

D. MILLIKEN.
Machines for Splitting Wood.

No. 143,455.

Patented Oct. 7, 1873.

Fig. 1.

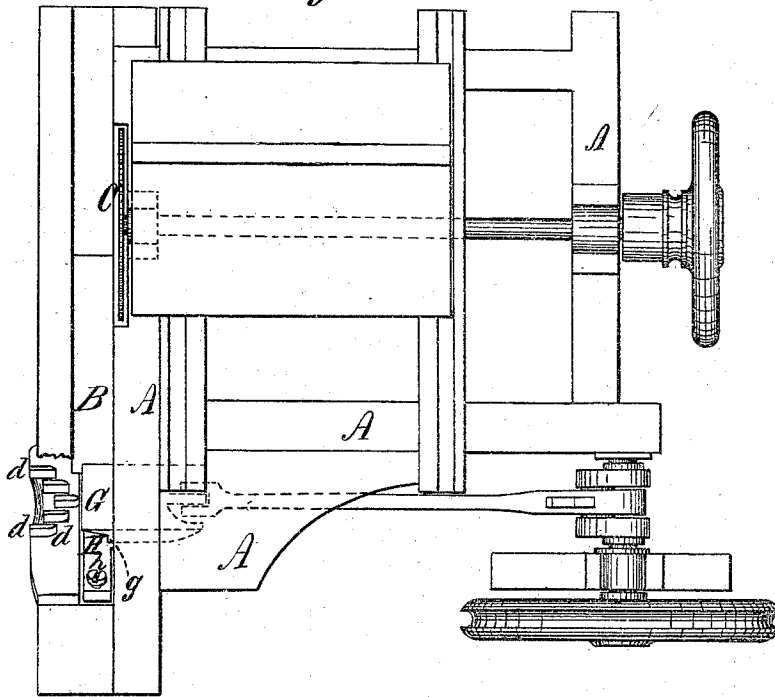


Fig. 2.

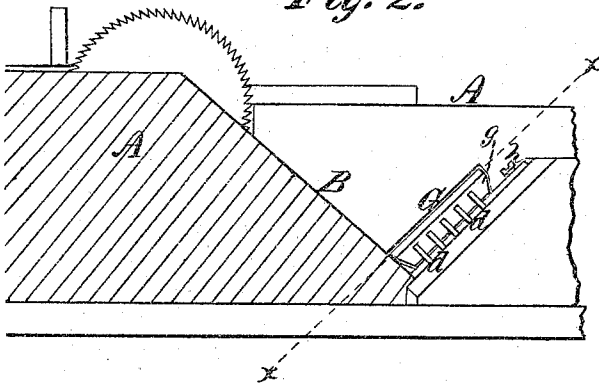


Fig. 3.

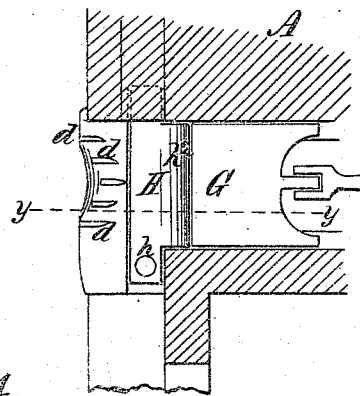
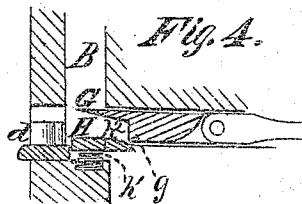


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

DAVID MILLIKEN, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR SPLITTING WOOD.

Specification forming part of Letters Patent No. **143,455**, dated October 7, 1873; application filed April 17, 1873.

To all whom it may concern:

Be it known that I, DAVID MILLIKEN, of the city, county, and State of New York, have invented certain Improvements in Machines for Splitting Wood, of which the following is a specification:

My invention relates to wood-sawing and splitting machines; and consists in the arrangement of an adjustable gage to determine the thickness of the splits.

In the accompanying drawings, Figure 1 is a plan of a machine embodying my improvements; Fig. 2, a detail side elevation with a portion of the frame in section to show the guiding-channel; Fig. 3, a section of the framework in plane of line *x x*, Fig. 2, showing a plan of the chopping mechanism; Fig. 4, a detail sectional view in plane of line *y y*, Fig. 3.

The devices for sawing and splitting the wood are preferably arranged in suitable framework A at right angles to each other, so as to allow the blocks or sections of wood cut off by the saw to be passed directly to the chopping mechanism through the intermediate guiding-chamber B, with their grain in the proper position to be acted upon by the cutter and stationary blades. The chopping mechanism is preferably situated on a lower plane than that of the saw C, so that the intermediate channel B may be inclined downward from the saw; and the stationary knives *d d d*, and cutter G, and hammer *g* are also preferably inclined at the corresponding opposite angle, as shown in Fig. 2, to receive the sections or blocks of wood in the most advantageous position to be acted upon; and since, in operation, each block, while being sawed off, may be allowed to push its predecessor forward, the operation of feeding the blocks to the chopping mechanism may thereby be rendered automatic. The cutter G and hammer *g* are preferably rigidly combined, and have a reciprocating movement imparted to them by means of a pitman and crank, or eccentric, or other similar device. Their extent of movement is so regulated that the edge of the cutter will be withdrawn from the guide-channel during the receding movement to al-

low the block to be split to be fed into position, when, by the advancing movement, the cutter G severs a slice from the block, and the hammer *g* forces the said slice against the series of stationary knives *d d d*, situated immediately in front of, and with their cutting-edges at right angles to that of, the cutter G, by which means the slice is split and subdivided transversely. The thickness of the slice severed from the block by the cutter G is regulated by the gage H, arranged at the end of the guiding-channel B, the extent of the projection of its upper surface, against which the wood to be acted upon rests, being regulated with relation to the edge of the cutter G by means of one or more screws, *h*. One or more springs, *h'*, are situated underneath the gage H, and tend constantly to force it upward, and also allow it to be depressed sufficiently by the wood, or by the edge of the hammer *g* acting against its inclined surface *h'*, to compensate for the thickness of the cutter.

The stationary knives *d d d* are, preferably, arranged with the central one slightly in advance of those next adjoining on either side, and these, in turn, are slightly in advance of the others, &c., as shown, for the purpose of giving clearance to the wood as it is split.

The knives *d d d*, and reciprocating hammer *g*, and cutter G, may be arranged either vertically or horizontally, or at any intermediate angle, as required for convenience, or according to the work to be performed.

I intend, in some cases, to impart to the cutter and hammer a rotary motion, in which case the hammer will be provided with openings or slots corresponding to, and to allow it to pass over and between, the stationary blades.

What I claim, and desire to secure, is—

The adjustable gage H, arranged in relation to the cutter and stationary knives substantially as described, and for the purpose set forth.

DAVID MILLIKEN.

Witnesses:

GEO. W. MIATT,
D. W. MILLIKEN.