2 Sheets—Sheet 1

J. PICASO.

Cork-Cutting Machine.

No. 207,772. Patented Sept. 3, 1878.

Fig. 1.

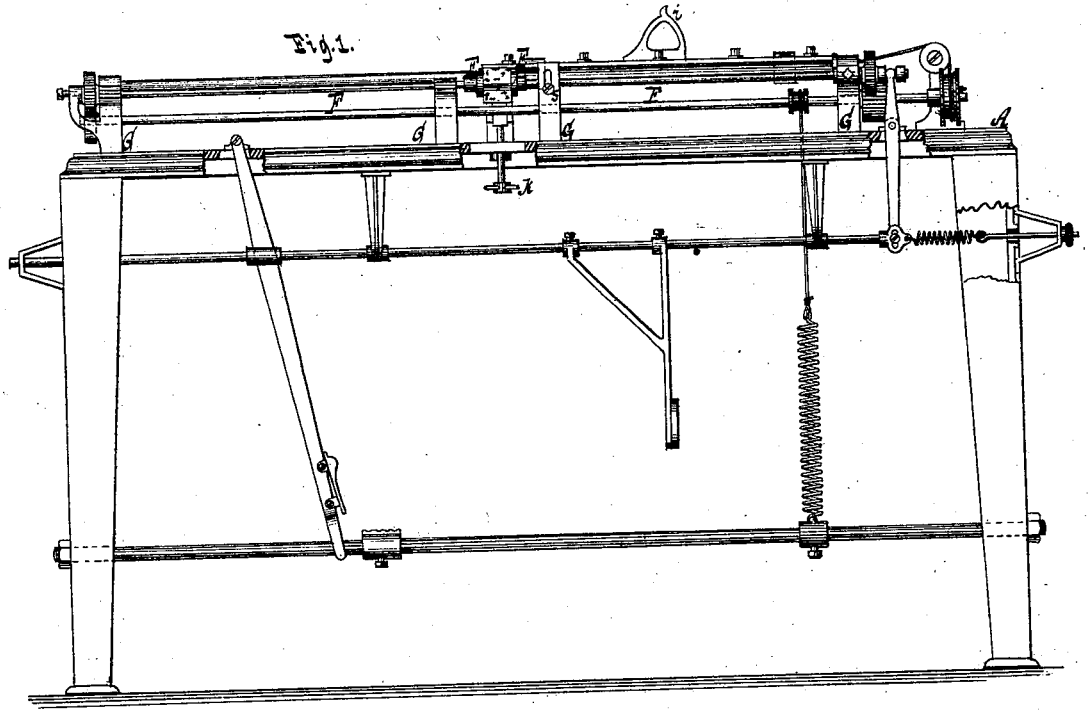
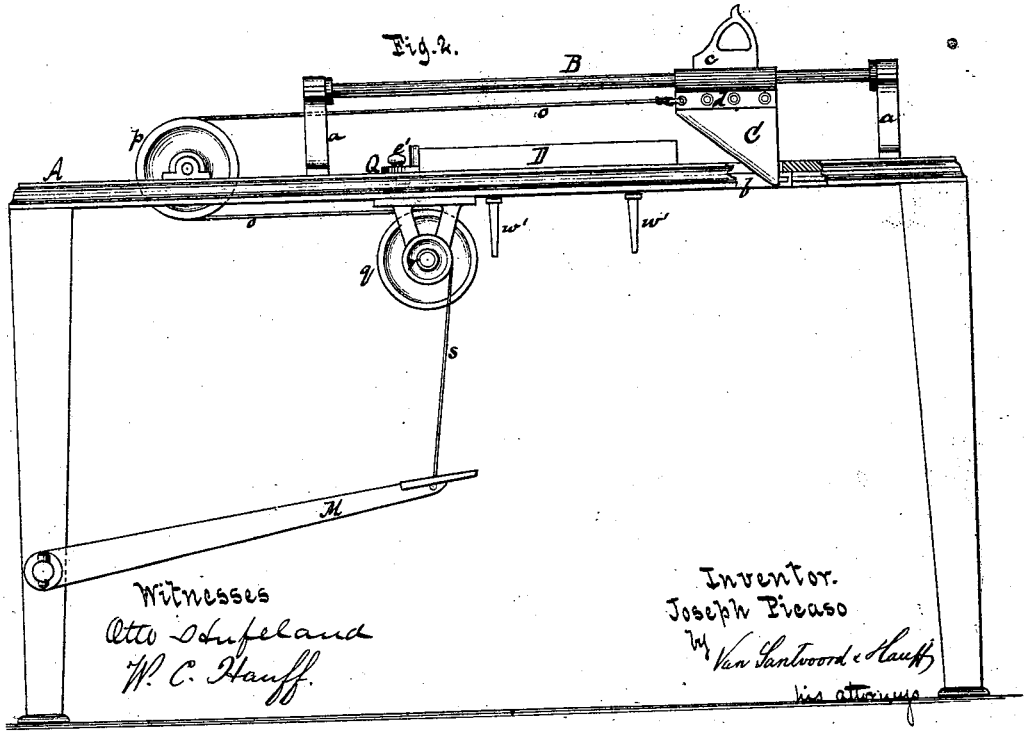


Fig. 2.



Witnesses
Otto Hufeland
W. C. Hauff.

Inventor.
Joseph Picaso
by Van Santwood & Hauff
his attorneys

J. PICASO.

Cork-Cutting Machine.

No. 207,772. Patented Sept. 3, 1878.

Fig.3.

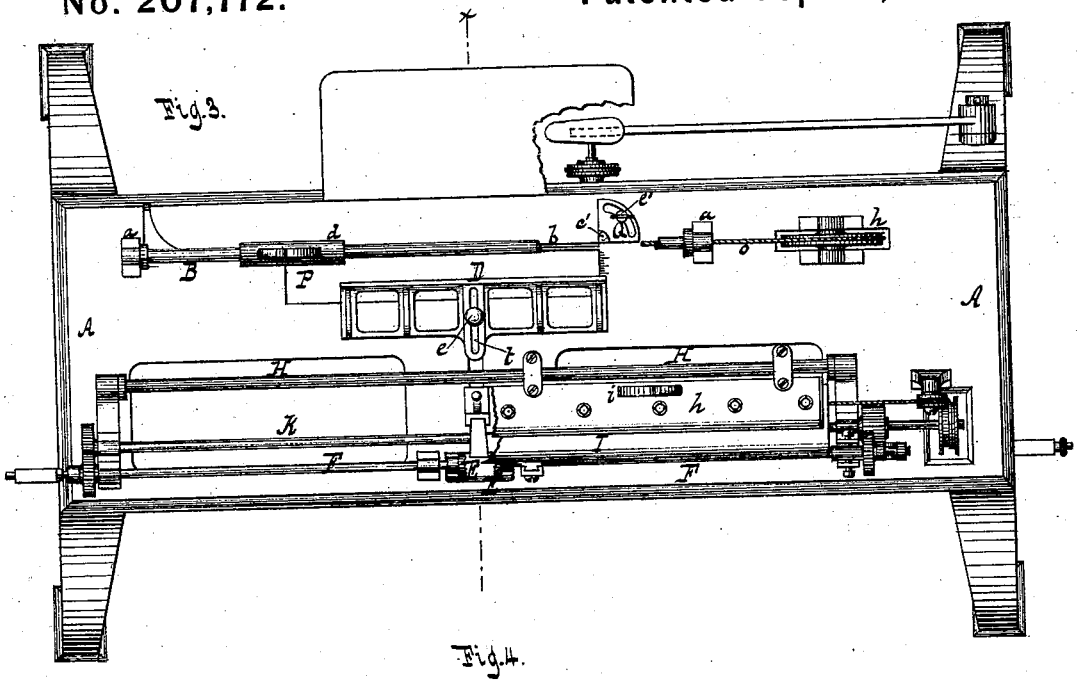


Fig.4.

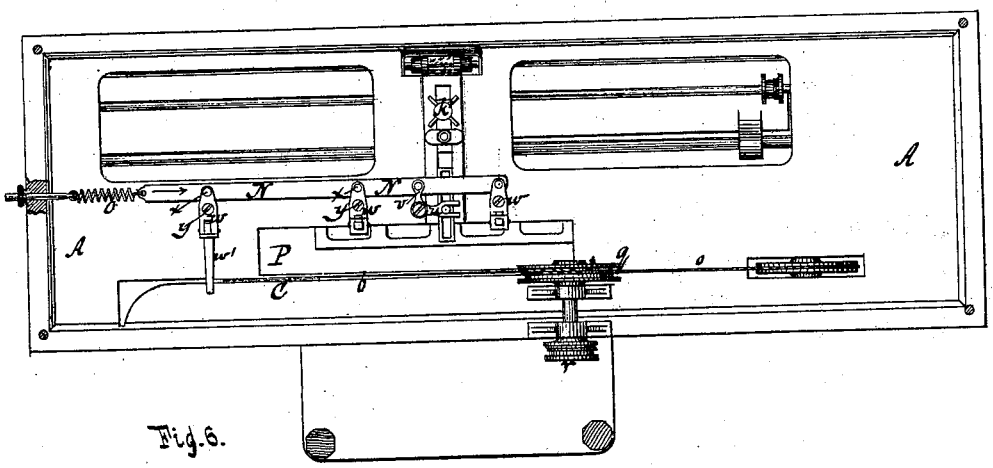


Fig.6.

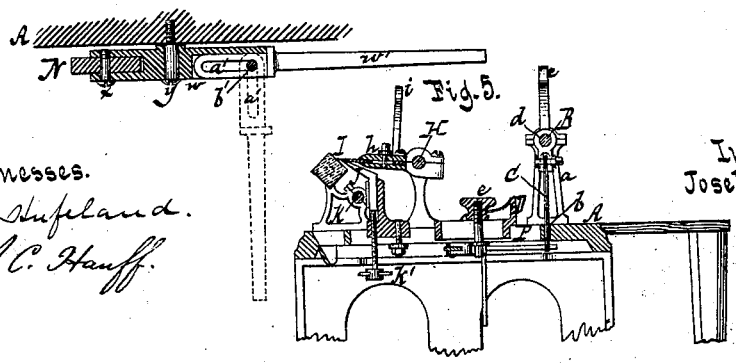


Fig.5.

Witnesses.
Otto Hufeland.
W. C. Hauff.

Inventor
Joseph Picaso.
by
Van Santwood & Hauff
his attorneys.

UNITED STATES PATENT OFFICE.

JOSEPH PICASO, OF NEW YORK, N. Y.

IMPROVEMENT IN CORK-CUTTING MACHINES.

Specification forming part of Letters Patent No. **207,772**, dated September 3, 1878; application filed August 15, 1878.

To all whom it may concern:

Be it known that I, JOSEPH PICASO, of the city, county, and State of New York, have invented a new and useful Improvement in Cork-Cutting Machines, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 is a front view of the machine. Fig. 2 is a rear view of the same. Fig. 3 is a plan view with some parts broken away. Fig. 4 is an inverted-plan view. Fig. 5 is a section in the plane *x x*, Fig. 3. Fig. 6 is an enlarged view of the lever and arm for operating the gage.

Similar letters indicate corresponding parts.

My invention relates to that class of cork-cutting machines described in Letters Patent granted to Antonio Fabre, dated January 8, 1878, No. 199,047; and consists in the combination, in a cork-cutting machine, of an adjustable gage for regulating the size of the cork-blank, with a bed-plate, a knife-receiving socket in said bed-plate, a knife-guide located above the bed-plate, and a blank-cutting knife moving on said guide and projecting into the receiving-socket, said knife, in its backward movement, causing the gage to move slightly outward, and in its forward motion allowing the gage to return to its original position, thus leaving the knife free to pass through and cut the blank without being jammed; also, in the combination, with the parts above enumerated, of an adjustable side gage placed at or near the end of the knife-receiving socket, so that by adjusting said gage the blank-cutting knife is caused to taper the blank; also, in the combination, in a cork-cutting machine, of an adjustable clutch-shaft, a hinged finishing-knife, and an adjustable knife-rest, on which said finishing-knife reciprocates, so that by adjusting the clutch-shaft and knife-rest with relation to each other the finishing-knife is caused to cut any desired thickness of cork.

In the drawing, the letter A designates the bed-plate of my machine, in which is formed a knife-receiving socket, *b*. B is a knife-guide, having the form of a rod, which is located above the bed-plate A, and supported by standards *a a*. C is the blade of the blank-cutting knife, preferably made with an oblique cutting-edge, and which is secured to a stock, *d*, embracing the guide B, so as to move or slide thereon, and having a handle, *c*.

If it is desired to cut a blank, the knife C is drawn back by means of the handle *c* to the position shown in Fig. 2. The knife is drawn back far enough to allow a strip of cork to be placed on the bed-plate A over the slot *b*, so that when the knife passes back to its original position it cuts a blank from the strip of cork. To the stock *d* of the knife C is fastened a cord or chain, *o*, which passes over a pulley, *p*, and is wound around a pulley, *q*. If the knife is drawn back to the position shown in Fig. 2, the cord or chain *o* is unwound from the pulley *q*, and in causing said pulley to revolve, the small pulley-wheel *r*, which is keyed to the same shaft on which the pulley *p* is keyed, is also caused to revolve, the cord or chain *s* is wound upon said wheel *r*, and the treadle M is raised. By pressing the treadle down the knife C returns to its original position, and in so doing cuts off a blank. The width of the blank cut off by the knife C is regulated by a gage, D, which gage can be adjusted by means of the set-screw *e*, Figs. 3 and 5, which passes through the slot *t* of the gage D. The other end of the set-screw *e* is received by the forked end of a bell-crank lever, *u v*, Fig. 4, the arm *v* of which is pivoted to a bar or rod, N. This rod N is connected by means of pivots *x* with levers or arms *w*, which turn about pivots or lugs, which pivots are fastened to the frame A of the machine.

When the knife C is drawn back to the position shown in Fig. 2, the blade of said knife strikes against the arm *w'* of one of the levers *w*, which arms project into its path, and in so doing causes the inner end of the lever, together with the rod N, to move a small distance in the direction of the arrow shown on it in Fig. 4. By this movement of the rod N the gage D is caused to move outward through the action of the bell-crank lever *u v*. When the knife C moves forward in the act of cutting a blank, said knife passes away from the arm *w'*, and the spring O, Fig. 4, which is fastened at one end to the sliding bar or rod N and at the other to the frame of the machine, causes the rod N to slide back to its

original position, whereby the gage D moves slightly inward. Of course, this spring O could be replaced by a weight or any other equivalent motor. By causing the gage D to move inward, as described, the knife C can pass through the strip of cork without pressing the edge of said strip against the gage D while cutting, and thus I prevent the knife C from getting jammed or wedged into the strip of cork, removing all liability of the knife being broken from this cause. Another advantage of this arrangement is that the blanks, as they are cut from the strip of cork, are left free to fall through the opening P in the frame of the machine, thus allowing the knife C to be operated continuously and without any loss of time.

In order to allow the knife C to be drawn back far enough for strips of cork of varying breadth, it is necessary that the arms *w'* can be removed out of the path of the knife C, thus allowing said knife to pass back to the required distance. To accomplish this object, the inner ends of the arms *w'* pass into grooves in the levers *w*, Fig. 6. In the ends of the arms *w'* are slots *a'*, through which pass pivots *b'*, which pivots are fastened at each end to the levers *w*. If, now, one of the arms *w'* is pulled outward and as far as the slot *a'* permits, said arm *w'* can be turned down to the position shown in dotted lines in Fig. 6.

If the arm *w'* is raised to a horizontal position and then pushed inward as far as the slot *a'* permits, said arm *w'* is held up in a horizontal position, and projects into the path of the knife C.

When it is desired to cut the blanks of a tapering form, the side gage Q, Fig. 3, is turned about the pivot *c'*, and is held in position by the set-screw *e'*. The strip of cork is then placed with one edge resting against the guide Q, whereby the strip of cork is presented to the knife more or less obliquely, according to the distance the guides Q have been turned. By this means the blanks can be cut off more or less tapering.

The letter E, Figs. 1 and 3, designates the two sections of a clutch secured to the inner ends of a divided shaft, F, which has its bearings in standards G rising from the bed-plate A. Adjacent to the clutch-shaft F is located a guide, H, for the finishing-knife I, which guide has the form of a rod supported by standards. The blade of the finishing-knife I is secured to a stock, *h*, which embraces the guide H, so as to move or slide thereon, and is supported by a rest or bracket, J, Fig. 5. This knife-stock has a handle, *i*. The rest or bracket J can be raised or lowered by means of the adjusting-screw *k'*, Fig. 5, by which means the cutting-edge of the knife is caused to pass farther from or nearer to the blank secured in the clutch F, and thus shape the blank into a cork of larger or smaller diameter. The clutch F can also be adjusted by means of the set-screw *s* in the standard G, thus further determining the diameter of the cork to be cut. The operation of these parts is substantially the same as that described in the patent to A. Fabre, wherefore a detailed description of them is deemed unnecessary.

I distinctly disclaim everything shown and described in the patent to Antonio Fabre, dated January 8, 1878, No. 199,047.

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

1. The combination, in a cork-cutting machine, of an adjustable gage, D, for regulating the size of the cork-blank, with a bed-plate, a knife-receiving socket in said bed-plate, a knife-guide located above the bed-plate, a blank-cutting knife moving on said guide and projecting into the receiving-socket, and mechanism which is acted on by said knife in its backward movement, causing the gage to move slightly outward, while during the forward motion of the knife the gage is allowed to return to its original position, substantially in the manner and for the purpose set forth.

2. The combination, in a cork-cutting machine, of an adjustable gage, D, with a bed-plate, a knife-receiving socket in said bed-plate, a knife-guide located above the bed-plate, a blank-cutting knife moving on said guide and projecting into the receiving-socket, and an adjustable side gage, Q, placed at or near the end of the knife-receiving socket, all combined and adapted to operate substantially as set forth.

3. The combination, in a cork-cutting machine, of an adjustable clutch-shaft, a hinged finishing-knife, and an adjustable knife-rest, on which said finishing-knife reciprocates, so that the clutch-shaft and knife-rest can be adjusted with relation to each other, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 8th day of August, 1878.

JOSEPH PICASO. [L. S.]

Witnesses:
W. C. HAUFF,
E. F. KASTENHUBER.