

J. Gargett.
Saw Mill.

Nº 92,716.

Patented Jul. 20. 1869.

Fig. 1.

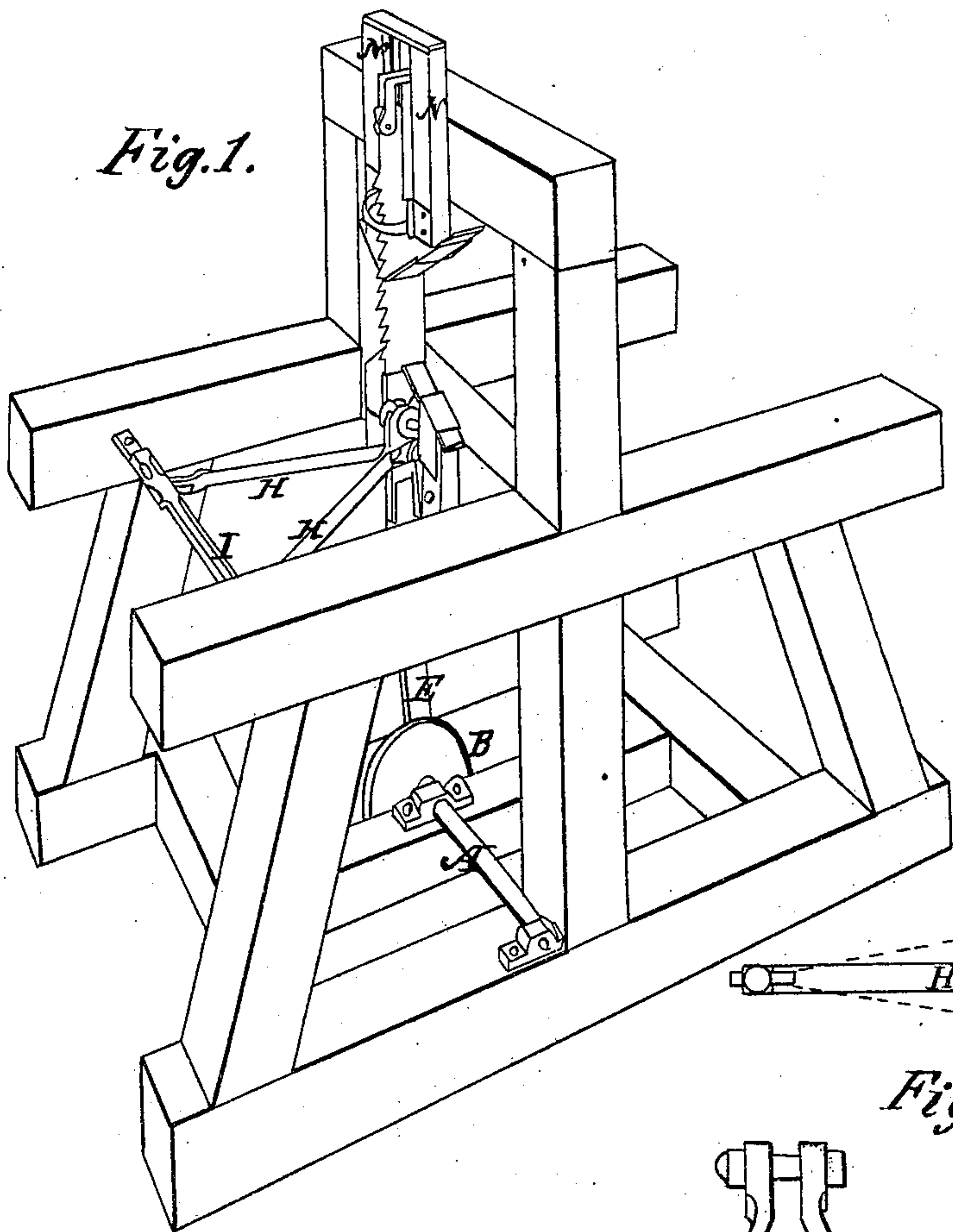


Fig. 2.

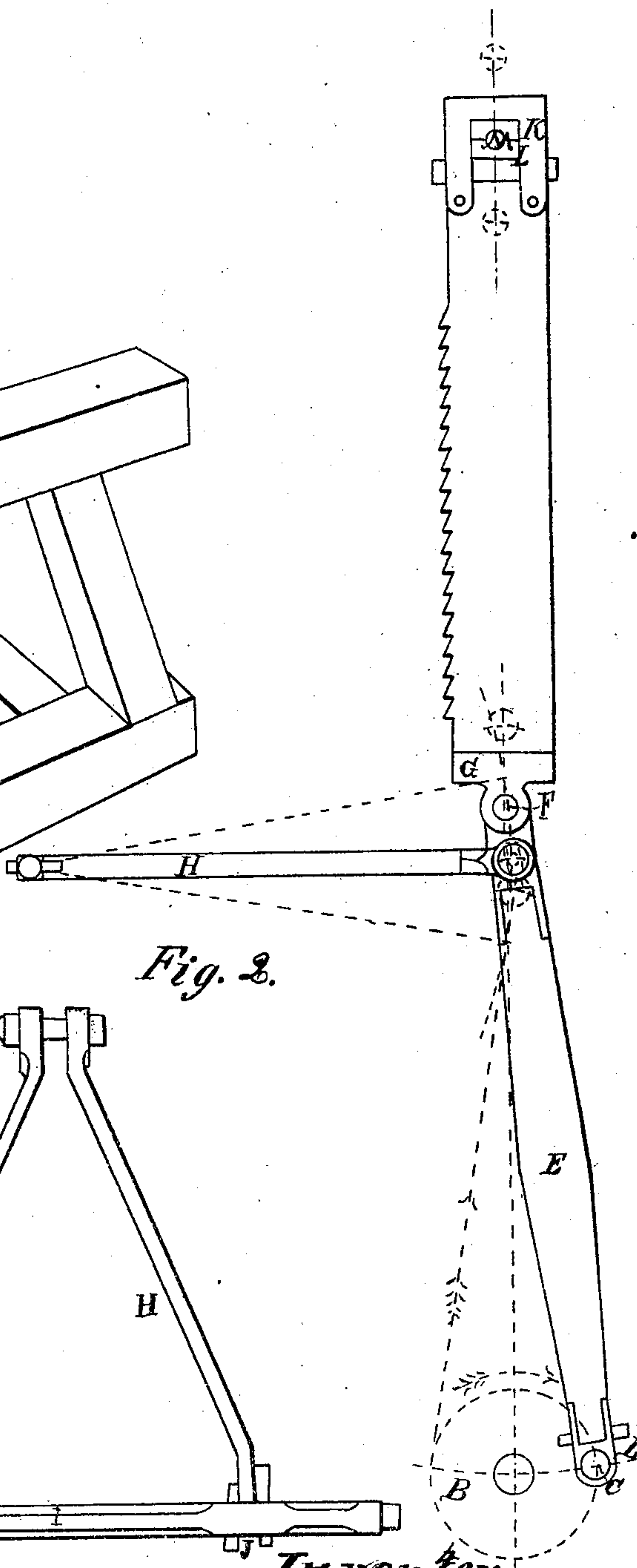
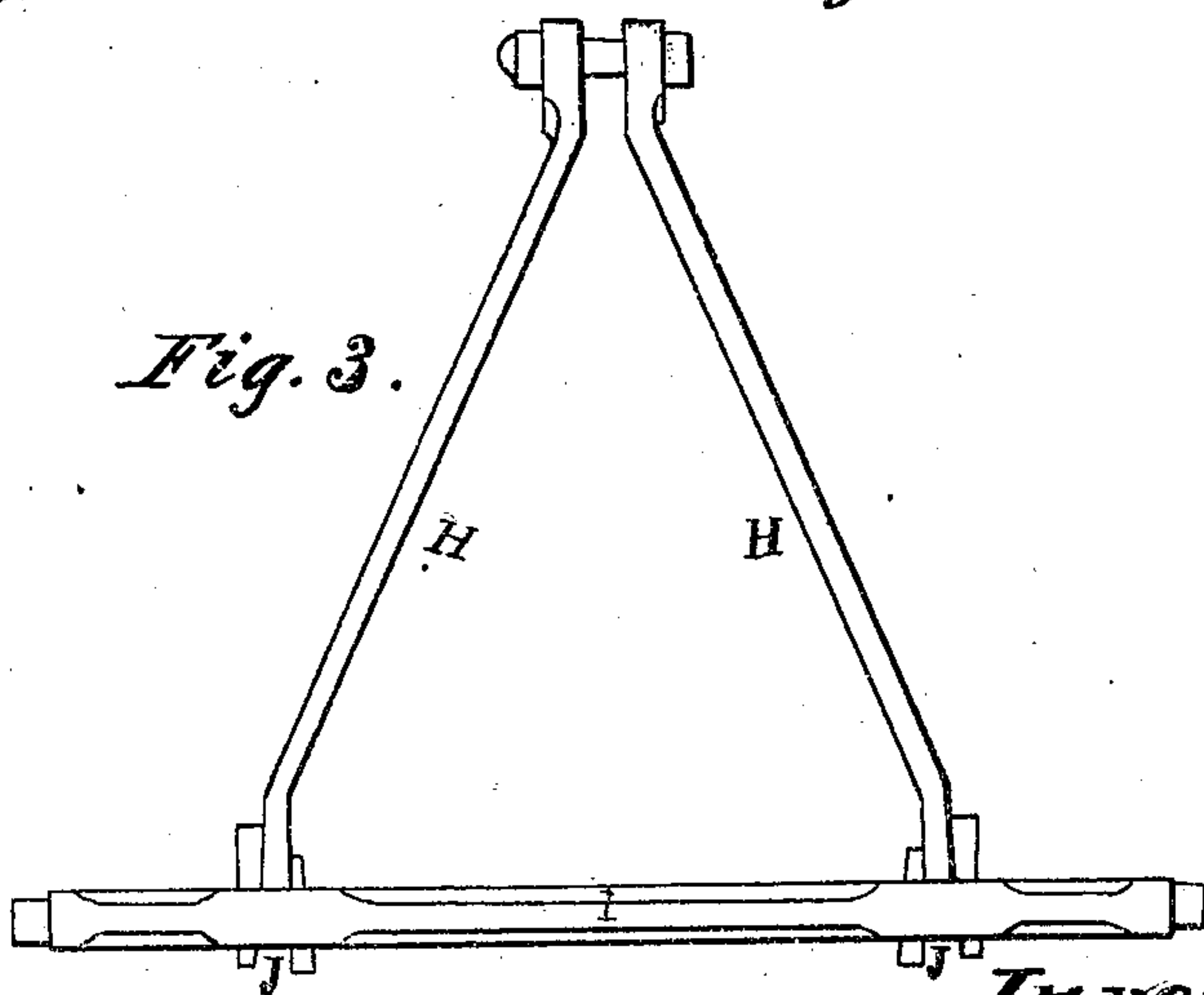


Fig. 3.



Inventor.

James Gargett
Per Attorney
Thos S. Shugart

Witnesses.

H. F. Ober
L. C. Hyde

United States Patent Office.

JAMES GARGETT, OF ALMA, MICHIGAN.

Letters Patent No. 92,716, dated July 20, 1869.

IMPROVEMENT IN METHOD OF HANGING RECIPROCATING SAWS.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern:

Be it known that I, JAMES GARGETT, of Alma, in the county of Gratiot, and State of Michigan, have invented a new and useful Improvement in Method of Hanging Sash, Muley, and Gang-Saws; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

Figure 1 is a perspective view of my invention.

Figure 2 is a side elevation of a saw, with its attachments.

Figure 3 is a plan view of my radius-bars and rock-shaft.

Like letters indicate like parts in each figure.

The nature of this invention relates to an improved method of hanging and operating sash, muley, and gang-saws, by means of which an oscillating motion is given to the saws, the sawdust is entirely thrown downward through the cut, and a very large saving is made of friction in its operation.

The invention more particularly consists in so arranging the radius-bars, in connection with the rock-shaft, that the saw may be lined up without difficulty or loss of time, by the use of keys or set-screws.

It also consists in an oscillating cross-head, by means of which the upper end of the saw is operated in the slides without binding.

The inner ends of the radius-bars are pivoted to the pitman in such a manner that the saw will, in its downward motion, commence its cut at the upper edge of the log, and diagonally thereto, and finish the cut at the bottom of the log, having, in its course from the top to the bottom, described the arc of a circle, and at the same time left the cut straight, or at right angles with the sides of the log. In its upward motion the lower end of the saw is thrown backward in the cut, allowing the log to be fed up for the next cut without striking the teeth. The whole should be so arranged, that just as the wrist-pin connecting the lower end of the pitman to the crank-wheel has passed the upper centre, that being the point where it exerts

the least power, the least power is required upon the saw.

A, in the drawings, represents the main driving-shaft, to the inner end of which is secured, in the usual manner, the crank-wheel B, provided with wrist-pin C, rotating in proper pitman-strap D.

E is a pitman, the lower end secured to the strap D, while the upper end is pivoted, by means of the noddle-pin F, to the saw-buckle G.

H are radius-arms, their outer ends being secured to the rock-shaft I by a tenon and mortise, and wedges J, or by set-screws, or any other well-known and equivalent device, while their inner ends are pivoted to the pitman E, below the noddle-pin F.

By securing these radius-arms as described, the lining up of the saw is readily done.

K is a saddle, rigidly secured to the upper end of the saw, and encloses a proper box, L, within which semi-rotates the pin M, to each end of which is attached a suitable grooved slide, which operates upon the vertical slides attached to the saw-guides N.

By these means last described, an oscillating cross-head is secured, allowing the upper end of the saw to follow the motions of the lower end thereof without binding.

At the point where the radius-bars are pivoted to the pitman, the latter should be slotted, and the pivoting-pin pass through said slot, and wedges, or other convenient devices, may be employed, by means of which the pivoting-pin may be raised and lowered, and held in position, to accommodate the length of the pitman.

What I claim as my invention, and desire to secure by Letters Patent, is—

The adjustable radius-bars H, herein described, in combination with the rock-shaft I and slotted pitman E, when all these parts are arranged, constructed, and operating as and for the purpose above set forth.

JAMES GARGETT.

Witnesses:

H. F. EBERTS,
L. C. HYDE.