(No Model.) 2 Sheets—Sheet 1.

D. ARKIN.

CIRCULAR SAWING MACHINE.

No. 371,914. Patented Oct. 25, 1887.

Fig. 1

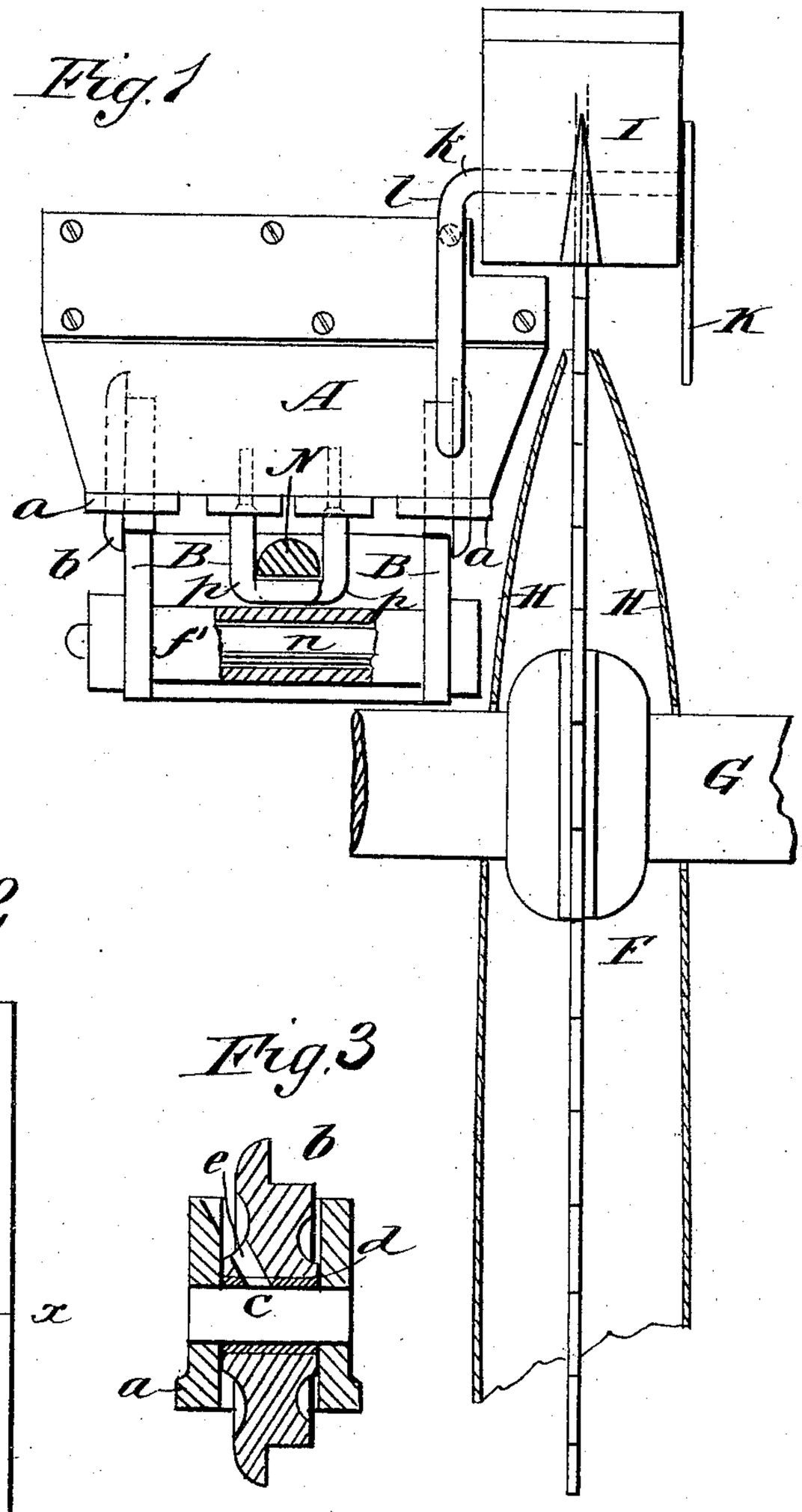

Fig. 2

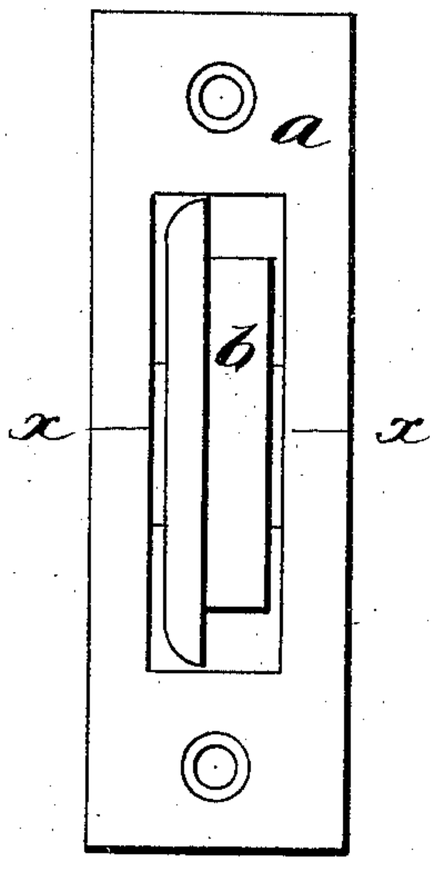

Fig. 3

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C. Sedgwick

INVENTOR:

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ATTORNEYS.

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Fig. 4

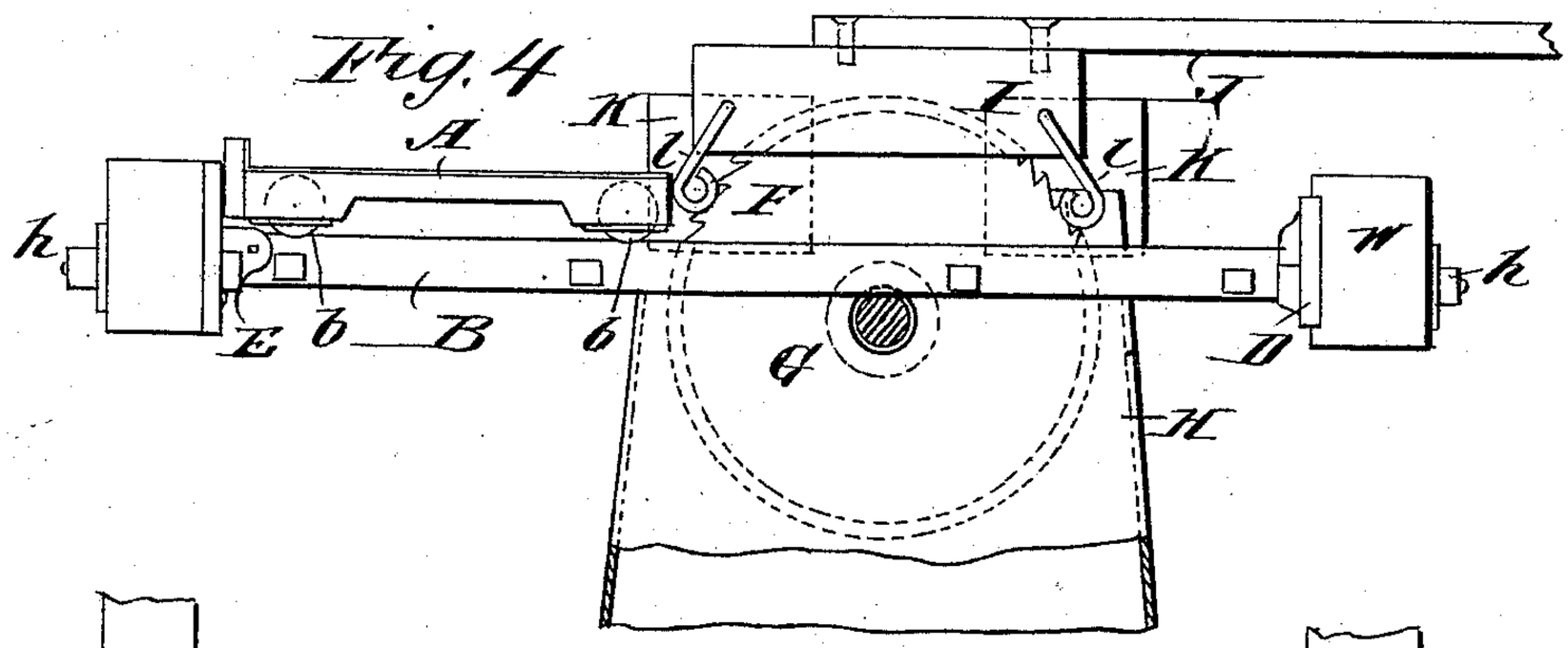


Fig. 5.

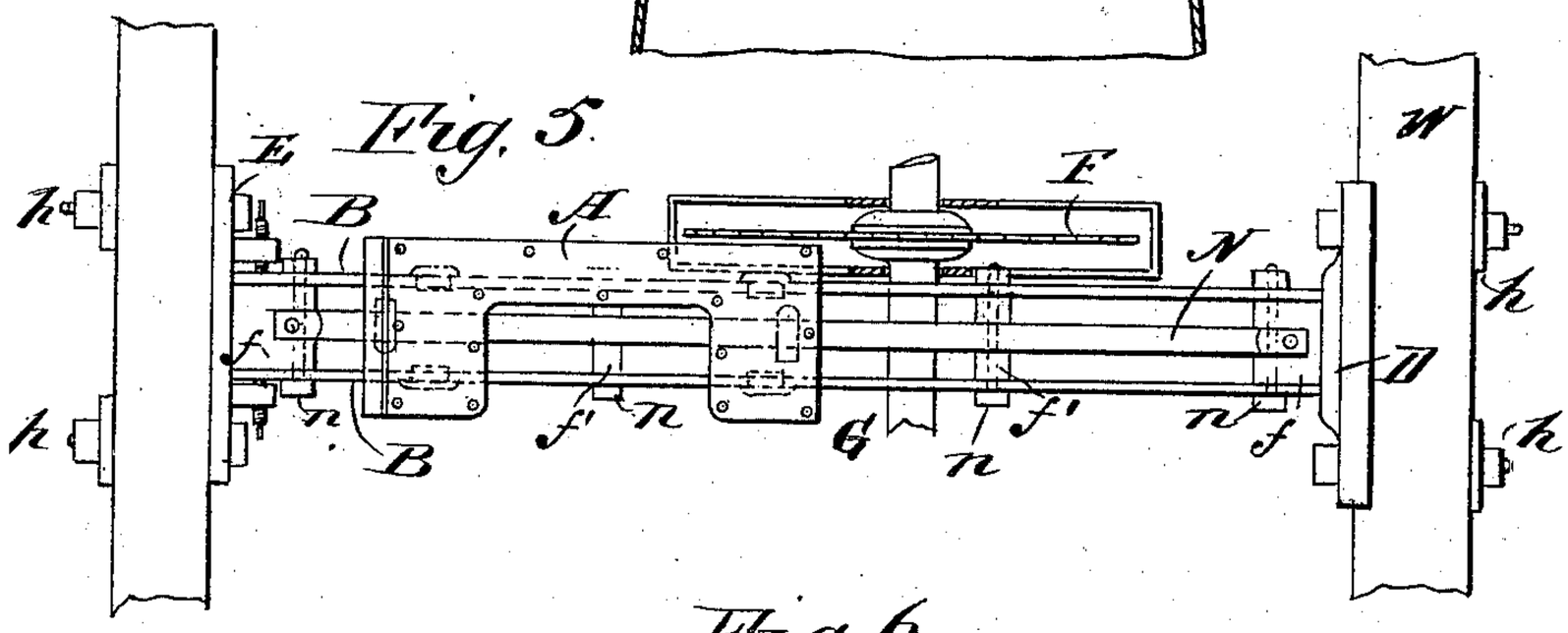


Fig. 6

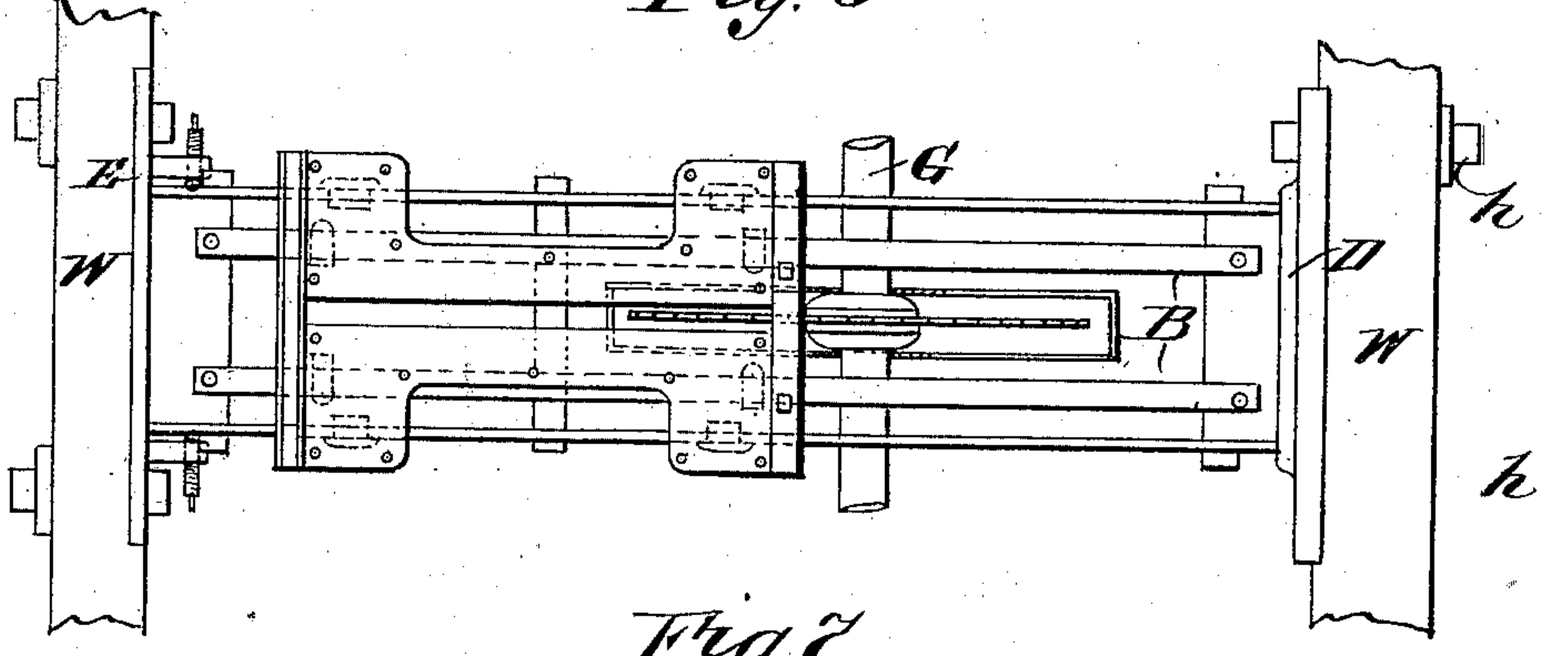


Fig. 7

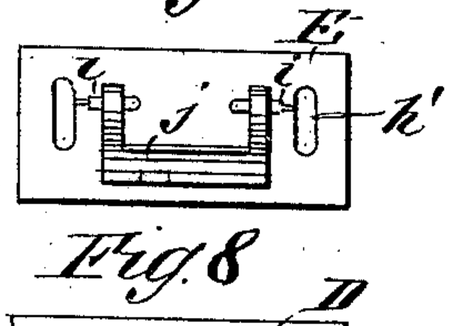
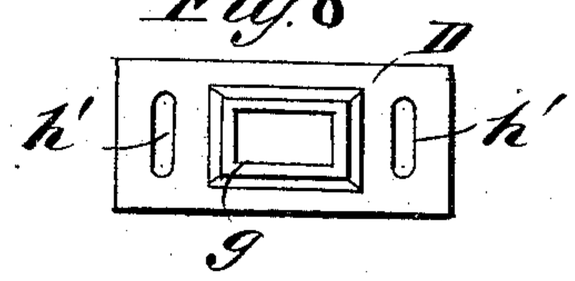


Fig. 8



WITNESSES:

F. McArdle.

C. Sedgwick

INVENTOR:

D. Arkin

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UNITED STATES PATENT OFFICE.

DAVID ARKIN, OF MANISTEE, MICHIGAN.

CIRCULAR SAWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 371,914, dated October 25, 1887.

Application filed March 18, 1886. Serial No. 195,768. (No model.)

To all whom it may concern:

Be it known that I, DAVID ARKIN, of Manistee, in the county of Manistee and State of Michigan, have invented a new and Improved Saw-Carriage and Safety Attachment for Shingle-Jointing Machines, of which the following is a full, clear, and exact description.

My invention relates to the construction and arrangement of the carriage of a shingle-jointing machine, and also to the arrangement of a novel system of safety attachments or guards, whereby the sawyer is protected against any possible injury to his person; and the invention consists of certain novel constructions and combinations of parts, to be hereinafter described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a view of one end of the saw-carriage, representing the same as arranged in connection with the saw, certain portions of the device being cut away and shown in section to disclose the construction of the parts. Fig. 2 is an enlarged detailed view representing the under face of one of the carriage-trucks. Fig. 3 is a sectional view taken on line *x x* of Fig. 2. Fig. 4 is a side view of the carriage and saw. Fig. 5 is a plan view of a side carriage with the saw-cover removed. Fig. 6 is a similar view of a split carriage. Fig. 7 is a view of the bracket employed to support one end of the track, said bracket being provided with adjusting-screws; and Fig. 8 is a view of the opposite supporting-bracket.

My improved form of carriage consists, essentially, of a carriage proper, preferably of the form shown in Fig. 5. This carriage is designated by the letter A, and is provided with four trucks, *a*, that are secured to the under side of the carriage, each truck carrying a single wheel, *b*, that is mounted upon a stationary pin or axle, *c*, the wheel being bushed with hard babbitt, as indicated at *d* in Fig. 3, each wheel being formed with a duct, *e*, through which any proper form of lubricant may be introduced.

The carriage A is mounted upon rails B, said rails being accurately spaced by end blocks, *f*, and center spacing tubes or blocks, *f'*, binding-bolts *n* being passed through the blocks or tubes named, as clearly shown in Fig. 1 of the drawings.

One end of the track is snugly fitted within a socket, *g*, (see Fig. 8,) formed in a bracket, D, that is rigidly fixed to the supporting framework W W by means of bolts *h h*, that are passed through elongated slots *h' h'*, formed in the bracket D, this construction providing for the vertical adjustment of the bracket. The opposite end of the track B is supported by a bracket, E, which bracket is provided with adjusting-screws *i i*, the rails resting upon the projection *j* and being laterally adjustable by means of the screws *i i*. The general arrangement of the bracket E is best shown in Fig. 7.

The saw F is mounted beneath the track B upon a mandrel or shaft, G, the lower portion of the upper half of the saw being protected by a screen, H, which extends upward almost to a level with the upper face of the carriage A, while the extreme upper edge of the saw is protected by a cap, I, that is secured to the under face of the shingle-table J, this cap being sufficiently elevated to permit of the passage of the carriage and the shingle or shingles which it carries when in operation.

From the construction described it will readily be seen that there would be an unprotected space between the top of the screen H and the cap I, and in order that this space may be closed, except at the time of the passage of the carriage, I mount a plate, K, upon a rock-shaft, *k*, and provide said rock-shaft with a downwardly-extending arm, *l*, against which the leading end of the carriage strikes, thus partially rotating the shaft *k* and throwing the plate K upward in the direction of the arrow shown in Fig. 4.

From the construction described it will be seen that the way or track upon which the carriage moves may be adjusted either vertically or horizontally, thus enabling the sawyer to properly line his carriage, in order that the head-block of the carriage may be brought into a line at right angles to the edge of the saw, thus insuring a proper jointing or trimming of the shingles.

In order that the carriage may be held to the track or way and properly guided thereon, I provide a guide-bar, N, the ends of said bar being fixed to the end blocks, *f*, and this bar

N is engaged by hooks *p*, that project downward from the carriage upon each side of the guide-bar N, the horizontal portions of the hooks projecting beneath the guide-bar, this construction being probably best shown in Figs. 1 and 5.

In operation the shingles are placed upon the carriage, with their butts resting squarely against the head-block S. The edges of the shingle project over the side of the carriage when the form of carriage illustrated in Figs. 1, 4, and 5 is employed. The carriage is then moved forward, and as it so moves the leading end of the carriage will strike against the arm *l*, thereby throwing the plate K upward and out of the path of travel of the carriage, so as to permit the carriage and its load to pass beneath the cap I to such a position that the shingles will be cut by the saw.

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

1. In a shingle-jointing machine, the combination, with a stationary frame, of an adjustably-mounted track or way, a carriage mounted on said way, a screen, H, a cap, I, and plates K, carried by shafts *k*, that are provided with downwardly-extending arms *l*, substantially as described.

2. In a shingle-jointing machine, the combination, with a stationary frame, of an adjustable track or way, a guiding-bar, N, carried thereby, a carriage mounted upon the way, and hooks *p*, projecting downward from the carriage and engaging with the guide-bar N, substantially as described.

3. In a shingle-jointing machine, the combination, with the stationary frame, the bracket D, having a socket, *g*, and slots *h'*, the bracket E, having the adjusting-screws *i i*, and projection *j*, of the track B, resting at one end in the socket *g* and at the other end on projection *j*, between the set-screws *i i*, the carriage A on the track, and the saw and its horizontal mandrel, substantially as set forth.

4. In a shingle sawing machine, the track B, formed on the rails, having spacing-blocks between them, and the intermediate guide-bar, N, secured to said spacing-blocks, in combination with the bracket E, having slots *h'*, a projection, *j*, supporting one end of the track, and screws *i i*, bearing against opposite sides of the track above said projection, the bracket D, having a socket, *g*, supporting the opposite end of the track, and slots *h'*, the carriage A, movable longitudinally along the track and having hooks *p* on its under side engaging the intermediate guide-bar, the horizontal mandrel, and the saw, substantially as set forth.

DAVID ARKIN.

Witnesses:
A. V. McALVAY,
J. P. WOOD.