

G. B. SIMS.

Improvement in Log Lifter.

No. 124,294.

Patented March 5, 1872.

Fig. 1.

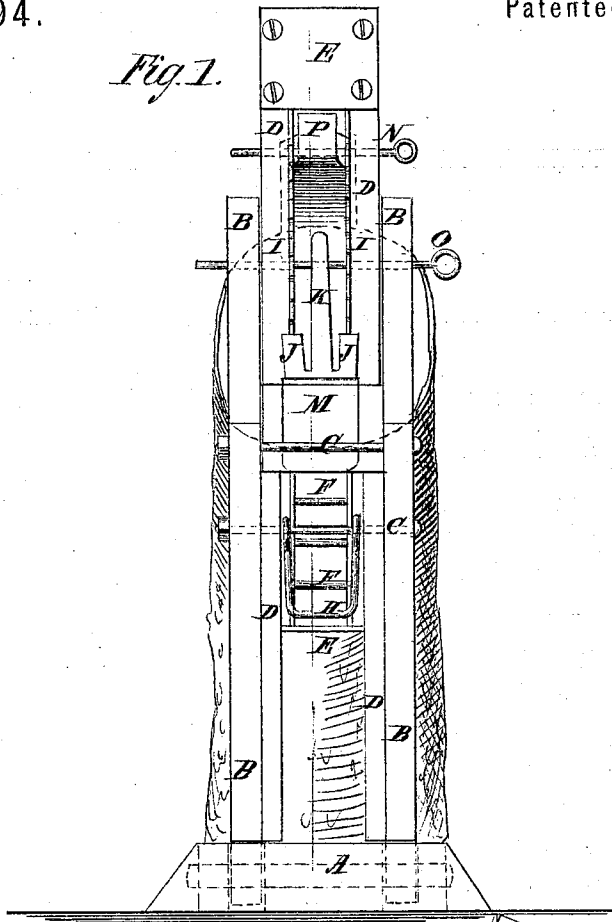
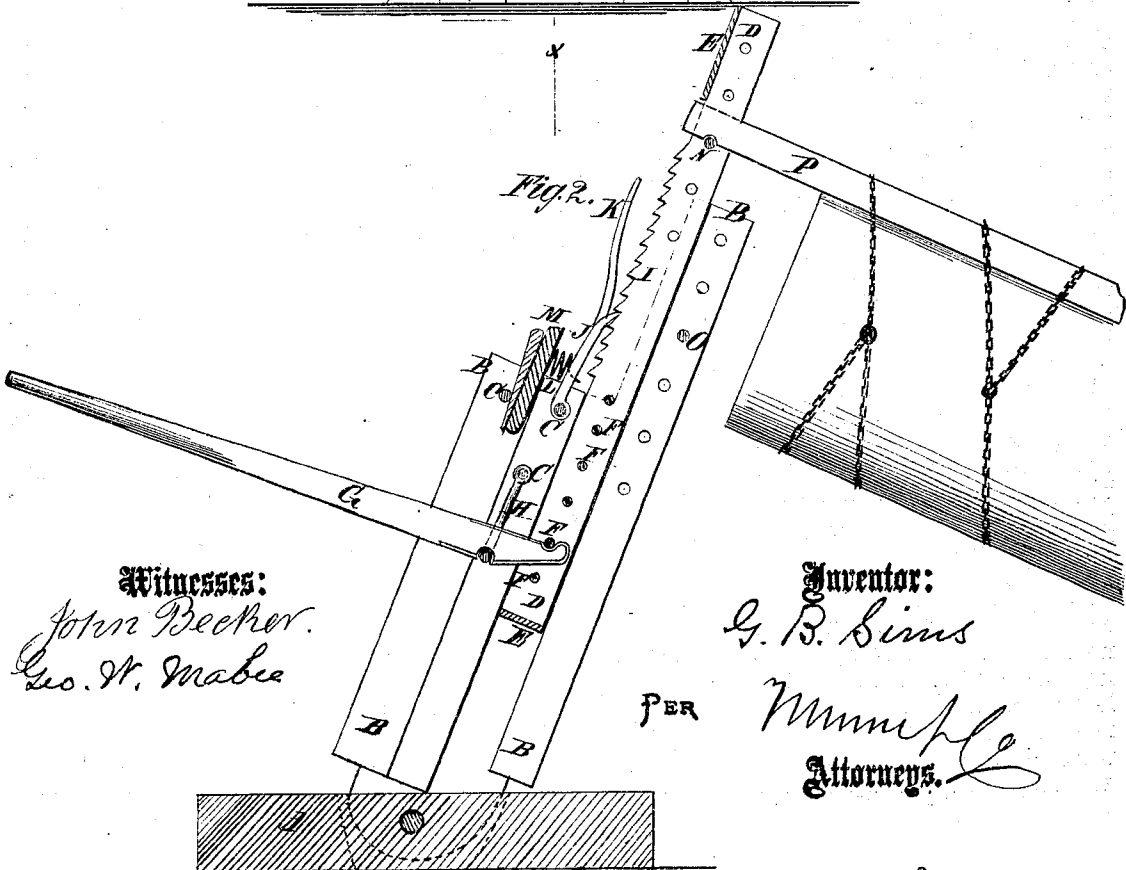


Fig. 2.



Witnesses:

John Becker.
Geo. W. Mabie

Inventor:

G. B. Sims

PER

Munn & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

GREEN B. SIMS, OF ELIZABETH, INDIANA.

IMPROVEMENT IN LOG-LIFTERS.

Specification forming part of Letters Patent No. 124,294, dated March 5, 1872.

Specification describing certain Improvements in Log-Lifter, invented by GREEN B. SIMS, of Elizabeth, in the county of Harrison and State of Indiana.

Figure 1 is a front view of my improved machine, the operating lever being removed. Fig. 2 is a detail vertical section of the same taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved machine for lifting logs and other heavy weights to load them upon wagons, for pulling stumps, and for other similar purposes, and which shall be simple in construction, inexpensive in manufacture, convenient in use, and effective in operation; and it consists in the construction and combination of various parts of the apparatus, as hereinafter more fully described.

A is the base or foundation-frame of the machine, which should be made of such length and breadth as will give a stable support to the machine. In the frame A are formed two parallel slots, in which are pivoted the lower ends of two parallel uprights, B, so that the said uprights may be moved out and in to adjust them to the position of the end of the log or other weight to be raised, the movement being limited by shoulders formed upon the said lower ends. The upper part of the uprights B are made narrower, and they are connected at the shoulder thus formed and held in their proper relative positions by the bolts C. In grooves or ways in the inner sides of the uprights B slide two uprights, D, which are connected and made to move together by plates or cross-bars F. To the lower parts of the uprights D is attached a series of cross-bars, pins, or bolts, F, which serve as supports for the operating end of the lever G, when operating the machine. H is a loop or stirrup, hung from one of the bolts C, to serve as a fulcrum to the lever G. The lever G is notched transversely upon the upper side of its end, to receive the pins F, and upon its lower side at a little distance from its end, to receive the fulcrum-loop H, so as to prevent the said lever from slipping upon the said pins and loop. To the uprights D are attached

rack-bars I, upon the teeth of which the pawls J take hold, to hold the uprights D securely in any position into which they may be raised. The pawls J are made in one piece, or are rigidly connected together and provided with a handle, K, for convenience in withdrawing the pawls J from the rack-teeth I when required. The pawls J are held forward against the teeth of the racks I by a spring, L, one end of which rests against the said pawls, and its other end rests against a block or plate, M, connected with the uprights B. In the sides of the uprights D and B are formed series of holes to receive the pins N and O, as shown in Figs. 1 and 2. P is a bar, one or both ends of which are so formed as to enter between the uprights D and rest upon the pin N. In using the machine for lifting logs, the bar P is chained or otherwise secured to the log. The uprights D B are then moved forward, so that the end of the bar P may enter between the uprights D and rest upon the pin N. The lever G is then operated to raise the uprights D as far as they will go. The pin O is then inserted in the holes in the uprights B, the pin N removed, the uprights D run down, the pin N inserted beneath the end of the bar P, and the uprights D again raised; and so on until the end of the log has been raised to a sufficient height. The rear wheels of a wagon may then be placed beneath the end of the log, and the log lowered upon and chained to them. The machine is then moved to the other end of the log, which is then raised in the same manner and lowered upon and secured to the forward part of the wagon. In raising horse-powers and other heavy weights to load them upon a wagon, two machines should be used, one at each end of the bar P.

In using the machine for pulling stumps, the base-frame A is made in the form of a sled, and is extended forward as far as the outer end of the lever G. In this case a pulley should be attached to the end of the lever G, around which a rope should be passed, which should also be passed around a pulley attached to the forward part of the base-frame or sled A, so that the said lever G may be operated by a horse attached to the end of said rope, one or more machines being used, as may be desired.

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

An improved machine, formed by the combination of the base-frame A, uprights B, bolts C, sliding uprights D, cross-bars or plates E, cross-bars or rods F, lever G, loop or stirrup H, rack-bars I, pawls J, spring L, pins N O, and bar P with each other, said parts being

constructed and operating substantially as herein shown and described, and for the purpose set forth.

GREEN B. ^{his} × SIMS.
mark.

Witnesses:

EDWARD S. COMPTON,
THOMAS B. BIRDWELL.