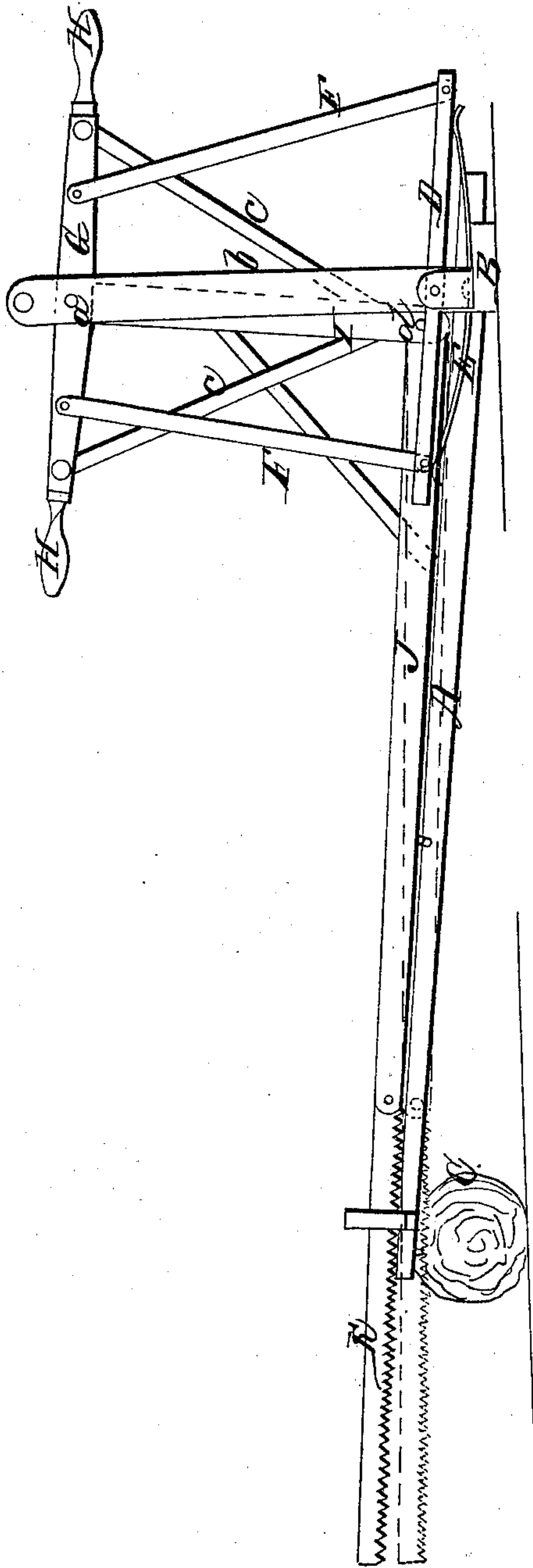


Heth & Hall,

Drag Saw,

Nº 21,256,

Patented Aug. 24, 1858.



UNITED STATES PATENT OFFICE.

ALBERT HETH AND GAYLON HALL, OF ADAMS CENTER, NEW YORK.

CROSSCUT-SAWING MACHINE.

Specification of Letters Patent No. 21,256, dated August 24, 1858.

To all whom it may concern:

Be it known that we, ALBERT HETH and GAYLON HALL, of Adams Center, in the county of Jefferson and State of New York, have invented a new and Improved Sawing-Machine for Crosscut Sawing; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, said drawing being a side elevation of our invention.

This invention is more especially designed for sawing logs into cord wood for fuel, and consists in a novel means for operating or applying power to the saw as hereinafter fully shown and described, whereby the weight of the operator is made to assist muscular strength and the latter applied in the most advantageous manner to the saw.

To enable those skilled in the art to fully understand and construct our invention we will proceed to describe it.

A, represents a bar or beam to one end of which a cross bar B, is attached, the latter bar being beveled or chamfered at its under side so that when resting flatwise on the ground the outer end of the bar or beam A, will be sufficiently elevated to rest on the log C, to be sawed.

On the cross bar B, a platform D, is pivoted or hung at its center so as to be equally balanced or counter-poised. A spring E, is attached to the cross bar B, the ends of which bear against the under side of the platform D.

To each end of the platform D, a bar or rod F, is pivoted and the upper ends of these bars or rods are pivoted to a lever G, which works on a fulcrum pin *a*, said pin passing through the upper ends of two uprights *b*, attached to the cross bar B, the rods being attached at opposite sides and at equal distances from the fulcrum pin *a*, as plainly shown in the drawing.

To each end of the lever G, a handle H, is secured, and to the center of the lever G, a pendent bar I, is attached, said bar being braced from lever G, by rods *c*. To the

lower end of the pendent I, a bar J, is secured by a pivot *d*, and to the outer end of bar J, a saw K, is attached.

The operation is as follows: The operator places the outer end of the beam A, on the log C, a spur *e*, in the beam securing it to the log. The saw K, rests on the log, and the operator stands on the platform D, and oscillates the lever G, throwing or inclining his body alternately toward the ends of the platform and simultaneously with the drawing down of the ends of lever G, the necessary manipulation of lever G, favoring this movement of the body, and as the platform and lever are connected by the rods F, the weight of the operator is made to assist in operating the saw. The spring E, causes the platform and lever to work more uniformly or evenly than otherwise by retarding the movement of the platform and lever as they approach the terminations of their strokes and acting as a reserve power by favoring the changing of the movement of said parts. The saw K, is toothed to cut while moving in either direction. The device as a whole is extremely simple, may be constructed at a very moderate cost and by any person of ordinary ability.

The machine possesses the great advantage of requiring but one operator, who by the advantageous means of applying his power as shown, is enabled to perform as much work as two persons with the ordinary hand cross-cut saw. The saw K, feeds itself to its work by its own gravity.

Having thus described our invention what we claim as new and desire to secure by Letters Patent, is,

The lever G, and oscillating platform D, connected by the rods F, F, and attached to the saw bar or beam J, by the pendent I, the above parts being used in connection with the beam A, and cross bar B, for the purpose set forth.

ALBERT HETH.
GAYLON HALL.

Witnesses:

MORRISON HEATH,
HIRAM W. LOVELAND.