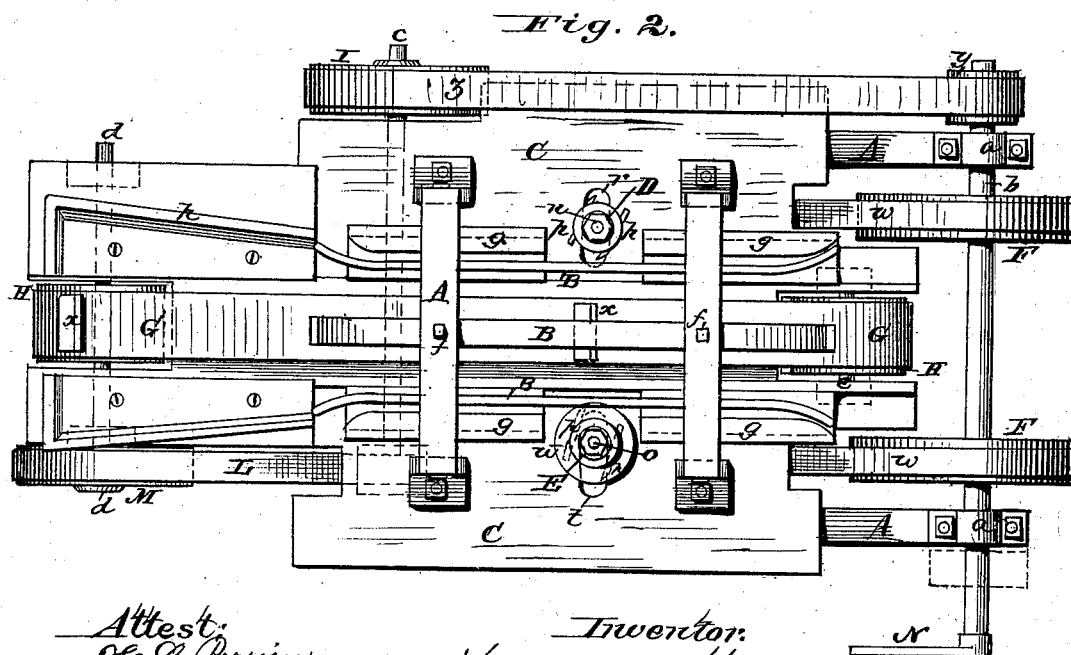
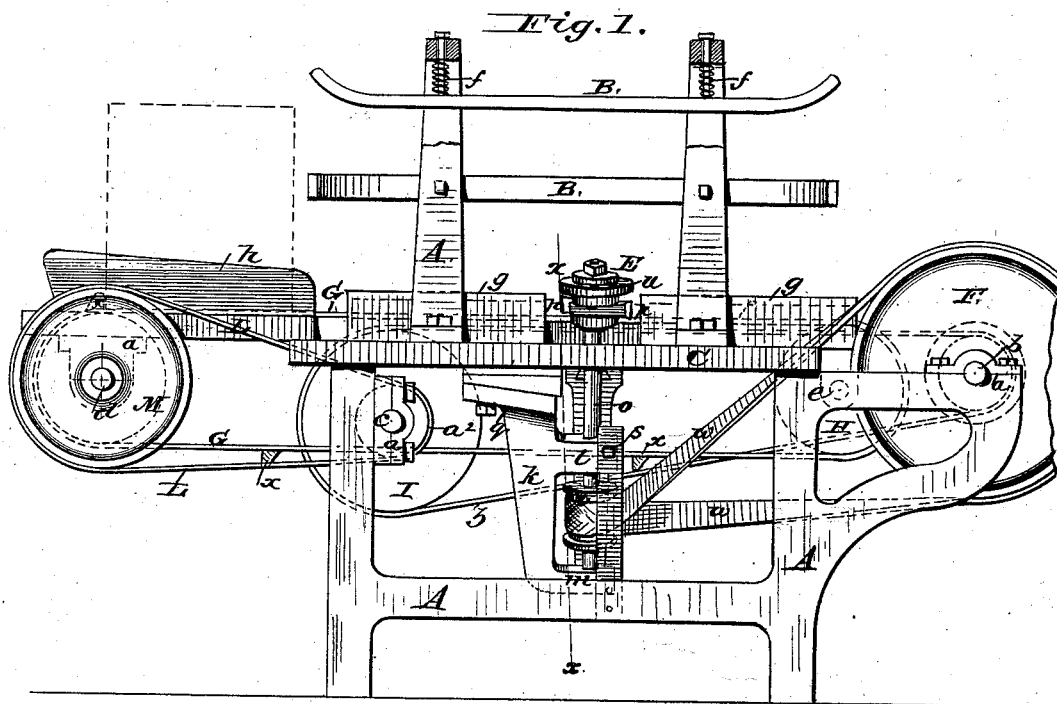


F. MYERS. Machine for Trimming Wooden Boxes.

No. 201,822.

Patented March 26, 1878.



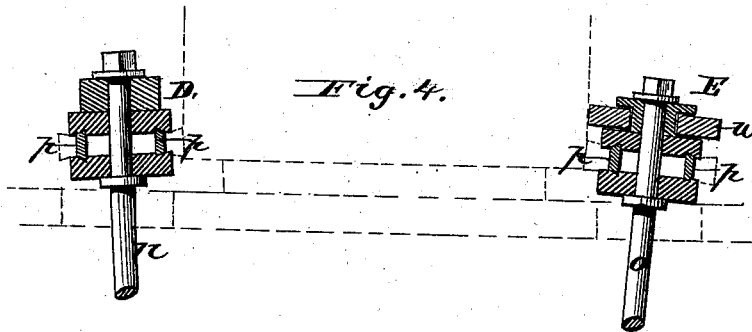
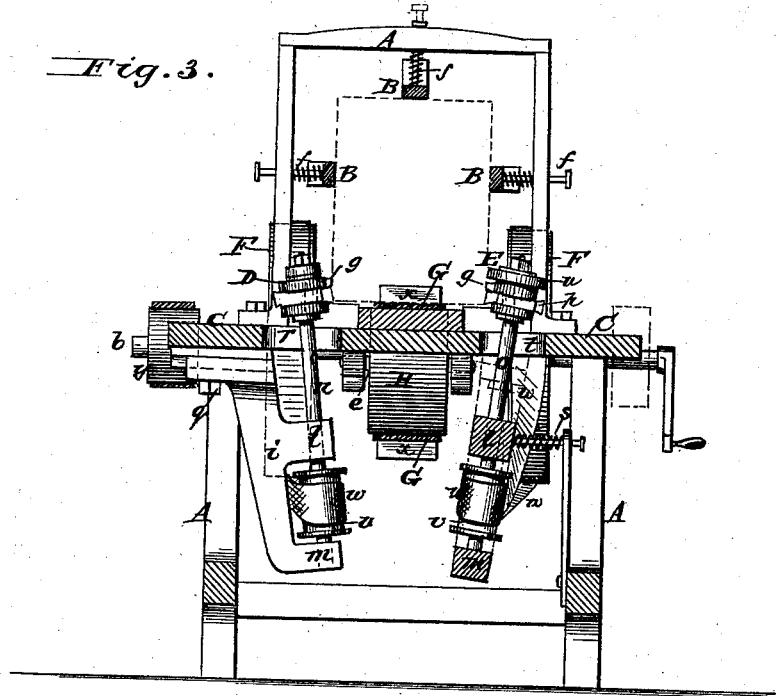
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UNITED STATES PATENT OFFICE.

FREDERICK MYERS, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR TRIMMING WOODEN BOXES.

Specification forming part of Letters Patent No. 201,822, dated March 26, 1878; application filed January 8, 1878.

To all whom it may concern:

Be it known that I, FREDERICK MYERS, of New York, in the county of New York, in the State of New York, have invented certain new, useful, and important Improvements in Machines for Trimming Packing-Boxes, and the like, as shown, described, and claimed in this specification.

In the manufacture of packing-boxes, although the material may be cut with great care, the edges of the boxes usually require trimming. This is commonly done by hand with a plane. It has been attempted by machinery, but with only partial success. The cutters were not adapted to various sizes of boxes; the boxes had to be moved by hand through the machine; and if the tops were not on the boxes, only one edge could be trimmed without turning the boxes.

To overcome these difficulties and objections, and thereby facilitate the work of trimming boxes and materially reduce the cost of the same, is the object of my improvements.

My invention consists of a machine having a supporting-frame, a self-adjusting cutter, self-adjusting guide or guides, a carrier, and operating mechanism.

It consists, further, in a self-adjusting cutter, having a gage to bear against the work.

Figure 1 is a longitudinal vertical section of a machine embodying the invention. Fig. 2 is a plan view thereof. Fig. 3 is a transverse vertical section of the same, and Fig. 4 is an enlarged view of the cutters.

A is a supporting-frame, having bearings *a* for the shafts *b*, *c*, *d*, and *e*. B are yielding box-guides, rendered self-adjusting by sliding rods and retracting-springs *f*, to conform to boxes of different sizes, and preferably curved at their ends, for the easy entrance and exit of the boxes. C is a table, having fixed guards *g*, and a centering-chute, *h*, tapering toward the guides and guards, to give the boxes a proper start toward the cutters. D and E are the cutters, supported by arms *i* and *k*, each of which has two bearings, *l* and *m*, for the spindles *n* and *o*. The cutters each have one or more blades, *p*, and are placed at an angle to give a bevel-cut to the edges of the boxes, and avoid nails that may have turned outward in the sides of the boxes. The cutter D is ad-

justable by means of a set-screw and a slide, *q*, which connects the arm *i* to the frame or table, and a slot, *r*, in the table. The cutter being properly set, its blades are protected by the guards *g*. The cutter E is self-adjusting by means of the arm *k*, pivoted to the frame or table, so as to yield to pressure on the spindle, a sliding rod, and retracting-spring, *s*, and a slot, *t*, in the table. The cutter, being self-adjusting, has a loose collar or other gage, *u*, to press against the boxes as they pass, to limit the cutting of the blade or blades, and prevent injury to the boxes. The cutters are operated by small pulleys *v* and *v* on spindles *n* and *o*, cross-belts *w* and *w*, and large drums F and F on shaft *b*.

G is a box-carrier, passing over and under the table, to carry the boxes between the cutters and the guides, and having projections *x* at intervals, to prevent the boxes from slipping back. The box-carrier is supported on two drums, H and H, of equal size, one on shaft *d*, the other on shaft *e*, and it is operated by a fixed pulley, *y*, on shaft *b*, direct belt *z* to large drum I on shaft *c*, fixed pulley *a*² on shaft *c*, direct belt L to large drum M on shaft *d*, which imparts motion to the box-carrier drums H and H.

To trim the upper edges of the boxes as they pass through the machine, similar cutters may be supported and driven above the cutters D and E, thus to trim the top and bottom edges at the same time.

Power may be applied by hand by means of a crank, N, or by steam, or otherwise, by means of belt or gearing.

The details of construction and operation, as described, may be varied without departing from my invention, and similar work to trimming boxes may be accomplished thereby.

I claim—

1. A self-adjusting cutter having a gage to bear against the work, to limit the cutting of the blade, substantially as shown and described.
2. The combination of a self-adjusting cutter having a gage to bear against the work, a carrier, and driving mechanism, substantially as shown and described.
3. The combination of a self-adjusting cutter having a gage to bear against the work,

an adjustable cutter, a carrier, and driving mechanism, substantially as shown and described.

4. The combination of a self-adjusting cutter having a gage to bear against the work, an adjustable cutter, a self-adjusting guide, and driving mechanism, substantially as shown and described.

5. The combination of a self-adjusting cutter having a gage to bear against the work, a self-adjusting guide, a carrier, and driving mechanism, substantially as shown and described.

6. The combination of a self-adjusting cutter, an adjustable cutter, a carrier, self-adjusting guides, and driving mechanism, substantially as shown and described.

7. A self-adjusting cutter having a gage to

bear against the work, an adjustable cutter, a carrier, a self-adjusting guide or guides, and operating mechanism, substantially as shown and described.

8. The combination of a supporting-frame, a table having a chute and guards, a self-adjusting cutter, an adjustable cutter, a carrier, self-adjusting guides, and driving mechanism, substantially as shown and described.

In testimony whereof I hereunto set my hand, at the city of New York, in presence of two attesting witnesses this 28th day of December, A. D. 1877.

FREDERICK MYERS.

Witnesses:

O. LIGHTOWLER,
S. R. WHITEHEAD.