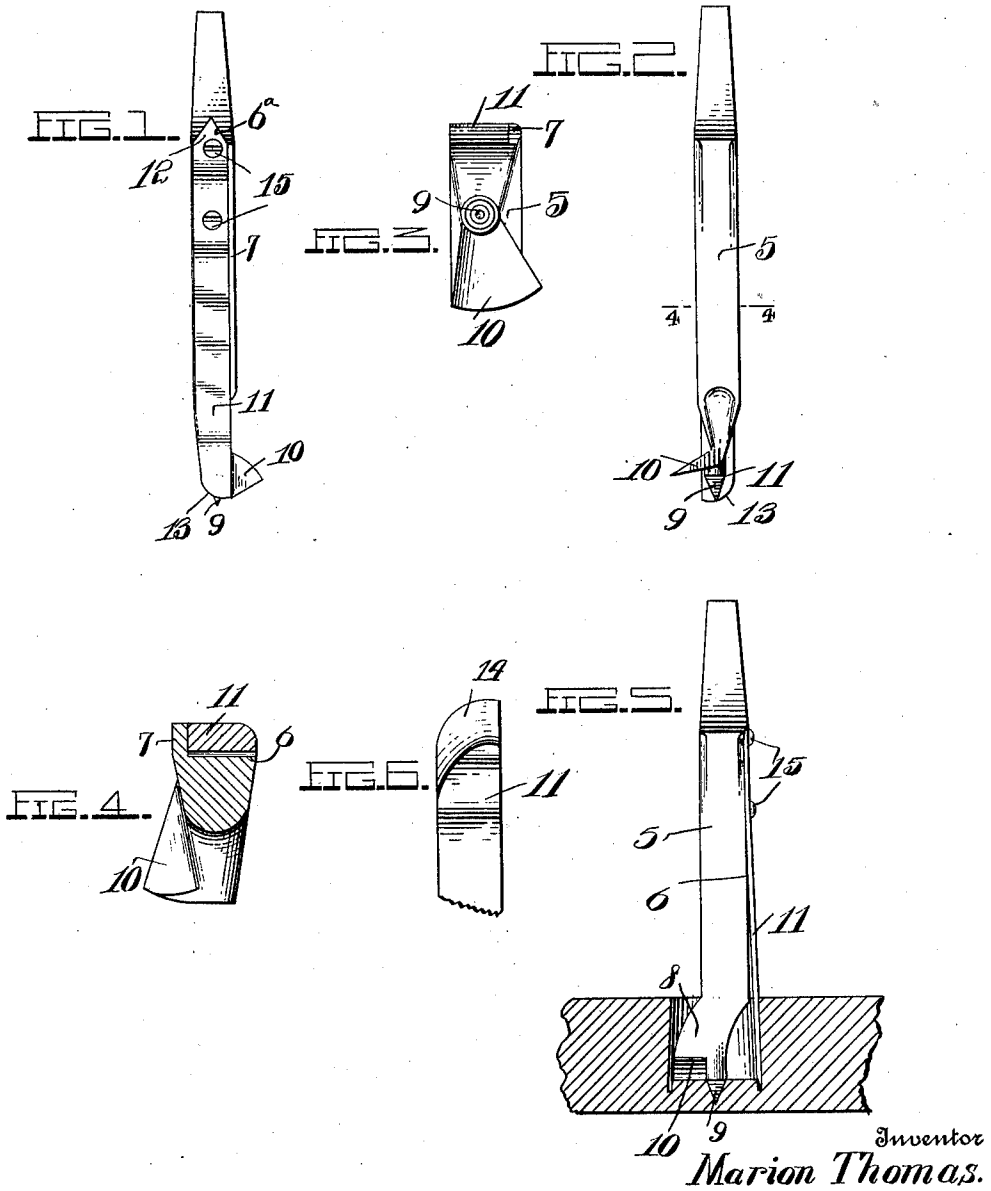


M. THOMAS.
BORING TOOL.
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1,002,787.

Patented Sept. 5, 1911.



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UNITED STATES PATENT OFFICE.

MARION THOMAS, OF GEORGETOWN, INDIANA.

BORING-TOOL.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MARION THOMAS, a citizen of the United States, residing at Georgetown, in the county of Floyd, State of Indiana, have invented certain new and useful Improvements in Boring-Tools; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improvement in drilling bits and is especially adapted for use in boring sockets in chair legs for the reception of the ends of the rounds. It is a well known fact that considerable difficulty has been experienced in properly securing the ends of the rounds to the chair legs.

The primary object of my invention is to provide an improved boring bit by means of which a flared seat may be formed by means of which the end of a round may be securely fastened therein.

Another object of the invention is to provide an improved cutter which is in the nature of an attachment for the bit and may be readily detached or attached to the bit shank whenever desired.

A still further object of the invention is to provide a boring tool which is composed of a minimum number of parts, is therefore simple in construction and is cheap to manufacture.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims here-to appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a front elevation of the tool, Fig. 2 is a rear elevation thereof, Fig. 3 is a bottom plan view of the tool, Fig. 4 is a cross-sectional view taken on the line 4—4 of Fig. 2, and Fig. 5 is a sectional view through a chair leg showing my invention associated therewith in working position, Fig. 6 is a detail view of the cutter.

Like reference numerals indicate corresponding parts in all the figures of the drawing.

Referring to the drawing the invention comprises a boring tool having a shank 5 and a longitudinal seat 6 formed at one side thereof, said seat forming a consequent flange 7. This seat terminates near the upper end of the shank in a substantially V-shaped end wall 6^a constituting a guide for a purpose hereinafter described. The lower end of the shank projects downwardly and outwardly from the said seat 6 to form a foot 8 and said foot is provided with the usual center point 9 and cutting blade 10.

Arranged within the seat 6 is a cutter 11 and this cutter is formed of spring steel. The upper end 12 thereof is pointed and is adapted to engage the V-shaped end wall 6^a of said seat. This cutter normally rests against the flange 7 and the opposite end thereof projects beyond the seat and terminates in a cutting edge 13 which is disposed in a plane slightly below the cutting blade 10. This cutting edge is formed by tapering the cutter outwardly, as indicated by the reference numeral 14. This cutter is secured to the shank at its upper end by a plurality of screws 15 or other suitable fastening means. It will thus be seen that the cutter can be moved outwardly from the shank and that the flange 7 of said shank constitutes a shoulder against which the said cutter may bear when the tool is rotated.

In operation as the tool is rotated the cutting edge 14 will be caused on account of its cutting edge to make a circular recess of its own. As the tool is rotated the cutter will necessarily be forced away from the shank as the tool passes through the wood. This is due to the fact that the inner face of the cutting edge is inclined outwardly. It will be also observed that as the tool is rotated the shoulder 7 will engage the lower end portion of the cutter and thereby materially assist the same and likewise prevent any undue strain thereupon. Should the cutter become broken away from any cause the remaining portion can be quickly detached from the shank and a new cutter inserted. When the tool is withdrawn from an opening formed thereby, the spring cutter will immediately resume its normal position against the shank and in position to begin work upon another flared opening. After the openings have thus been formed in a chair leg the round can be driven thereinto and a wedge inserted in the rear of said round, thereby causing the ends thereof to

tightly engage within the flared opening formed by said tool.

What is claimed is:—

1. A boring tool comprising in combination, a shank having a longitudinal seat and a consequent shoulder formed on one side thereof, the lower end of the shank projecting downwardly and outwardly from the said seat to form a foot having a center point and a cutting blade, a cutter formed of spring steel arranged within the said seat and against the shoulder and having its lower end projecting beyond the seat and terminating in a cutting edge disposed in a plane slightly below the cutting blade, and means for securing the upper end of the cutter to the shank.

2. A boring tool comprising in combination, a shank having a longitudinal seat and a consequent shoulder formed on one side thereof, said seat terminating near the up-

per end of the shank in a substantially V-shaped end wall, the lower end of the shank projecting downwardly and outwardly from the said seat to form a foot having a center point and a cutting blade, a cutter formed of spring steel arranged within said seat and against the shoulder, the upper end thereof being pointed to engage the end wall of the said seat, and having its opposite end projecting beyond the seat and terminating in a cutting edge disposed in a plane slightly below the said cutting blade, said edge being tapered outwardly, and means for securing the upper end of the cutter to the shank.

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

MARION THOMAS.

Witnesses:

WM. A. BYERLEY,

L. A. ENEGAR.

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