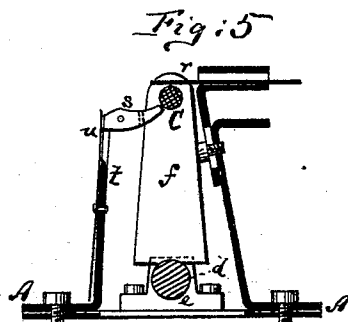
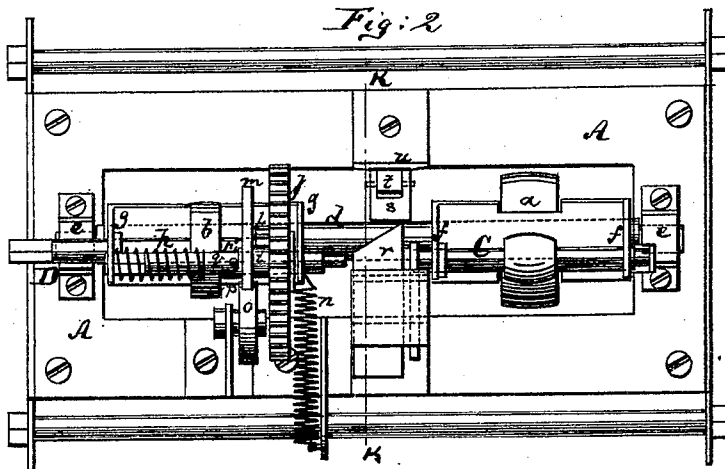
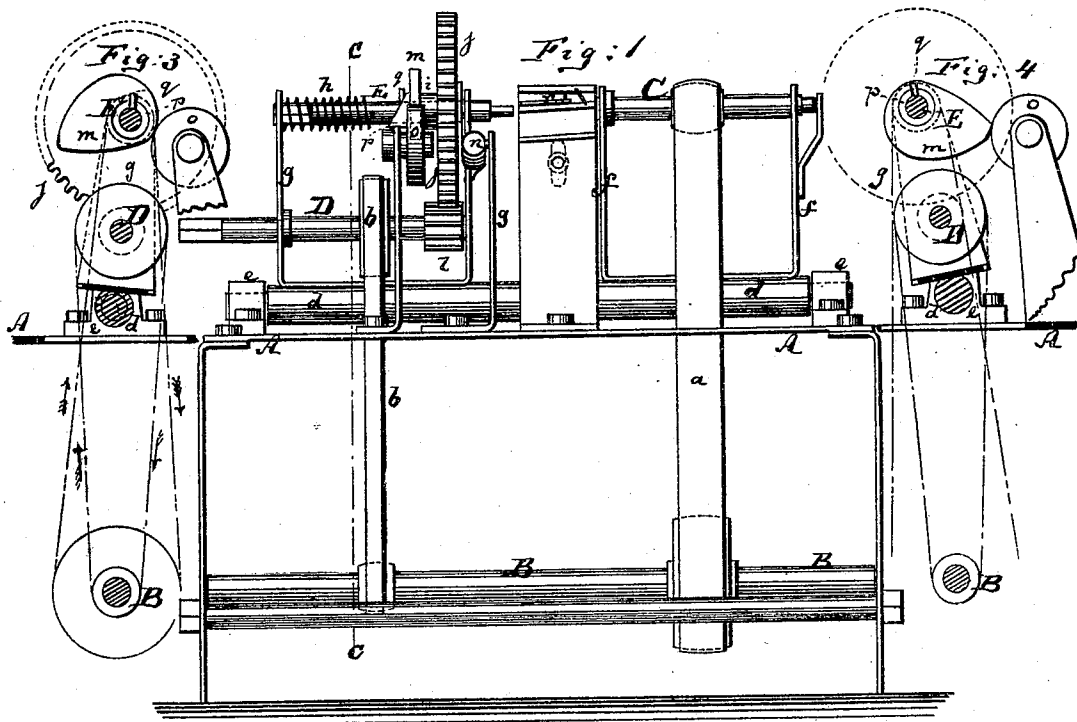


E. GÜNTHER.

MACHINE FOR TURNING BUNGS.

No. 171,512.

Patented Dec. 28, 1875.



Witnesses:
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UNITED STATES PATENT OFFICE.

EDWARD GÜNTHER, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR TURNING BUNGS.

Specification forming part of Letters Patent No. **171,512**, dated December 23, 1875; application filed July 31, 1875.

CASE A.

To all whom it may concern:

Be it known that I, EDWARD GÜNTHER, of New York city, in the county and State of New York, have invented an Improvement in Machines for Turning Bungs, of which the following is a specification:

Figure 1 is a side elevation of my improved machine for turning bungs. Fig. 2 is a plan or top view of the same. Figs. 3 and 4 are vertical transverse sections of the same on the line *c c*, Fig. 1. Fig. 6 is a vertical transverse section thereof on the line *k k*, Fig. 2.

Similar letters of reference indicate corresponding parts in all the figures.

This invention relates to a new construction of lathes for turning barrel-bungs of truncated conical form, such as are mostly used on beer-barrels.

The invention consists, principally, in a novel combination of parts, whereby the blank is automatically grasped by and centered between two spindles, and by them conveyed into contact with the stationary cutters, and whereby the bung, when finished, is automatically discharged, all as hereinafter more fully described.

In the drawing, the letter A represents the frame of the lathe, and B the driving-shaft hung therein. This shaft receives motion from a belt, treadle, or other means, and is, by preference, hung horizontally in the lower part of the frame, as shown. By belts *a b*, or equivalent mechanical devices, the shaft B transmits rotary motion to two shafts, C and D, respectively, that are hung horizontally in posts projecting from a rock-shaft, *d*—that is to say, the rock-shaft *d* has its bearings *e e* in the frame A, and carries near one end two posts, *f f*, in which the shaft C is hung, and near the other end two posts, *g g*, in which the shaft D has its bearings. The shafts C, D, and *d* are all parallel to each other, and hung horizontally, as shown. In the posts *g g* is also hung a shaft, E, squared at one end, so it cannot revolve, but is capable of longitudinal motion in its bearings. A spring, *h*, connects with the shaft E, and tends to move it toward the shaft C, with which E is exactly in line. Upon the non-revolving shaft E is

fitted a sleeve, *i*, carrying a toothed wheel, *j*, which meshes into the teeth of a pinion, *l*, that is mounted upon the shaft D, so that by such connection the said sleeve receives rotary motion. *m* is a cam, mounted upon the sleeve *i* and drawn by a spring, *n*, in contact with a friction-roller, *o*, that is hung in the frame A. The spring *n* connects one of the posts *f* or *g* with one side of the frame A, and tends to draw these posts and their appendages over to such side, and the cam *m* is thereby drawn and held in contact with the roller *o*, which is arranged on the same side of the frame toward which the spring tends to swing the said posts on their rock-shaft *d*.

It is evident from the above that the posts *f g*, with their appendages, are vibrated by the cam *m* and spring *n*, on and with the rock-shaft *d*, whenever rotary motion is imparted to the sleeve *i*. The end of the sleeve *i* or face of the cam *m* carries also a cam-projection, *p*, which, once during each rotation of the sleeve, comes in contact with a pin, *q*, that projects from the shaft E, and in so doing crowds said shaft lengthwise away from the shaft C. The spring *h* holds *p* and *q* in contact and drives the shaft E toward C again as soon as the projection *p* has passed the pin *q*; thus the shaft E receives reciprocating motion. Upon the same side of the frame A which carries the friction-roller *o* are fastened the fixed cutters *r r* that are to shape the bung. In line transversely with the cutters *r r* is the blank-support *s*, the same being a concave plate or block pivoted to a post, *t*, that is affixed to the frame A. The post *t* may be made vertically adjustable or extensible. The blank to be shaped into a bung is placed on the support *s*, said blank being a block of prismatic, cylindrical, or other form, and, as the shaft B is revolved, the cam *m* causes the shafts C and E to be brought in line with the center of the blank. (See the position of parts shown in Fig. 4.) In this position the cam-projection *p* leaves the pin *q*, and the spring *h* thereupon throws the shaft E against the end of the blank. Thus the blank is taken hold of by the shafts C E, and automatically centered. The end of the shaft C, which is in contact

with the blank, is burred or roughened, so that the blank will revolve with such shaft C. After the blank has been grasped the spring *n* draws all the parts that are supported on the rock-shaft *d* toward the side on which the cutters *r* are arranged, and thereby causes the revolving blank to come in contact with the cutters, and be shaped in the desired manner. After the bung has thus been produced the cam-projection *p* arrives in contact with the pin *q*, and moves the shaft E off the bung, so that the latter will be dropped. The vibrating part of the lathe is then, by the cam *m*, swung toward the support *s* again, and a new blank taken up and proceeded with, as above described. The support *s* is pivoted, as stated, and is, by a friction-spring, *u*, held in its normal position. When the blank is drawn off by the shafts C E the support yields downwardly to facilitate the withdrawal of the

blank, but immediately thereafter resumes its normal position.

I claim as my invention—

1. The blank-support *s*, pivoted to a post, *t*, and combined with the friction-spring *u*, to operate in combination with the shafts C and E, substantially as herein shown and described.

2. The vibrating posts *f f* and *g g* combined with the vibrating shafts C D E, support *s*, and stationary cutter *r*, substantially as herein shown and described.

3. The sleeve *i*, made in one piece with the wheel *j*, cam *m*, and cam-projection *p*, and fitted upon the reciprocating shaft E, which has the pin *q*, and combined with the spring *n*, all to operate substantially as specified.

E. GÜNTHER.

Witnesses:

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