

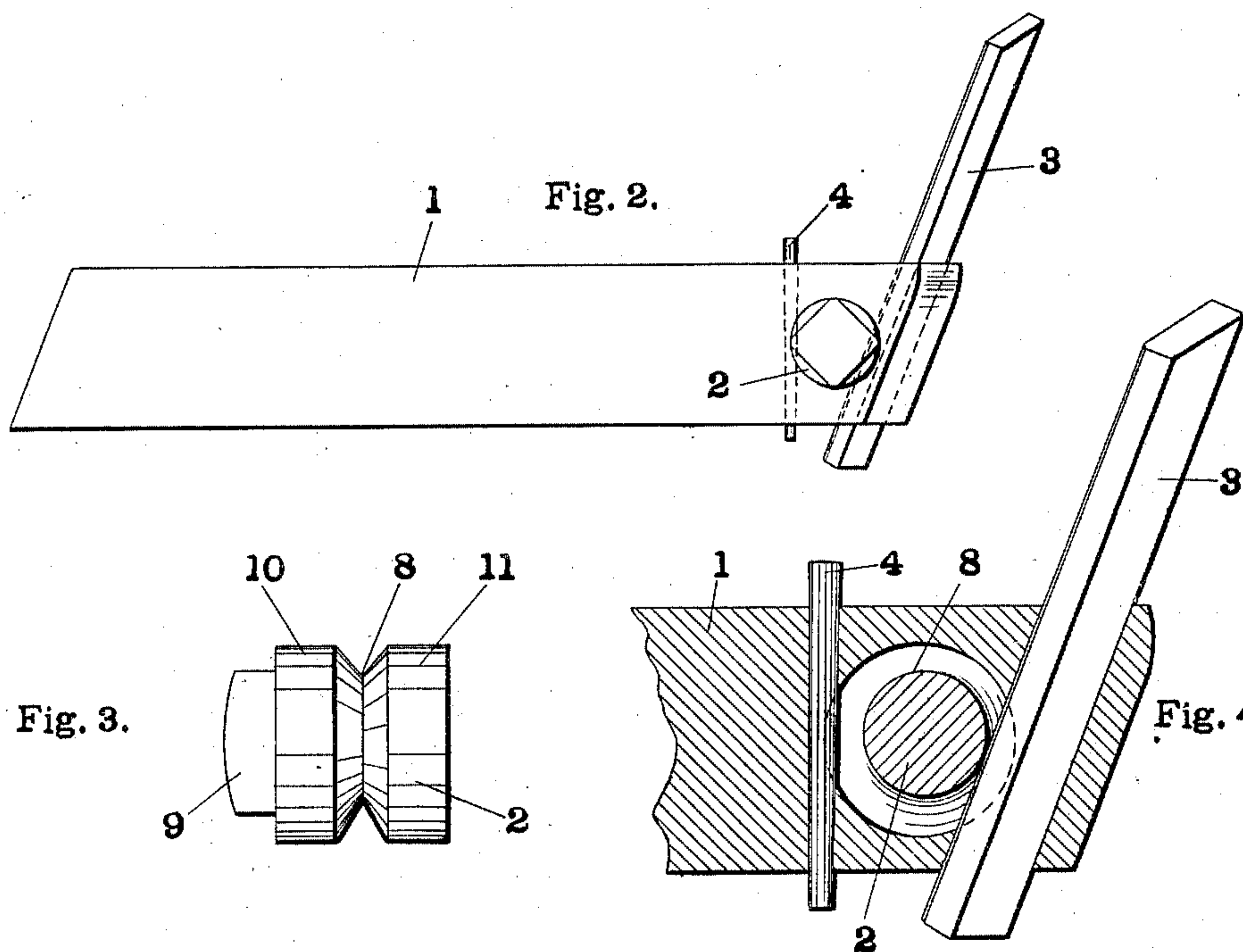
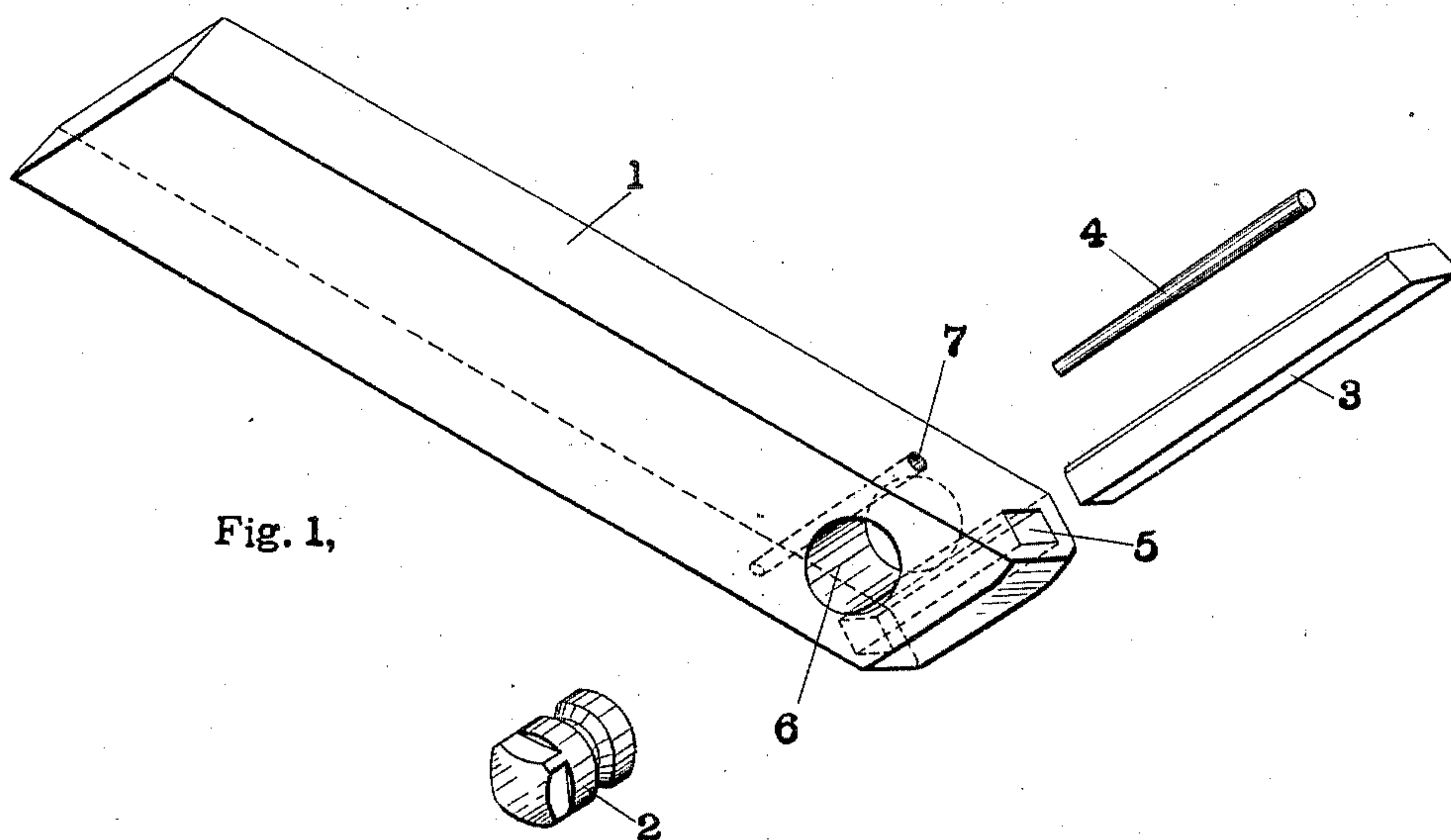
No. 760,021.

PATENTED MAY 17, 1904.

F. H. SANDHERR.
LATHE TOOL HOLDER.

APPLICATION FILED JAN. 2, 1904.

NO MODEL.



Witnesses:
G. Mann
Fred P. Rees

Inventor: *F. H. Sandherr*
By *Carr & Carr*
Attorneys.

UNITED STATES PATENT OFFICE.

FREDERICK H. SANDHERR, OF ST. LOUIS, MISSOURI.

LATHE-TOOL HOLDER.

SPECIFICATION forming part of Letters Patent No. 760,021, dated May 17, 1904.

Application filed January 2, 1904. Serial No. 187,511. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK H. SANDHERR, a citizen of the United States, and a resident of the city of St. Louis and State of Missouri, have invented a new and useful Improvement in Lathe-Tool Holders, of which the following is a specification.

My invention relates to lathe-tools, and especially to holders for lathe-tools. Its principal objects are to provide a holder that will be tightened by the force to which the tool is subjected in use, to provide a holder which can be adjusted to hold the tool and from which the tool may be released without the use of any other tool or instrument, to simplify and cheapen the construction of lathe-tool holders, and other objects hereinafter appearing.

My invention consists in the parts and in the combinations and arrangements of parts hereinafter described and claimed.

In the accompanying drawings, forming a part of this specification, and wherein like symbols refer to like parts wherever they occur, Figure 1 is a perspective view of the several elements of the tool-holder and the tool detached from each other. Fig. 2 is a side view of the same parts assembled. Fig. 3 is a view of the locking member, and Fig. 4 is a vertical longitudinal sectional view through the center of the tool-holder.

The tool-holder consists of a body portion 1, a locking member 2 in position to lock a tool 3 in the body portion, and a pin 4 to prevent the falling out of the locking member when the tool is withdrawn.

The body portion 1 is rectangular in cross-section and adapted to be secured in an ordinary lathe-tool post. Near its front end it is provided with a hole 5 to receive the tool and at the proper working angle for the tool. A diamond-shaped hole is shown in the drawings to correspond to the diamond-point chisel shown; but it is obvious that a tool of any shape may be used and that the hole will correspond to the tool. A circular hole 6 to receive the locking member extends through the body portion 1 from side to side and intersects with the tool-receiving hole 5. A slightly-tapering hole 7 to receive the pin 4

extends vertically through the body portion 1 and intersects with the hole 6 for the locking member substantially opposite the point of intersection of the latter with the tool-receiving hole 5.

The locking member 2 consists of a cylindrical block provided with a groove 8 eccentric to the axis of the cylinder and an integral squared portion 9 on one end. The groove 8 is located intermediate of the ends, and thus divides it into two cylindrical portions 10 11. As a tool square in cross-section has been used for the purpose of illustration, the groove has been shown triangular in cross-section to correspond; but it is to be understood that the groove 8 may be given any cross-section to correspond to the tools to be used. The groove may be cam-shaped instead of eccentric, if desired.

When it is desired to insert a tool in the holder, the locking member 2 is turned with the fingers, so that the deepest portion of the groove is toward the tool-receiving hole 5. The tool 3 is then inserted to the proper position, and then the locking member is turned toward the tool until the latter is engaged at a less deep portion of the groove. This engagement is such that pressure upon the point of the tool will tighten the grip of the locking member, as the frictional engagement tends to turn the latter and to bring less deep portions of the groove toward the tool. To release the tool, it is only necessary to strike the rear end of the tool, so as to drive it in the direction of its point. Due to its frictional engagement with the locking member, the latter will be turned, so as to release its grip upon the tool.

When the tool is withdrawn from the holder, the locking member is free to drop out. To prevent its accidental dropping out every time a tool is withdrawn, the pin 4 is provided. It extends into the groove 8 just sufficiently to prevent the falling out of the locking member and not enough to engage the bottom of the groove in any position of the locking member. The pin is preferably made slightly tapering, so that it may be frictionally retained in position and easily removed simply by a blow.

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Obviously the device is capable of modification within the scope of my invention, and therefore I do not wish to be restricted to the specific construction shown and described.

5 What I claim as my invention, and desire to secure by Letters Patent, is—

1. A lathe-tool holder comprising a body portion provided with a tool-receiving hole, a locking member rotatably mounted in said
10 body portion and having an eccentric groove in the plane of said tool-receiving hole, and means projecting into said groove to retain said locking member in said body portion.

2. A lathe-tool holder comprising a body

portion provided with a tool-receiving hole, 15 a locking member rotatably mounted in said body portion and having an eccentric groove in the plane of said tool-receiving hole, and a pin projecting into said groove to retain said locking member in said body portion. 20

In witness whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK H. SANDHERR.

Witnesses:

FRED F. REISNER,
J. B. MEGOWN.