Jan. 15, 1924.

1,480,987

G. Q. BRITT

TOOL HOLDER

Filed March 17, 1923

Fig. 1.

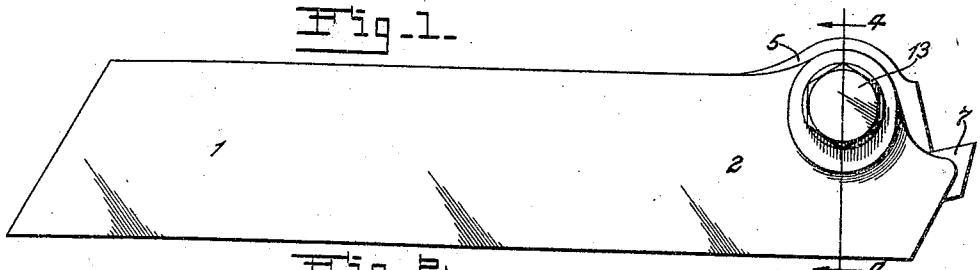


Fig. 2.

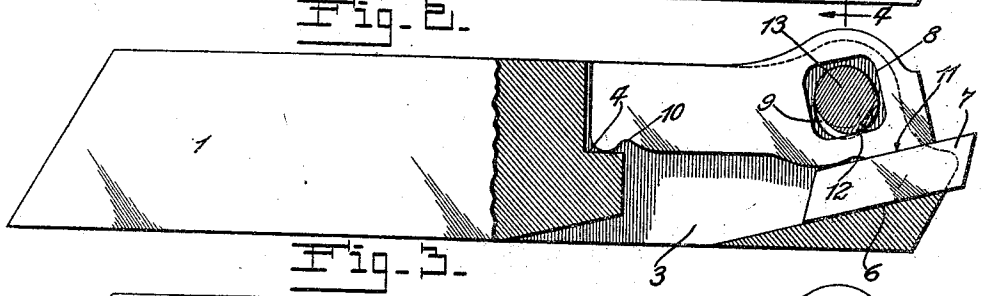


Fig. 3.

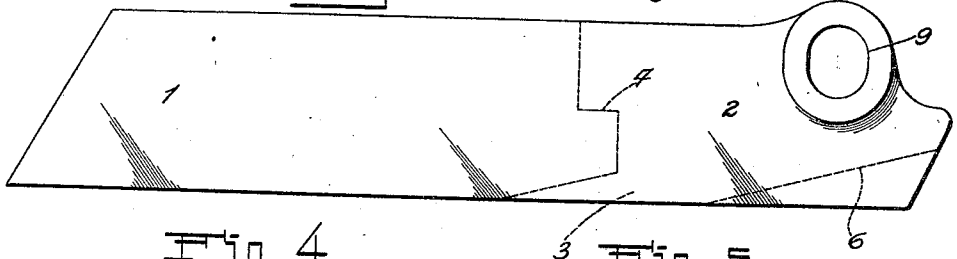


Fig. 4.

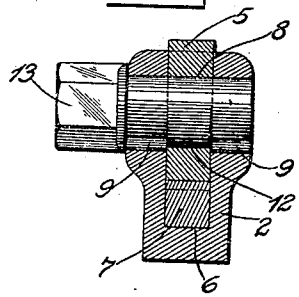


Fig. 5.

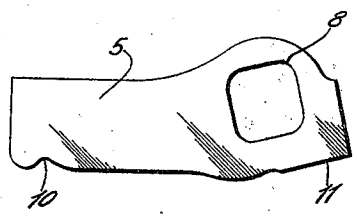


Fig. 6.

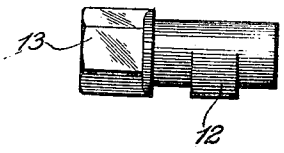
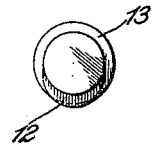


Fig. 7.



Inventor.
George Q. Britt,
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His Attorneys.

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UNITED STATES PATENT OFFICE.

GEORGE Q. BRITT, OF MEMPHIS, TENNESSEE.

TOOL HOLDER.

Application filed March 17, 1923. Serial No. 625,765.

To all whom it may concern:

Be it known that I, GEORGE Q. BRITT, a citizen of the United States of America, residing at Memphis, in the county of Shelby, State of Tennessee, have invented certain new and useful Improvements in Tool Holders, of which the following is a specification.

This invention relates to tool-holders intended, primarily, for use in lathes, planers or shapers, and has for its principal object the provision of means for holding the tool or bit in such manner as to permit the use of approximately 85% thereof in distinction to other holders in which the bit must be renewed or replaced after about half thereof has been used. In other words, bits of the kind referred to are commonly supplied in three (3) inch lengths and the character of the steel is such as to make them very expensive, hence it is highly desirable, especially in large metal working plants, to effect an economy by using as much of the bit as possible and this invention has been evolved with that desideratum in mind and with full knowledge of various other patented and unpatented holders adapted for use in machines of the kind above mentioned.

In the accompanying drawing, where like numerals refer to like parts throughout, Figure 1 is a side elevation of the holder with the bit locked in position for use; Figure 2 a similar view, partly in section; Figure 3 a side elevation with the bit, the retaining jaw and the cam-bolt removed; Figure 4 a vertical front end section taken along line 4—4 of Figure 1; Figure 5 a detail view of the retaining jaw; and Figures 6 and 7 side and end views, respectively, of the cam-bolt which locks said jaw against the bit.

The holder comprises a shank 1 and a head 2, the latter being open above for reception of the jaw and slotted below as at 3 to accommodate bits of various lengths. The interior formation of the head includes a shoulder 4 extending from the shank for support of the rear extremity of retaining jaw 5 and an inclined surface 6 upon which the bit 7 is disposed as best shown in Figure 2.

The forward end of said jaw is somewhat enlarged for the provision of a substantially square aperture 8 (Figures 2 and 5) which registers with substantially elliptical apertures 9 formed on either side of the head. The under edge of the jaw is notched at 10 so as to hinge upon the edge of shoulder 4 and beveled or inclined at 11 to correspond with the inclination of the bit supporting surface 6. When the bit is positioned as shown in Figures 1 and 2, it is secured against movement by depression of said jaw through the agency of a cam 12 formed upon the shank of a rotatable bolt 13 which is projected through apertures 8 and 9, and as the cam may be inserted from either side of the holder the operator is thus enabled to cut very close to obstructions which would otherwise encounter the head of said bolt. This provision for shifting bolt 13 is also of great advantage in doing tail stock work and is considered one of the valuable features of the invention serving to commend its use in preference to other devices intended for the same general purpose.

What I claim as new and desire to secure by Letters Patent is:—

1. A tool-holder comprising a shank having a bifurcated extremity forming a head for reception of a bit, a bearing surface for the support of said bit, a removable jaw positioned within the head adapted to engage said bit, a shoulder projecting from said shank affording a fulcrum for said jaw, and a rotatable bolt extending through said head provided with a cam adapted to bear against said jaw to force the latter against said bit.

2. A tool-holder comprising a shank having a bifurcated extremity forming a head for reception of a bit, an inclined bearing surface for the support of said bit, a removable jaw positioned within the head adapted to engage said bit and having an inclined edge corresponding to the inclination of said surface, a shoulder projecting from said shank affording a fulcrum for said jaw, and a rotatable bolt extending through said head provided with a cam adapted to bear against said jaw to force the latter against said bit.

GEORGE Q. BRITT.

Witnesses:
W. CHAPMAN DEWEY,
G. M. HALL.