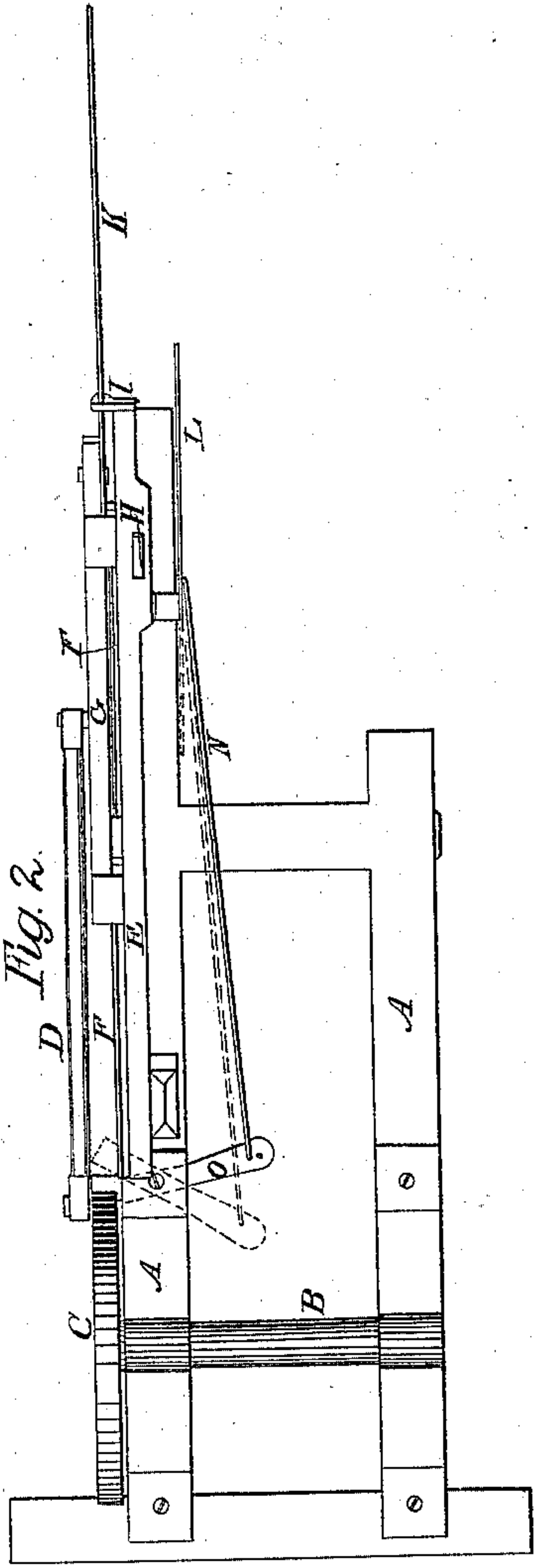
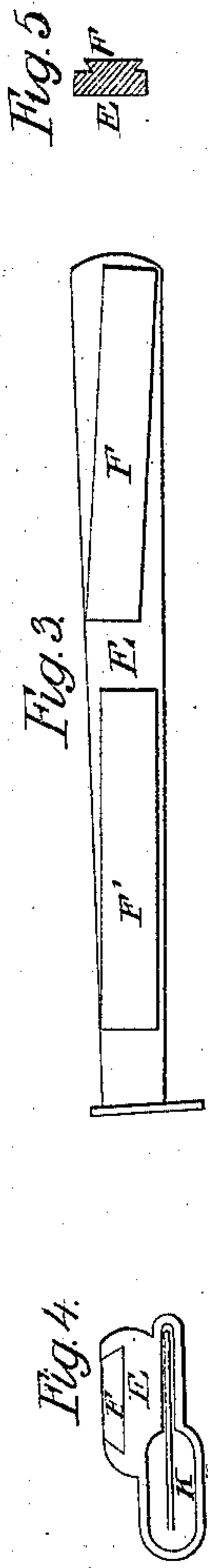
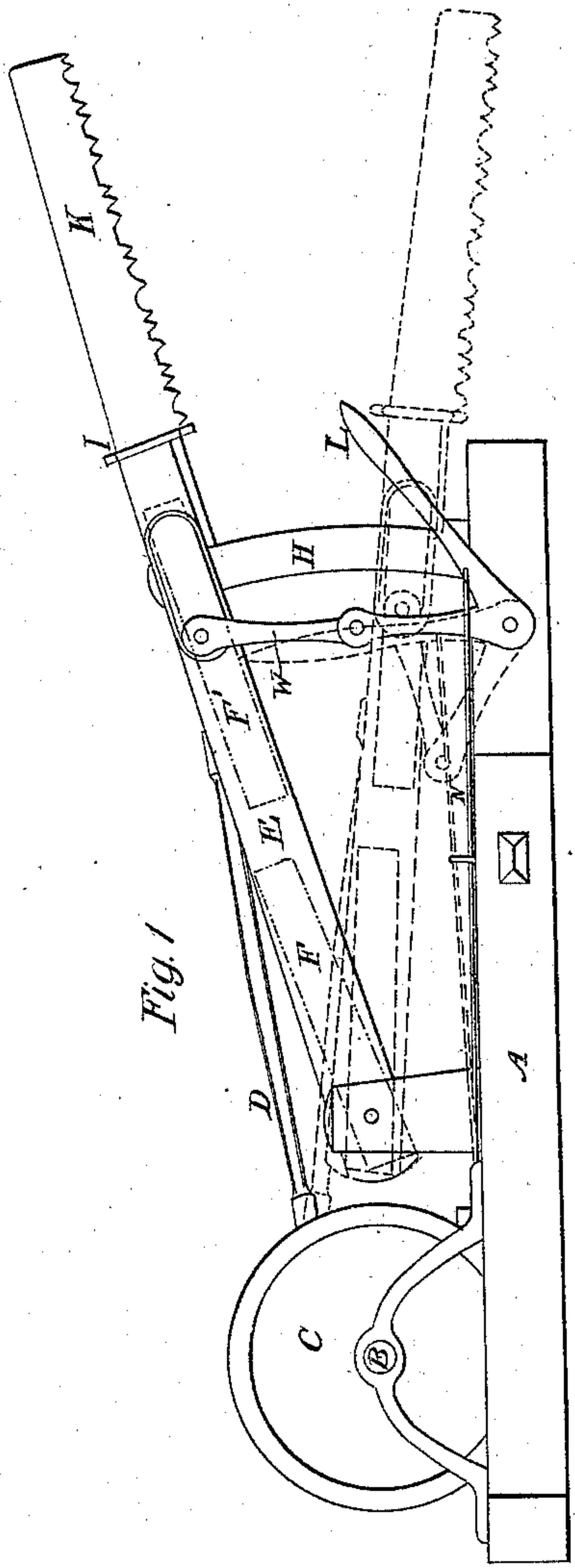


Saur & Colton,

Drag Sarr.

N^o 54,608.

Patented May 8, 1866.



Witnesses

Lawrence Murphy
Thomas Cook

Inventors:

Anton Saur
Albert B. Cohen

by
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Attorney

UNITED STATES PATENT OFFICE.

ANTON SAUR AND ALBERT B. COLTON, OF FRANKLIN, INDIANA.

IMPROVEMENT IN SAWING-MACHINES.

Specification forming part of Letters Patent No. 54,608, dated May 8, 1866.

To all whom it may concern

Be it known that we, ANTON SAUR and ALBERT B. COLTON, of Franklin, in the county of Johnson and State of Indiana, have invented an Improved Machine for Sawing Cord or Stove Wood from the Log, and other similar purposes; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, made part of this specification, in which—

Figure 1 is a side elevation. Fig. 2 is a plan of the machine. Fig. 3 is a detached view of the counter-bar. Fig. 4 is an end view of the counter-bar, and Fig. 5 is a section of the counter-bar and guide.

In the different figures the same letters refer to identical parts.

A is the main frame, to which the machinery is attached. B is the driving-shaft, driven by steam or any other power. C is the fly-wheel, to which a wrist-pin is attached, to which is fastened by ordinary mechanism the pitman D, which operates the saw-slide G, to which is firmly attached the muley saw K. This saw-slide works on the slides F and F', which have beveled edges, as shown in Fig. 5, fitting into corresponding projections on the saw-slide G.

The slides F and F' are firmly attached to the counter-bar E. They are inclined to the center line of the counter-bar, being elevated at the end nearest the saw. The slide F, which is nearest the fly-wheel, has about twice as many degrees of elevation as has the slide F'. The slide F has this inclination given to it to produce a rocking motion in the saw; but it has been found in practice that it also communicates a vertical oscillation to the end of the counter-bar. This is however, in our improved machine, corrected by setting the slide F' not horizontal nor parallel with the slide F, but on an inclination with about one-half of that of F as compared with the middle line of the counter-bar E.

Upon the outer extremity of the counter-bar E is attached the guide I, which is shaped as shown in Fig. 4. The upper portion of this guide, which receives the back of the saw, fits closely to the saw, affording only the necessary play to avoid friction and heating, while the lower

portion of the guide is made wide enough to give ample room for the teeth of the saw to play through it without coming in contact with it.

The saw is brought into action and carried through the log by means of the toggle-joint M and the lever L, which is operated by hand. This lever L is firmly united to the lower portion of the toggle-joint, forming with it a bell-crank.

By raising the end of the lever L the saw is brought down upon and through the log. The changes in position are shown by the red lines in Fig. 1.

To the lever L is attached the rod N, which controls the brake O, applied to the rim of the fly-wheel. By this arrangement, as the lever is brought down the saw is raised out of the wood, and at the same time the brake is applied to the fly-wheel, thus controlling the excessive motion of the saw when not encountering the resistance of the wood.

The standard H, upon which the counter-bar E slides freely, controls it laterally.

Having thus fully explained the nature of our improvements, what we claim as our invention, and seek to secure by Letters Patent, is—

1. The guide I, formed as described, when attached permanently to the end of the counter-bar E, substantially in the manner and for the purpose set forth.

2. Raising and lowering the counter-bar E and saw K by means of a toggle-joint, M, and hand-lever L, the whole being arranged to operate substantially as set forth.

3. The combination of the brake O, rod N, and lever L with the toggle-joint M, for the purpose of bringing the brake O into action on the fly-wheel by the same movement that raises the saw, substantially in the manner set forth.

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

ANTON SAUR.
ALBERT B. COLTON.

Witnesses:

JOHN BEALL,
WM. J. PETERS.