

(No Model.)

L. S. EDLEBLUTE.

SAWING MACHINE.

No. 261,691.

Patented July 25, 1882.

Fig. 1.

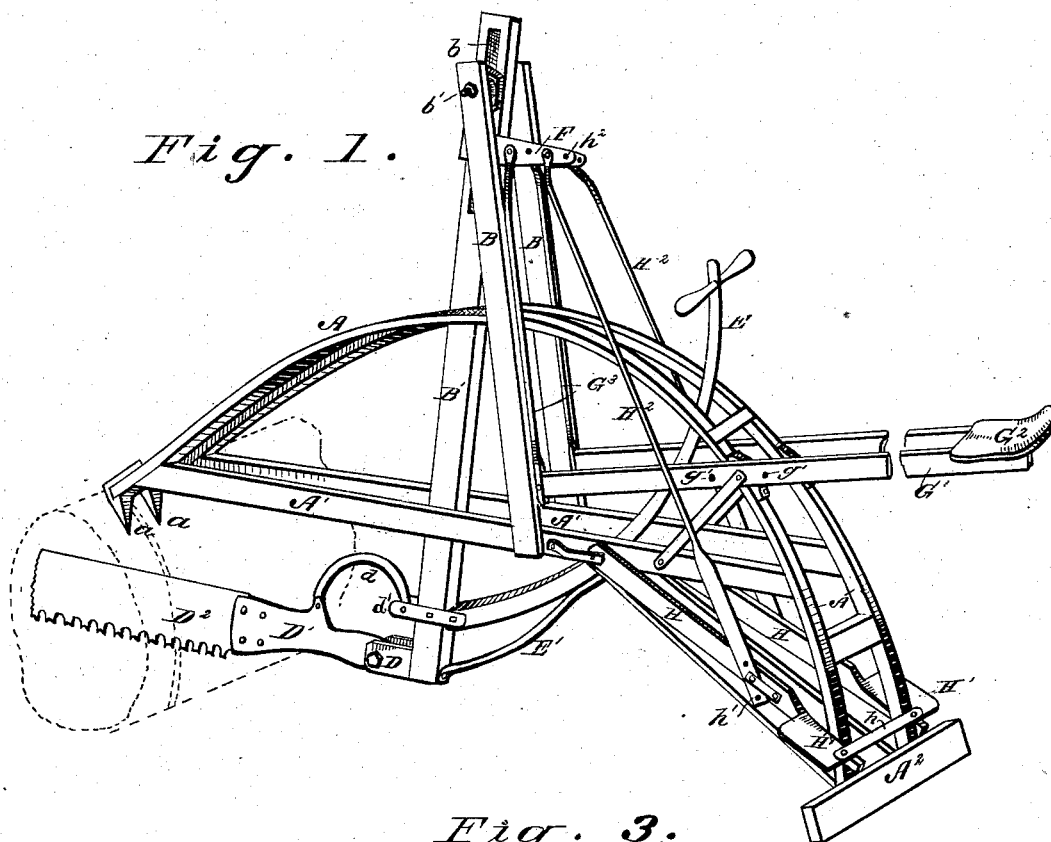


Fig. 3.

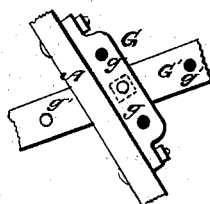


Fig. 4.

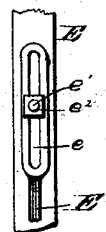


Fig. 2.

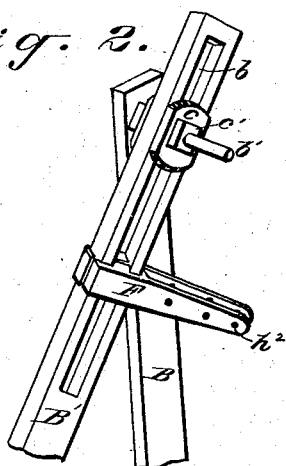


Fig. 5.

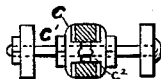
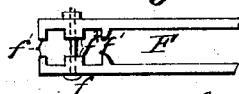


Fig. 6.



Attest
E. H. Hill,
J. W. Strickli.

Inventor.
Lucius S. Edleblute,
per Wm. Hubbell Fisker,
Att'y.

UNITED STATES PATENT OFFICE.

LUCIUS S. EDLEBLUTE, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO
RUFUS P. WHITE AND HORACE W. SMITH, BOTH OF SAME PLACE.

SAWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 261,691, dated July 25, 1882.

Application filed May 16, 1881. (No model.)

To all whom it may concern:

Be it known that I, LUCIUS S. EDLEBLUTE, of Cincinnati, Hamilton county, and State of Ohio, have invented certain new and useful
5 Improvements in Sawing-Machines, of which the following is a specification.

My invention relates to that class of sawing-machines known as "riding machines," wherein the power derived from making use of the
10 weight of the operator can be employed together with that derived from his hands to propel the saw through the log.

The object of my invention is to provide a machine the construction of which will permit
15 the weight of the operator to be employed as a means of power with less fatigue to said operator than by the employment of machines as now constructed.

The precise nature and operation of the various features of my invention will be apparent from the drawings and the following description.

Referring to the drawings, Figure 1 is a perspective view of a machine constructed upon
25 the principles of my invention. Fig. 2 is a perspective view of the upper portion of my machine, representing the devices for permitting (up and down) adjustment of the saw-lever. Figs. 3, 4, 5, and 6 are detached views, representing various parts of my invention.

A A are two arches, which, together with the braces A' and base piece A², form the frame for supporting the operating parts of my machine. The arches A are suitably connected to each
35 other, and the ends opposite the base A² are provided with spurs a, which rest on the log when the machine is to be operated and prevent the machine from slipping.

To the arches A and braces A' are secured
40 the standards B, between the upper ends of which the saw-lever B' is pivoted in a manner to be hereinafter described. In the upper part of the lever B' is a longitudinal slot, b, through which passes the bolt b', which connects the
45 upper ends of the standards B. On this bolt, and at either side of the lever B', are the washers c and nuts c', by means of which latter devices the lever B' is clamped and prevented

from up or down motion except when such motion is desired. The washers c are each provided with lugs c², which project into the slot
50 b in the saw-lever B', which lugs prevent the washers from turning, and also preserve the width of the slot b. When it is desired to raise or lower the saw-lever B', for reasons hereinafter mentioned, it is only necessary to loosen one
55 of the nuts c', when the lever can be raised or lowered to the desired extent, and the said nut being again tightened the lever is firmly held in this position.

To the lower end of the lever B' is attached the stirrup D, in which is pivoted one end of the saw-pitman D', the other end of said pitman carrying the saw D². A U-spring, d, is connected at one end to the saw-pitman D', and
60 at the other end to an eye, d', on the front side of the saw-lever B', as shown. The purpose of this spring is to cause a pressure on the saw in such a manner that its free end will cut
equally as well as any other portion. When
70 the saw is drawn back (to the right, in Fig. 1) the angle between the eye d' and the point where the spring d is attached to the saw-pitman, is lessened and the spring is thus compressed, and the point of the saw is thus caused
75 to bear upon the log more than to the extent of the weight of the saw. This spring d is so formed that when the saw has been pushed forward till its heel rests on the log the spring
80 will be strained apart, causing it to lift on the saw, so that when the latter starts back the teeth will not "dig" into the log to such an extent as to impede its progress. This spring
thus serves the double purpose of causing the
85 point of the saw to press heavily on the log and lessening the pressure of the heel of the saw upon the log.

To the rear side of the saw-lever B', and preferably near its lower end, is attached the curved hand-lever E, the connection being
90 preferably such that the angle formed by the saw-lever B' and the hand-lever E may be varied, and this connection is rendered rigid by the brace E', one end of which is attached to the saw-lever and the other end, provided with
95 a slot, e, is connected to the hand-lever by

means of a bolt, e' , which passes through the slot e , and is provided with a nut, e^2 , by which the end of the brace may be clamped to the hand-lever, as shown in Fig. 4, the purpose of this construction being, as before stated, to permit the hand-lever to be set at any desired angle to the saw-lever. The connection between the brace E' and the saw-lever is such as to permit of a slight degree of mobility, to enable the brace to be adjusted to hold the hand-lever at the desired angle.

To the upper part of the saw-lever B' is secured the bracket F , which is composed of two halves or arms, which are clamped together and to the saw-lever by the bolt f , which passes through one end of the two arms of said bracket, and through the slot b in the saw-lever. To prevent the bracket F from turning on the saw-lever, each arm is provided with the flanges f' and a central lug, f^2 , the flanges fitting on either side of the lever, and the lug fitting into the slot b . By this construction it will be seen that the bracket F may be moved up or down on the saw-lever, and yet will be prevented from turning on the same, and also be prevented by means of the central lug, f^2 , from crushing together the two parts of the saw-lever which form the slot b .

To the arches A are secured the brackets or boxes G , in which are journaled the levers G' , the rear end of said levers being connected by a saddle, G^2 , and the front ends of the levers being connected by means of rods G^3 to the bracket F . The boxes G are provided with two or more journal-holes, g , (see Fig. 3,) to permit the journals of the levers G' to be raised or lowered as desired. So, also, the levers G' are provided with two or more holes, g' , to allow of longitudinal adjustment of the saddle.

To each of the braces A' is connected one end of one of the levers H , the other ends of said levers being provided with the steps or stirrups H' , the connection between the levers H and the braces A' being such that the free ends of the levers are allowed an up-and-down movement. The two stirrups H' are preferably connected by the rod or brace h to further secure them from spreading apart. The stirrup-levers H are connected to the bracket F by means of the rods H^2 , one end of said rods being attached to the bracket and the other end to the levers. The ends of the rods which are attached to the stirrup-levers are preferably provided each with two or more holes, h' , to allow the distance between the bracket F and the stirrups H' to be increased or diminished at the option of the operator. The arms of the bracket F are provided with two or more holes, h^2 , by which the distance between the attachment of the ends of the rods G^3 and H^2 may be increased or diminished, and thus enable a light person to operate the saw as well as a heavy one can, and vice versa.

The mode in which my invention as above described operates is as follows: The operator sits astride of the saddle G^2 , puts one foot on

each of the stirrups H' , and grasps the hand-lever E with his hands. Supposing now the various parts of the machine to be in the position shown in Fig. 1. The operator now lifts upon the hand-lever, allowing his weight to rest mostly on the saddle G^2 , which causes the saw to be drawn back through the log. The weight of the operator will be found sufficient to accomplish this movement without necessitating the expenditure of much force on the hand-lever. As the saddle G^2 is depressed by the weight of the operator the stirrups H' are elevated through the medium of the bracket F and connecting-rods H^2 . When the saw has been brought back to near the point the operator shifts his weight from the saddle to the stirrups, at the same time bearing down on the hand-lever, and by these means forces the saw forward through the log, and thus the saw is propelled backward and forward through the log. If the log to be sawed is large, the bracket F is slipped down on the saw-lever and clamped in the desired position. Should this not be done, when the end of the machine is placed on the log the saddle G^2 would be tipped so far back as to render its occupancy uncomfortable to the operator; but when the bracket F is slipped down on the saw-lever, as described, the saddle will be raised to the desired position. It will also be evident that when the bracket F is moved down on the saw-lever more power is gained to propel the saw, which additional power is advantageous when a large log is to be sawed.

It will be perfectly obvious that the construction of some of the minor parts of my machine may be somewhat varied without materially altering my invention. For instance, the precise mode of adjusting the various parts may be varied. So, also, the U-spring d may be replaced by a spiral or other spring arranged to accomplish the same purpose.

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

1. The combination of the saddle G^2 , secured to the levers G' , the latter being pivoted to the supporting-frame, the connecting-rods G^3 , and bracket F , adjustably secured to the saw-lever B' in such a manner as to be capable of longitudinal adjustment on said saw-lever, substantially as and for the purposes specified.

2. The combination of the stirrups H' , secured to one end of the levers H , the other ends of said levers being pivoted to the supporting-frame of the machine, the connecting-rods H^2 , and bracket F , adjustably secured to the saw-lever B' in such a manner as to be capable of longitudinal adjustment on said saw-lever, substantially as and for the purposes specified.

3. In a sawing-machine, the combination of the supporting-frame $A A'$, the levers G' , adjustably secured to said frame and provided with the saddle G^2 and rods G^3 , the levers H , adjustably attached to the supporting-frame

and provided with the stirrups H' and rods H², the saw-lever B' and bracket F, adjustably secured to the said saw-lever, and the hand-lever E, substantially as and for the purposes specified.

5 4. The combination of the saw-lever B' and hand-lever E, the latter being secured to the former, and capable of being held at any de-

sired angle to said saw-lever by the brace E', said brace being provided with adjusting-slot 10 e, substantially as and for the purposes specified.

LUCIUS S. EDLEBLUTE.

Attest:

A. S. LUDLOW,
J. WM. STREHLI.