

UNITED STATES PATENT OFFICE.

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GAGE FOR BORING-MACHINES.

995,461.

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To all whom it may concern:

Be it known that I, ANTON J. HOLTH, a subject of the King of Norway, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Gages for Boring-Machines, of which the following is a specification.

This invention relates to new and useful improvements in gages for boring machines, and is designed particularly to construct a device of this nature wherein the same will be operative on both sides of the drill, and also which will be adjustable to various sizes of blocks.

With the above and other objects in view, this invention consists in the construction, combination and arrangement of parts all as hereinafter more fully described, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is a perspective view of a gage constructed in accordance with the present invention, illustrating the coöperation thereof with a drill and a block of wood adapted to be pierced with holes; Fig. 2 is a fragmentary vertical section taken through the gage, illustrating the mounting of the clamping member and the journaling of the gage plate carrying rod; Fig. 3 is a section taken through the gage plate carrying rod, illustrating the mounting of the gage plates thereon.

Reference being had to the drawings, 10 indicates a table of a gage constructed with the horizontal or base side 10^a, and the vertical side 10^b. A central vertical opening 11 is provided in the vertical side 10^b and supplies a means whereby the drill may be operated therethrough. At each end of the vertical side 10^b are provided the brackets 12, said brackets being provided at their upper ends with the ears 13. Between the ears 13 are pivoted the supports 14 which are adapted to normally extend over the horizontal side 10^a, each of said supports being provided with an enlargement or off-set portion 15 which forms a bearing support on the upper edge of the vertical side 10^b.

A plate 16 is mounted on the upper edge of the vertical side 10^b and is provided with the central ears or lugs 17 between which is pivoted the horizontal bearing 18, said bearing being provided with a reduced portion 19 at its outer terminal. A rod 20 having the orificed enlargement 21 at one terminal

thereof is mounted on the reduced portion 19 through the instrumentality of said enlarged portion and retained in this position by the nut 22. A longitudinal groove 23 is provided in this rod through the instrumentality of which the gage plates are retained in their vertical positions as hereinafter more fully described. This rod 20 is adapted to swing about the bearing 18 and rest on either of the supports 14, and consequently is adapted to provide a means whereby a block may be gaged on either side of the opening 11. A plurality of collars 24 are mounted on the rod 20, each of said collars being provided with a set screw 25 which is adapted to project through said collars and engage the groove 23 in the rod when the gage plates are in their normal positions. The plate 27 may rotate about the rod 20 without in any way moving the collars 24. By this construction it will readily be understood that the various positions of the plate may be retained without shifting the collar when it is desired to place the same in operative positions. These collars are provided at one end thereof with the upwardly extending flange 26, said flange being adapted to be received in a recess in the gage plates 27 and are retained in this position by a clamping ring 28 bearing on said flange, and held in this position by the screws or rivets 29. The gage plates 27 may either be substantially straight in construction or off-set as is illustrated in Fig. 1, all of said clamping plates having at their lower terminals the studs 30 which are adapted to engage the end of the block on which the drill is operated and retain the same from lateral displacement.

A handle 31 is pivoted between the walls of the opening 11 adjacent to the plate 16 and is provided adjacent to the vertical side 10^b with the flattened portion 32 in which is adjustably mounted the rod 33, said rod carrying at its lower terminal the clamping block 34, and at its upper terminal the nuts 35, said nuts being adapted to regulate the height of the block above the base or horizontal side 10^a. The pivot of the handle 31 comprises a pin 36 located transversely in the opening 11 which engages an enlarged bearing 37 formed at the extremity of the flattened portion 32.

From the foregoing it will readily be understood that the block indicated as A may be operated upon by the drill as illustrated

in dotted lines and after the first hole is bored, the first gage plate is moved, permitting the block to bear against the second gage plate and so on, thus permitting a series of openings or holes to be drilled in the block. If the block is too long to permit of its being pierced its entire length, the rod 20 is swung over to rest on the opposite bearing 14 when the operation is completed as heretofore described.

Having thus described the invention, what is claimed as new is:

1. A gage of the class described, comprising a table having an opening therein, a bearing superposed above said opening, a rod pivotally carried by said bearing adapted to operate on either side of said opening, and means carried by said rod whereby the material operated upon may be gaged.

2. In a gage of the class described, the combination with a table having a central opening therein, a rod pivotally mounted adjacent to said opening adapted to operate on either side thereof, and plates adjustably carried by said rod adapted to locate the material being operated upon in different positions with respect to the bit.

3. In a gage of the class described, the combination with a table having a vertical back thereon, said back having a central opening, a bearing superposed over said opening, a rod pivotally mounted on said bearing and adapted to operate on either side of said opening, and means carried by said rod for gaging material.

4. In a gage of the class described, the combination with a table having a vertical back thereon, said back having a central opening, a bearing superposed over said opening, a rod pivotally mounted on said bearing and adapted to operate on either side of said opening, plates adjustably

mounted on said rod, and a support pivotally mounted on each terminal of said table back adapted to lift the end of said rod.

5. In a gage of the class described, the combination with a table having a vertical back thereon, said back having a central opening, a bearing superposed over said opening, a rod pivotally mounted on said bearing and adapted to operate on either side of said opening, plates adjustably mounted on said rod, a support pivotally mounted on each terminal of said table back adapted to lift the end of said rod, collars adjustably mounted on said rod, and plates pivotally connected to said collars.

6. In a gage of the class described, the combination with a table having a vertical back, said back having a central opening therein, a bearing mounted on said back directly over said opening, a horizontal bearing pivotally mounted in said bearing, a rod pivotally mounted on said horizontal bearing, and gaging plates adjustably carried by said rod.

7. In a gage of the class described, the combination with a table having a vertical back, said back having a central opening therein, a bearing mounted on said back directly over said opening, a horizontal bearing pivotally mounted in said bearing, a rod pivotally mounted on said horizontal bearing, and horizontal bars pivotally mounted at the terminals of said back adapted to support the terminal of the rod, and gage plates adjustably carried by said rod.

In testimony whereof I affix my signature in presence of two witnesses.

ANTON J. HOLTH.

Witnesses:

JAMES MALLEY,
WILLIAM W. MALLEY.