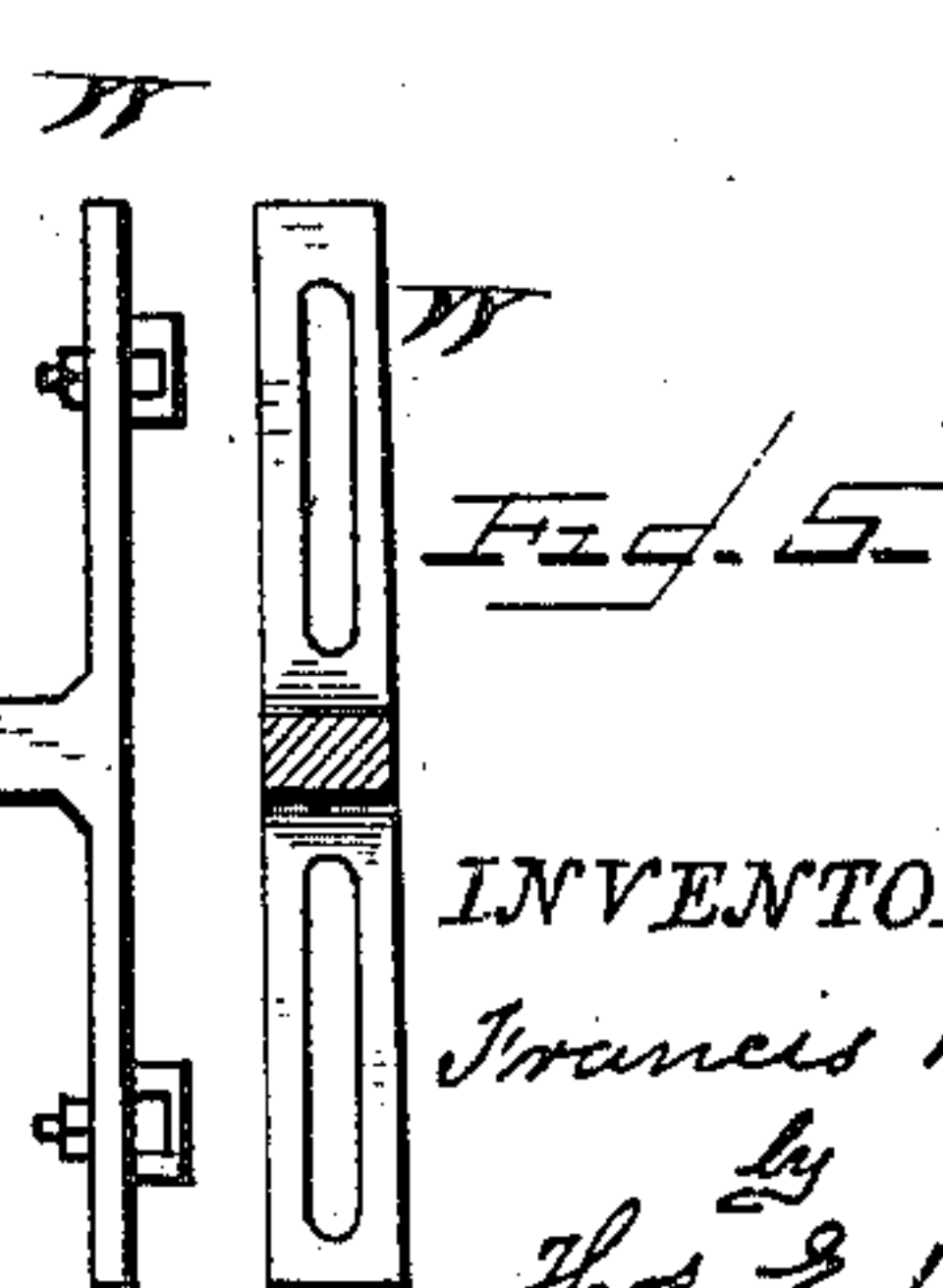
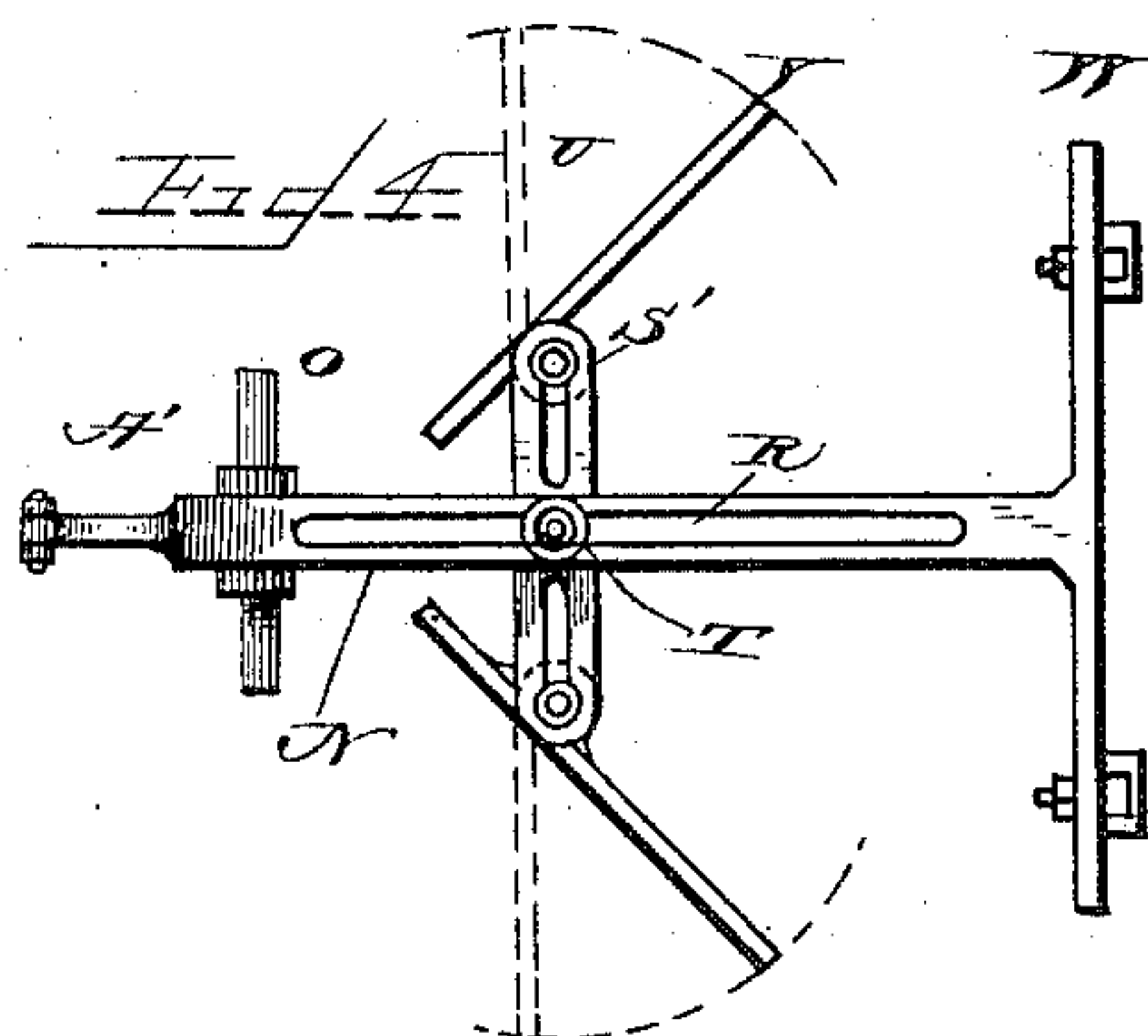
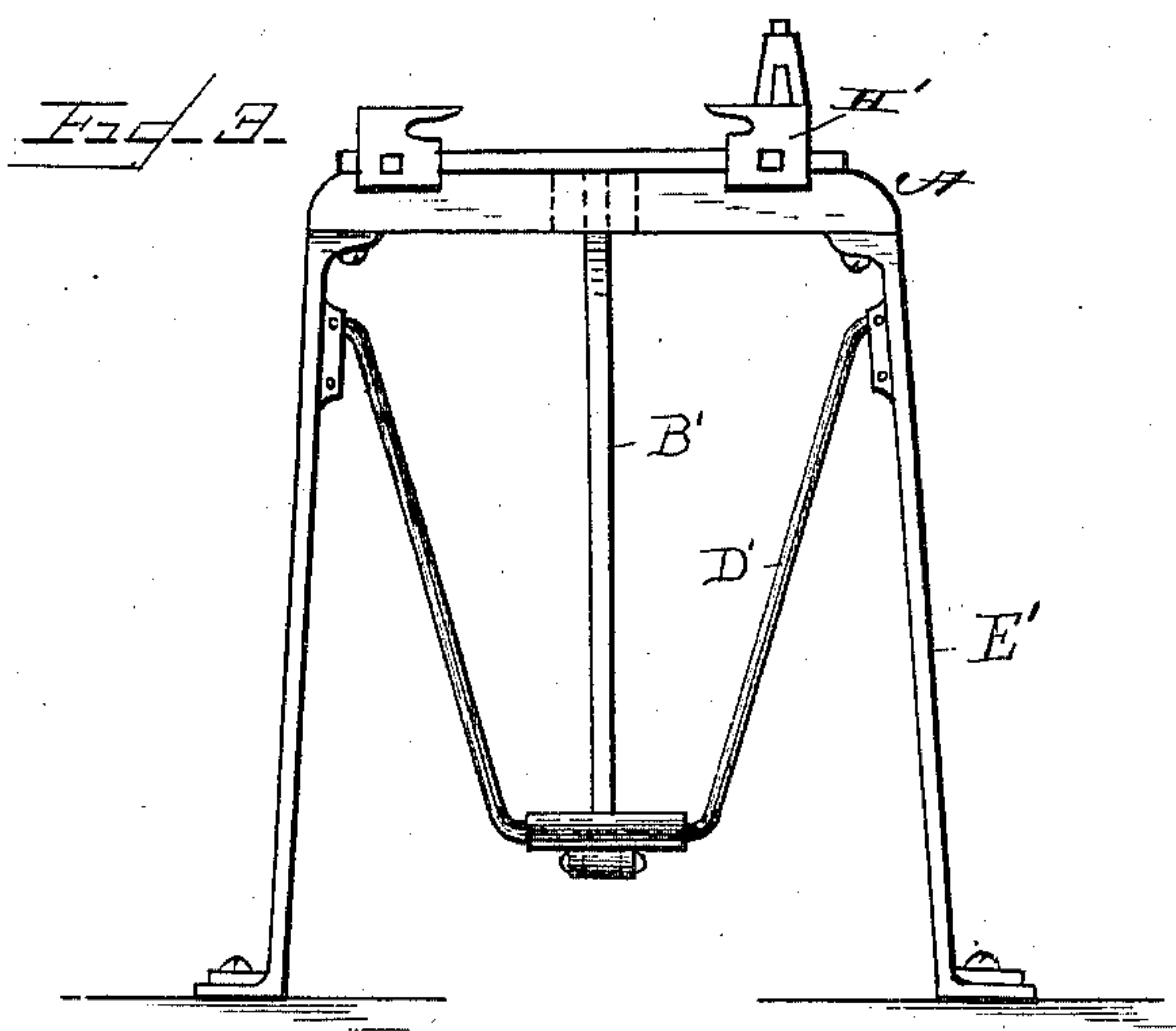
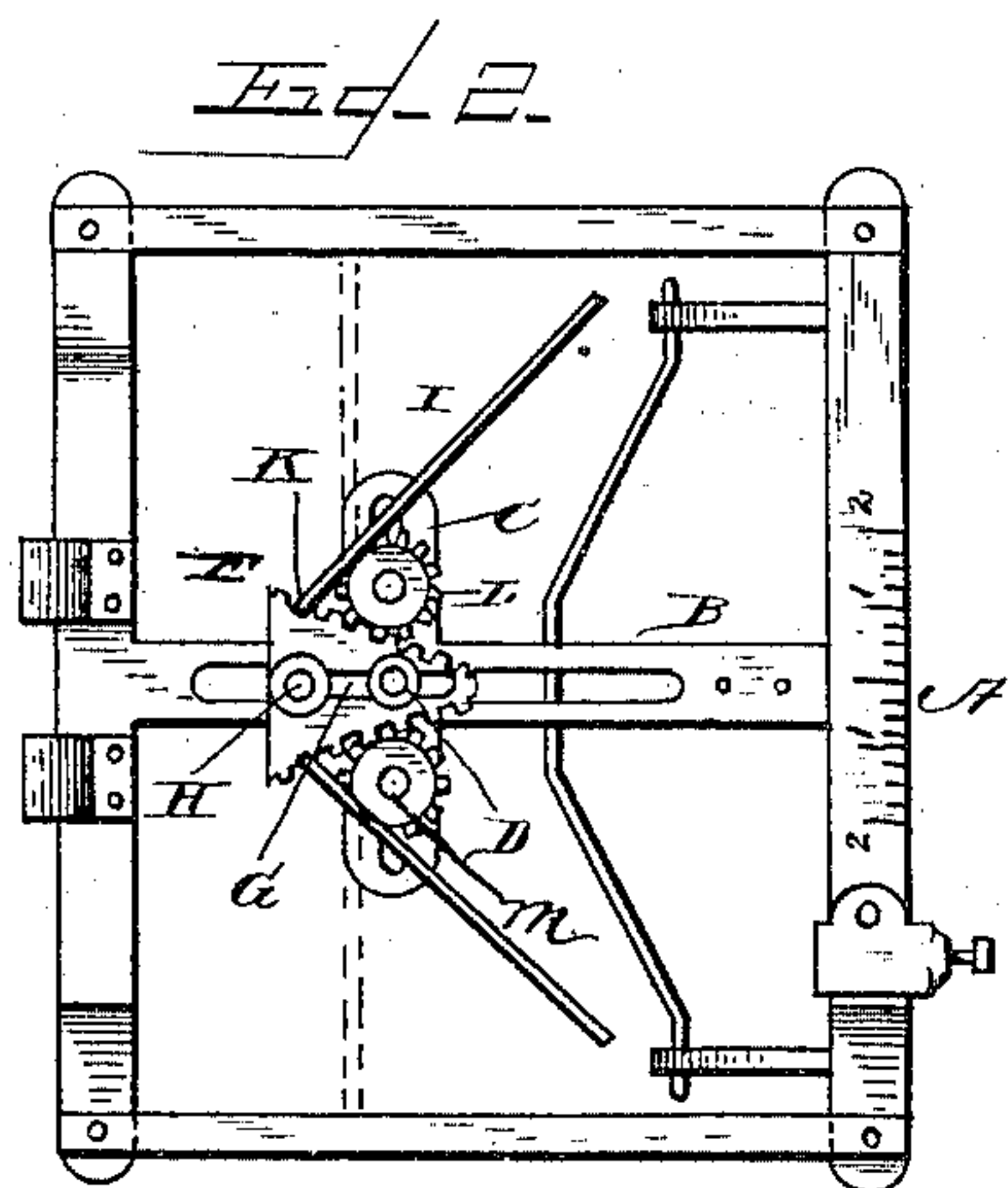
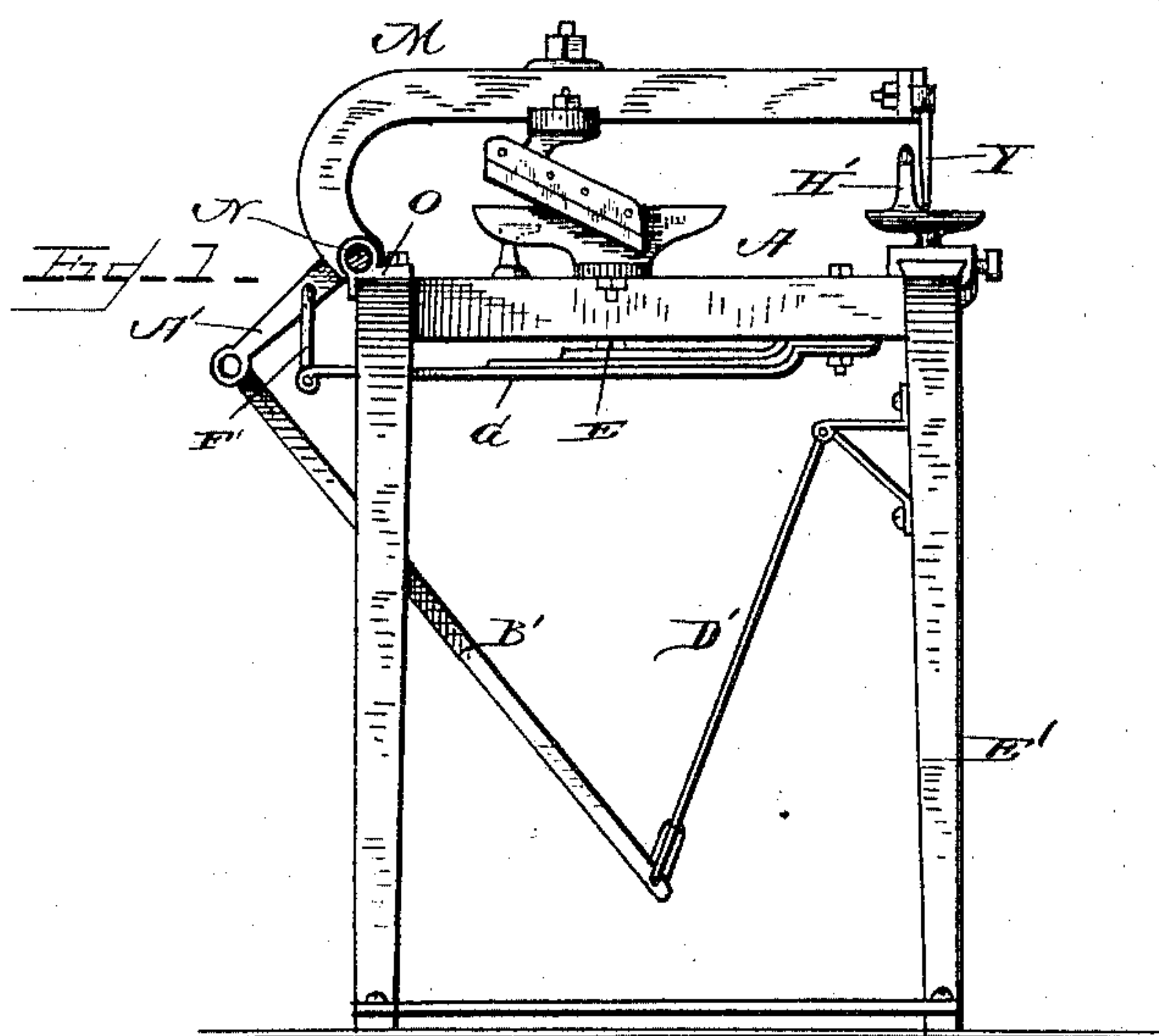


(No Model.)

F. R. MARKS.  
SLATE DRESSING MACHINE.

No. 302,751.

Patented July 29, 1884.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

FRANCIS R. MARKS, OF ASHLAND, OHIO.

## SLATE-DRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 302,751, dated July 29, 1884.

Application filed June 7, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, FRANCIS R. MARKS, a citizen of the United States, residing at Ashland, in the county of Ashland and State of Ohio, have invented certain new and useful Improvements in Slate-Dressing Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain improvements in slate-dressing machines; and it has for its objects to provide a machine to be operated by foot or other power, and having adjustable cutters and rests so arranged that they  
15 may be set relatively to each other, so as to dress the edges of slates of any width to any desired shape or angle and pierce the same for the nails, as more fully hereinafter specified. These objects I attain by the means illustrated  
20 in the accompanying drawings, in which—

Figure 1 represents a side elevation of my improved machine, showing the different parts thereof. Fig. 2 represents a top view of the bed-plate of the machine. Fig. 3 represents  
25 a front view of the machine; Fig. 4, a top view of the pivoted knife-bar of the machine, and Fig. 5 a front view of a T-head attached to or forming part of the forward end of the knife-bar.

30 In the drawings, the letter A indicates the bed-plate of the machine, which is cast in one piece, with a longitudinally-slotted central plate, B. Upon said plate B is supported an adjustable "stake-rest," C, which is held in  
35 position by a bolt, D, passing through the slot in the bed-plate and adjusted by means of a nut, E, below. To the top of the stake-rest, midway between its two ends, is secured an adjustable angular plate, F, which is slotted  
40 longitudinally, as indicated by the letter G, and adjustably confined to the stake-rest and bed-plate by means of the bolt D, before mentioned, and an auxiliary bolt and nut, H.

The letter I indicates the "stakes." These  
45 are pivoted to the plate F at K. The said stakes have brackets and pivoted cog-wheels L, the said wheels being pivoted to the brackets by means of the bolts m, which pass through the slot in the stake-rest, and are provided  
50 with nuts on their lower ends, by which the

parts may be clamped when properly adjusted. The plate F at its converging sides is provided with gear-teeth, which intermesh with the cog-wheels L, for the purpose hereinafter specified.

55 The letter M indicates an arm bent at its rear end and pivoted on a shaft, N, mounted in bearings O at the rear of the bed-plate. The said arm is slotted longitudinally, as indicated by the letter R, and has adjustably  
60 secured to it a longitudinally-slotted knife or cutter-carrying bar or plate, S, by means of a bolt, T, and suitable nut. The said bar or plate has adjustably secured to it, by means of screw-bolts U, the shears or cutters V, which,  
65 it will be perceived, may be adjusted laterally and angularly, while the bar or plate itself may be adjusted longitudinally upon the pivoted arm. The forward end of said arm is provided with a T-head, W, which is slotted,  
70 as shown in Fig. 5, and which may carry adjustable cutters or punches Y, as may be desired. At the rear of the pivoted arm is an extension, A', which connects by means of a  
75 rod, B', with a swinging treadle, D', attached to the legs or supports E' of the machine. The said extension is also connected by means of link F to a spring, G, secured to the under side of the machine.

80 The letter H' indicates two adjustable slate-holders, arranged to slide at the front of the bed-plate on the graduated beam H<sup>2</sup>.

The operation of my machine will be readily understood in connection with the above description, and is as follows: The slate to be  
85 cut is in the machine upon the rests and in the holders H', which are adjusted according to the width and angle to be dressed. The adjustment as to the width of the slate is made by loosening the bolts of the pivoted stakes  
90 and moving them laterally in the slot in the rest, and the angle of the edges to be dressed is made uniform at each side by means of the angular cog-plate and intergearing cog-wheels. The edges are cut and dressed by the adjust-  
95 able knives on the knife-bar and head, the knife-bar being operated by the treadle in one direction and by the spring in the opposite direction, while the holes are pierced by the punches above mentioned. The front beam  
100



of the bed-plate A is provided with graduations running each way from the center, whereby the slate may be regulated.

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

1. The combination, in a slate-dressing machine, of the slotted bed-plate, the slotted stake-rest, the angular slotted plate having cogs at its sides, the intergearing cog-wheels, and the clamping and adjusting-bolts, whereby the stakes are adjusted laterally and angularly, substantially as specified.

2. The combination, in a slate-dressing machine, of the slotted bed-plate, the slotted stake-rest, the angular slotted plate having cogs at its sides, the intergearing cog-wheels, and their clamping and adjusting bolts, and

the slotted arm and adjustable cutters or shears, and mechanism for operating the same, substantially as specified.

3. The combination, in a slate-dressing machine, of the slotted bed-plate, the slotted stake-rest, the angular slotted plate having cogs at its sides, the intergearing cog-wheels and their clamping and adjusting bolts, and the cutter-carrying plate and T-head, slotted longitudinally for the reception of adjustable cutters, substantially as specified.

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

FRANCIS R. MARKS.

Witnesses:

B. S. GROSSCUP,  
H. A. MYKRANTZ.