2. Sheets, Sheet 2.

J. C. Climes,

Sewing Machine.

No. 109,178. Patented Nov. 15, 1870.

FIG. 2.

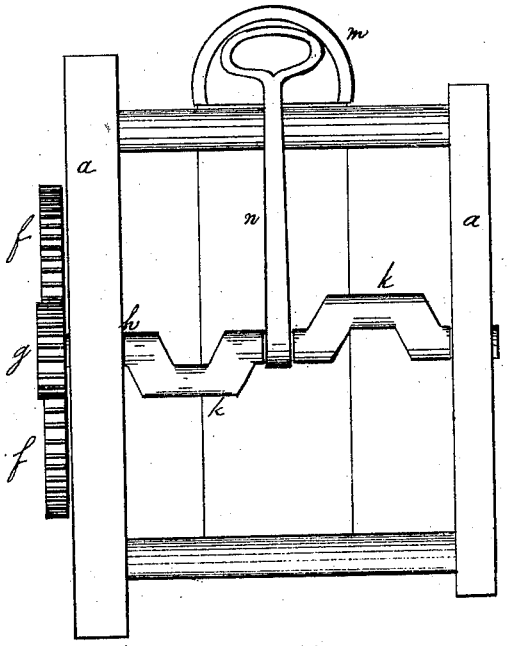
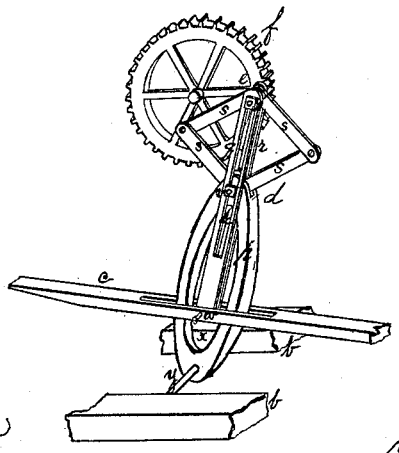


FIG. 3.



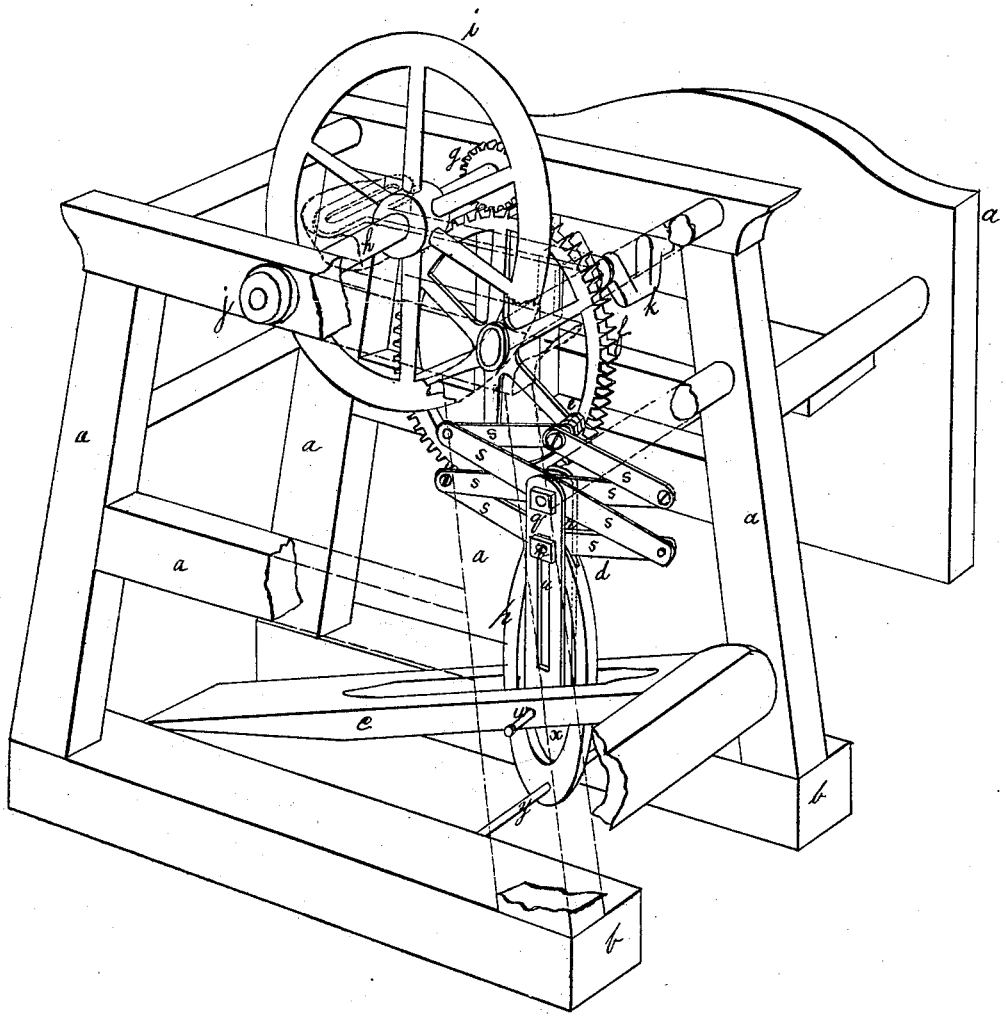
Witnesses.
Wm. R. Wright.
Wm. Burns

Inventor
John C. Climes

J. C. Climes, 2. Sheets, Sheet 1

Sawing Machine.

No. 109178. Patented Nov. 15. 1870



Witnesses { Wm. R. Wright
Wm. Burns.

Inventor
John C. Climes

United States Patent Office.

JOHN C. CLIME, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 109,178, dated November 15, 1870; antedated November 11, 1870.

IMPROVEMENT IN SAWING-MACHINES.

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, JOHN C. CLIME, of Philadelphia, Pennsylvania, have invented certain new and useful Improvements in Foot-power Sawing-Machines, of which the following is a specification.

My invention consists of a combination of the driving-wheel, auxiliary double crank, and operator's seat and bracing-rod, as hereinafter described.

In the drawing—

Figure 1 represents a perspective view of the machine, a portion of the frame being broken away.

Figure 2, a plan of the double crank on the prolongation of the driving-wheel shaft, and the operator's seat and bracing-rod.

Figure 3, a perspective view, intended to show a modified form of the compound pitman; also, the attachment of the pitman at one extremity to the crank of the driving-wheel and at the other extremity to the treadle.

In fig. 1—

a is the frame of the machine, and

b the floor on which it rests.

c, the treadle, which turns on gudgeons or centers in the uprights of the frame.

d, the compound pitman, the upper extremity of which is connected with the crank *e* on the driving-wheel *f*.

g is a pinion. It gears into the driving-wheel *f*, and is placed on shaft *h* of the fly-wheel *i*.

j is the saw-head.

In figs. 1 and 2—

k is the double crank on the prolongation of the driving-wheel shaft.

m is the seat, and

n, a bracing-rod, for the use of an assistant operator.

The pitman *d* is made up of the oscillating lever *p*, the two slotted similar levers *q* and *r*, and the several levers *s*, the latter being united by flexible joints, so as to constitute an expanding and contracting frame-work, as shown.

The levers *q* and *r* have a vertical as well as an oscillating motion. Their upper ends are attached to the pin, which forms the middle joint of the levers *s*, as shown in fig. 1, and they oscillate on this pin; or, if the modified arrangement shown in fig. 3 is used, the levers *q* and *r* are attached to the pin in the top-most joint, as appears in this figure.

The levers *q* and *r* are provided with slots *u*, which enable them to straddle the bolt *v*, which is thus caused to guide the lower end of the frame-work, composed of the jointed levers *s*.

The levers *q* and *r* are attached, at their lower ends, by a pin or bolt, *w*, to the treadle, at or about the middle of the length of the treadle.

The lever *p* vibrates on a fulcrum-pin, *y*, and is provided with an opening, *x*, to make way for the curvilinear movement of the pin *w*; but, instead of forming such an opening in lever *p*, the latter may be made solid, and curved or bent, so as to be out of the way of pin *w*.

I prefer to make the several parts of the pitman *d* of steel.

The machine is operated either by a single person or with increased power by the aid of an assistant, who occupies the seat *m* and applies his feet to the double crank *k*, bracing himself with rod *n*.

The compound pitman *d* may be advantageously applied to turning lathes and other kinds of machinery.

I disclaim the compound pitman *d*, as that device appears in the patent, No. 68,074, granted to Edward Healy August 27, 1867.

What I claim is—

The combination of the double crank *k*, operator's seat *m*, bracing-rod *n*, and driving-wheel *f*, substantially as set forth, for driving a foot-power circular saw.

JOHN C. CLIME.

Witnesses:

WM. R. WRIGHT,

J. M. COLGAN.