No. 654,134. Patented July 24, 1900.

A. G. CLARK.

SAWBUCK.

(Application filed May 17, 1900.)

(No Model.)

Fig. 1.

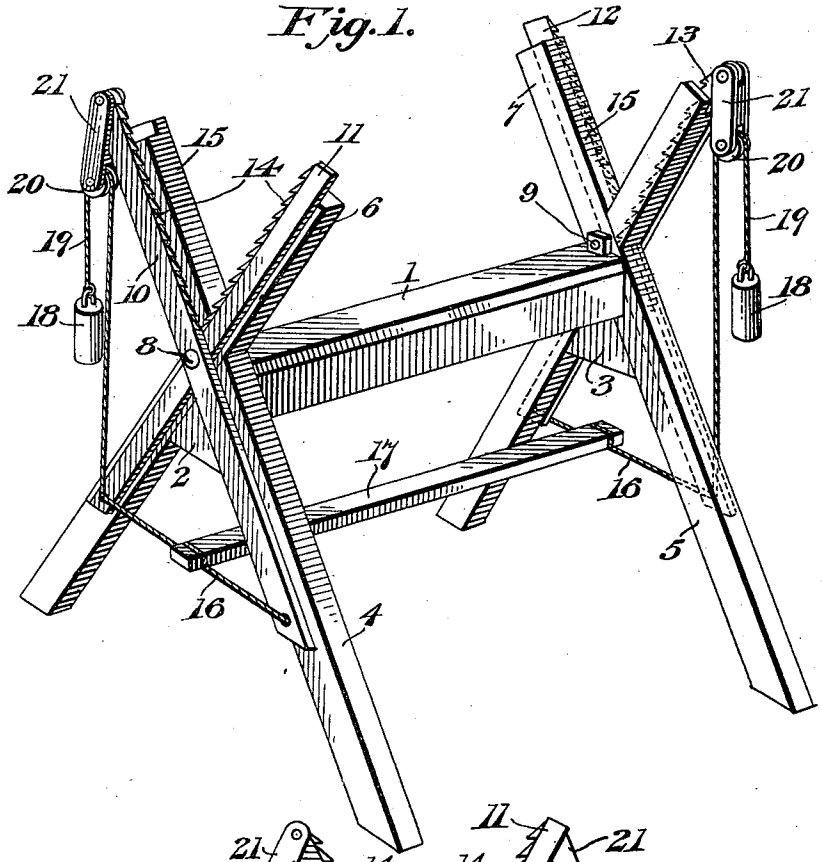
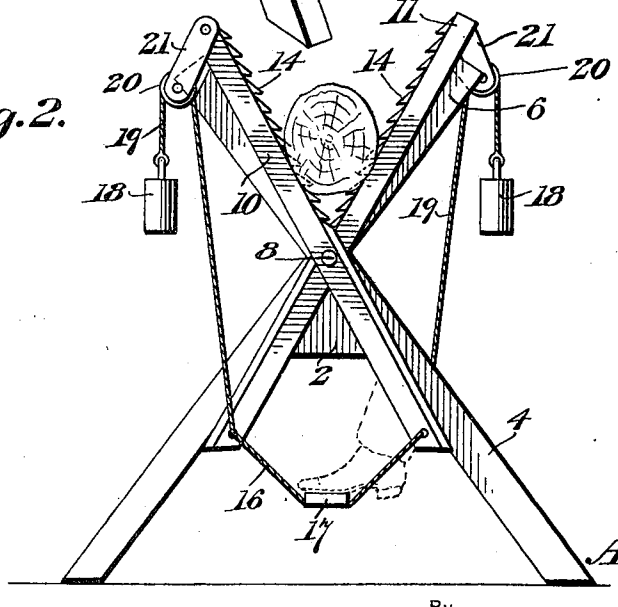


Fig. 2.



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SAWBUCK.

SPECIFICATION forming part of Letters Patent No. 654,134, dated July 24, 1900.

Application filed May 17, 1900. Serial No. 16,991. (No model.)

To all whom it may concern:

Be it known that I, ABNER G. CLARK, a citizen of the United States, residing at Fort Recovery, in the county of Mercer and State of Ohio, have invented a new and useful Sawbuck, of which the following is a specification.

My present invention relates to improvements in sawbucks; and one object in view is to provide a buck with foot-operated clamping devices by means of which the wood to be sawed may be held rigid without necessity for the application thereto of the sawyer's knee.

A further object, which, perhaps, is subordinate to that mentioned, is to permit the sawyer to stand erect while sawing by providing for the operation of the wood-clamping devices by the application of the foot to a treadle or other actuator located in proximity to the ground.

To the accomplishment of these ends the invention consists in providing at each end of the sawbuck a pair of clamping-levers arranged to firmly grip the opposite ends of the wood supported upon the buck and operated by a treadle located directly under the wood and in comparatively-close proximity to the base of the buck to enable the sawyer to securely clamp the wood to be sawed while standing in a nearly upright position, the clamping devices or levers being retracted by weights to release the wood when the foot is removed from the treadle.

The invention consists, further, in the details of construction and arrangement to be hereinafter more fully described, illustrated in the accompanying drawings, and defined in the appended claims.

In said drawings, Figure 1 is a perspective view of my improved sawbuck, the clamping-levers being shown in their open positions, and Fig. 2 is an end view of the subject-matter of Fig. 1, showing a log clamped between the clamping-levers by the depression of the treadle.

Referring to the numerals of reference indicating corresponding parts in both views, 1 indicates the beam of an ordinary sawbuck, and 2 and 3 the usual cross-stands, bolted at the opposite ends of the beam and constituting downwardly-divergent supporting-legs 4 and 5 and upwardly-diverging log-guides 6 and 7, which latter form the log-rests of inverted-V shape. Piercing the stands immediately above the beam are a pair of alined bolts 8 and 9, upon each of which beyond each stand are pivotally mounted a pair of clamping-levers, those at one end of the buck being indicated by the numerals 10 and 11 and those at the opposite end by the numerals 12 and 13. These levers, being pivoted upon a common stud or pintle located at a point intermediate of the ends of the levers, constitute their upper ends a pair of divergent clamping-jaws provided upon their opposed edges with teeth 14, which in the normal positions of the levers are located behind the contiguous log-supporting faces 15 of the log-rests. Between the lower ends of the clamping-levers constituting each pair is disposed a flexible connector and treadle-support 16, each of which is passed around or otherwise connected at a point intermediate of its length to one end of a slat 17, located below the beam 1 and constituting a treadle.

By reference to Fig. 2 of the drawings it will be seen that a log placed upon the buck in the ordinary manner will be firmly gripped and rigidly retained by the closing of the toothed ends of the levers when the treadle is depressed to draw the lower ends of said levers together. Some means must be provided, however, for the purpose of effecting the positive retraction of the clamping-levers from the log to release the latter when the foot is removed from the treadle, and for this purpose I employ a weight 18 for each pair of clamping-levers. Each weight is connected to one end of a weight-cable 19, which passes from the suspended weight over a pulley 20, connected to the upper end of one of the clamping-levers, the opposite end of the cable being connected to the lower extremity of the other lever. Thus when the parts are in the position indicated in Fig. 2 of the drawings and the foot of the sawyer is removed from the treadle the weights will exert a downward pull upon the upper end of one lever and an upward pull upon the opposite end of the other lever of each pair to effect the retraction of the teeth 14 from the wood and the elevation of the treadle 17 to its normal position. It is obvious, however, that if an exceedingly-thin stick is retained upon the buck the clamping-levers will have to approach to a nearly

vertical position in order to grip it when the treadle is depressed. In this event the weight-cable will exert a strain almost in the line of the fulcrum of the levers if the pulley 20 should be located directly at the upper end of one of the levers. The effect of this would be to make the retraction of the clamping devices more or less uncertain, and I have therefore provided pulley-blocks 21, carrying the pulleys 20 at their lower ends and pivotally connected at their upper extremities to the upper ends of the clamping-levers. These blocks hang loosely from the levers and normally assume a vertical position, as shown in Fig. 1 of the drawings; but the arrangement of their pivotal connection is such that they cannot swing to a position in alinement with the levers, but are stopped in one direction, so that as the levers are swung into positions approximating the vertical the pulley-blocks extend at an angle, as shown in Fig. 2 of the drawings, for the purpose of bringing the working points affected by the weight in a line a sufficient distance to one side of the fulcrum of the levers to insure their retraction.

In order to properly balance the buck, the weights of the pairs of levers are arranged at opposite sides of the stands, although obviously this arrangement may be varied to suit the conditions of use and the desire of the individual manufacturer.

From the foregoing it will appear that I have produced a novel sawbuck upon which the sawyer or other operator may rigidly retain the log, stick, or board by the depression of a treadle to operate the clamping devices, the actuation of which does not necessitate the assumption of a stooping posture, which is ordinarily necessary to enable the sawyer to retain the stick operated upon during the sawing operation; but while the present embodiment of my invention appears at this time to be preferable I desire to reserve the right to effect such changes, modifications, and variations of structure as may be properly comprehended within the scope of the protection prayed.

What I claim is—

1. A sawbuck provided with a pair of pivoted clamping-levers, a treadle arranged to move said levers into their clamping positions, a flexible piece connecting contiguous ends of said levers, and the weight carried by said flexible piece to normally urge said levers to their retracted positions.

2. A sawbuck provided with a pair of clamping-levers having a common fulcrum, a flexible connector extending between the lower ends of said levers, a treadle supported by said connector and designed by its depression to swing the levers to their clamping positions, a weight-cable connected to the lower end of one of said levers and having a loose connection with the upper end of the other lever, and a weight carried by said weight-cable and exerting a constant tendency to separate the levers.

3. A sawbuck provided with a pair of clamping-levers mounted on a common fulcrum, a treadle operatively connected with said levers to urge them together, a pulley-block extending at an angle from the upper end of one of the levers, a pulley mounted in the outer end of said pulley-block, a cable connected to the lower end of the other lever and passed over the pulley, and a weight carried by said cable and exerting a constant tendency to separate the levers.

4. A sawbuck comprising a pair of clamping-levers fulcrumed beyond each end of the buck, a flexible connector extending between the lower ends of each pair of levers, a treadle supported at its opposite ends upon said flexible connectors, a pulley-block pivoted to the upper end of one lever of each pair, said blocks being arranged at opposite sides of the buck, a pulley mounted in the lower end of each pulley-block, a weight-cable connected to the lower end of the lever associated with the lever carrying the pulley-block, said cable being passed over the adjacent pulley, and a weight suspended from the end of each weight-cable, whereby the depression of the treadle effects the closing of both pairs of clamping-levers, each pair of which levers is retracted under the influence of its weight upon release of the treadle.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ABNER G. CLARK.

Witnesses:
ANNIE MEDFORD,
ALLIE CAMPBELL.