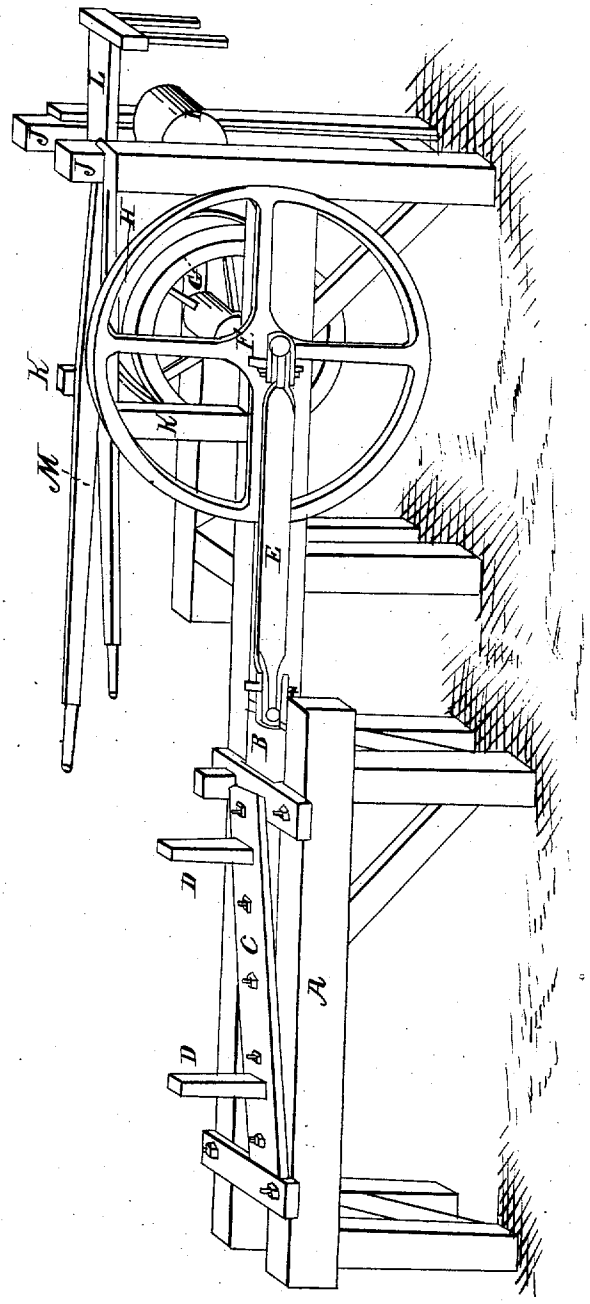
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D. Hubbard,

Making Laths.

Patented July 18, 1834.



A.M. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

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July 18. 1834

Dana Hubbard. Wheeling Virginia

Letters Patent

The schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Dana Hubbard himself of his improvement in the machine for cutting Laths for Plastering &c.

To all whom these Presents shall come,

Be it known that I Dana Hubbard of the Town of Wheeling in the County of Ohio and State of Virginia have invented a new and useful improvement in the machine for cutting Laths for Plastering uses and that the following is a full and exact description of the construction & operation of the said machine as invented by me — The machine consists of a strong frame or bench made of timber 8 inches square and should be about 8 feet long. from 2 to 3 feet wide & of a convenient height say from 2 to 3 feet. with the proper cross braces and stays to stiffen it. The inner edges of the top rails of this frame are to be grooved so as to receive a plank about 3 inches thick & of the width of the frame between the grooves, and about a foot shorter than the groove i.e. 7 feet so as to admit of its sliding endwise. the distance of 8 or 10 inches. This plank is intended to bear the cutting knife as hereafter described. in its middle and at an angle of about 20 degrees with its edge. an oblique mortice or slot is to be cut through the plank of from 2 to 3 inches broad. and about 1 foot 8 inches long or the length of the knife. to one side of this groove. sustained by screws to the upper surface of the plank is the knife. the blade of which lays over the mortice. The knife may be made wholly or partly of steel. the preferable form proved about 6 to 6 inches broad. and 1 foot 8 inches long. straight edged the whole length of the groove and its edge standing obliquely upward. at a height above the surface of the plank equal to the thickness of the intended Lath. equidistant from the ends of the knife. and so as to contain the length of the Lath between them. two strong timbers are laid across the frame and bolted with screw bolts on the top rails intended for the purpose of holding down the sliding plank above mentioned and to govern bearings for the ends of smaller pieces

strong piece of timber placed obliquely and secured by bolts to the said cross pieces so that the face next to the knife coincides with the edge of the knife at the ends of its cutting motion. This oblique cross piece is intended to answer the purpose of a cutting block and receive the pressure and support the material from which the laths are to be cut during the operation – for the better accomplishing this purpose two perpendicular arms are mortised into the upper side and appear to steady the material when broad. the ends of these material being secured in the notches or grooves. one of which may be prolonged by an upright arm or guide corresponding to the width of the intended lath. made in the aforementioned cross pieces or bearings. This oblique piece is also shod with a bar of iron or steel of the thickness of the lath to be made. being secured to its lower side by screws and above the upper surface of which the edge of the knife passes at the end of the cutting motion. and that the laths may take a short distance past the edge of the former. the lower corner of the oblique timber is to be chamfered before attaching the bar thereto. by this means the knife passes between them and will make a cleaner cut. To one end of the sliding plank is attached a pitman to be connected with the crank of the moving power of the machinery which may be Horse Steam or water &c. In the machine which I have in use I have found it convenient to produce that by means of the bench which is erected to the height about 8 feet. and constructed on the plan as produced. and on the opposite side a strong frame like that of the bench. across this frame near its centre is fixed the shaft which bears the driving band pulley. and a loose or shifting pulley. in the middle and a balance wheel on the end next the bench to the head bank. of which latter the pitman is attached. Transverse the upright posts of the frame for the knife from the cutting bench. and have a band together with a cross piece in a similar gate or frame. that works in grooves on the inner sides of said posts. this gate being raised or lowered by a lever. the end of which comes to the front or leading part of the machine over which has its fulcrum on a cross piece or support fixed upon upright raised from the frame near the shaft. for further convenience the last mentioned cross piece has a long groove or slot. through which the end of the lever passes that has its fulcrum on the top of the gate. and the arm beyond the

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Gale being fastened so as to stick the band of the driving pulley. The operator by means of it can throw the machine in or out of gear — Operation. The material is first prepared by sawing it into planks of proper thickness and length, to make the intended Laths. All is then to be placed edgewise upon the sliding plank being supported against the front of the oblique lever or rolling block. The ends resting in the grooves of the cross pieces into which they pass freely — The machine is then set in motion when by the compound motion occasioned by the sliding of the plank and the oblique position of the knife. the lath is partly cut and partly riven from the bottom edge ~~of the~~ bottom edge of the material. between the knife and shoe and drops through the groove when soon as the knife draws back. the material falls into its place and the operation is repeated till the material is exhausted. the machine feeding itself as fast the piece is unlaid in.

Although I describe the machine as operating horizontally and have selected 20 degrees as the best obliquity for the knife I reserve the right of hanging them and of making it operate vertically, inclined or otherwise by making the necessary alteration. and effecting however the principles here claimed — . Now what I claim as new and as my own invention is the oblique position of the knife which together with the sliding of the plank to which it is attached and the stationary rolling block produces the compound motion. that partly cuts and partly rives the lath from the prepared material with little expense of power — Washington City Feby 16. 1834.

Witness Robt. Clarke
Sam Merchant

Drawing

Dana Hubbard

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