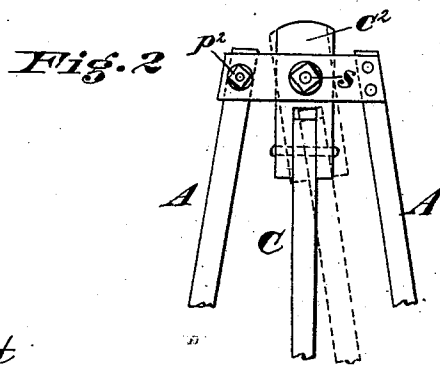
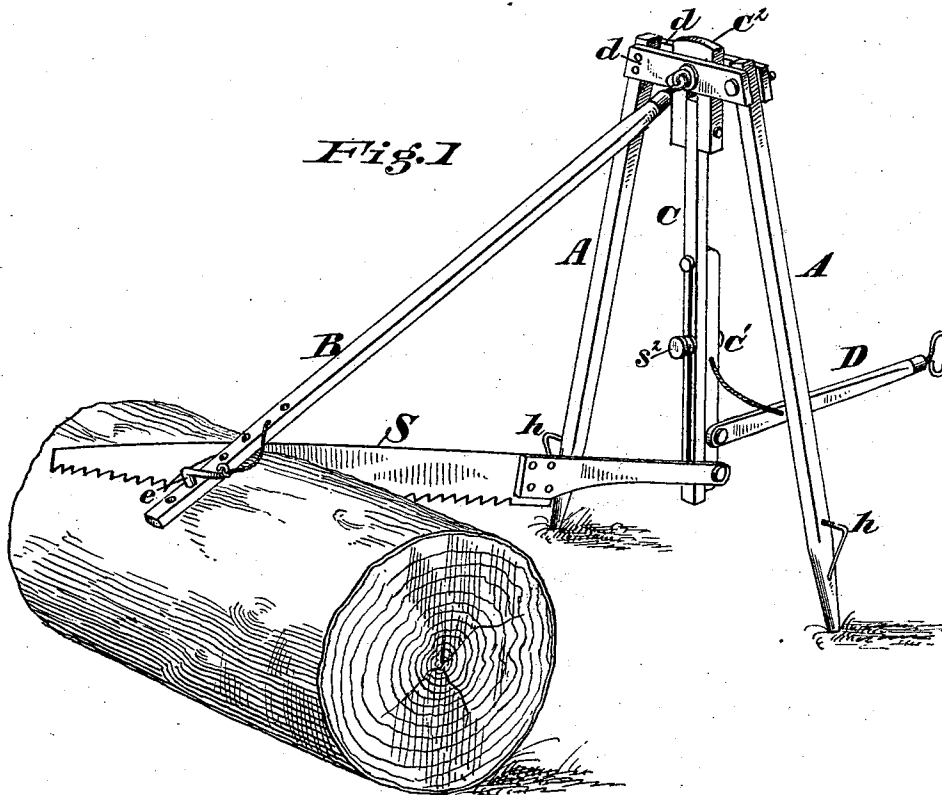


J. AUGSPURGER.  
Drag-Saw.

No. 226,590.

Patented April 20, 1880.



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# UNITED STATES PATENT OFFICE.

JOHN AUGSPURGER, OF TRENTON, OHIO.

## DRAG-SAW.

SPECIFICATION forming part of Letters Patent No. 226,590, dated April 20, 1880.

Application filed November 21, 1879.

*To all whom it may concern:*

Be it known that I, JOHN AUGSPURGER, of Trenton, Butler county, Ohio, have invented a new and useful Improvement in Drag-Saws, of which the following is a specification, reference being had to the drawings herewith, in which—

Figure 1 is a perspective view of my invention in operation; and Fig. 2, a detail view, showing mode of lateral adjustment of the swinging lever.

The object of my invention is to facilitate the operation of a crosscut-saw in sawing logs upon the ground, and to provide means whereby one man may manipulate the saw, instead of requiring two, as is common.

The supporting-frame of the apparatus, as shown in the drawings, consists of two uprights, A A, intended to rest upon the ground, and cross-pieces *d d* at the top connecting them, and a brace, B, extending from the cross-bars *d* to the log to be sawed. A pendulum or swinging lever, C, is suspended from the cross-bars *d* between the uprights A, at the lower end of which lever the crosscut-saw S is pivoted, so as to be reciprocated backward and forward, and fall as the kerf deepens. A handle, D, is pivoted to the swinging lever, and extends to the rear, within convenient reach of the operator, who occupies a standing position in manipulating the saw.

These constitute the general features of my invention and enable one man to work the saw; but in order to accommodate the apparatus to inequalities of the ground and other special conditions, certain special features of construction are introduced, which I will proceed to describe.

The cross-bars *d* may be united to the uprights A by pivot-bolts, which will allow the uprights to be set at any desired angle, or to accommodate any inclination of the ground. In practice, however, I find it desirable to make the connection with one of the uprights rigid, as shown in the drawings. The swinging lever is suspended in a head, C<sup>2</sup>, which is secured upon a pivot-bolt passing through the cross-bars *d*, and the head thus secured between the cross-bars. This mode of connection permits any desired adjustment of the lever laterally, the head being held firmly when

adjusted to the desired angle by tightening the set-screw or nut *s*. (Shown in Fig. 2.)

In order that the saw lever or pendulum may be adjustable as to length it is made in two parts, C and C', the latter being longitudinally adjustable on the former by means of a headed bolt and a set-screw, *s*<sup>2</sup>, on the part C', which pass through a slot in the part C, serving as guides to the movement and a means of securing them rigidly together when adjusted at any desired length. The saw S, or its pitman, is pivoted to the movable part C' of the lever, and as the kerf in the log deepens the pendulum is lengthened to suit, and the point of the saw thus prevented from striking the ground.

The brace B has a hook-and-staple connection with the vertical frame, and is secured to the log by a dog, *e*, which may be driven into the log by a hammer, or may be provided with a screw-thread and screwed into the log, by means of the handle shown, through any one of a number of holes in the brace B, according to the length desired in working the saw.

I also attach to the uprights A handles *h*, which facilitate their insertion into and removal from the ground. The uprights A may be spliced in the same manner as the swinging lever, in order to elevate the machine; but in general I do not deem this construction necessary.

The operation of the machine is sufficiently obvious. Having adjusted it to the log, as shown in the drawings, the operator takes position behind the machine and reciprocates the saw by means of the handle D. The cutting may be facilitated by a weight attached to the saw or pitman.

It will be seen that when at the extremity of its stroke in either direction the return is aided by the weight of the pendulum and the saw itself. When in full operation the swing of the saw renders its manipulation quite easy, and one man can easily perform the labor commonly performed by two in crosscut-sawing.

The means of adjustment before described enable the saw to be used upon a hill-side or in any position where the log may be, and the machine is cheap and light, and can easily be carried by the operator from place to place.

Having described my invention, I claim and desire to secure by Letters Patent—

1. The combination of the supporting-frame, the head C<sup>2</sup>, pivoted thereto, the pendulous lever C, having its upper end pivoted to said head to swing at right angles thereto, and the saw connected with the lower end of said lever, substantially as and for the purpose set forth.

2. In a drag-saw, the combination of two struts resting on the ground, and connected at their upper ends by a cross-bar provided with a head capable of a lateral swinging adjustment, with a suspended pendulous lever pivoted to the head, said pendulous lever being constructed in two parts, one of which is adjustably secured to the other, and is connected with the saw, and provided with an operating-handle, substantially as described.

3. In a drag-saw, the combination, with a supporting-frame, of a suspended pendulous lever pivoted at its upper end, and capable of a lateral swinging adjustment for varying the plane of oscillation of the saw, substantially as shown and described.

4. In combination with the supporting-frame of a sawing-machine, such as described, and the pendulous lever C, the pivoted head C<sup>2</sup> and set-screw for adjusting the plane of oscillation of the lever, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand this 26th day of October, 1879.

JOHN AUGSPURGER.

Witnesses:

L. M. HOSEA,  
E. KELIHAN.