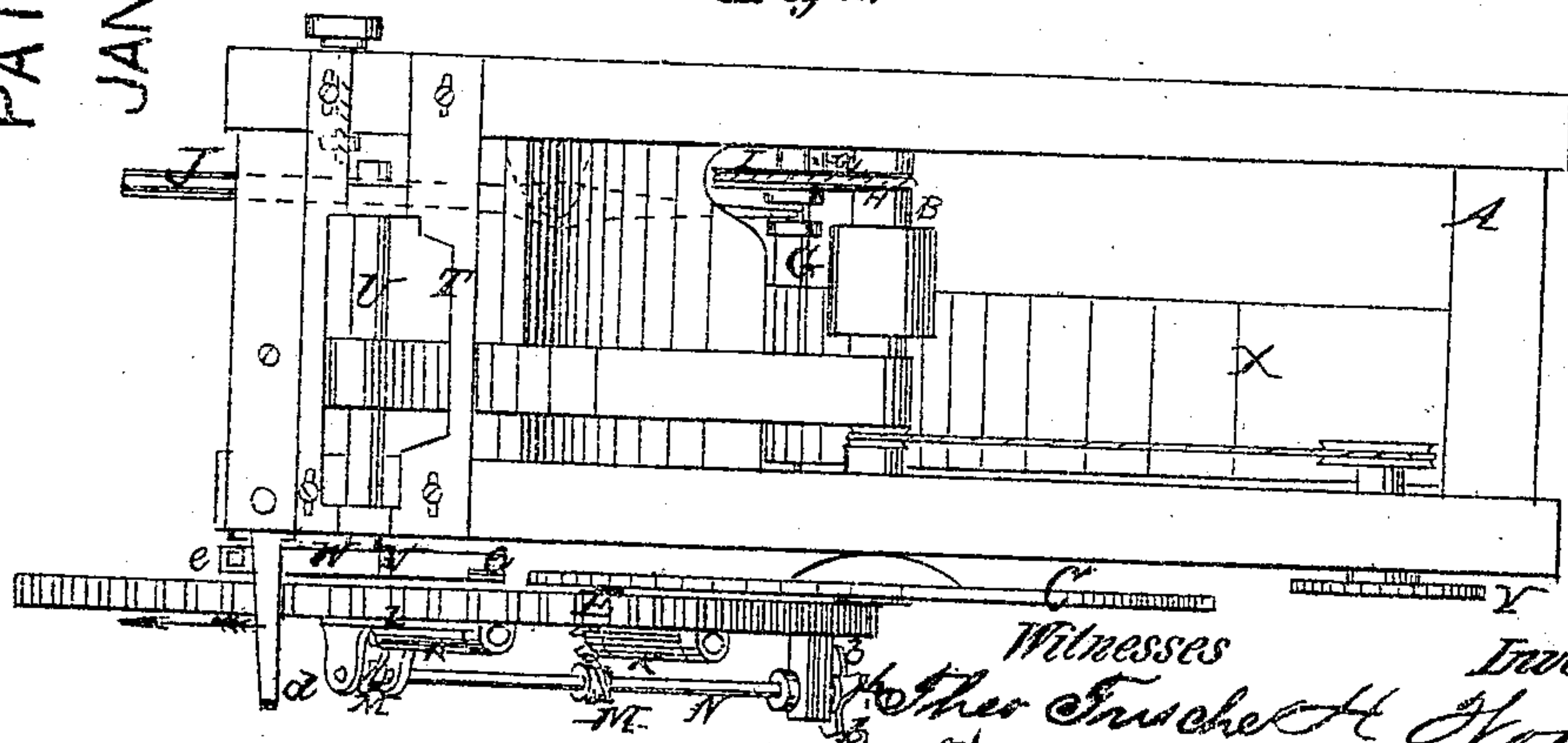


Fig. 3.

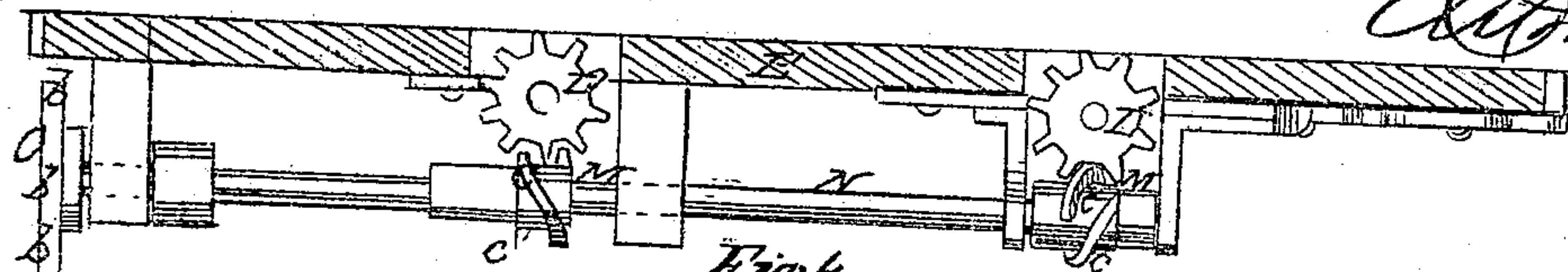
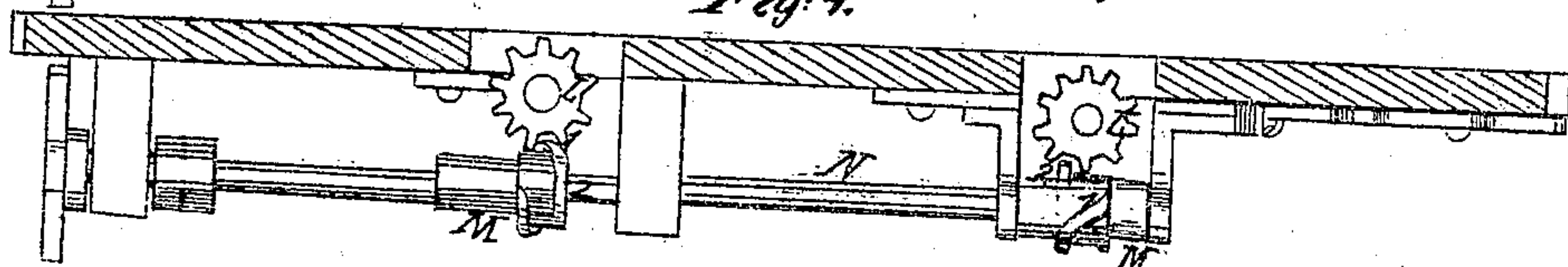


Fig. 4.



PATENTED

JAN 7 1868

Witnesses
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HORACE WOODMAN, OF SACO, MAINE.

Letters Patent No. 73,219, dated January 7, 1868.

IMPROVEMENT IN SHINGLE-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, H. WOODMAN, of Saco, in the county of York, and State of Maine, have invented a new and improved Shingle-Machine; and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements by which my invention may be distinguished from all others of a similar class, together with such parts as I claim, and desire to have secured to me by Letters Patent.

This invention relates to a new and improved machine for sawing and planing shingles; and it consists of a rotary feed-table, circular saw, and rotary planer, all arranged and combined to operate in the manner substantially as hereinafter set forth. In the accompanying sheet of drawings—

Figure 1 is a side view of my invention.

Figure 2, a plan or top view of the same.

Figure 3, an enlarged section of the feed-wheel taken in the line *xx*, fig. 1; and

Figure 4 is the same view as fig. 3, with the screw-wheel shaft in a different position.

Similar letters of reference indicate corresponding parts.

A represents a framing, which may be constructed in any proper manner to support the working parts. B is a horizontal shaft, placed on the upper part of the framing A, and having a circular saw, C, at one end of it. D is a horizontal shaft at one end of the framing, and having a toothed wheel, E, at one end of it, into which a pinion, F, gears, said pinion being at one end of a horizontal shaft, G, in the lower end of the framing. The shaft G is driven by a belt, H, from the saw-shaft B, said belt passing around a lever-pulley, I, on the shaft G, which is connected with the shaft by a clutch, *a*, the pulley I being moved so as to be engaged with or disconnected from the shaft by means of a lever, J, (see fig. 2.) The wheel E constitutes the feed-table, and it has a number of rectangular openings in it to receive the bolts from which the shingles are cut. Three of these openings are shown in fig. 1, but more or less may be used. At each end of each of these openings there is a grooved cylinder, K, having a pinion, L, at one end, into which screw-wheels M M on a shaft, N, gear, (see more particularly fig. 3,) and at one end of the shaft N there is a dog, O, composed of four radial arms *b*. One of the grooved cylinders K is fitted in an adjustable frame, P, which is moved or actuated by a lever, Q, the latter being held in position by a segment-rack, R, on the wheel. A spring, S, on this lever, bears against the frame P, as shown in fig. 1. This adjusting-movement of one of the grooved cylinders is necessary in order that bolts of different lengths may be secured between the grooved cylinders, and the spring S admits of one of the grooved cylinders yielding to compensate for any irregularity in the length of a bolt. The screw-wheels M M are each provided with two spiral flanges, *cc*, a portion of each flange having a spiral, 1, and a circumferential part, 2, as shown in fig. 4. On the upper part of the framing there is a projection, *d*, for the dog O to strike against as the wheel or feed-table E rotates, said projection extending over the upper part of the feed-table. On the upper part of the framing A there is secured a metallic adjustable frame, T, having a shaft, U, secured in it. To one end of this shaft there is secured a rotary planer, V, which may be constructed in any proper manner. A cutter or chisel, *e*, at each end of an arm, W, will answer the purpose.

When the machine is in operation, the wheel or table E rotates in the direction indicated by the arrow 1, and the saw C cuts a shingle from each bolt, and the planer V smooths the surface of each bolt as they pass from the saw, one side of each shingle being planed, which of course is all that is necessary. The bevel or taper is given the shingles by the feed-mechanism, which presents the bolts to the saw, each bolt being fed inward in consequence of an arm, *b*, of the dog O, coming in contact with the projection *d*, the shaft N being turned thereby a quarter of a revolution. Both ends of the bolts are not moved the same distance at each feed-movement, the ends being moved alternately, one more than the other, in order that the shingles may be cut in taper form. This is effected by having the spiral and circumferential parts 1-2, of the flanges C, of the screw-wheel M M, arranged in such relation with each other as to cause the difference of movement specified, the ends of the bolts being moved alternately inward towards the cutting-plane of the saw, and the shingles consequently sawed in proper taper form. I design to have the shingles, as they are cut, fall upon an elevator-apron, X, which conveys them up to an edging-saw, Y, at one side of the framing.

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

1. The revolving table, with its feeding and securing-mechanism, constructed substantially as described, in combination with the rotary planer V and saw C, as and for the purpose specified.

2. The combination and arrangement of the outer grooved cylinders K, adjustable frame P, lever Q, segment-rack R, and spring S, substantially as described, for the purpose specified.

HORACE WOODMAN.

Witnesses:

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