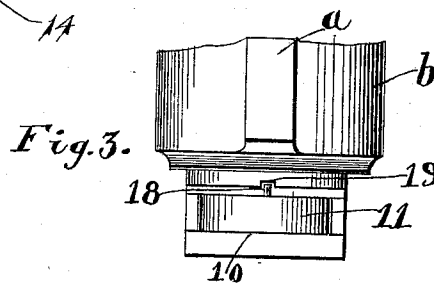
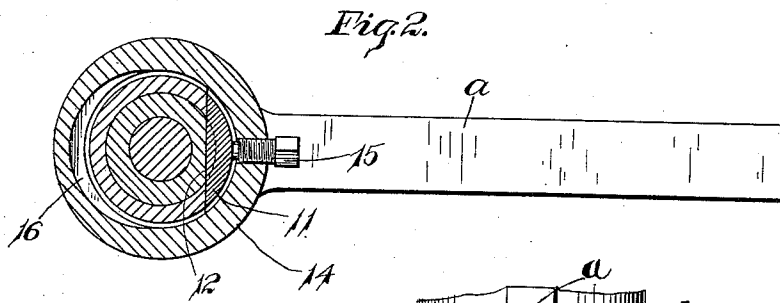
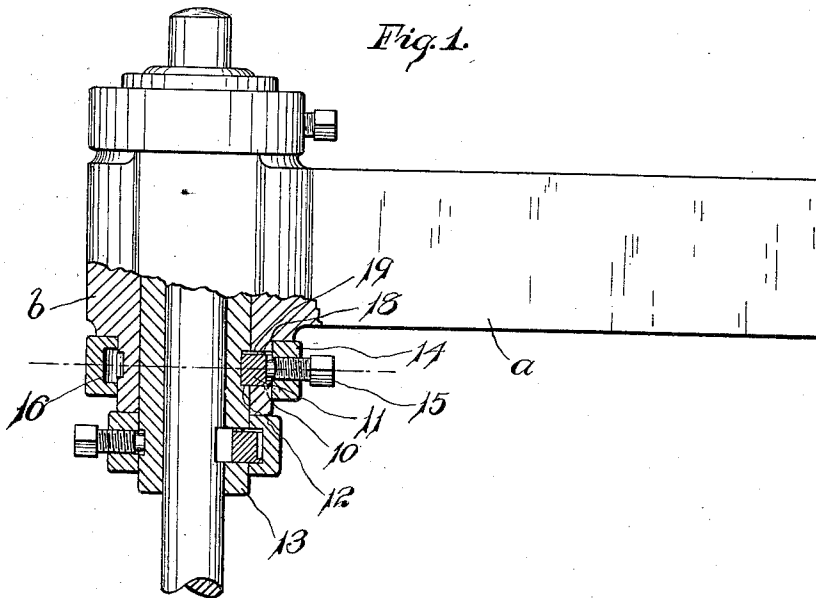


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TOOL HOLDER.
APPLICATION FILED JUNE 19, 1911.

1,041,592.

Patented Oct. 15, 1912.



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WILLIAM G. CHURCH, OF HARTFORD, CONNECTICUT.

TOOL-HOLDER.

1,041,592.

Specification of Letters Patent.

Patented Oct. 15, 1912.

Application filed June 19, 1911. Serial No. 634,072.

To all whom it may concern:

Be it known that I, WILLIAM G. CHURCH, a citizen of the United States, and a resident of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Tool-Holders, of which the following is a specification.

The object of this invention is to produce a tool holder having features of novelty and advantage.

It is particularly adapted for holding broaching, or similar tools.

In the drawings: Figure 1 is a side view of a holder embodying my invention shown partly in section. Fig. 2 is an end sectional view on the line 2—2 of Fig. 1. Fig. 3 is a side view of one end of the holder looking from the right of Fig. 1 some parts being removed to show construction.

Referring to the drawings: *a* denotes the shank of the holder by means of which it is secured in place in the machine.

b is the body of the holder tubular in form transversely slotted at either or both ends indicated at 10 to receive the key 11 which is adapted to lie in a notch 12 in the part which is to be held, being either a bushing 13 as illustrated or the tool spindle. The key is held in place by the ring 14 and is clamped by the set screw 15 to permit of releasing the tool spindle bushing. The ring is recessed as at 16 so that when it is rotated bringing the recess opposite the key and the holder is reversed in position the key will drop back into the recess freeing the bushing or spindle.

This structure provides a very secure attachment of the tool in the holder and is universal for various sizes of tool spindles, the bore of the holder being made large enough to accommodate the largest tool spindle and then one or more bushings being provided which may be secured in the main body of the holder and have bores to receive tool spindles of smaller size.

In order to prevent the rotary displacement of the keys they are provided with small pins 18 which fit into shallow slots 19.

I claim as my invention:

1. A tool holder comprising a tubular body adapted to receive a part to be held, a key mounted in said tubular body and adapted to engage the part to be held, a retaining ring for said key recessed to permit the withdrawal of said key from engagement with the part to be held, and means for securing said retaining ring in position.

2. A device of the character described comprising a body member having a bore to receive a part to be held and a transverse slot opening into said bore, a key located in said transverse slot and adapted to project into said bore into engagement with the part to be held, a retaining ring fitting over the end of said body and inclosing said key, said ring being interiorly recessed at one side to permit the disengagement of said key from the part to be held, and means for securing said ring in position.

WILLIAM G. CHURCH.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."