J. MONTGOMERY.

TOOL FOR BORING LOCK MORTISES.

APPLICATION FILED APR. 16, 1913.

1,103,069.

Patented July 14, 1914.

Fig. 2

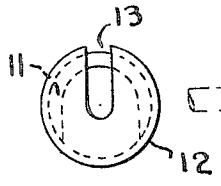
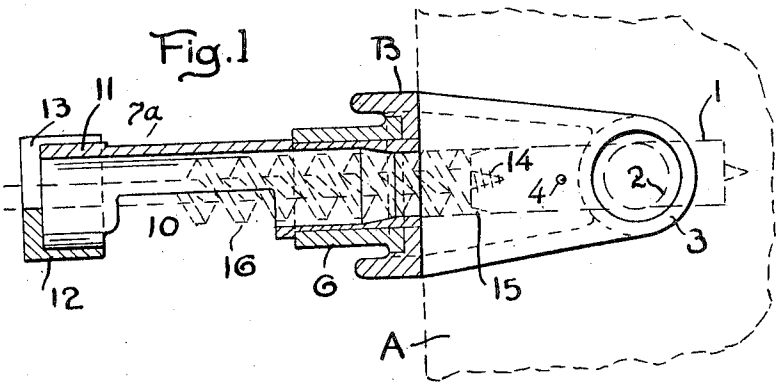


Fig. 1



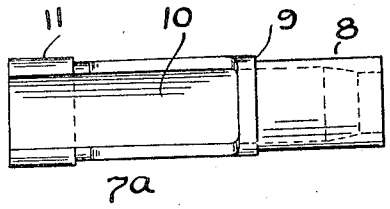


Fig. 4

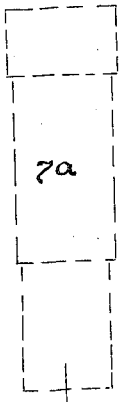


Fig. 3

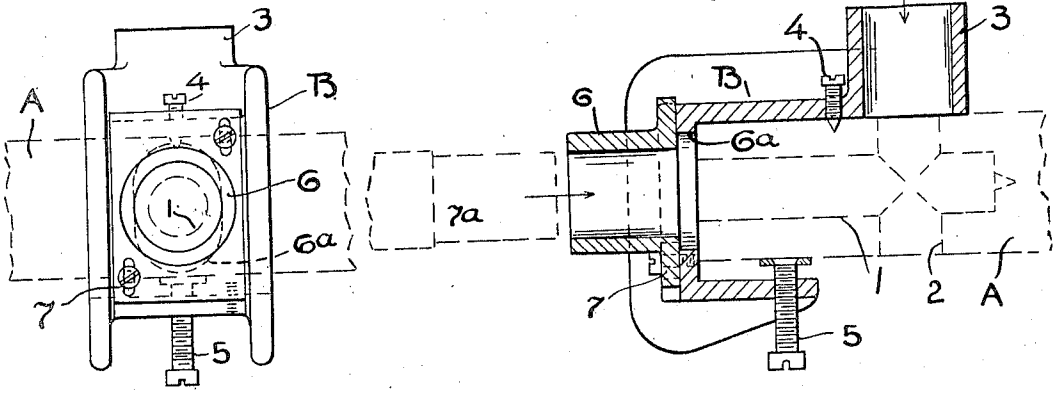


Fig. 5

WITNESSES

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TOOL FOR BORING LOCK-MORTISES.

1,103,069. Specification of Letters Patent. Patented July 14, 1914.

Application filed April 16, 1913. Serial No. 761,557.

To all whom it may concern:

Be it known that I, JOHN MONTGOMERY, a subject of the King of Great Britain, residing at Toronto, county of York, Province of Ontario, Canada, have invented a certain new and useful Improvement in Tools for Boring Lock-Mortises, and declare the following to be a full, clear, and exact description of the same, 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.

This invention relates to a tool for boring lock mortises and has for its object a tool which mechanically locates the bore for the bolt and the bore for the spindle of the latch or lock so as to eliminate inaccuracy as far as possible.

It comprises a yoke having a pair of guide ways into which can be fitted a guide-sleeve for the bit. The guide ways of the yoke are adjustable relatively to each other and the bit may be locked into its guide-sleeve by devices for that purpose.

In the drawings:—Figure 1, is a longitudinal section of the bit-guide and of a portion of the yoke. The yoke is shown attached to the door and the bit is shown in condition of partial retraction from the bore. Fig. 2, is an end view taken at the left of Fig. 1. Fig. 3, is a cross section of the yoke taken at an angle of ninety degrees from the cross section shown in Fig. 1. Fig. 4, is a detail of the bit-guide. Fig. 5, is an an end elevation of the yoke as would be seen from the left of Fig. 3.

A, represents the door into which is to be set a lock or a latch. It is necessary to bore a hole 1 which parallels the sides of the door and extends into the interior of the door. This hole 1 is traversed by a cross bore 2 near its end so that the two bores, as shown in Fig. 3, have the appearance of a cross. The bore 1 is for the bolt. The bore 2 receives the spindle by which the bolt is retracted.

I employ a casting B which I term a yoke or jaw. This casting has an integral sleeve 3 which I shall term a guide-way. The yoke is adapted to be applied to an edge of the door, as shown in Fig. 3, and is screwed thereto by the pointed screw 4 which penetrates into the wood and the binding-screw 5 which may be screwed against the door to bind and hold the yoke in position. At the edge of the door, the yoke has a slot 6^a and over this slot a second guideway 6 is adjustable by reason of the slot and screw connection 7. The slot 6^a allows a limited adjustment of this guide-way, which is circular in cross section, with respect to the yoke. In connection with this guide-way, I employ a guide or sleeve 7^a which is shown in detail in Fig. 4. The sleeve has a cylindrical portion 8 at the end of which is a shoulder 9. This may be termed a plug and can be plugged into either the guide-way 3 or 6. The opposite end of the guide-sleeve is substantially half cut away, as shown and an end 11 has thickened walls. A cap 12 can be fitted over this portion when the bit has entered the sleeve a sufficient distance. This cap has a slotted opening at the periphery which is indicated at 13 and which extends from the periphery beyond the center and serves as a center bearing for the shank of the bit. The cap 12 may be fitted onto the shank of the bit by allowing the shank to drop into the slot 13. The cap may then be slid over the portion 11 and the slot turned to be out of registry with the opening in the portion 11. When this is done, the cap 12 with the portion 11 forms a complete band to encircle the shank of the bit and hold it from displacement.

Such a bit, as is shown in Fig. 1, is employed that utilizes a screw tip 14, a routing lip 15 and spirals 16 which serve to carry the chips out of the mortise and discharge them through the open portion 10 of the guide-sleeve.

It will readily be understood that when the yoke is clamped to the door that the sleeve may be plugged in, first into one of the guide-ways and the bit guided in its boring operation so that the location of the hole is accurate and similarly the bit may be guided by the guide-sleeve when it has been plugged into the other guide-way and the second bore will be exactly located with respect to the first bore. If it is desired to change the relation of these two bores with respect to each other, this may be done within a limited extent by adjusting the guide way 6 through loosening the screw 7 and

sliding said guide slightly, which is allowable by reason of the slots through which the screws pass.

What I claim is:—

A lock-mortise boring-tool guide, having in combination a sleeve that may be removably affixed to the door and which has a cut-away portion, and cap provided with a slot which is fitted over the end of the sleeve, whereby the shank of the tool may be dropped into the slot of the cap and the said cap then turned so that the slot is in position of non-registry with the open portion of the sleeve and thereby forms a confining band for the bit, substantially as described.

In testimony whereof, I, sign this specification in the presence of two witnesses.

JOHN MONTGOMERY.

Witnesses:

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