

C. R. CLIFFORD & I. S. CORY.
 DRAG SAWING MACHINE.

No. 177,619.

Patented May 23, 1876.

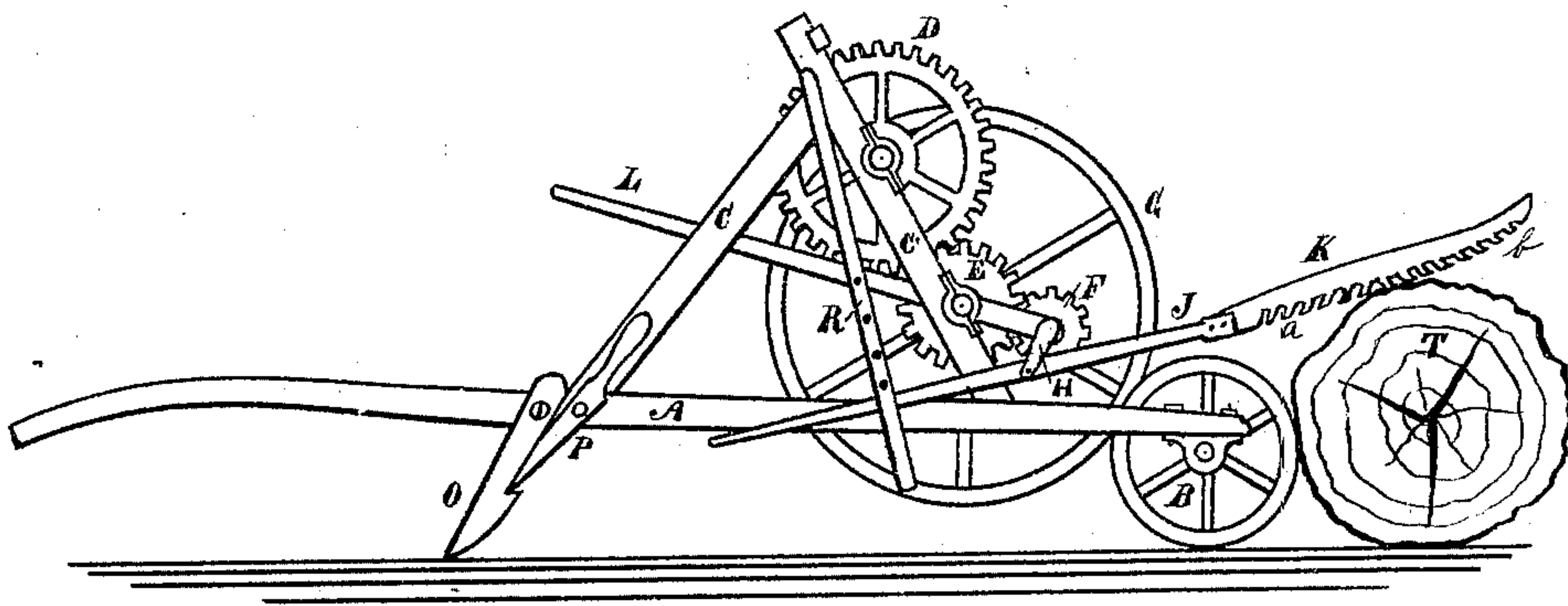


Fig. 1.

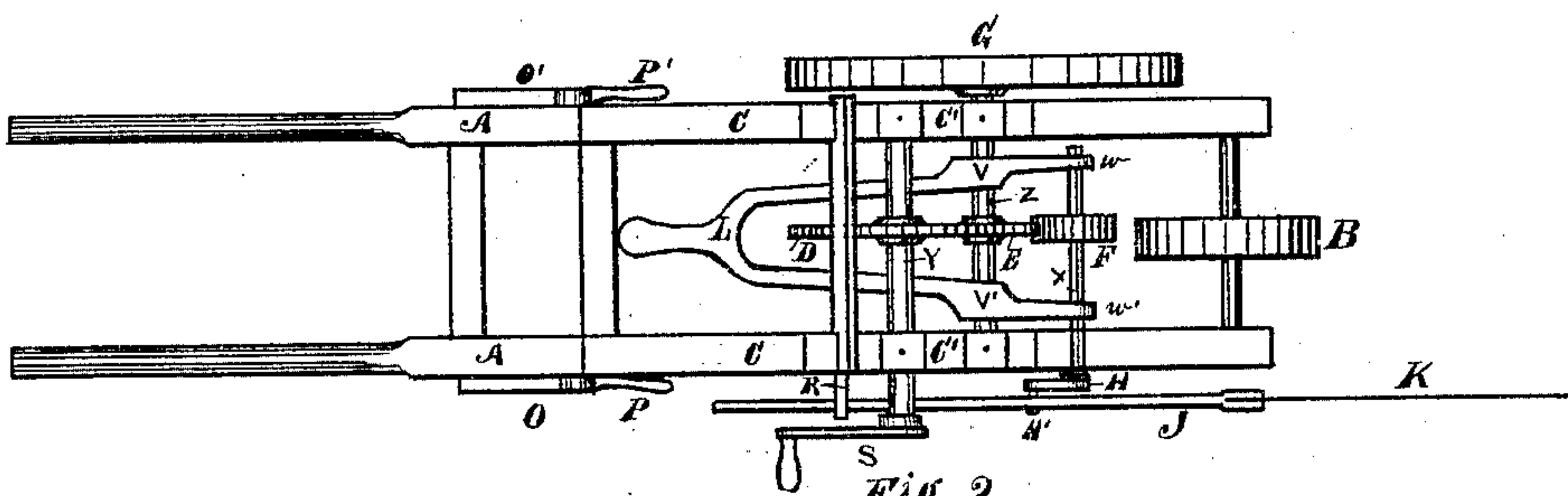


Fig. 2.

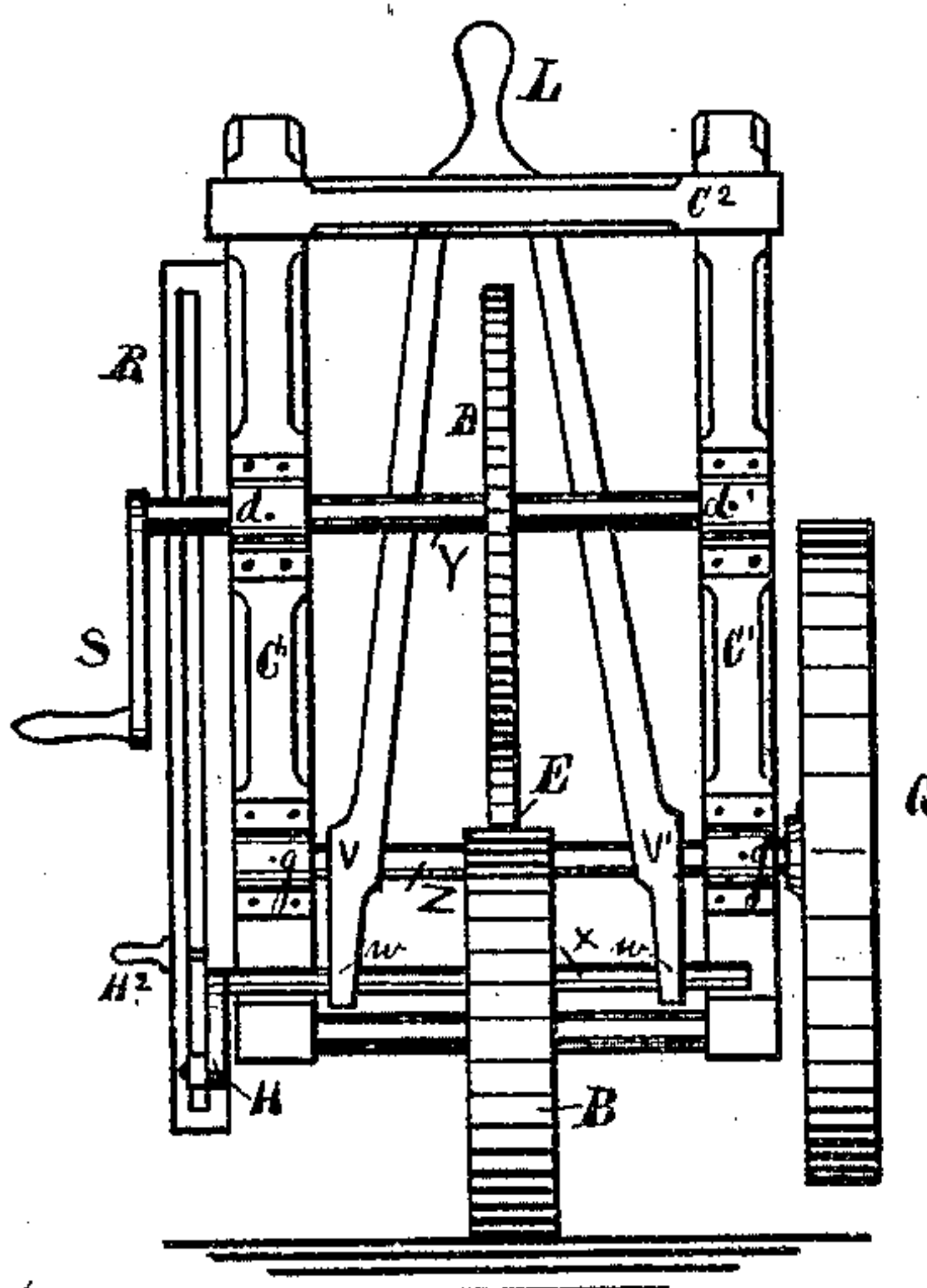


Fig. 3.

WITNESSES;

Frank J. Tracy
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INVENTOR'S.

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UNITED STATES PATENT OFFICE.

CASSIUS R. CLIFFORD AND ISAAC S. CORY, OF HENRY COUNTY, INDIANA.

IMPROVEMENT IN DRAG-SAWING MACHINES.

Specification forming part of Letters Patent No. **177,619**, dated May 23, 1876; application filed November 1, 1875.

To all whom it may concern:

Be it known that we, CASSIUS R. CLIFFORD and ISAAC S. CORY, of Henry county, State of Indiana, have invented a new and useful Improvement in Drag-Sawing Machines, of which the following is a specification, reference being had to the accompanying drawings.

Our invention consists of an arrangement of mechanism attached to a wheelbarrow, whereby we operate a drag-saw with a motion similar to that which would be obtained by two men with a crosscut-saw, and at the same time the machine is portable and easily operated, and readily adjusted to a level when on uneven ground, and securely held against the log to be sawed.

Figure 1 represents a side elevation of our improved portable hand drag-saw. Fig. 2 is a plan or top view of the same. Fig. 3 is a view of the end of the machine that is nearest to the log to be sawed.

A A represents the side frames or handles of the wheelbarrow, which is provided with the wheel B in the usual manner. On each side frame A A are V-shaped uprights C C C¹, which are united at the upper part by the cross-bar C². The upright frames C C¹ are provided with suitable boxes *d d' g g'*, in which revolve the shafts Y and Z. The shaft Y projects beyond the frame C on one side, and is provided with a crank, S, and has a large spur-wheel, D, keyed near the center of the shaft. This pinion or spur-wheel D meshes in gear with a smaller pinion, E, which is keyed on the shaft Z, and the balance-wheel G is also keyed onto the end of the shaft Z that projects beyond the upright frame C, opposite that of the crank S. On the same shaft Z is pivoted at V V' the forked lever L, and at the lower extremities of the forks are boxes *w w*, in which revolve the crank-shaft *x*, by means of the pinion F, which is keyed thereon. The crank H is attached to one end of the shaft *x*, and is secured or pivoted in boxing to the pitman J. The arrangement of the crank-shaft *x* at the end of the forked lever L is such as to allow the saw *k* and pitman J, to be elevated without disconnecting the

gears E and F, because any movement of the lever L either up or down moves the crank-shaft *x*, with the crank H, pinion F, and pitman K, with a circular motion around the periphery of wheel E, and keeps the gears of the pinions always in gear, but elevates or depresses the saw-pitman K to any desired position, and at the same time allow the crank H to be revolved and operate the saw. The saw K is attached to the pitman J in the usual manner, the pitman working in the guide R, and held at any desired point of elevation by the pin H². The legs of the wheelbarrow are pointed at the lower end, and pivoted to the side frames A A, and are provided with a notch on one side, in which fits a pawl, P, shown more fully in Fig. 1. The legs O can be adjusted so as to level up the machine, or incline it to correspond with the log T, and are also used to secure the machine against the log by driving them into the ground, when the wheel B is against the log, thus preventing the machine from oscillating while being operated.

What we claim as new, and wish to secure by Letters Patent, is—

1. The relative arrangement of the shafts Y, Z, and *x*, provided with spur-wheels or pinions D, E, and F, in combination with the forked lever L, pivoted to the shaft Z at V V', and operated, as described, to move the saw K, by means of the pitman J, and crank H, substantially as specified and set forth.

2. The forked lever L, arranged as described, and pivoted to the shaft Z, in such a manner as to operate the crank-shaft *x* with a circular movement around the wheel E, substantially as described, and for the purpose specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

CASSIUS R. CLIFFORD.
ISAAC S. CORY.

Witnesses:

S. C. FRINK,
H. B. MEARS.