(No Model.)

H. C. YERBY & E. B. STILSON.

HAND POWER LOG SAW.

No. 282,943. Patented Aug. 7, 1883.

Fig. 1

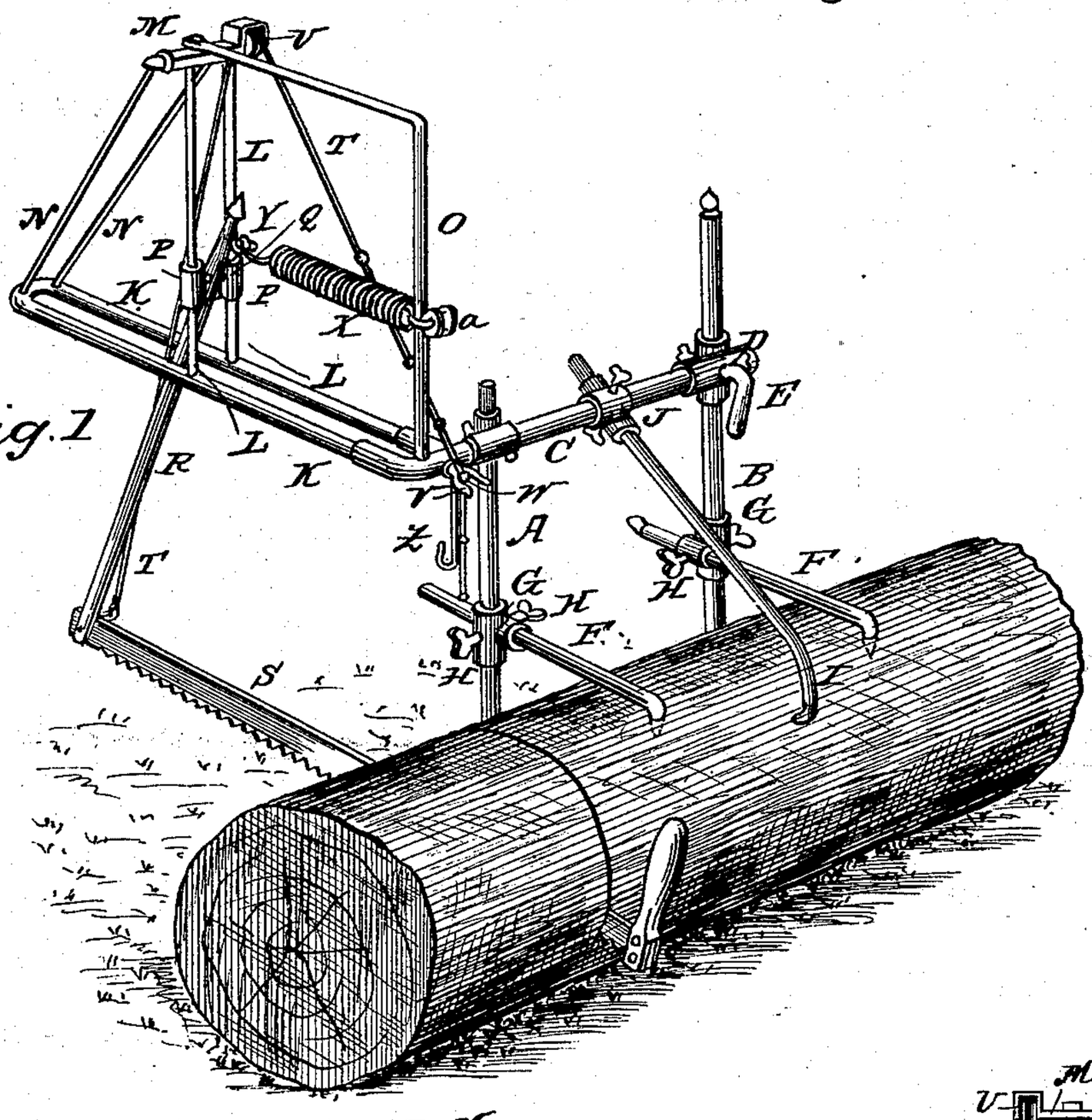


Fig. 2

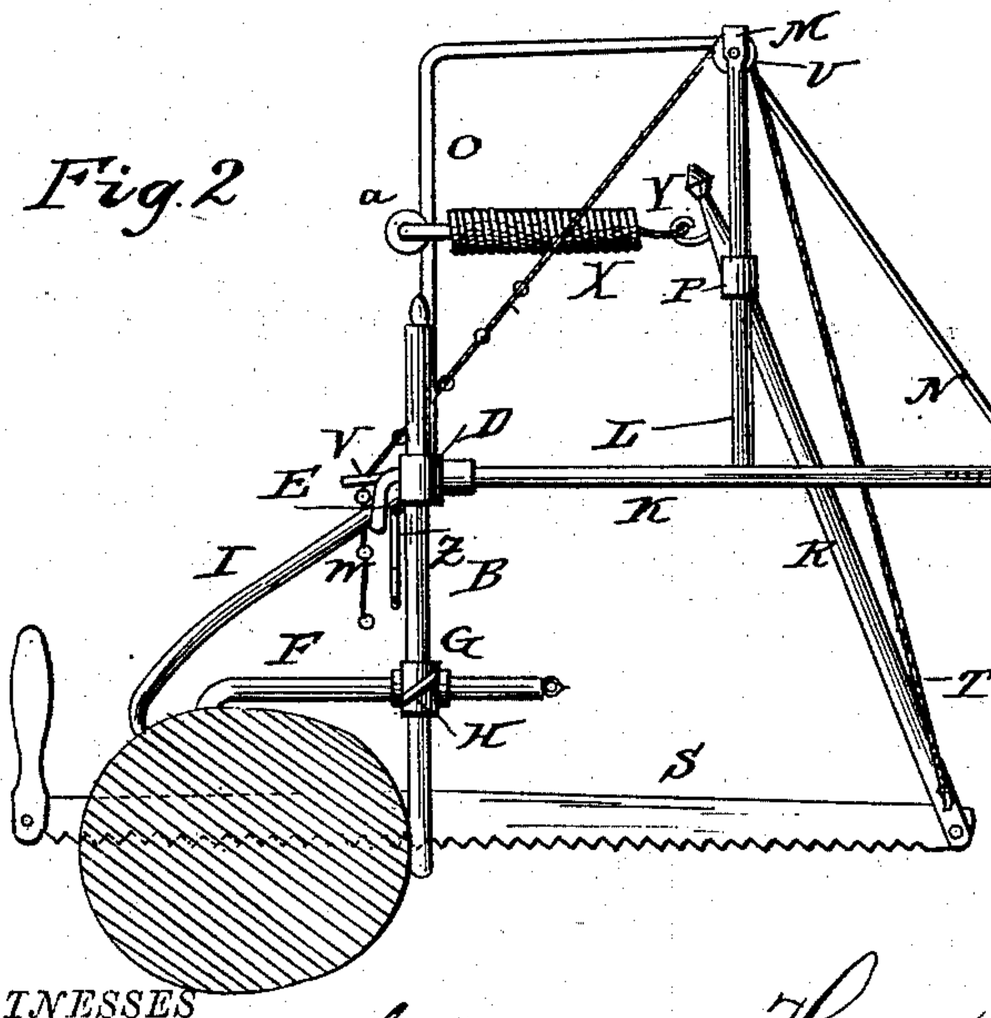
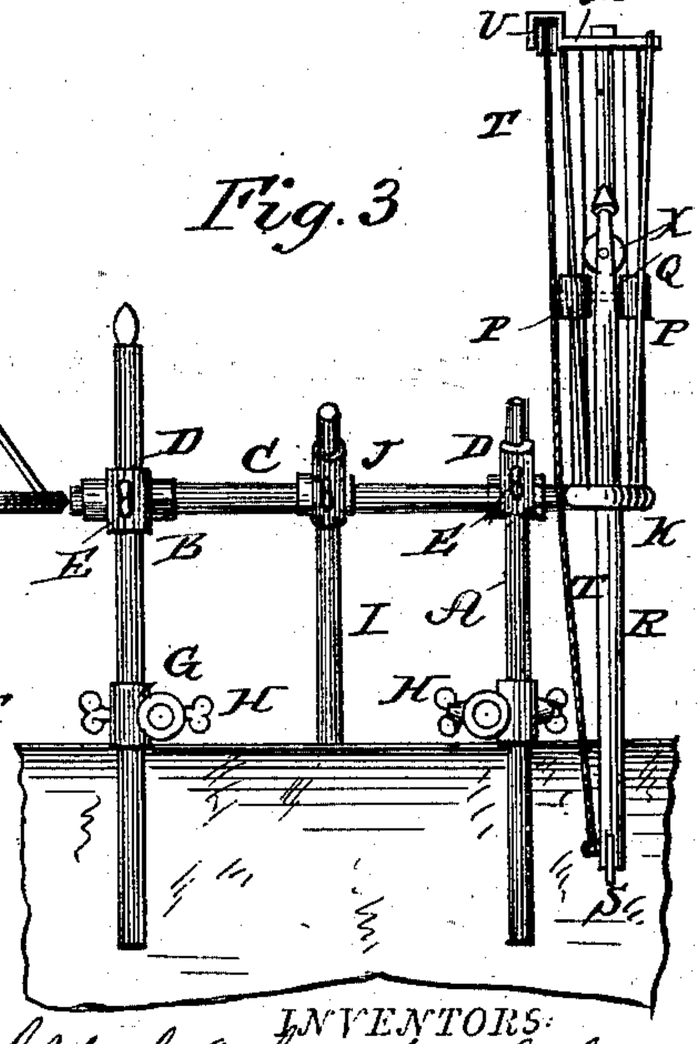


Fig. 3



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UNITED STATES PATENT OFFICE.

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HAND-POWER LOG-SAW.

SPECIFICATION forming part of Letters Patent No. 282,943, dated August 7, 1883.

Application filed May 4, 1883. (No model.)

To all whom it may concern:

Be it known that we, HENRY C. YERBY and EDWARD B. STILSON, of Leslie, in the county of Ingham and State of Michigan, have invented certain new and useful Improvements in Hand-Power Log-Saws; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of our improved hand-power saw. Fig. 2 is a side view of the same, and Fig. 3 is an end view.

Similar letters of reference indicate corresponding parts in all the figures.

Our invention has relation to hand-power crosscut-saws; and it consists in the improved construction and combination of parts of a frame adapted to be fastened upon a log and to guide and assist in drawing the one end of a crosscut-saw, as hereinafter more fully described and claimed.

In the accompanying drawings, the letters A and B indicate two parallel upright bars, adjustably fastened to a cross-bar, C, by means of sliding sleeves D, consisting of two sleeves fastened together, crossing each other at right angles, through which the uprights and cross-bar pass, and may be adjusted by means of set-screws E. Two dogs, F, slide in similar cross-sleeves, G, upon the uprights, and may be adjusted vertically upon the same and horizontally in the sleeves by means of set-screws H. A dog, I, slides in a similar sleeve, J, which slides and turns upon the cross-bar C, and these three dogs serve to secure the uprights and the cross-bar, together with the several saw guiding and operating parts hereinafter described, which are fastened to the cross-bar upon the log. Two parallel guide-bars, K, extend horizontally from one end of the cross-bar, and are connected at their outer ends, and two uprights, L, project from the middle of the two guides, and are connected at their upper ends by means of a cross-piece, M. These uprights are supported by means of two inclined brace-rods, N, extending from the ends of the cross-piece N down to the outer ends of the guides, and by an L-shaped rod, O, fastened with the end of its horizontal portion to the cross-piece M, and with the lower end of its vertical portion to the cross-piece C, between the inner ends of the guides. Two sleeves, P, slide upon the uprights L, and are connected by a short rod, Q, upon which a lever, R, is pivoted near its upper end. The saw S, which is a crosscut-saw of any desirable construction, is hinged to the lower end of this lever at one end, the handle at the said end being removed, and a cord, T, is fastened to an eye upon the lower end of the lever, and passes upward over a pulley, U, upon the end of the cross-piece M, and down to a forked catch, V, upon the cross-bar C, near the inner ends of the guide-bars, where the cord may be adjusted, that end of the cord being provided with a series of knots, W, which will be held by the said catch when the rope is inserted into the same. A spiral spring, X, is fastened, by means of a hook, Y, upon the upper end of the lever R, to the same, the said hook engaging an eye in the one end of the said spring, while the other end of the spiral spring is fastened to a pulley, *a*, which rolls upon the outside of the vertical portion of rod O.

Upon the catch V is fastened a pending hook, Z, upon which the saw may be suspended when not in use.

By the foregoing description, taken in connection with the accompanying drawings, the operation of our sawing device will be easily understood.

When the saw is to be used, the uprights and dogs are adjusted in such a manner that the latter will bite into the upper side of the log, while the former will bear against the side of the same. The hinged dog is thereupon driven into the log some distance over the other side of the log. The saw may now be raised by means of the cord, which may be adjusted in the catch, holding the saw at any desired height, the sleeves sliding upon the uprights L, allowing the lever R and the saw to be raised, and the spiral spring will slide with its pulley at the same height as the end of the le-

ver, and will assist, when the saw has been drawn toward the operator, to draw it to the other side, thus making it possible to use a crosscut-saw instead of a drag-saw, and as the sawing progresses the operator may lower the saw the distance of one knot upon the cord at the time and cut the log to the ground.

By having the uprights sliding upon the cross-bar C and the dogs sliding upon the uprights, the device may be adjusted to suit any size of log, and may cut the log to the last piece, even if the log is cut into very short pieces, by simply moving the uprights closer together.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

1. In a log-sawing machine, the combination of two parellel uprights, having their upper ends sliding adjustably in sleeves, which slide adjustably upon a cross-bar which supports the sawing mechanism, and bearing with their lower ends against the side of the log to be sawed, two dogs sliding adjustably with their straight portions in sleeves which slide adjustably upon the uprights, and adapted to bite into the upper side of the log with their downturned ends, and a dog sliding adjustably in a sleeve hinged and sliding upon the cross-bar, and biting in the upper side of the log beyond the place in which the sliding dogs bite, as and for the purpose shown and set forth.

2. The combination, in a log-sawing machine, of two horizontal guide-bars having means for being supported above a log; two uprights fastened upon the middle of the guide-bars, connected at their upper ends, and braced by two brace-rods to one side and a rectangularly-bent rod to the other side; two sleeves sliding upon the uprights, and having a round rod connecting them; a lever having the one end of a saw hinged to its lower end and pivoted upon the rod connecting the sleeves near its upper end; a spiral spring fastened at one end to the upper end of the saw-lever and having a grooved pulley attached at its other end, traveling upon the vertical portion of the rectangularly-bent rod; a cord attached at its end to the lower end of the saw-lever, passing over a pulley at the top of the frame, and engaging with its knotted end a bifurcated catch upon the supporting-frame, and a saw hinged at one end to the lower end of the saw-lever and having a handle at its other end, as and for the purpose shown and set forth.

3. As an improvement in hand-power log-sawing machines, the combination and arrangement, as described, of the uprights A B, sliding sleeves D, cross-bar C, dogs F, sliding cross-sleeves G, hinged dog I, guide-bars K, uprights L, cross-piece M, brace-rods N, rod O, sliding sleeves P, rod Q, lever R, spring X, pulley *a*, knotted cord T, pulley U, catch V, and saw S, all constructed to operate as and for the purpose shown and set forth.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

HENRY C. YERBY.
EDWARD B. STILSON.

Witnesses:
H. E. ANDREWS,
W. W. PEIRSON.