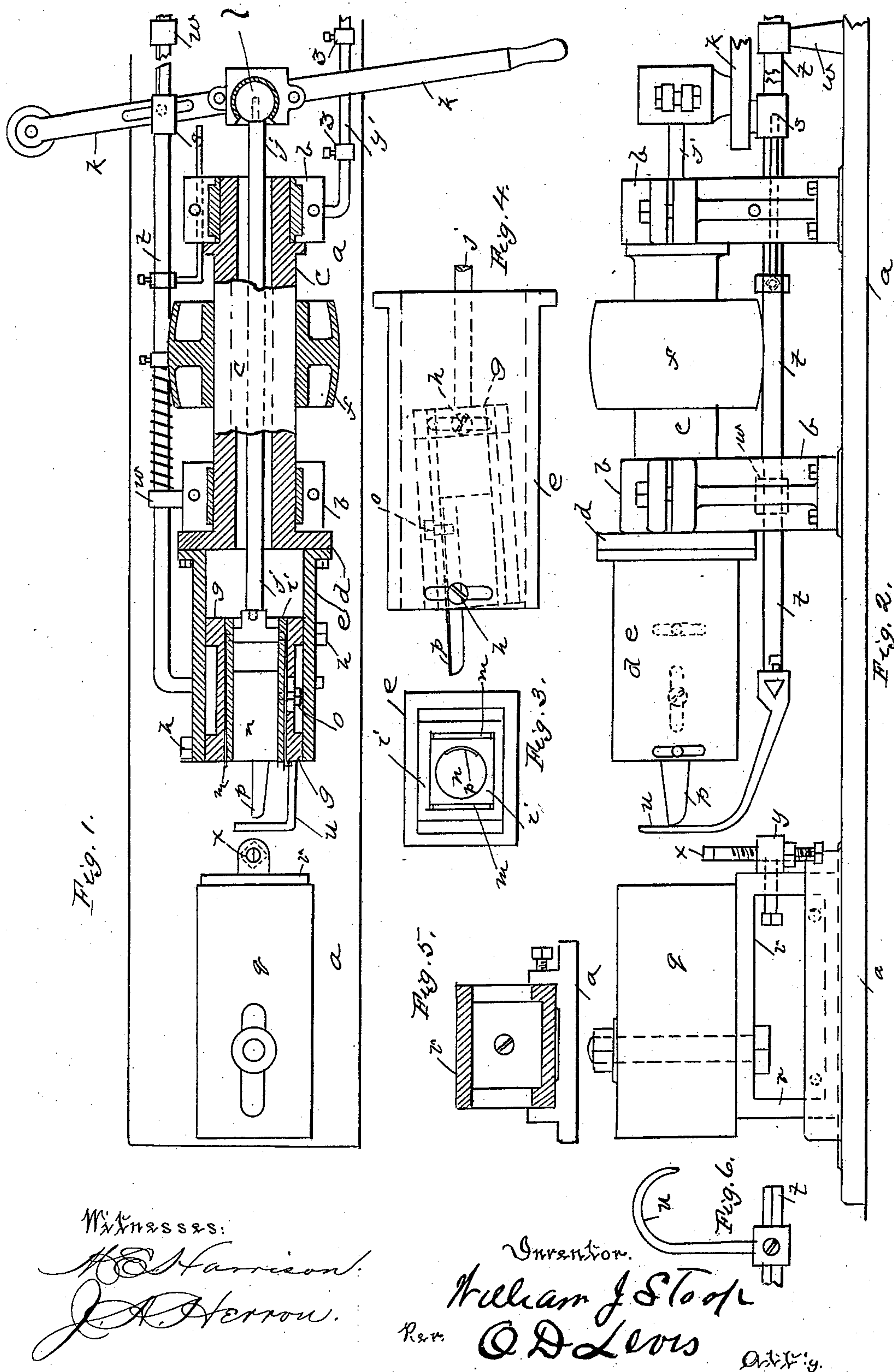


W. J. STOOP.
CORK CUTTING MACHINE.

Patented Dec. 8, 1891.



THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM J. STOOP, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF
TO M. G. LESLIE AND HUGH FURGESON, OF SAME PLACE.

CORK-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 464,593, dated December 8, 1891.

Application filed December 4, 1890. Serial No. 373,600. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. STOOP, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Cork-Cutting Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved cork-cutting machine; and it consists in certain details of construction and combination of parts, as will be fully set forth hereinafter.

In the accompanying drawings, Figure 1 is a sectional plan view of my improved machine. Fig. 2 is a side elevation of the same. Fig. 3 is a face view of the knife-box. Fig. 4 is a side elevation of the same. Fig. 5 is a sectional end elevation of the adjustable cutter-block. Fig. 6 is a face view of the clamp.

To construct a machine for cutting corks of various sizes, I provide a base-plate *a*, of suitable size and form of construction, and secure thereto two bearings *b*, in which is journaled a stout hollow shaft *c*, having a flange *d* formed on one end of the same, to which a cutter-box *e* is bolted. This shaft *c* is operated by a belt-wheel *f* and is adapted to be revolved at a very high speed. Operating within the cutter-box *e*, which consists in an open-ended rectangular casting, is an oblong interiorly-arranged box *g*, which may be arranged at an angle with the outer box *e*, and set or secured by means of screws *h* passing through slots formed in the top and bottom of the cutter-box *e*. Secured within this inner box *g* is a rectangular casting *i*, capable of being moved in the direction of its length by means of a rod *j* passing through the hollow shaft *c* and pivotally connected at one end and attached to a hand-lever *k* by a ball-joint *l*. Secured within this sliding piece *i*, which is kept in position and the wear of the same taken up by suitable gibs *m*, is a circular plug *n*, confined by a screw *o*, which holds a knife or cutter *p* securely therein. Arranged at the front of this

knife *p* is a wooden block *q*, which is held by a bolt to a small frame *r*, capable of being adjusted toward or away from the knife and held in any desired position by set-screws passing through flanges formed on the bed-plate. Attached to the hand-lever *k* by means of a sliding connection *s* is a rod *t*, which moves parallel in bearings *w w* and is provided at its forward end with a semicircular clamp *u* for holding the cork-wood while being cut. Arranged at the front of the block *q* and attached to the frame *r* is an adjustable guide *x*, which may be elevated or lowered when making several sizes of corks. Beneath the hand-lever *k* is a bar *y'*, having two collars *z* capable of being adjusted and set at any position along the bar *y'*, and thereby regulating the stroke of the lever *k*.

By reference to Figs. 3 and 4 of the drawings it will be seen that the box or casting *e*, which rotates with the shaft *c*, carries with it the adjustable knife-box *g*, which, as has been explained, can be inclined or tilted at an angle to the longitudinal axis of the shaft *c*, and as the knife *p* within the box partakes of its angular or inclined adjustment it follows that the knife is adjusted at an angle to the axis of the shaft, whereby the knife can be made to cut inclined surfaces on corks which are circular in cross-section.

In operation this machine may be used for cutting various sizes of tapering corks. The wood is first cut into strips having a width equal to the greatest diameter of the cork to be formed. The machine is put in motion, and by means of the lever *k* the knife *p* drawn back, having first adjusted the box *g* in an inclined position to make the knife correspond to the size and taper of the cork to be formed. These cork-wood strips are held against the end of the wooden block *q* and supported by the guide *x* and the hand-lever *k* moved to the left, which moves the clamp *u* against the wood, together with the knife *p*, which, being in an inclined or angular position and having a rapid circular motion, cuts or shears a tapering cork from the wood. The pressure is removed from the handle *k* and the same forced back to its original position by means of a spiral spring operating

against a fixed collar and the bearing *w* of the rod. It will be seen by reference to the drawings, Figs. 3 and 4, that the knife may be adjusted to cut a cork of large or small diameter and at the same time form any taper.

5 Having thus described my invention, I claim—

1. In a cork-cutting machine, the combination, with a rotary hollow shaft, of a knife-box fitted therein and adjustable at an angle to the axis of said shaft, means for holding said knife-box within the shaft, a longitudinally-movable carrier *i*, fitted within the knife-box, and the knife fitted to said carrier, 15 substantially as described.

2. In a cork-cutting machine, the combination, with a rotary hollow shaft, of an adjustable polygonal knife-box fitted therein, a polygonal knife-carrier fitted snugly within 20 said knife-box, a knife fixed to said carrier, a lever, and a pitman connected to the knife-

carrier and having a ball-and-socket connection with the lever, substantially as described.

3. In a cork-cutting machine, the combination, with a hollow rotary shaft, of the slotted 25 polygonal box or casting carried by said shaft, the knife-box fitted snugly in said box or casting and fixed therein by screws working in the slots of the box or casting, a sliding knife-carrier keyed in the knife-box and having the 30 knife fixed thereto, the lever, and the pitman extending through the hollow shaft and having one end connected by a ball-and-socket joint with the lever, substantially as described.

In testimony that I claim the foregoing I 35 hereunto affix my signature this 12th day of November, A. D. 1890.

WILLIAM J. STOOP. [L. S.]

In presence of—

M. E. HARRISON,
CHARLES LARGE.