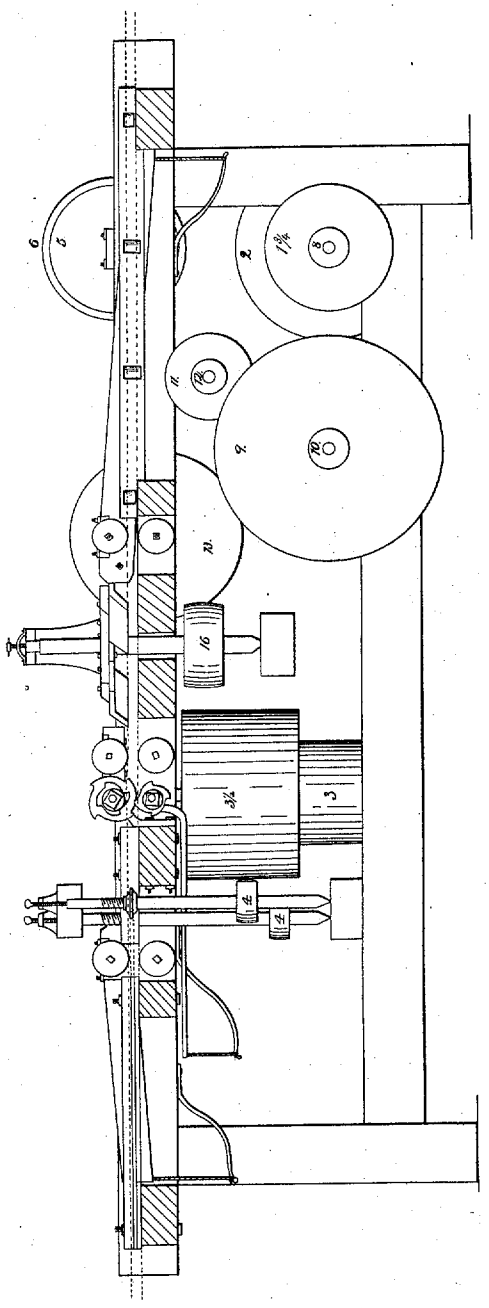
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P. M. Martz,

Planing and Matching Machine.

Patented June 25, 1836.



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

June 15 1846

P. M. Marks of the Borough of Indianapolis, Indiana.

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 P. M. Marks himself of his improvement in the machine for planing, Tonguing and Grooving Flooring Plank,

To all to whom these presents shall come,

Be it known that I P. M. Marks of the Borough of Indianapolis in the County of Marion and State of Indiana, have invented a new and useful Planing Mill for the purpose of Planing, Tonguing and Grooving Flooring Boards and that the following is a full and exact description thereof.

Frame 12 feet long, 3 feet 4 inches high, 6 feet 6 inches wide, all made of scantling 5 by eight inches framed with tenons and mortises and made fast by screw bolts or keys. The ground pulley or band wheel marked No. 1 on the profile, being 15 inches in diameter, and is made fast on the one end of an iron shaft 6 feet 6 inches long 1½ inches square and lays horizontal across the lower part of the frame near the one end.

The said pulley or band wheel being propelled by band from either steam, water, or horse power, Pulley or band wheel No. 2. being fast on same shaft and is 22 inches in diameter and by band gives motion to No. 3. Pulley or band wheel No. 8, being fast on same shaft, and is 6 inches in diameter and by band gives motion to No. 9. Pulley or band wheel immediately under No. 5 being fast on same shaft, and is eighteen inches in diameter and by band gives motion to No. 5. — Pulley or band wheel No. 5, being 15 inches in diameter and is made fast on an iron shaft which lays horizontal on the top of the frame, and is 2 feet long 1½ inches square and gives motion to No. 6. on same shaft, and is 20 inches in diameter and by band gives motion to 2 pulleys or band wheels marked No. 7. Pulley or band wheel No. 8. being 12 inches in diameter and is made fast on an iron shaft, 3 feet long 1½ inches square — which stands vertical on the outside of the frame near opposite

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to the centres and gives motion to No. 3 on same shaft and is 20 inches in diameter and by band ging motion to 2 pullays or band wheels No. 4 and 1 No. 16. Pullay or band wheel No. 4 being 5 inches in diameter are made fast on 2 iron shafts 2 feet 6 inches long 1½ inches in diameter and lay horizontal across the top of the frame immediately over each other. on which shafts knives or cutters are made fast, which taper the tongue and make straight the other edge of the board prepaired for the groove to be cut therein. These cutters are made fast by screws and top prepared to be set for wide and narrow boards. Pullays or band wheels No. 4 being 5 inches in diameter and made fast on 2 iron shafts 2 feet 6 inches long 1½ inches square and stand vertical at the edge of each board, on same shaft the cutters are made fast by screws and tops and makes the groove into the edge of each board. Pullay or band wheel No. 16. being 10 inches in diameter, and is made fast on a cast iron shaft 2 feet 8 inches long and 2 inches in diameter. and stands vertical within 18 inches of the one edge of the frame and opposite to the centre on which shaft there is a cast iron frame made fast which has 4 arms on which arms are made fast by screw bolts 4 knives or cutters 8 inches long and stand 2 inches down, the lower edge of the knives being laid with steel and made sharp to plane the boards, as they pass through between the edge of the cutters and the frame — The vertical shaft on which the knives or cutters are made fast stands with the lower end in a step on a bridge tree — That by keys the same may be raised or lowered according to the thickness of the boards, which the knives or cutters are to plane, — The upper end of said shaft is made fast by top and binder on an elliptic arch made of cast iron extending across over the frame each end made fast on each edge of the frame by screw bolts — Two boards pass on the top of the frame under the knives or cutters one on each side of the vertical shaft, — The knives or cutters marked No 16 plane the boards to a thickness as they pass — The cutters on the shaft on which the band wheel No. 7 and No 4 are made fast they make the tongue and groove and thin pass — The boards are put into motion by rollers made of wood and iron shafts

expanding through them on which shafts are made fast 3 band wheels No. 13 No. 14 and No. 15 — Pulley or band wheel No. 9, being 28 inches in diameter and is made fast on an iron shaft 4 feet 6 inches long and lays horizontal across the frame and gives motion to No. 10 on same shaft being 6 inches in diameter and by band gives motion to No. 11 Pulley or band wheel No. 11 being 10 inches in diameter and is made fast on an iron shaft 4 feet long 1½ inches square and lays horizontal across the frame and gives motion to 2 wheels No. 12 being 4 inches in diameter and by bands gives motion to 2 wheels No. 13. being 20 inches in diameter and gives motion to No. 14. being 20 inches in diameter and by band gives motion to No. 15 being 20 inches in diameter and made fast on the iron shafts expanding through the rollers made wood 4 inches in diameter iron prongs put therein and gives motion to 2 boards that the machine is then operating — The two boards enter at the one end of the machine on the top of the frame and hang to the other and where they will be discharged and the operation of the machine had upon them, they are both made smooth, made to a width and to a thickness and are in full readyness to be made down into a floor. The boards are kept to their place by slides and rollers therein &c — N.B. Band wheels marked No. 3½ and 16 see on the longitudinal section of the machine.

August 19th A.D. 1835

P. M. Marty. Esq.

Witness
Geo. L. Hunnard Esq.
H. Crawford Esq.

Ch. J. W.

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