

N. M. LAWRENCE, J. C. WYKOFF & J. R. WHITAKER.
Hand Sawing-Machine.

No. 227,169.

Patented May 4, 1880.

Fig. 1.

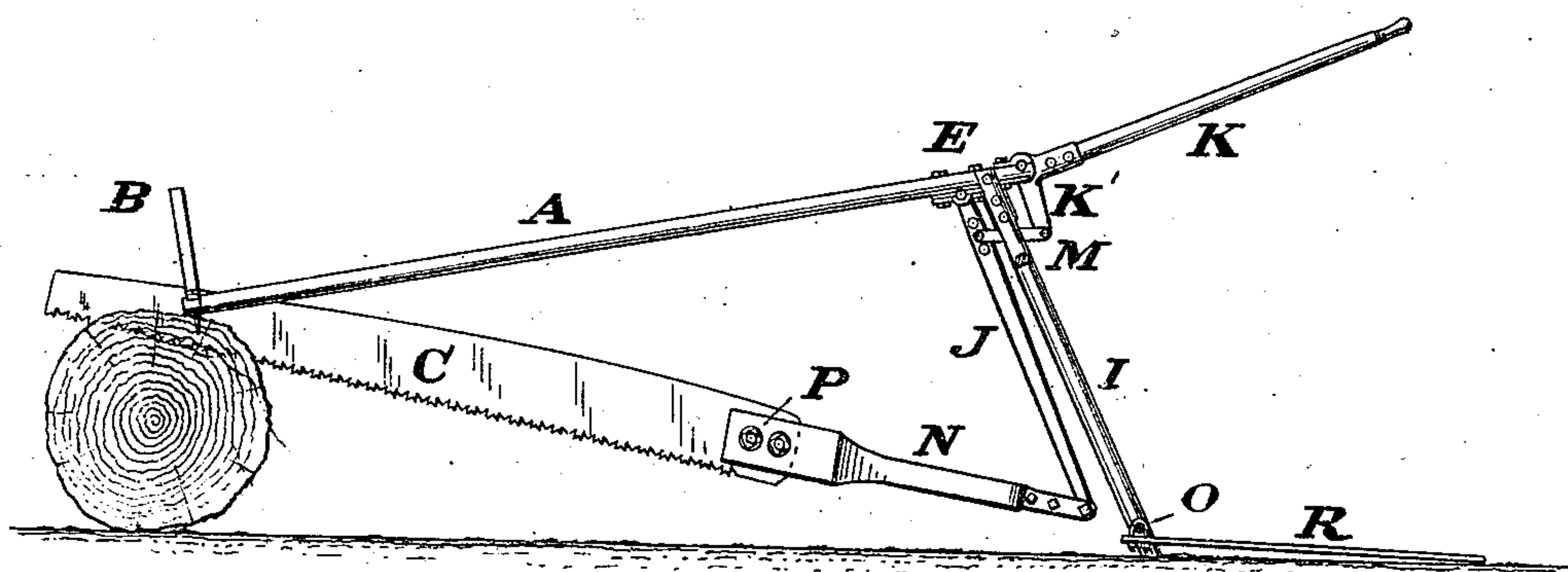


Fig. 2.

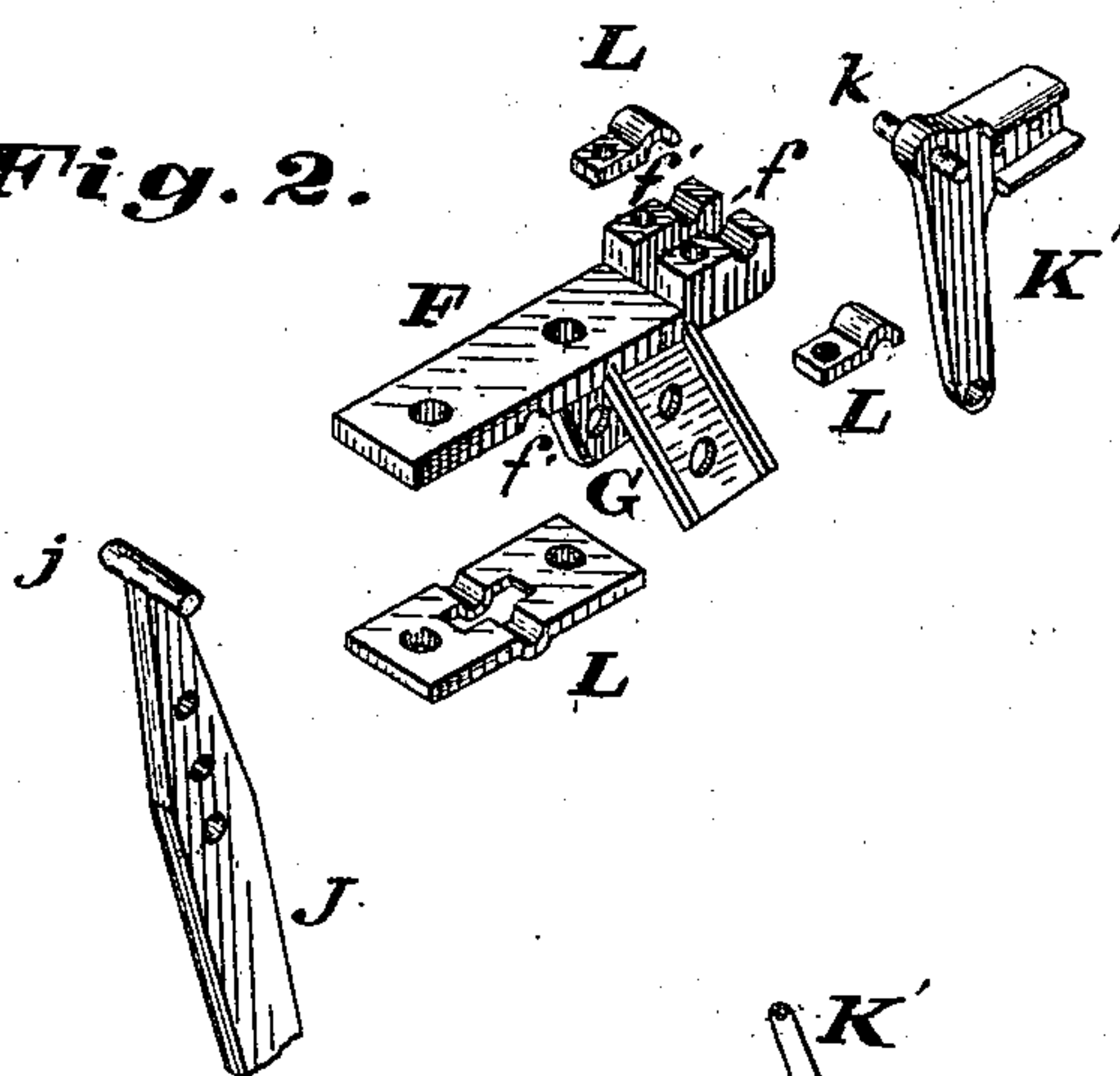


Fig. 3.

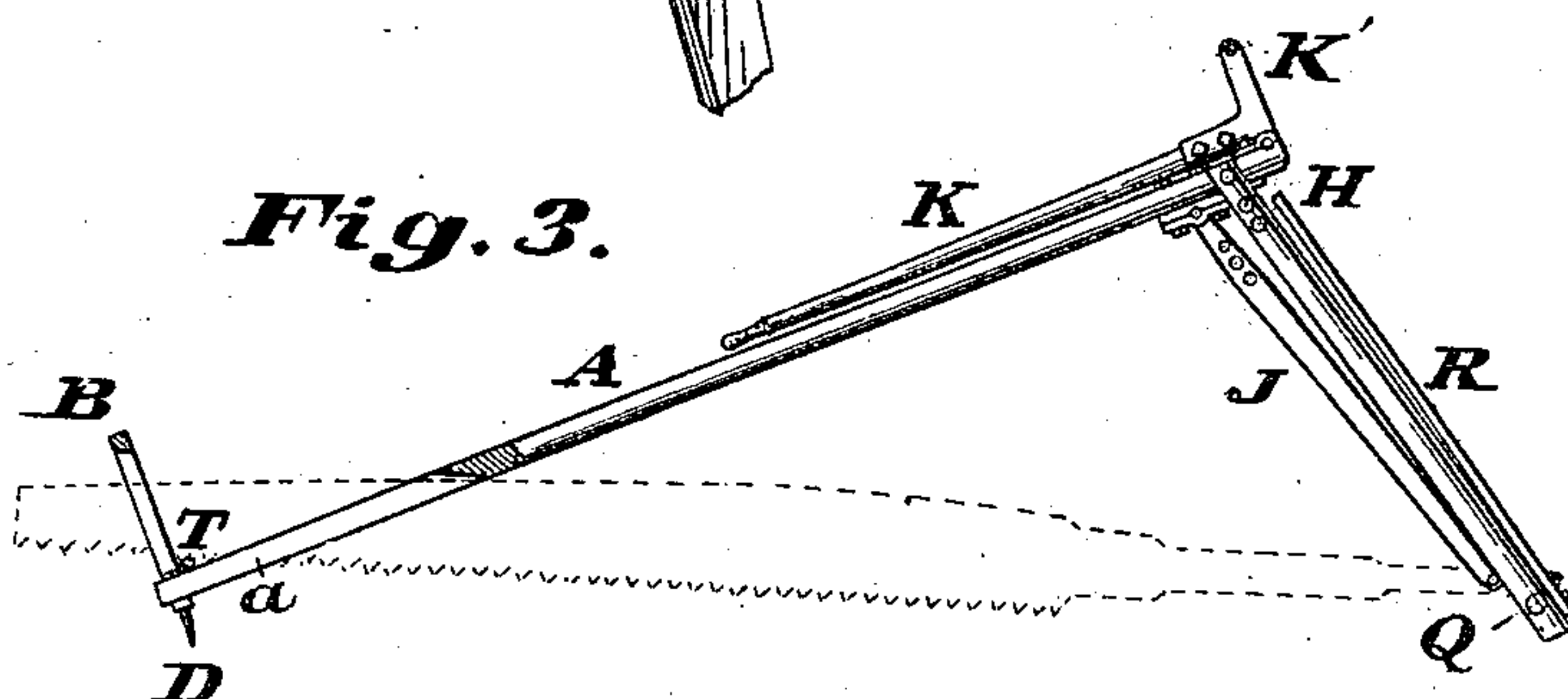
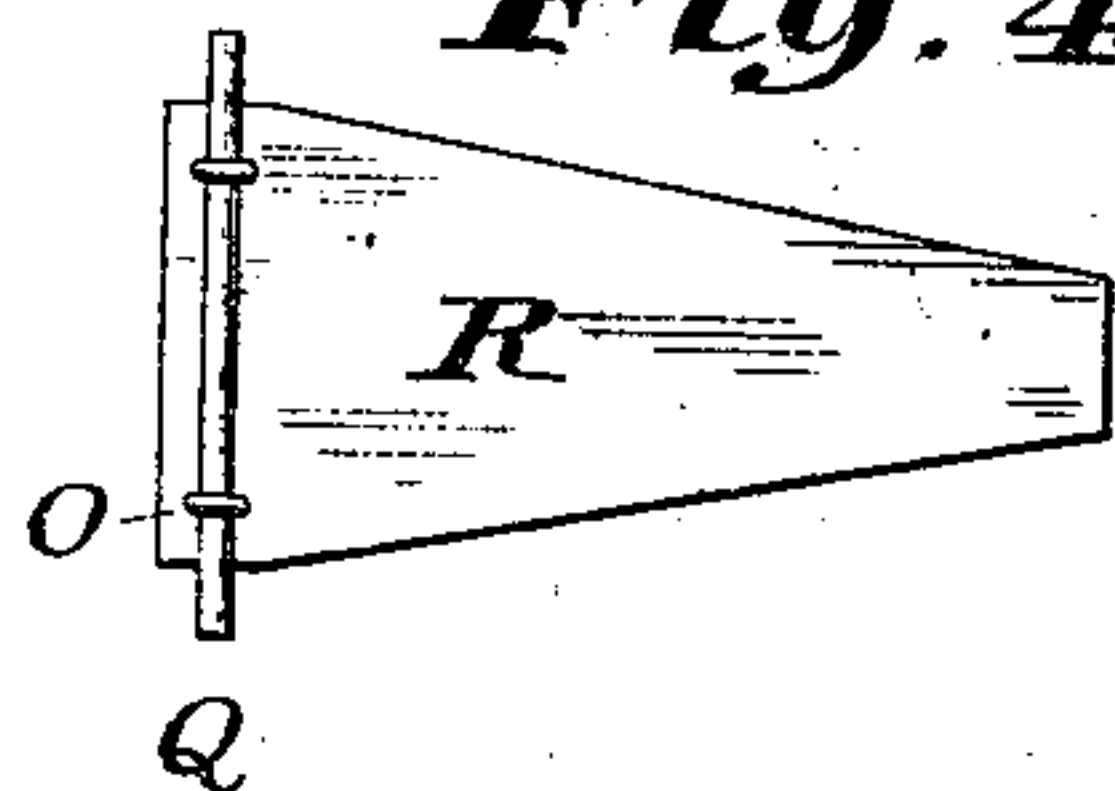


Fig. 4.



Attest.
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By Knight Bros. Attys

UNITED STATES PATENT OFFICE.

NATHAN M. LAWRENCE, JOHN C. WYKOFF, AND JOSEPH R. WHITAKER,
OF CLARKSVILLE, OHIO.

HAND SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 227,169, dated May 4, 1880.

Application filed January 12, 1880.

To all whom it may concern:

Be it known that we, NATHAN M. LAWRENCE, JOHN C. WYKOFF, and JOSEPH R. WHITAKER, all of Clarksville, Clinton county, Ohio, have
5 invented a new and useful Hand Sawing-Machine, of which the following is a specification.

Our improvements are primarily devised for use in those hand sawing-machines in which the saw-blade is supported and guided in a
10 suitable frame, one of whose ends rests upon the ground, while the other end rests upon and "dogs" the log; and our improvements comprise an arrangement of levers and rods where-
15 by the operator is enabled to impart sufficient and equable stroke to the saw by an easy motion of his hand.

Our improvements further comprise a novel form of casting, constituting a means for attaching the legs to the frame and of journal-
20 ing the operative levers.

Our improvements further comprise a platform attachment which, while affording a convenient footing for the operator, at the same time utilizes his weight to hold the machine
25 firmly down upon the work.

The platform and other jointed members are capable of being folded compactly against the frame when not in use.

In the accompanying drawings, Figure 1 is
30 a side elevation of an apparatus embodying our invention, a portion of one leg being broken away. Fig. 2 represents castings, hereinafter particularly specified. Fig. 3 represents our machine in its folded condition, the
35 forward portion of the beam and guide being shown in section. Fig. 4 is a top view of the foot-board or platform.

We employ a wooden beam, A, whose forward end has the customary slot *a* and inverted-
40 U-formed or slotted iron B, to guide the saw-blade into the log.

The bolts which attach the guide B are pointed at their lower extremities, to serve as
dogs D.

45 The rear end, E, of the beam A is bolted to a cast bearing-block, F, to whose downwardly-diverging lugs G wooden legs I are attached by bolts H.

The casting F is longitudinally slotted, *f*,
50 and transversely notched, *f'*, to receive and

afford bearings for the T-headed journals *j* and *k* of saw-hanger J and bent lever K. Said journals are secured by caps L.

The heel K' of the bent lever K is, by means of link or rod M, coupled to the hanger J so
55 near its fulcrum as to secure the desired sweep or stroke of the saw for a given motion of the operating lever or handle K, the former being preferably about twice that of the latter.

The lever K is preferably for the most part
60 of wood, and is bolted to the cast T-head K in the manner shown.

Pivoted to the hanger J is the saw-helve N, which may be either of wood or of iron, and which is bolted to the saw-blade C at P.
65

The legs I are connected near the ground by means of a stretcher, Q, from which depends, by clips or staples O, the front end of a plank or platform, R, preferably of the represented trapezoidal shape.
70

In operating the machine the workman, having rested the points D of beam A upon the log so as to dog the same, couples the lever K K' to the hanger J, and, unfolding the platform R, he mounts the same, and by an easy
75 vertical vibration of the lever K K' causes the desired horizontal reciprocation of the saw-blade.

The parts being so proportioned as for a given movement of the operator's hand to pro-
80 duce about twice as much motion in the saw-blade, the operator is not required to inconveniently move his body, but can accomplish the work almost wholly by an easy motion of his arm alone, his weight at the same time serv-
85 ing to hold the apparatus firmly in position.

For stowage or transportation of the apparatus it may be divested of its blade, as shown by strong lines in Fig. 2; or the blade being simply lifted, as shown by dotted lines in said
90 figure, may be secured in that position by the introduction of a wooden peg or pin at T in the angle formed by the beam A and the slotted guide B.

At the same time the various levers, &c.,
95 may, after disconnection of the lever K from the hanger J, be folded against the frame in the compact manner represented in said figure.

We claim as new and of our invention—

1. In a drag-sawing machine, the combina- 100

tion of the beam A and diverging legs I, rigidly connected by bearing-block F, said block being furnished with suitable journals *f'* for the reception of the levers K and J, with
5 the L-shaped hand-lever K, link M, and lever or saw-hanger J, substantially as described.

2. The described combination of beam A and the cast bearing-block F, having flanged projections or lugs G for attachment of the
10 diverging legs I, said bearing-block having longitudinal slot *f* and transverse notches *f'*

for the T-headed journals *j k* of the hanger J, and the operating-lever K, substantially as set forth.

In testimony of which invention we hereunto 15 set our hands.

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JOHN C. WYKOFF.

JOSEPH R. WHITAKER.

Attest:

GEO. H. KNIGHT,
WILLIAM UXAN.