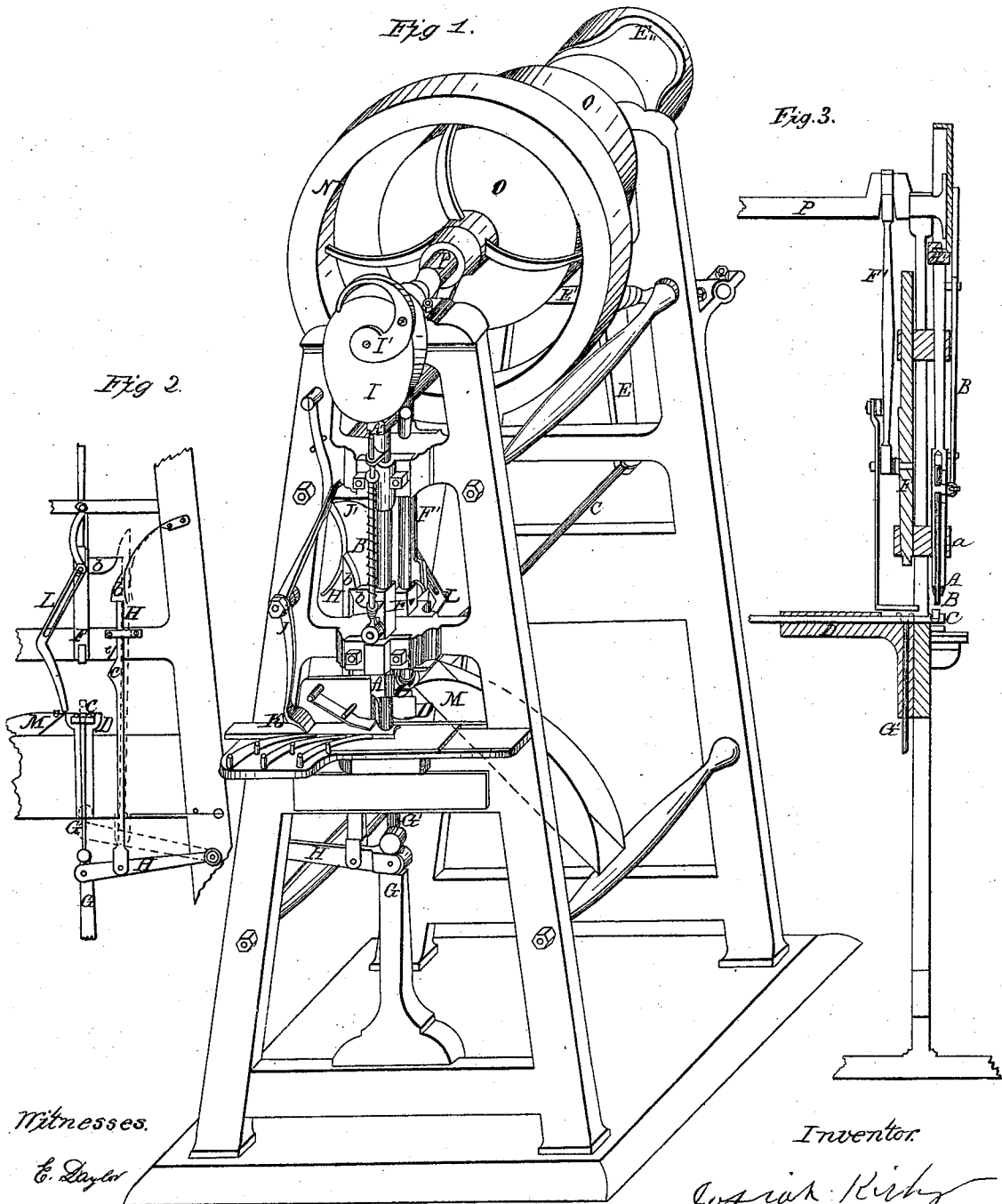


J. Kirby,
Turning Bungs.

N^o 24,310.

Patented June 7, 1859.



Witnesses.
E. Taylor
David Fisher

Inventor
Josiah Kirby

UNITED STATES PATENT OFFICE.

JOSIAH KIRBY, OF CINCINNATI, OHIO.

BUNG-CUTTER.

Specification of Letters Patent No. 24,310, dated June 7, 1859.

To all whom it may concern:

Be it known that I, JOSIAH KIRBY, of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Machines for Cutting Plugs and Bungs for Barrels and Deck-Plugs for Vessels; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view and Figs. 2 and 3 cutter sectional views in which same letters refer to same parts.

I construct the frame of my machine as shown in the drawings and model about six ft. high two ft. deep from front to rear and about three ft. wide at the base and two ft. wide at the top, but this form of frame may be changed to any other which may be made to suit the mode of cutting and compressing the bung and is therefore not essential.

I give motion to my machine by means of crank shaft thrown across the top of frame provided with pulleys and fly wheel and secured in its proper position by pillow block securely bolted to the frame. In cutting and compressing the bung I use two plungers, one for cutting and the other for compressing. The plungers are made to work perpendicularly in the center of the front frame one by means of a cam on end of shaft and the other by crank on shaft, as seen in the model and drawings. The cutter lies fastened in the plunger at A Fig. 1. The lumber of which the plug is to be made is first sawed off to the length required for the plug and fed in at K by means of feeder J which is made to move the strip forward to the cutter by arm J' attached to A. The cutting plunger is made to raise and lower by means of an oval cam I on end of shaft P which is made with a rim projecting from its inner face toward the frame and is connected to plunger by a hook as seen at A', Fig. 3. The cutter is brought down on the strip and cuts the plug off, which remains in the cutter and is taken up with it the distance of the stroke where it rests until the slide C is brought out under the mouth of the cutter by means of lever E moved by cam E'' on back end of shaft. At

this moment while the plunger is resting the plug is forced out of the cutter into the compressing box by drag rod *a*, connected with rod B and driven down by flange I' on cam I. The slide C now moves back carrying the plug in the compressing die and rests under the compressing plunger F, which is brought down on to the top of the plug, so as to force it into the die and point or bevel the lower end by means of pressure from the crank which is connected to plunger by pitman F'. The plug being made it is raised out of the die rod G' which runs through bracket of frame D and which is made to raise by rod and lever H H, with arm or plunger F, as seen at *b b*, Fig. 1. When the plug is raised to the top of the die it is knocked off into the barrel by rocker L, which is made to move back and forward by the motion of F after the plug has been rocked off the boss on rod H at *c*, Fig. 2, strikes against a beveled place on the frame at *e*, Fig. 2, and is thrown off of hook *b* and descends to its position to allow the slide C to come forward to receive the next plug from the cutter.

I do not claim the cutter as used in the plunger nor do I claim the mode of compressing the upper end of the plug or bung as used in my machine patented 1848, that mode being to point or bevel, the perfect end being the lower end which is necessarily imperfect from being eaten off when the timber is cross grained, as the head of the plug, but

I claim—

1. The mode of pointing the lower or last end cut of the plug or bung by forcing it into a separate die made and used substantially and for the purpose as described.
2. I also claim the mode of lifting the plug out of the die after it has been compressed, by means of rod G' when operated in the manner and for the purpose described.
3. I also claim the mode of driving the plug out of the cutter into the compressing die by a movable rod as at *a*, Fig. 3, when operating in the manner and for the purpose described.

JOSIAH KIRBY.

Witnesses:

GEO. W. ROSS,
THOMAS KIRKER.