P. Hayden,

Cork Machine.

No. 51,587. Patented Dec. 19, 1865.

Fig. 2.

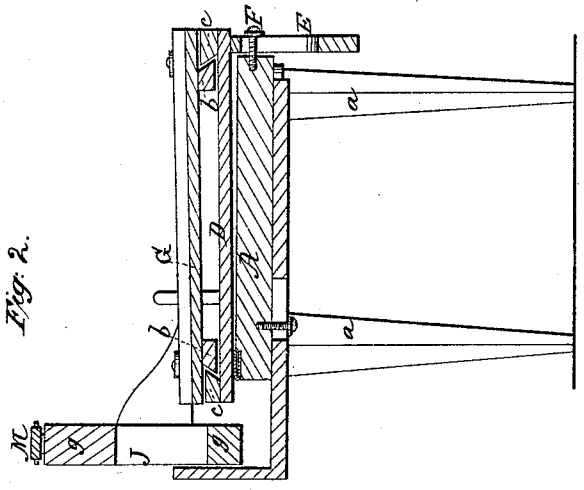
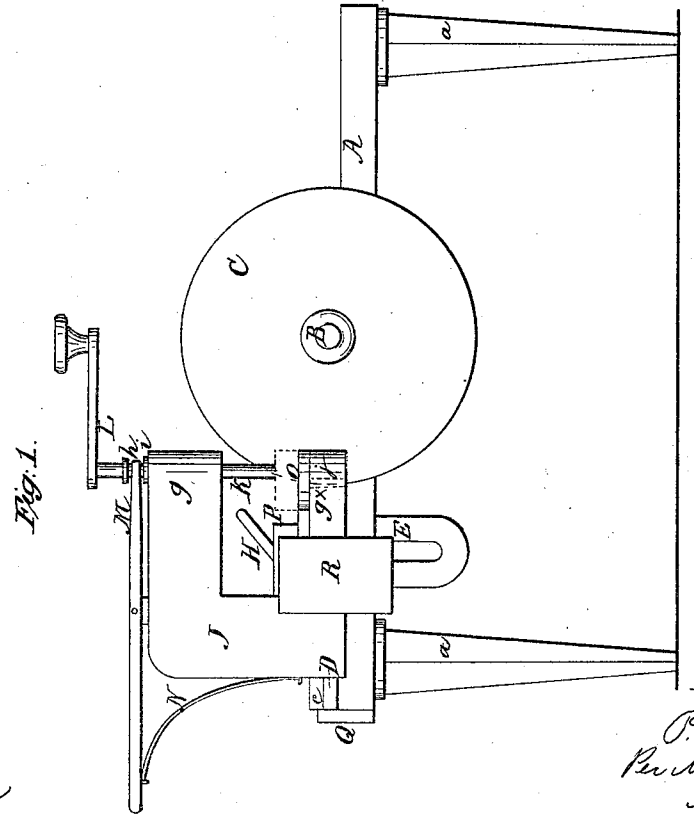


Fig. 1.



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UNITED STATES PATENT OFFICE.

PETER HAYDEN, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN MACHINES FOR CUTTING CORKS.

Specification forming part of Letters Patent No. **51,587**, dated December 19, 1865.

To all whom it may concern:

Be it known that I, PETER HAYDEN, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and Improved Machine for Cutting Corks and Bungs; and I do hereby delare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1, Sheet No. 1, is a side view of my invention; Fig. 2, a transverse vertical section of the same, taken in the line *x x*, Fig. 4; Fig. 3, Sheet No. 2, a longitudinal vertical section of the same, taken in the line *y y*, Fig. 4; Fig. 4, a plan or top view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved machine for cutting corks and bungs of cylindrical or conical form; and it consists in the employment or use of a circular cutter or saw, in connection with a slide and a rotating clamp, attached to an adjustable bed, all arranged to operate as hereinafter set forth.

A represents a horizontal platform, which is supported at a suitable height by legs *a*, and B is a shaft, placed transversely on said platform, and having a circular cutter, C, at one end of it.

D represents an adjustable bed, which is placed transversely on the platform A, and has a slotted pendant, E, at one side of it, through which a set-screw, F, passes into the side of the platform A. By means of this slotted pendant and set-screw the bed may, when necessary, be inclined at a greater or less angle with the platform.

G is a slide, which has dovetail cleats *b* attached to its under side, said cleats working between cleats *c c*, attached to the upper surface of the bed D. This slide G moves in a direction longitudinally with the platform A, and it is provided with a catch, H, which engages with a notch, *d*, in the bed D, to enable the slide to be set at a certain distance when required.

I represents a bar, which is secured on the slide G by set-screws *e e* passing through longitudinal oblong slots *f f* in it and into the slide G. This bar I, by this mode of attachment, may be adjusted on the slide G, in a direction transversely with the platform A, as will be seen by referring to Fig. 4.

At one end of the bar I, the end opposite the circular cutter C, there is attached a head, J, shown clearly in Fig. 1. This head is provided with two horizontal arms, *g* $g^{\times}$, placed one directly over the other.

In the upper arm, *g*, near its outer end, there is fitted a vertical spindle, K, having a crank, L, on its upper end, for the convenience of turning it, and the forked end of a lever, M, is fitted in a groove, *h*, in said spindle, above the arm *g*, said lever having a spring, N, bearing against its under side, in order to keep a shoulder, *i*, on the spindle down upon the upper surface of *g*.

In the lower arm, $g^{\times}$, there is fitted loosely the spindle *j* of a circular disk, O, said spindle retaining the disk in place, but still admitting of it turning freely on the arm *g'*.

The catch H in the slide G, previously referred to, when in the notch *d* in the bed D, retains the center of disk O in line with the edge of the cutter C, as shown in Figs. 1 and 4.

P is a bar, secured on the slide G by set-screws *k k*, which pass through oblong slots *l* into the slide. By this means the bar P may be adjusted farther forward or backward on the slide. This bar P serves as a rest or stop to place the cork or wood against while being operated upon.

The operation is as follows: The cork is cut into strips of any suitable length and of a width and depth to admit of the corks or stoppers being made of a requisite diameter. These strips are placed, one at a time, on the slide G and against the bar P, the slide G being shoved back against a stop, Q, at the rear of the platform A, and in line with a stop, R, at the left side of the platform. The cork strip is then shoved to the left, underneath the spindle K, and in contact with the stop R, and the slide is drawn forward toward the cutter C, which cuts the cork strips entirely through, the piece cut off being held on the disk O by the spindle K, owing to the downward pressure given the same by the spring N acting against lever M. The slide G is then shoved back until the catch H engages with the notch *d* in the bed D, when the edge of the cutter will be in line with the center of the piece of

cork on the disk O. This piece of cork is now turned by means of the crank L, and the cutter C being rotated the piece of cork on disk O will be cut in cylindrical form. The slide G is then shoved back against the stop Q, the finished cork removed by pressing down the outer end of lever M, the strip of cork on the slide shoved to the left in contact with stop R, as before, the slide G drawn toward the cutter, and another piece of cork cut off, the slide G shoved back until its catch H engages with notch *d*, and crank L turned so that the piece on disk O may be cut in cylindrical form.

The corks may be cut in a more or less taper form by inclining the bed D in a greater or less degree, which is enabled to be done by the slotted pendant E and set-screw F, previously described.

In cutting wooden bungs the operation is the same, but a circular saw is used instead of a circular cutter, and I prefer to use a saw provided with alternate planing and gouge teeth, such as are commonly termed "combination planing-saws."

Corks of different dimensions may be cut by adjusting the bar I and stop R, the strips being sawed or cut of the requisite dimensions.

I do not claim the devices for shaping the cork as claimed by King in his patent of 1851; but—

What I claim as new, and desire to secure by Letters Patent, is—

The described arrangement by which the strip placed on the slide G is advanced to the knife for the severance of the blank, the latter being clamped in position for the second operation of shaping, substantially as described and represented.

PETER HAYDEN.

Witnesses:
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