A. I. HOGAN.

Machine for Cutting Shingles.

No. 200,912. Patented March 5, 1878.

Fig. 1

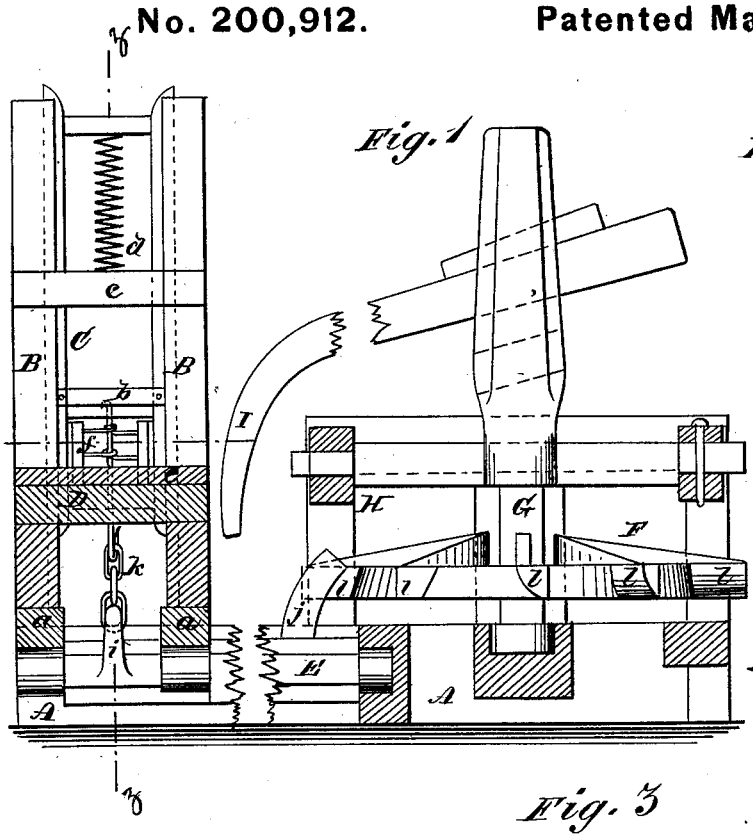

Fig. 2

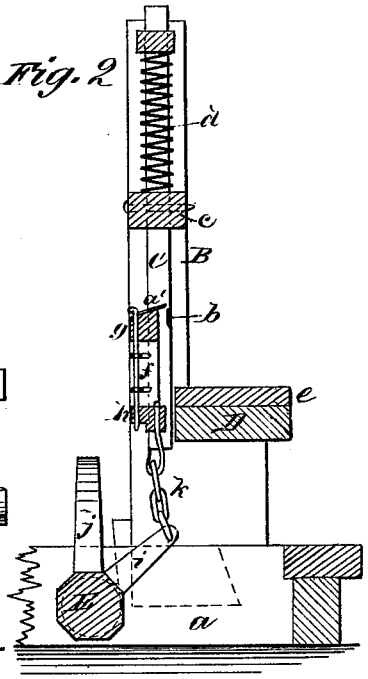

Fig. 3

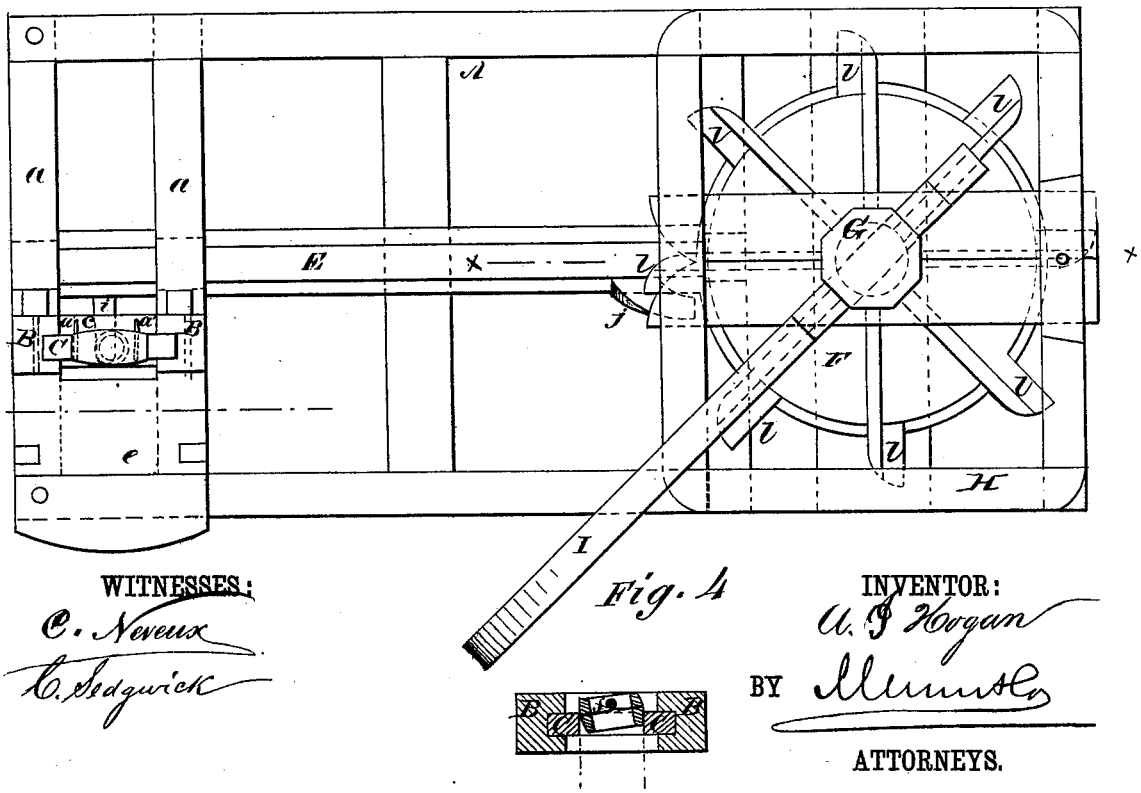

Fig. 4

WITNESSES:

C. Neveux

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ANDREW I. HOGAN, OF MASON, ILLINOIS.

IMPROVEMENT IN MACHINES FOR CUTTING SHINGLES.

Specification forming part of Letters Patent No. **200,912**, dated March 5, 1878; application filed December 17, 1877.

To all whom it may concern:

Be it known that I, ANDREW I. HOGAN, of Mason, in the county of Effingham and State of Illinois, have invented a new Improvement in Machines for Cutting Shingles, of which the following is a specification:

Figure 1 is an elevation of my improved shingle-machine, taken in section on line *x x* in Fig. 3. Fig. 2 is a vertical section taken on line *z z* in Fig. 1. Fig. 3 is a plan view. Fig. 4 is a horizontal section.

Similar letters of reference indicate corresponding parts.

My invention consists in a sliding gate carrying a knife, and in a rocking shaft connected with the gate and operated by cams or tappets on the periphery of a horizontal wheel, which is rotated by animal power.

Referring to the drawing, A is the bed-frame of the machine, which supports all of the working parts. B B are grooved vertical posts, that project from cross-timbers *a*, for receiving the sliding gate or frame C, which carries the shingle-cutting knife *b*. The vertical posts are connected by a cross-piece, *c*, that forms a support for the spring *d*, the upper end of which presses against the upper cross-bar of the gate C. In front of the vertical posts B there is a table, D, which is provided with a top or covering, *e*, of iron, along the edge of which the knife *b* moves as the shingles are cut. Below the knife *b* a frame, *f*, is pivoted between the cross-bars *g h* of the frame C, so that it will swing in a horizontal plane within certain limits. This frame serves as a gage for guiding the block from which the shingles are cut. Spring-dogs *a'* are attached to the inclined surface of the cross-bar *g*, and project upward diagonally toward the back of the knife *b*, for engaging the shingles as they are cut from the bolt, so as to prevent them from falling between the gate and table.

A rock-shaft, E, is journaled in the bed-frame A, and is provided with two arms, *i j*. The arm *i* is connected, by means of a chain, *k*, with the gate C. The arm *j* is curved, and is engaged by tappets or cams *l*, that project from the periphery of the wheel F. The wheel F is mounted on the vertical shaft G, which is journaled in the frame H, built upon the bed-frame A. The upper end of the shaft G is mortised to receive the sweep I, which is secured in the mortise by a wedge or key. The frame H is removed from the vertical posts B B a sufficient distance to permit horses hitched to the sweep to pass.

The operation of the machine is as follows: A bolt of wood, prepared in the usual way for cutting, is placed upon the table D, and, as the wheel F is rotated by horses hitched to the sweep I, the shaft E is oscillated, and the gate C is drawn down, causing the knife *b* to make a cut through the block and remove a shingle. When the arm *j* escapes the cam by which it is moved the spring *d* raises the gate C, when the block on the table may be moved forward, and at the same time turned slightly on the bed, so that the butt or thicker end of the shingle may be cut from the end of the bolt from which, in the previous cut, the thinner end of the shingle was taken. The bolt is moved forward after each cut against the pivoted frame or gage F, by which the thickness of the shingle is regulated. The shingle-bolt is moved so as to cause the frame *f* to strike first upon one side and then upon the other, thus cutting the butt of the shingle from opposite ends of the block in alternation.

My improved machine may be employed for cutting barrel staves and heads, and for cutting veneer and other thin stuff.

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

The knife-carrying gate C, the rock-shaft E, having arms *i j*, and the cam-wheel F, in combination, substantially as herein shown and described.

ANDREW ISUM HOGAN.

Witnesses:

ERASTUS CLAYPOOL,

OLIVER BEURE.