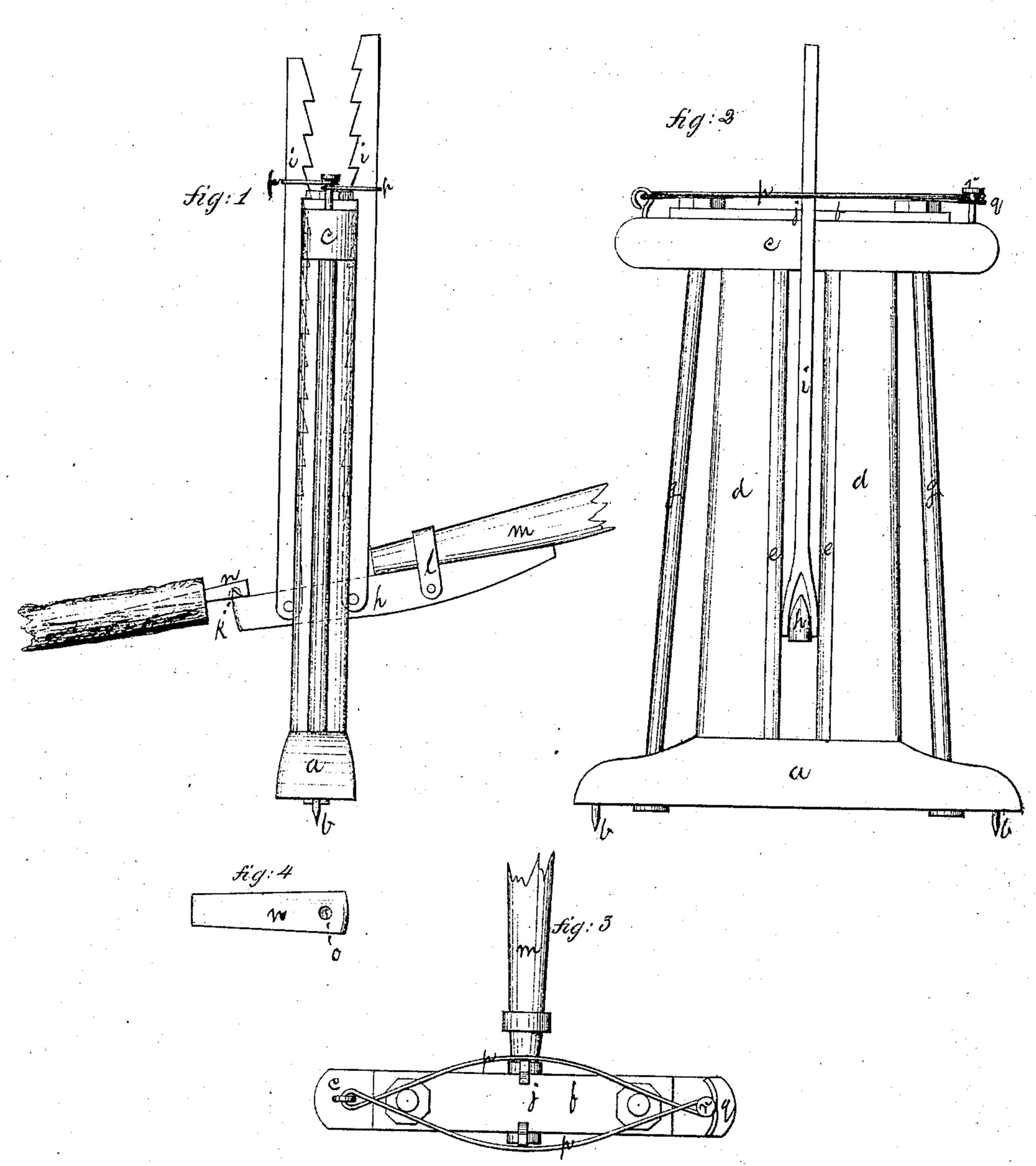
## A. Stavel,

Faterited Feb. 8.1870.



Witnesses
\_\_\_\_\_\_\_Smith

Inventor

## Anited States Patent Office.

## AMENZO SHAVER, OF WARNERVILLE, NEW YORK.

Letters Patent No. 99,717, dated February 8, 1870.

## IMPROVEMENT IN LIFTING-JACKS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, AMENZO SHAVER, of Warner-ville, in the county of Schoharie, and State of New York, have invented a certain new and improved Log-Lifter or Jack; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and to the marks and letters thereon, which said drawings form part of this specification, and represent a log-lifter or jack constructed under my invention—

Figure 1 thereof being a side view in elevation;

Figure 2, a front view; Figure 3, a top view; and

Figure 4, a view of the wedge, used in connection with the lifter, for raising the end of a log or stick of timber.

In each of these figures, where like parts are shown, like marks and letters are used to indicate the parts.

The object of this invention is to facilitate the handling or raising of saw-logs or timber, and placing them on the sled in the timber-cuttings, or on the carriage in the saw-mill.

This log-lifter or jack has a base-piece, a, to the under side or bottom of which pins b are affixed, to give it a firm bearing when in use.

The base-piece a is connected to a top-piece, c, by

uprights d.

The uprights are lined by metal plates c, and a metal plate, f, faces nearly the entire upper surface of the top-piece c.

Rods g bind the plate f and piece c to the base a. Between the plates e is a travelling lever-head, h, having attached to it toothed bars i, which bars embrace, at their upper ends, the top-piece c and plate f, the teeth of the bars i fitting on to the notched surface j of the plate f.

On one end of the lever-head is a tooth, k, and to

the other portion of the head a strap, l, within which fits the hand-lever m.

A wedge, n, shown driven into the end of the log in fig. 1, has a recess, o, into which the pin or tooth k will be fitted when the end of the log is to be raised.

Springs p are attached to the top-piece c, as shown more fully by figs. 2 and 3, the one end, q, of the springs being turned around the pin r, from which they may readily be liberated.

When it is desired to elevate the end of the  $\log$  or stick of timber, the wedge n is driven into the end of the  $\log$ , and the lifter placed as shown by fig. 1 of the drawing.

By the upward and downward movement of the lever, the lever-head is actuated, the toothed bars alternately rising, the tooth of one bar on the plate f alternately being the fulcrum of the other bar, and thus the end of the log is raised to the required elevation, and the log or stick of timber favorably placed to be loaded on the sled or saw-mill carriage.

Without the wedge, this lifter may be used as a jack for elevating any object or article to which it is suitable, as the same movements of the parts for actuating the lever-head will raise any weight not above the capacity of the lifter as readily as the saw-log or stick of timber.

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

A lifter or jack, having a travelling lever-head, h, with the toothed bars i and springs p, arranged within and upon a frame, and operated as herein set forth.

This specification signed this 13th day of December, 1869.

AMENZO SHAVER.

Witnesses:

MINARD HARDER, GEO. D. HARDER.