W. F. Mosser.

Dressing Slate Frames.

No. 80,363. Patented July 28, 1868.

Fig: 1.

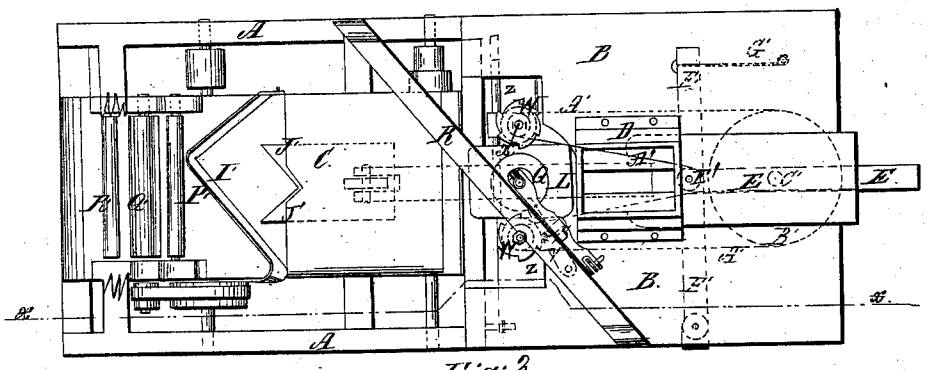
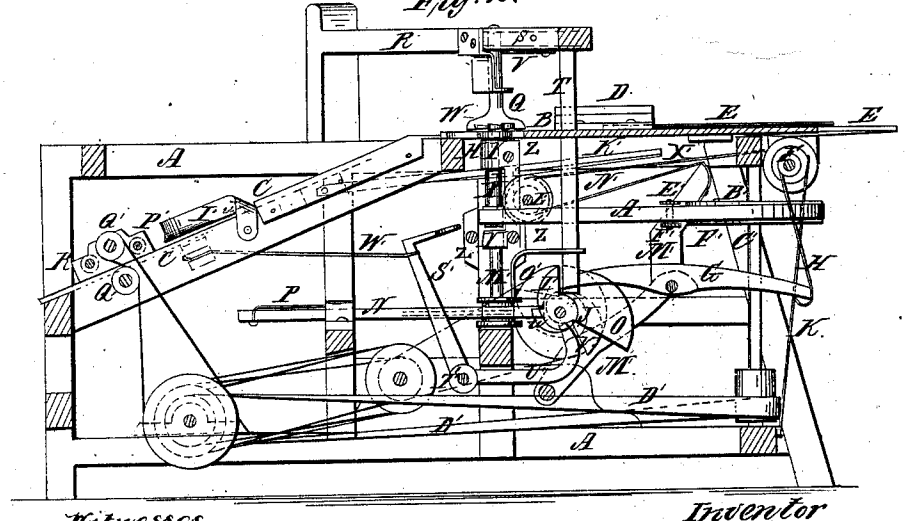


Fig: 2.



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WILLIAM F. MOSSER, OF ALLENTOWN, PENNSYLVANIA.

Letters Patent No. 80,363, *dated July* 28, 1868.

IMPROVEMENT IN MACHINES FOR DRESSING SLATE-FRAMES.

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, WILLIAM F. MOSSER, of Allentown, in the county of Lehigh, and State of Pennsylvania, have invented a new and improved Machine for Dressing Slate-Frames; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification.

Figure 1 is a top view of my improved machine.

Figure 2 is a detail sectional view of the same, taken through the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to so improve the construction of slate-frame machines that each slate may be automatically fed from a pile, have its corners rounded off and its edges dressed, and may then be fed cornerwise to the revolving planers by which both sides of the frame are dressed, so that the slates may come from the machine completely dressed.

And it consists in the construction and combination of various parts of the machine, as hereinafter more fully described.

A is the frame of the machine; B is the horizontal, and C is the inclined part of the table; D is a box or crib, which is made of such a size as to contain any desired number of slates, placed one upon the other. In the forward side of the box D, at its lower edge, is formed a horizontal slot, of such a size as to allow the lowest slate of the pile to be pushed through it by the pusher E, which passes in through a similar slot in the rear side of said box D. The pusher E is drawn forward and back by the revolution of the shaft F, which is connected with the said pusher by straps, as shown in the drawing, or by a rack-and-pinion wheel. The shaft F is revolved in the direction to move the pusher E forward by the action of the lever G, pivoted to the frame A, and the rear end of which is connected with the shaft F by the strap H, one end of said strap being attached to the end of the said lever, and its other end being wound around and attached to the said shaft. The forward end of the lever G rests upon and is operated by the cam I, attached to or formed upon the shaft J, which receives motion from the drive-shaft by a series of pulleys and belts, or of gearing, in the ordinary manner. The shaft F is revolved, in the direction to draw back the pusher E by the elastic strap K, or by a weight, as may be most convenient. L is a revolving table, which is made of exactly the shape, but a little larger than the slate-frames to be operated upon. The table L is attached to the upper end of the vertical shaft M, which revolves in bearings in the frame A, and to which motion may be given by the sliding bar N, connected with said shaft by a strap or straps, pushed forward by the cam O, attached to or formed upon the shaft J, and drawn back by the elastic strap P; or motion may be given to said shaft in any other convenient manner. When the slate has been pushed upon the revolving table L, it is clamped to said table by the presser or holder Q, the shank or stem of which passes up through a guide attached to the supporting-bar R, and its upper end is pivoted to the end of the lever S, which said lever is pivoted to the bar R, and to its other end is pivoted the upper end of the vertical bar T, the lower end of which rests upon and is operated by the cam or notched wheel U, attached to the shaft J, to press and hold the holder Q down upon the slate, while its edges and corners are being dressed. The holder Q is lifted away to allow the dressed slate to be pushed out by the advance of the next one, by the spring V, attached to the bar R, and the forward edge of which rests against the under side of the forward end of the pivoted lever S, the lower end of the vertical bar T, during this brief time, dropping into the notch of the wheel or cam U.

The corners of the slate-frame are rounded off, and its edges dressed by the two revolving cutters W, attached to the upper ends of the vertical shafts X, which revolve in bearings in vertical frames Y, which slide laterally upon the guide-rods Z. The cutter-shafts X are revolved by the strap A′, which passes around said shaft, around the wheel B′, attached to the vertical shaft C′, which is driven from the driving-shaft by a belt D′, or by other convenient means, and around the pulley E′, which is pivoted to the bar F′, one end of which is pivoted to the frame A, and the other is held back against the draught of the belt A′, by the elastic strap G′,

so that the said belt A′ may be kept taut as the frames Y move back and forth upon the guide-rods Z. This arrangement of the belt A′ also holds the frames Y close up against the revolving table L. Upon the upper ends of the frames Y are pivoted wheels H′, through the centre of the axles of which pass the cutter-shafts X, and the faces of which rest against the edges of the revolving table L, so as to hold the cutters W at such a distance from the table L that they may cut the edges of the slate-frames only to the required depth.

As the slate is pushed off the table L, by the advance of another slate, the first one slides down the inclined part C of the table, and striking against the angular guide-stop I′, it is brought into an angular position, its forward corner resting in the angle of the stop I′, and its rearward corner resting in the angle of the pusher J′. The pusher J′ is moved forward at the proper time by the bar K′, the forward end of which is pivoted to the said pusher J′, and which is operated by the shaft L′, with which it is connected by straps, or by a rack-and-pinion wheel, as may be desired. The shaft L′ receives motion from the lever M′, with which it is connected by the strap N′, one end of which is attached to and wound around said shaft, and the other end of which is connected with the end of the said lever.

The lower end of the lever M′ is pivoted to the frame A, in such a position that the cam O′, attached to the shaft J, may strike against and operate the said lever, and through it the pusher J′. As the pusher J′ pushes the slate forward, the stop I′ rises, and the slate advancing cornerwise is caught by the feed-roller P′ and carried between the planer-heads or cutters Q′, by the action of which the sides of the slate-frame are dressed, the slate passing between the cutters cornerwise, and being held steady by the roller R′ until it has been wholly dressed.

The slate then passes from the machine fully dressed. The pusher J′ is drawn back, as soon as its work is done, by the elastic strap X′, one end of which is attached to the shaft L′, and its other end to the frame A.

When the edge of the slate-frame has been dressed, and the slate is about to be pushed out by the advance of another one, the cutters W are moved and held back from the table L by the action of two bent arms S′, the upper projecting ends of which are inclined, so that as the arms S′ are moved forward they push the frames Y farther apart, so that the slates may be shifted without being touched by the cutters. The lower ends of the arms S′ are attached to the shaft T′, to which is also attached an arm U′, the end of which rests upon the cam V′, by the action of which the arms S′ are moved forward at the proper time. The arms S′ are moved back as soon as released from the cam V′, by the elastic strap W′, one end of which is attached to said shaft and the other end of which is attached to the frame A.

I claim as new, and desire to secure by Letters Patent—

1. The sliding frames Y, which carry the cutter-shafts M and cutters W, in combination with the revolving table L, when constructed and operating substantially as herein shown and described, and for the purpose set forth.

2. The arms S′, operated by the cam U′, through the arm V′, to spread the cutter-frames Y, as herein described, for the purpose specified.

3. Holding the cutters up to their work by means of the bar F′, acting upon the strap A′ that drives them, arranged substantially as herein described and shown.

4. The presser or holder Q, constructed and operating substantially as herein shown and described, in combination with the revolving table L, as and for the purpose set forth.

5. The angular pivoted stop I′, in combination with the angular pusher J′, substantially as described, for the purpose specified.

6. The pushers E and J′, operated as described, adapted to move the slates to the cutters W and Q′ respectively, substantially as herein shown and described.

The above specification of my invention signed by me, this 27th day of April, 1868.

WM. F. MOSSER.

Witnesses:

WM. F. MCNAMARA,

JAMES T. GRAHAM.