

F. SHENTON.

Slate-Dressing Machines.

No. 134,773.

Patented Jan. 14, 1873.

Fig 2.

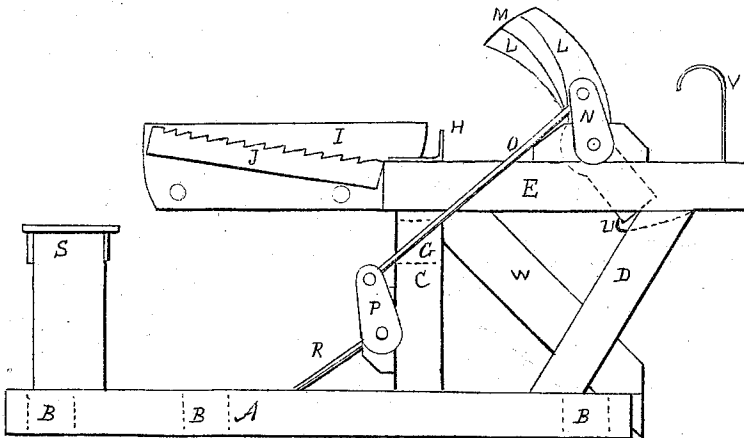
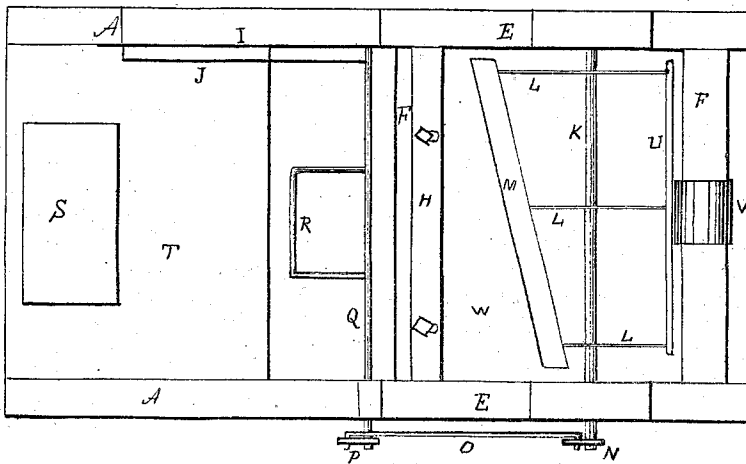


Fig 1.



Witnesses.
Wm. L. Larnan
J. S. Lyon

Francis Shenton
By his Atty. J. Dennis Jr.

UNITED STATES PATENT OFFICE.

FRANCIS SHENTON, OF SLATINGTON, PENNSYLVANIA, ASSIGNOR TO "THE LOCKE SLATE COMPANY," OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN SLATE-DRESSING MACHINES.

Specification forming part of Letters Patent No. 134,773, dated January 14, 1873.

To all whom it may concern:

Be it known that I, FRANCIS SHENTON, of Slatington, Lehigh county, in the State of Pennsylvania, have invented certain new and useful Improvements in Machines for Dressing Slates; and I hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawing forming part of this specification.

The nature or essence of my invention consists in the particular construction, combination, and arrangement of devices forming the improvements in slate-dressing machines described in the following specification and represented in the accompanying drawing, in which—

Figure 1 is a plan, and Fig. 2 an elevation of one side.

In the above-mentioned drawing, A A are the sills of the frame connected by the cross-sills B B, shown by dotted lines. Into the sills A I fasten the posts C and inclined posts D, which are connected at top by the rails E E fastened to them, and these rails are connected by the cross-bars F F fastened to them, and the posts C are connected by the girder G, the whole forming a strong frame to which the other parts of the machine are fastened or connected. The rest or stake H, across which the edges of the slates are cut or broken, is provided with slots so as to adjust it by the bolts which fasten it to the front bar F. The guide-plate I is fastened to an extension of the top rail E at a right angle to the stake H, so that when one edge of the slate has been straightened the operator can hold it against the guide I and cut the second edge at a right angle to the first, and so on with the third and fourth edges. The notched gage J is fastened to the side of the guide I to enable the operator to cut the slates to a given length and width. The rock-shaft K is fitted to proper journal-boxes on the rails E, and has

the arms L L fastened to it to carry the cutting or breaking knife M, arranged spirally, as shown in the drawing, so as to give a shearing cut down by the stake H, when the knife is worked by the arm N on the rock-shaft K, connected by the link O to the arm P on the rock-shaft Q, which is moved by the treadle R, to which the operator or workman applies his foot to work the machine while sitting on the seat S arranged on the platform T laid on the cross-sills B. The rock-shaft Q turns in journal-boxes on the posts C.

To balance the knife M and raise it after it is worked down, I fasten the heavy bar U to the opposite ends of the arms L, and make it heavy enough to lift the knife and treadle after they have been worked down by the foot of the workman. To prevent the heavy bar U from raising the knife and treadle too high, or the treadle from working the knife too low, I fasten the spring-stop V to the cross-bar F to limit the vibrations of the heavy bar, knife, and treadle. The chute or slide W is put under the knife and stake to convey away the pieces cut off and prevent them from accumulating and obstructing the treadle.

It is a great advantage to put the seat on the platform so that the weight of the workman holds the machine down.

What I claim as my invention is—

1. In combination with a knife balanced on a rock-shaft, as described, the spring-stop V to arrest and limit the motion of the knife and treadle.

2. In combination with the balanced knife, rock-shafts, and treadle, the platform fastened to the sills, and the seat upon it for the operator.

FRANCIS SHENTON.

Witnesses:

LEWIS H. ROTH,
Z. LOCKE.