

2. Sheets. Sheet 2.

*J. C. Climes,*  
Sawing Machine.  
No. 109178. Patented Nov. 15. 1870.

FIG. 2.

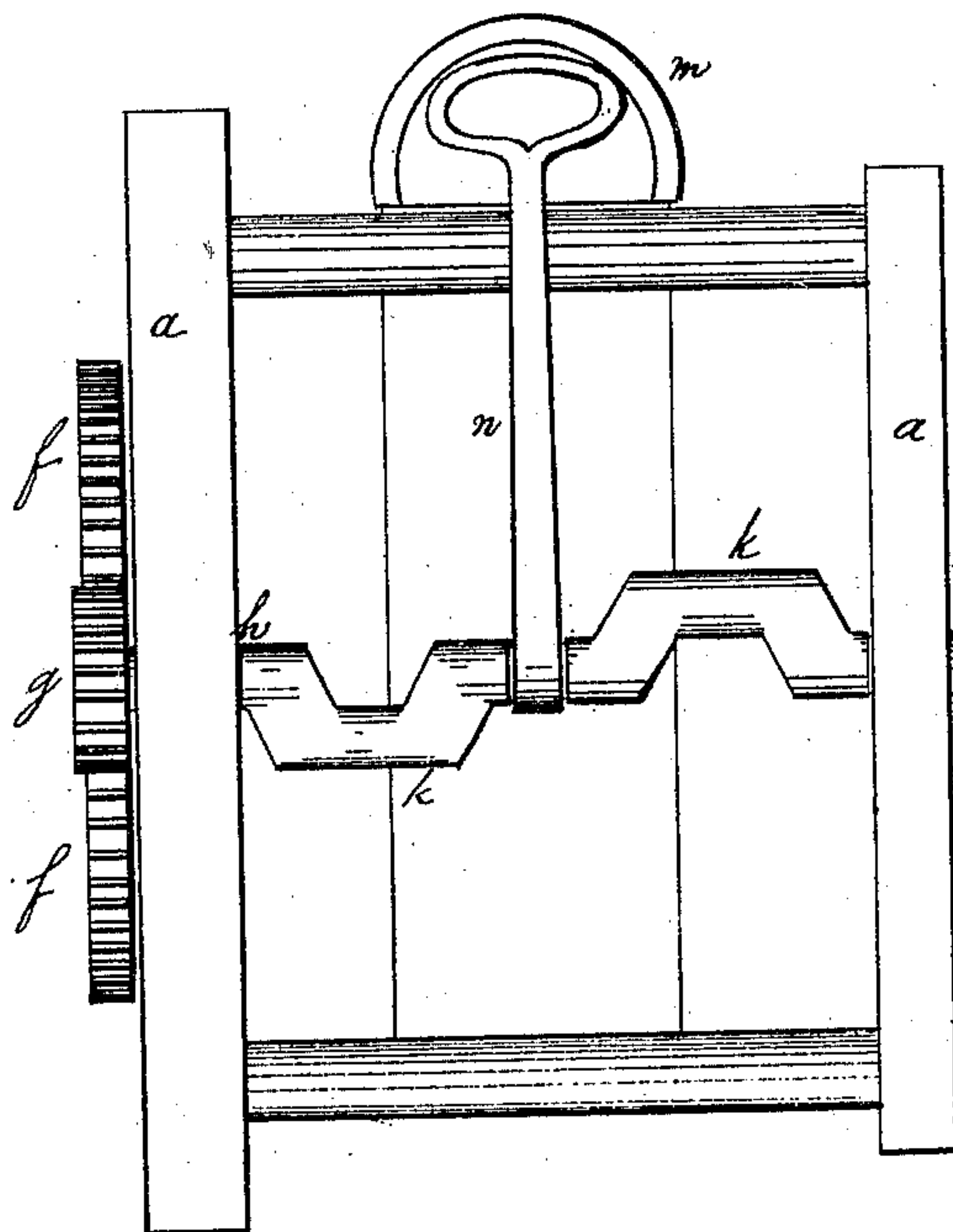
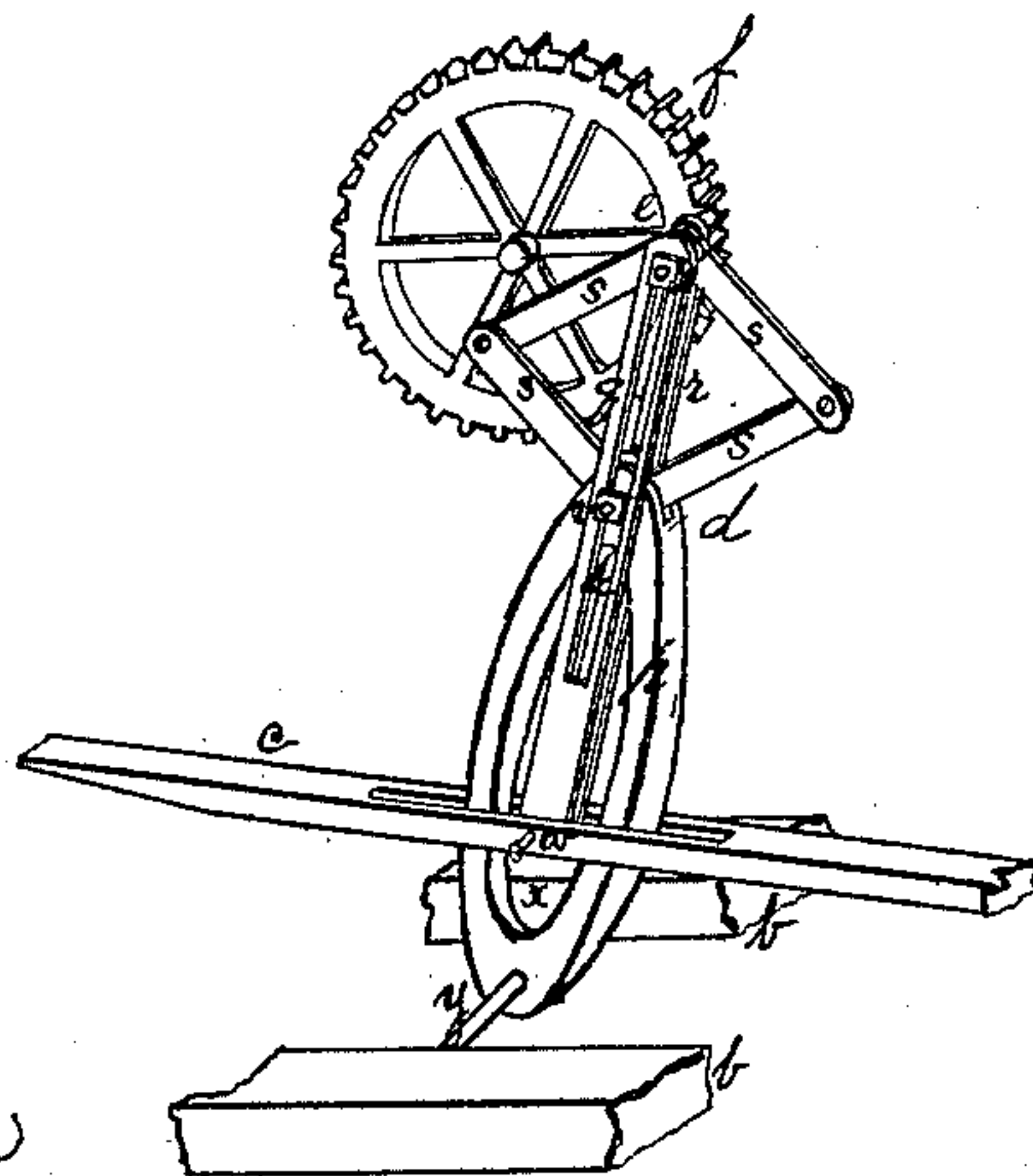


FIG. 3.



Witnesses

*Thos. R. Knight.*  
*Wm. J. Burns*

Inventor

*John C. Climes*

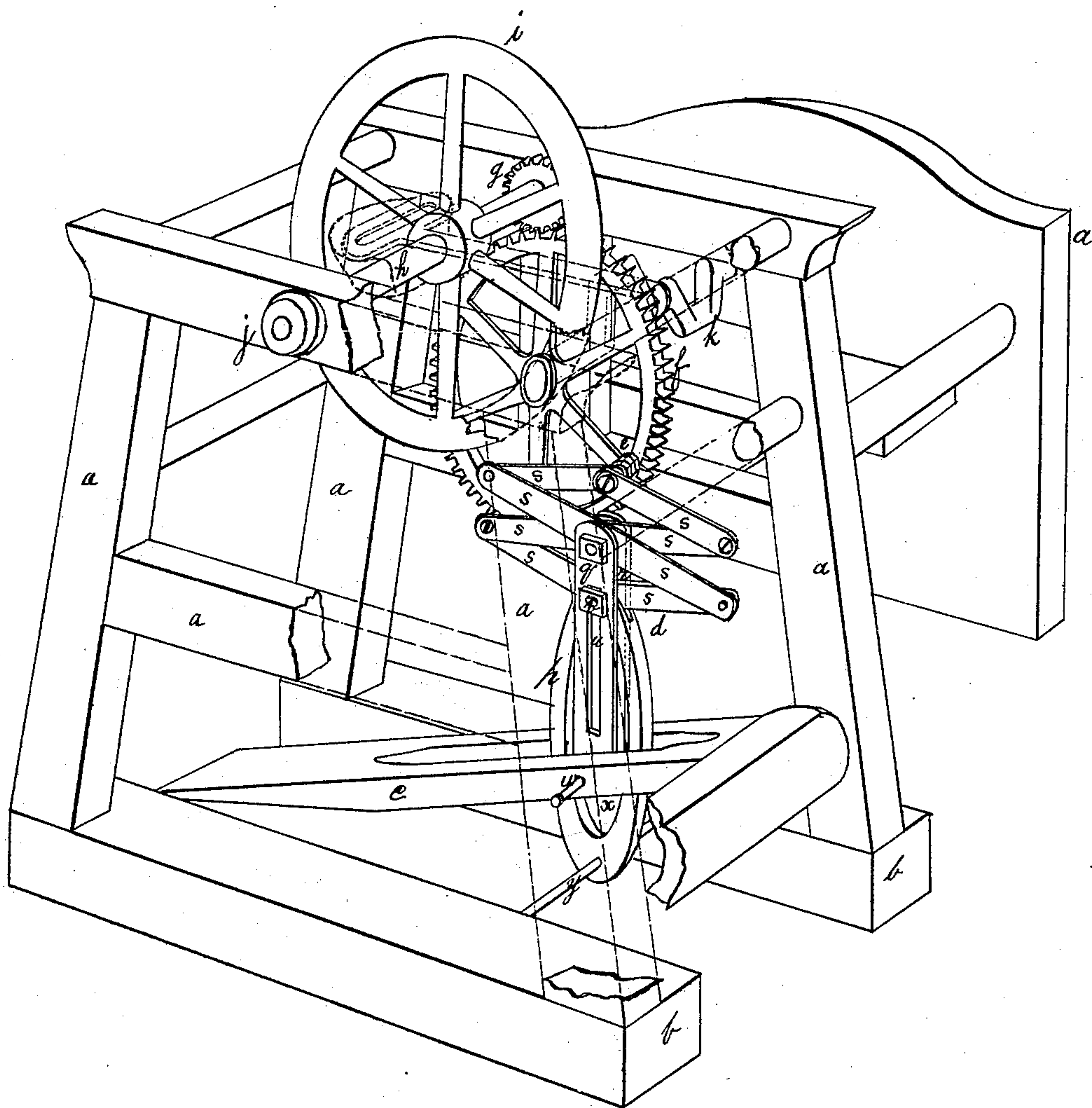
J. C. Climes,

2. Sheets, Sheet 1

Sawing Machine.

No. 109178.

Patented Nov. 15. 1870



Witnesses { Mr. R. Wright.  
Mr. Burns.

Inventor

John C. Clime



# 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 framework, 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 topmost 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.