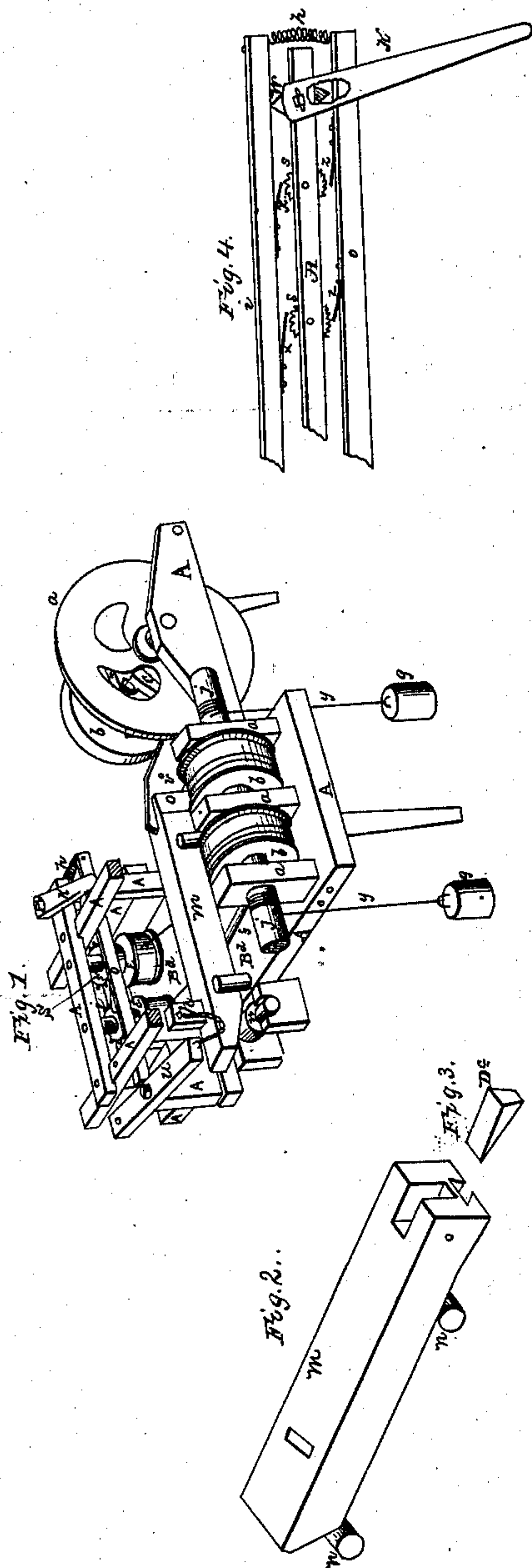


J. P. Luther,
Making Whips,

No. 68,762,

Patented Sept. 10, 1867.



Witnesses.
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JUSTUS P. LUTHER, OF BERLIN, WISCONSIN.

Letters Patent No. 68,762, dated September 10, 1867.

IMPROVED MACHINE FOR ROLLING WHIPS.

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

Be it known that I, JUSTUS P. LUTHER, a citizen of the United States, and a resident of the city of Berlin, county of Green Lake, and State of Wisconsin, have invented a new, useful, and improved Machine for Rolling all Sorts and Sizes of Whips and Whip-Lashes; and I do hereby declare the following to be a full and exact description of the same, and of the construction and operation thereof, reference being had to the accompanying drawings, being Figures 1, 2, 3, and 4, and the letters of reference marked thereon.

This machine consists of the different parts represented in figs. 1, 2, 3, and 4, which I will now explain and describe.

Figure 1 is a diagonal and downward view from the rear left-hand corner, and represents the frame A A A A A A, the surface of the table B d B d, the crank-wheel *b*, crank *c*, fly-wheel *d*, pitman *v*, the movable and adjustable rolling-block *m*, one of the elevating-rollers *n n*, the driving-post *p*, the chain *l*, the main lever *u*, a small part of the hand-bar *i*, the eccentric lever *k*, part of the eccentric *w*, the dog-bar *o*, the ratchet-wheels *s s*, the small pulleys *e e*, the spiral spring *h*, the large pulleys *f f*, the weight-cords *y y*, and the weights *g g*.

Figure 2 is a diagonal side and front view of the rolling-block *m*, in connection with the rollers *n n*.

Figure 3 is a representation of the wedge D *b*.

Figure 4 is a bird's-eye view of a section of the machine, showing the hand-bar *i*, the hands *x x*, the dog-bar *o*, and the dogs *z z*, at the moment when the machine is thrown out of gear by pushing forward the eccentric lever *k*.

A rolling-bed of marble may be embedded in the table, underneath and upon the path of the rolling-block *m*, which latter may also be faced with marble, so that the whips may be rolled between two marble surfaces.

This machine is so constructed that two whips may be rolled by it simultaneously, whether alike or of different sizes or shapes, the rolling-block *m* adjusting itself to the peculiar form, size, and taper of each. The following is the manner of operating it:

The whips or lashes to be rolled are laid upon the table lengthwise, and parallel to each other, at right angles with and underneath the rolling-block *m*, and attached by means of cords and hooks to the large pulleys *f f* and the small pulleys *s s*, as seen in fig. 1, wherein the whips are marked *q q*. When the machine is worked by hand the operator stands to the right of the crank-wheel *b* and turns it. The crank-wheel *b* and the fly-wheel *d* rest upon the same axles, and are solidly connected by the crank *c*, consequently all three are turned by the same motion. By this movement the pitman *v* is caused to push forward the rolling-block *m*, which, as it moves on, rests upon, presses, and rolls the whips, until the driving-post *p*, which is inserted in the rear end of the rolling-block *m*, strikes and moves forward the main lever *u*, and the rolling-block *m* is at the same moment lifted off the whips by running up on the elevating-rollers *n n*. The main lever *u* being thus moved forward pushes back the hand-bar *i*, causing the hands *x x* to catch and move the ratchet-wheels *s s*, to which they adjust themselves by means of the spiral spring *h*. The ratchet-wheels *s s* being firmly fixed to the small pulleys *e e*, both are turned by the same movement, and the whips being freed from the rolling-block are taken up by the small pulleys *e e* and paid out by the large pulleys *f f*, the weight-pulleys *j j*, which are the axles of the large pulleys, at the same time taking up the weight-cords *y y*. (I have now described the operation of the machinery during the first half turn of the crank *c*.) By the next half revolution of the crank the pitman *v* is of course drawn back, pulling the rolling-block *m* down off the elevating-rollers *n n*, and back over the whips, pressing and rolling them on its return, and pulling back the main lever *u* and the hand-bar *i*, the dogs *z z* meantime catching and retaining the ratchet-wheels *s s*, to which they adjust themselves by means of the spiral spring *h*. This operation is continued until the whips are completely rolled. The machine is then stopped at the moment when the rolling-block *m* is elevated upon the rollers *n n*. The machine is then thrown out of gear by pushing the eccentric lever *k* forward toward the centre of the table, thus throwing farther apart the hand-bar *i* and the dog-bar *o*, and releasing the ratchet-wheels *s s*, when the motion of the pulleys is immediately reversed by the power of the weights *g g*, and the whips are paid out by the small pulleys *e e*, and taken up by the large pulleys *f f* and detached from the hooks.

The rolling-block *m* may be elevated more or less to compare with the size of the whips to be rolled by having elevating-rollers of different sizes for the rear, and by the proper adjustment of the wedge D *b* in the front end of the rolling-block below the pitman-joint in a groove made for that purpose, as represented in fig. 2, making a more abrupt plane for the forward elevating-roller.

This machine may be operated by steam or other power imparted to the crank-wheel *b* by the use of cogs or belts, or any of the common devices for that purpose.

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

1. The application of a pitman, driven by steam or other power, to a block for rolling whip-lashes, moving at right angles with the lash, substantially as specified.

2. The application of inclined planes at each end of a block for rolling whip-lashes to the elevating-rollers *n n*, or any equivalent device, so as to lift the block and allow the lashes to slide, substantially as specified.

3. The combination of the pitman *v*, rolling-block *m*, rollers *n n*, driving-post *p*, main lever *u*, hand-bar *i*, hands *x x*, ratchet-wheels *a a*, and small pulleys *e e*, so as to roll the lashes and slide them under the rolling-block.

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Witnesses:

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