No. 809,069 PATENTED JAN. 2, 1906.

J. L. LOVETT.

DOWELING MACHINE.

APPLICATION FILED MAY 10, 1905.

Fig. 1.

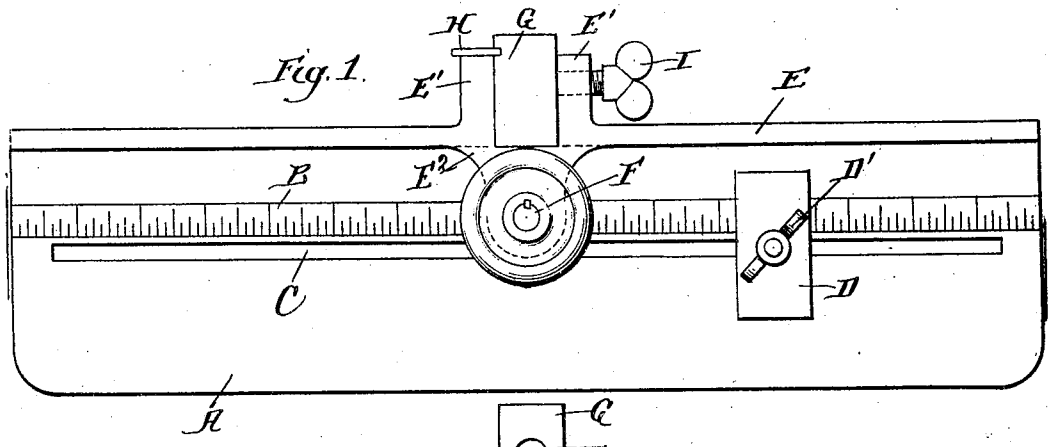


Fig. 2.

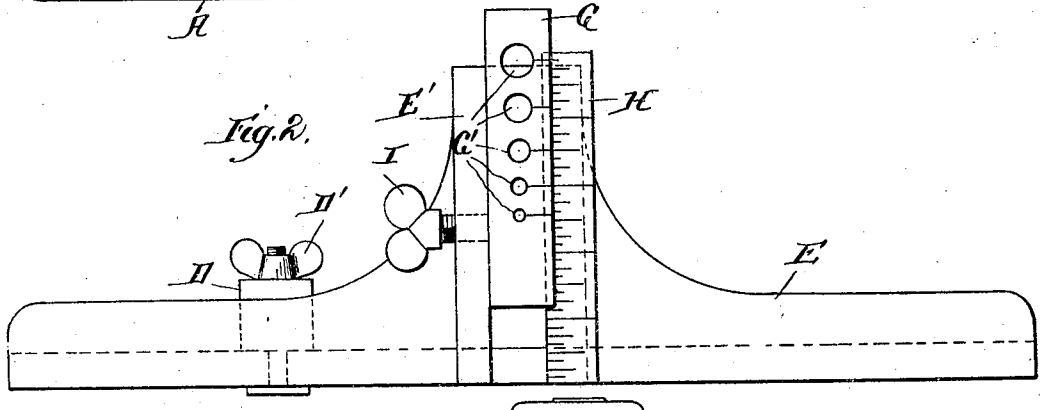
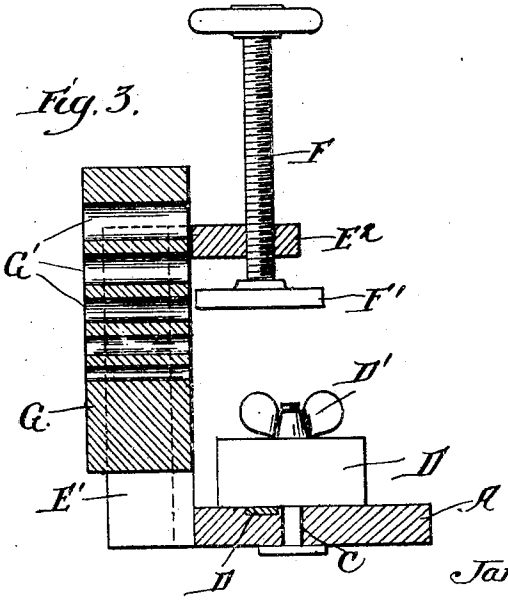


Fig. 3.



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UNITED STATES PATENT OFFICE.

JAMES L. LOVETT, OF NEW LONDON, PENNSYLVANIA.

DOWELING-MACHINE.

No. 809,069. Specification of Letters Patent. Patented Jan. 2, 1906.

Application filed May 10, 1905. Serial No. 259,657.

To all whom it may concern:

Be it known that I, JAMES L. LOVETT, a citizen of the United States, residing at New London, county of Chester, and State of Pennsylvania, have invented a certain new and useful Improvement in Doweling-Machines, of which the following is a specification.

My invention relates to a new and useful improvement in doweling-machines, and has for its object to provide a machine which will act as a gage or adjustable gig, so that the holes in the two pieces of wood to be joined together can be bored accurately, so that a perfect joint will be made when the dowel-pins enter said holes and the two pieces are joined together.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan view of my improved machine; Fig. 2, a rear elevation of the machine; Fig. 3, a cross-section through the center of the machine.

A represents the base-plate, and upon this base-plate is arranged a strip B, having graduations thereon the same as a rule.

C is the slot formed through the base-plate and extending parallel with the rule or longitudinally of the plate. This slot C is for the guides of the gage-block D, which gage-block is secured in place by the thumb-screw D′. The material to be bored is adapted to abut against this gage-block.

E is the back of the machine, which rises at right angles to the plate A and forms a straight edge, against which the material is adapted to be placed.

E^2 is an ear extending outward from the top of the back E at the center and extends over the plate A.

F is a screw threaded through the ear, and this screw has swiveled on the lower end a disk F′, so that when the screw is forced downward with the disk against the material operated upon it will form a clamp to hold the material in place, with one side of the material against the back E and the end against the gage-block D.

G is a drill or auger guide which is in the form of an elongated block having different size circular openings G′ formed therethrough. This block is arranged in the center of the machine and adapted to slide between the guides E′, arranged at the back of the device, the forward edge of the guide G coming flush with the front side of the back E.

H is a strip secured to the outside of one the lugs or guides E′, and the side of the drill-guide G is curved, and in this groove fits one edge of the strip H, so as to prevent the drill moving either forward or backward. The strip H is marked with graduations, as shown in Fig. 2, and straight lines can be drawn from the center of each of the holes G′ to the edge, so that the drill-guide can be set with any hole in any particular position. The thumb-screw I, threaded through one of the lugs E′ and bearing against the drill-guide block G, serves to hold the drill-guide in any position set.

In operation when it is desired to bore the holes for dowel-pins in two pieces to be joined together it is first determined where the dowel-pins shall be placed. Then one piece of the material is secured in the machine, the gage-block D being moved until the point where the dowel-pin is to be inserted is directly behind the center of the block G. Then by screwing down the clamp F the material is held in this position. Then the block is moved vertically in its guideway until the proper size hole is brought to the proper place upon the material. Then the block G is secured in place, and by placing the drill or or auger through the hole said drill or auger is guided so that the hole formed will be perfectly straight and true, and the companion piece to be bored can then be placed in the machine and clamped in exactly the same place as the former piece, and when the hole is bored and the dowel-pins inserted in place a perfect joint is made, the edges of the material coming together accurately. It will thus be seen that the holes can be bored for dowel-pins without any complicated measurement and can be done very quickly, and besides when the holes are bored they are perfectly straight and true, so that the pieces will be in perfect alinement when joined together.

Of course any suitable means could be used for clamping the material in place, or any suitable means could be used for guiding the drill-block G and securing the same in place or for securing the gage-block D in place. Therefore I do not wish to be limited to the exact construction here shown, as slight modifications could be made without departing from the spirit of the invention.

Having thus fully described my invention, what I claim as new and useful is—

1. In a machine of the character described, a table upon which the material to be bored is adapted to lie, a vertical back formed with the table against which one edge of the material is adapted to be placed, a movable gage-block adapted to abut against the end of the material, means for clamping the material downward upon the table, a vertical sliding drill-block arranged in the back of the device, said drill-block provided with different size openings formed therethrough, said openings to form a guide for the drill, and means for securing said block in any position placed, as and for the purpose specified.

2. In a device of the character described, a plate upon which the material is adapted to rest, a plate forming a back extending at right angles from the rearward edge of the first-named plate against which one edge of the material is adapted to lie, the bed-plate being provided with a longitudinal guideway, a gage-block adapted to slide in said longitudinal guideway and abut against the end of the material, means for securing said gage-block in any position placed, means for clamping the material downward upon the bed-plate, two vertical lugs extending rearward from the back, a drill-block adapted to slide vertically between said lugs, said drill-block provided with lateral openings of different size formed therethrough from the front to the rear, said openings adapted to form guides for the drill, and means for securing said drill-block in any position placed, as and for the purpose specified.

3. In a device of the character described, a bed-plate having graduations marked thereon, said bed-plate provided with a longitudinal slot, a gage-block adapted to slide in said slot, means for securing said gage-block in place, a back rising at right angles to the bed-plate against which one edge of the material is adapted to rest, an ear extending forward from the upper end of the back, a clamp-screw threaded through said ear and adapted to be forced downward upon the material, a drill-guide block adapted to slide vertically in the back, the forward edge of the drill-block being flush with the front face of the back, said drill-block being provided with different size holes bored therethrough from the front to the back, said holes being arranged one above the other, graduations arranged alongside of the drill-block to enable the block to be moved so that any one hole can be brought to a certain point, and means for securing the block in any position set, as and for the purpose specified.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

JAMES L. LOVETT.

Witnesses:
JAMES M. SHOPE,
WM. JONES.