

W. L. Williams,

Bundling Wood.

No. 111,796.

Patented Feb. 14, 1871.

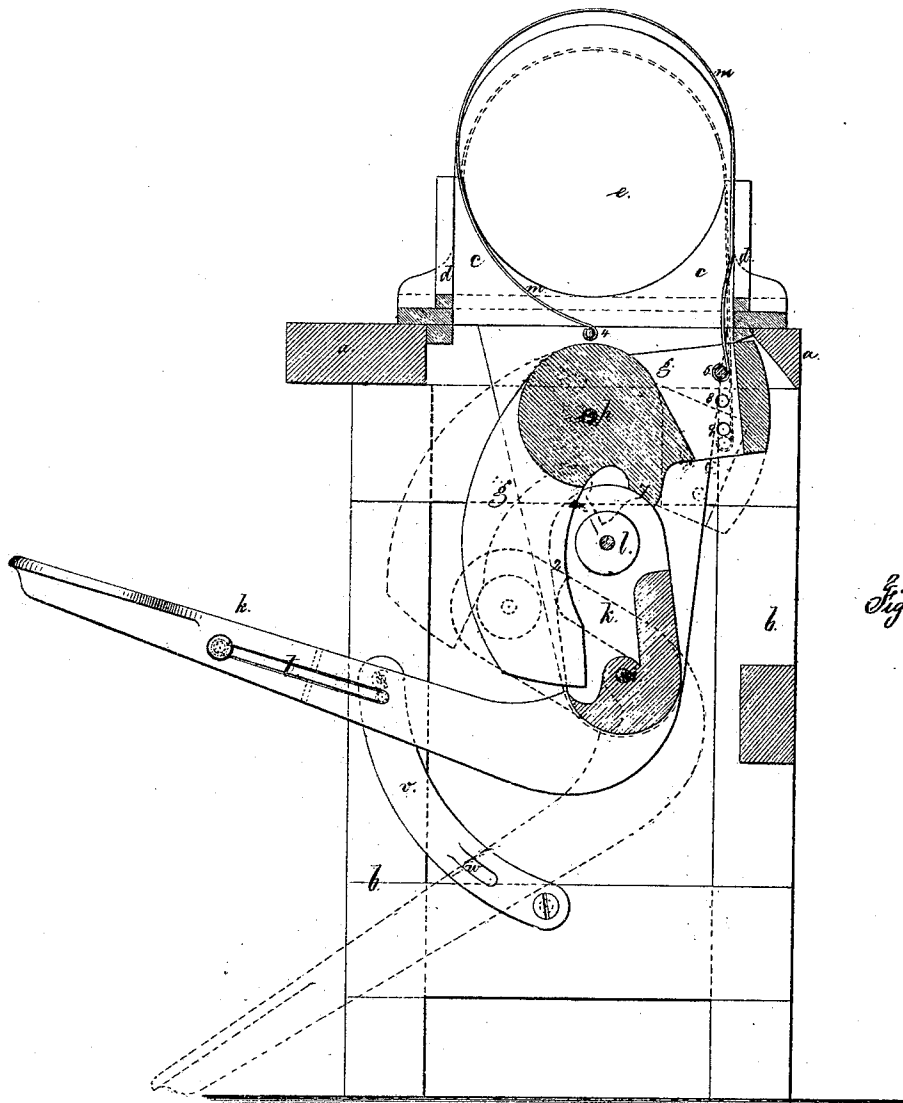


Fig. 2.

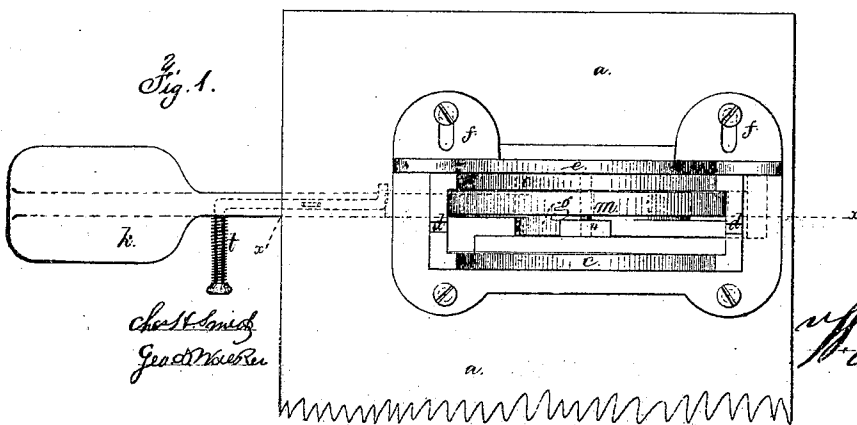


Fig. 1.

Charles H. Condit
General Machine

W. L. Williams

United States Patent Office.

WILLIAM L. WILLIAMS, OF NEW YORK, N. Y.

Letters Patent No. 111,796, dated February 14, 1871.

IMPROVEMENT IN MACHINES FOR BUNDLING WOOD.

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, WILLIAM L. WILLIAMS, of the city and State of New York, have invented and made an Improvement in Machines for Bundling Kindling-Wood; and the following is declared to be a correct description of the same.

In machines for bundling kindling-wood heretofore constructed, it is usual to employ pressure by a strap or band to concentrate and compress the bundle of kindling-wood, as shown in Letters Patent granted to me May 8, 1860.

In other cases a ring has been used, and a swinging segment operated by a cam, as in the English patent No. 5,169, for 1825.

My invention is devised for facilitating the bundling operation by the use of cams and levers arranged so that the band that is used to compress the wood will be held in a spread or distended condition while the wood is packed into the same and becomes the measure of the quantity; then the depression of the foot-lever compresses the wood and holds the same firmly while being retained by a string or wire, after which the releasing of the lever and moving it to the point of beginning relieves the bundle from pressure, so that my mechanism enables the operator to give a very powerful compression with comparative ease, because the cam action lessens the motion, increasing the power exerted to compress the bundle as the movement progresses.

In the drawing—

Figure 1 is a plan, and

Figure 2, a vertical section at the line *x x*.

The bed *a* is sustained upon a frame or legs, *b b*, and above this bed *a* are the semicircular supports *c* for receiving the wood to be secured in a bundle.

Between these supports *c* there is a groove or opening, *d*, in which the string or wire is to be laid.

The fence *e* is secured by the flanges *f* and screws passing through slots, so that the position of the fence can be adjusted in order that the string or wire may be at or near the middle of the bundle, the said fence *e* forming a stop for the ends of the pieces of kindling-wood.

Beneath the bed *a* is a cam-lever, *g*, on a fulcrum, *h*, and this cam-lever is moved by a bent lever or treadle, *k*, on the fulcrum *i*, and this lever *k* carries a roller, *l*, that operates against the cam portion 2 of the lever *g*.

The roller *l* is placed in a jaw in the lever *k*, and the part 2 of the lever *g* comes between the sides of that jaw.

The compressing-band *m* is made of hoop-iron, wire, or other material. I have shown one end as attached at 4 to the bed *a*, and the other end as connected by a pin, 5, with mortised or jaw portion of the lever *g*, but both ends of said band might be attached by this pin 5 to the lever *g*, if desired.

It is now to be understood that the treadle *k* is to be pressed down by the foot, and in so doing the roller *l*, acting against the cam surface 2 of the lever *g*, exerts a powerful force to draw upon the band *m* and compress the bundle of wood, and when the parts pass into the position shown by dotted lines in fig. 2, the roller *l*, coming against the flat surface of *g*, will remain in that position and hold the wood firmly, even when the foot is removed from the treadle, so that the operator is free to employ both hands in tying the bundle.

The parts are relieved by raising the treadle *k*, and the jaws adjacent to the roller *l*, acting upon the projection 7 of the lever *g*, raises that end up, and distends the band to the size shown by full lines, thereby liberating the bundle of kindling-wood and allowing it to be removed, and loose wood packed into place for another bundle.

I remark that the band *m* becomes a measure to determine the amount of wood placed in to form a bundle, and I provide the holes 8 and 9 for varying the effective length of the band *m*, so as to regulate the size of the bundle.

A latch, *t*, operated by a spring may be employed to hold the treadle *k* up in the normal position, the end of the latch passing into a hole in the sector *v*, and a hole or inclined groove at *w* may be used to steady the treadle when depressed.

I claim as my invention—

The treadle *k* and roller *l*, acting against the cam surface 2 of the lever *g*, in combination with the band *m* and supports *c*, the parts being constructed and arranged substantially as and for the purposes set forth.

Dated this 19th day of May, A. D. 1870.

W. L. WILLIAMS.

Witnesses:

CHAS. H. SMITH,
GEO. T. PINCKNEY.