

(No Model.)

H. O. STRAND.
SHINGLE CUTTER AND DRESSER.

No. 431,198.

Patented July 1, 1890.

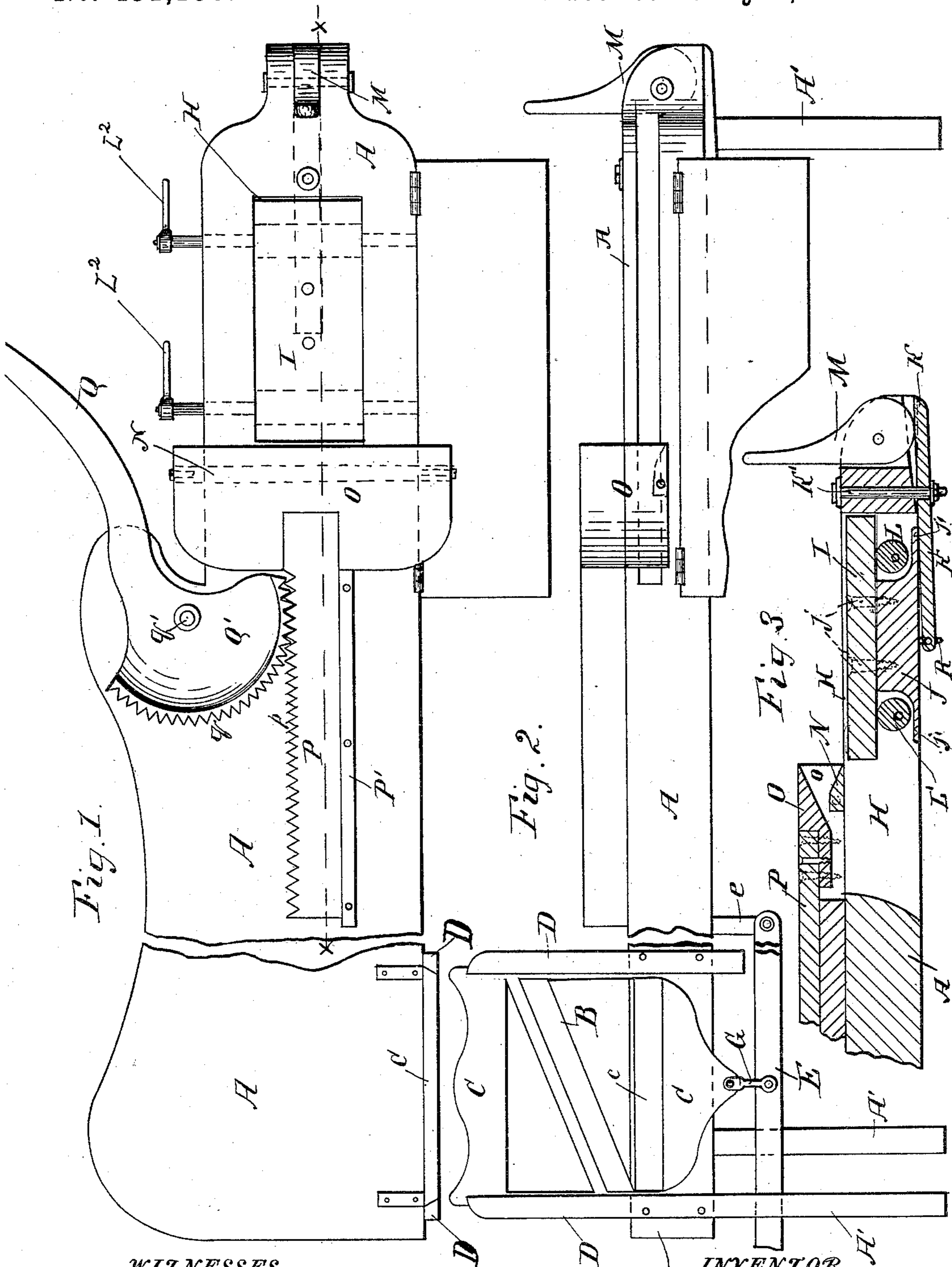


Fig. 1.

Fig. 2.

Fig. 3.

WITNESSES

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SHINGLE CUTTER AND DRESSER.

SPECIFICATION forming part of Letters Patent No. 431,198, dated July 1, 1890.

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To all whom it may concern:

Be it known that I, HANS O. STRAND, a citizen of the United States, residing at Montisano, in the county of Chehalis and State of Washington, have invented certain new and useful Improvements in Shingle Cutters and Dressers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention has relation to a machine for cutting and dressing shingles; and its object is to construct a machine of that character which shall be simple in its construction, economical in the cost of its production, and which will produce finished shingles in the shortest space of time and with the least expense of physical force.

To these various ends the invention consists in certain peculiarities in the construction, arrangement, and combination of the various parts forming my machine, substantially as will be hereinafter fully set forth, and specifically pointed out in the subjoined claims.

In the accompanying drawings, illustrating the invention, Figure 1 is a top plan of my improved shingle cutter and dresser, and shows particularly the means for dressing the shingle. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal sectional view, enlarged, on the line $x x$ of Fig. 1, and shows particularly the shingle-support and the means for adjusting the same with respect to the knife or dresser, and also shows the construction of such knife or dresser.

Like letters of reference designate the same parts in the several figures.

A designates the table of my improved machine, which table may be rectangular or of any other suitable shape, and is provided at its corners with the supporting-legs A' . Located near one end of this table A is the means for carrying the knife for cutting shingles, which means consists of a suitable frame, as C, having a transverse bracing-rod c , from which the cutting-knife B extends upward in a diago-

nal direction to the inner corner of said frame. This knife B may be secured within the frame C by any suitable means; but it obviously must be so secured therein as to be readily removed when it is desired to sharpen it or for any other purpose. This frame C travels vertically between grooved guides or ways D D, one of which guides or ways is preferably an upward extension of one of the supporting-legs A' , as shown in Fig. 2, while the other is simply a strip suitably secured to the side of the table a .

E designates a foot lever or treadle having its forward end fulcrumed on a projection e , depending from the side of the table A. This treadle E is connected with the bottom of the knife-carrying frame C by a rod G, which rod is capable of vibration longitudinally of the frame when the treadle is operated.

The above-described means is designed to edge the shingles, and its operation is so obvious as to render unnecessary any particular description thereof.

The rapidity and ease with which the knife B edges the shingle are greatly facilitated and friction thereof lessened by its being located diagonally within the frame C, as obviously one of its ends will enter the shingle in advance of the other, and the cut is thus made in a direction at an acute angle to the line of the grain instead of at a right angle thereto.

The table A is formed near its forward end with an opening H, within which is placed a block I, serving to support the shingle while the same is being dressed. Secured to the under side of this shingle-supporting block by the screws j , or formed integral therewith, is another block J, having flanges j' at its under side.

R designates a spring, which is made of a suitable metal, and to the lower portion of which is connected a lever K, the opposite end of which lever extends out to and beyond the front end of the table A. Passing through this lever K and through the table A adjacent to the opening H in said table is a pin or bolt K' , having enlarged extremities, as shown. This pin or bolt K' is designed to serve as a fulcrum for the lever K, as will be more fully understood from the description hereinafter.

Occupying a portion of the space between the flanges *j* and the block I, and on opposite sides of the block J, is a pair of eccentric rollers L L', having handles L² at their outer ends for convenience in operating them. These rollers serve when revolved to incline the shingle-support, which obviously brings the shingle into position to have its edge cut obliquely to form one end thinner than the other, as is usual.

M designates a lever, which is located at the front end of the table A and is formed with an eccentric head, which is designed to rest on the outer free end of the lever K. This lever M serves to elevate the shingle-support I J without inclining it.

N designates the knife or dresser, which is secured at the front end of a block O in any suitable manner, which block has a recess *o* in its forward end immediately above and to the rear of said knife; or, in other words, the knife is located at the lower end of said recess. Through this recess the shavings removed by the knife pass, thus preventing clogging of said knife thereby, as will be readily understood. Projecting rearwardly from this block O and traveling within horizontal grooved guides or ways P', secured on the table A, is a strip P, one side of which is formed with a series of teeth *p* for engagement with a corresponding series of teeth *q*, formed on a lever Q. This lever Q is pivoted at *q'* to the table A, and is formed with a semicircular head Q', on the periphery of which the teeth *q* above referred to are formed. It will now be seen that the knife can be moved forward and back to dress the shingle by means of this lever Q.

It will doubtless be found in the practical construction of my invention that many of the details of construction can be advantageously varied; and I therefore do not wish to be understood as limiting myself to the precise construction shown and set forth, but reserve the liberty of varying such details without departing from the spirit of the invention.

Having now described my invention, what I believe to be new and desire to secure by Letters Patent, and what I therefore claim, is—

1. In a shingle shaver or dresser, the combination, with the table thereof having an open-

ing and the dressing-knife, of a shingle support or block placed within said opening in the table, a lever connected with said support and having a projection at its forward end, and a cam-lever located at the front of the table and adapted to depress the free end of said lever, for the purpose set forth.

2. In a shingle shaver or dresser, a table having an opening, a shingle support or block located within said opening, a block secured to the under side of said shingle-support and having flanges at its lower extremity, and rollers located within the space between said flanges and the under side of the shingle-support, in combination with a lever connected with the under side of said flanged block and having its free end extending out to and beyond the front end of the table, and a cam-lever for engagement with said free end.

3. A table having an opening, a shingle shaver or support located within said opening, a block secured to the under side of said shingle-support, a lever connected to said block and extending out to and beyond the front end of the table, and a cam-lever fulcrumed at said front end of the table and adapted to depress the outer end of said lever, in combination with a dressing or shaving knife, a recessed block, within which said knife is secured, a serrated or toothed projection extending rearwardly from said block, guides or ways therefor, and a lever fulcrumed on said table and having an enlarged semicircular head, the periphery of which is formed with a series of teeth for engagement with those of said projection, all substantially as shown, and for the purposes set forth.

4. A table having an opening and a knife or dresser, in combination with a shingle-support located within said opening, a spring depending from said shingle-support, a lever having its central portion secured to said spring and having at one end a vertical projection formed with a bent-over end, a cam-lever located at the front of the table, and an eccentric roller, all substantially as and for the purposes specified.

In testimony whereof I affix my signature in presence of two witnesses.

HANS O. STRAND.

Witnesses:

M. Z. GOODELL,
GUST LARSON.