

W. D. DUCKETT.
COMBINATION TOOL HOLDER.
APPLICATION FILED JUNE 24, 1911.

1,063,863.

Patented June 3, 1913.

Fig 1

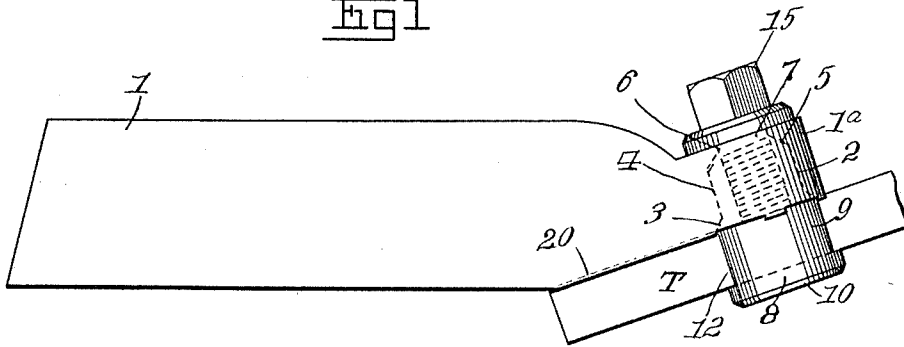


Fig 2

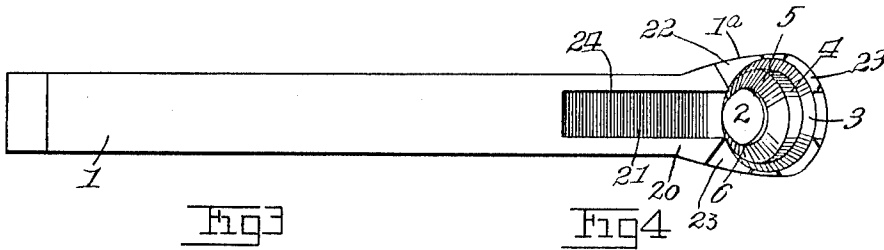


Fig 3

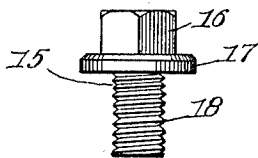
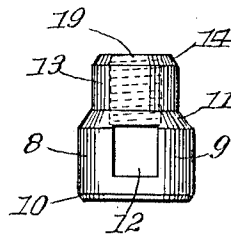


Fig 4



Witnesses

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WILLIAM D. DUCKETT, OF DETROIT, MICHIGAN.

COMBINATION TOOL-HOLDER.

1,063,863.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed June 24, 1911. Serial No. 635,106.

To all whom it may concern:

Be it known that I, WILLIAM D. DUCKETT, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented new and useful Improvements in Combination Tool-Holders, of which the following is a specification.

The present invention relates to combination tool holders and has particular application to a device of the class described adapted for holding tools of various kinds, such as those used in connection with drills, planters and other machinery, one of my objects being to provide an improved holder which may be employed to hold the tool at different and desired angles.

It is also my purpose to provide an improved combination tool holder which will embody in its construction the desired features of simplicity, durability, strength and convenience and effectiveness.

With the above-recited objects and others of a similar nature in view, the invention consists in the construction, combination and arrangement of parts, set forth in and falling within the scope of the appended claim.

In the accompanying drawing: Figure 1 is a view in side elevation of a tool holder embodying my invention. Fig. 2 is a bottom plan view of the holder. Fig. 3 is a detail view in elevation of the screw bolt therefor. Fig. 4 is a similar view of the tool-carrying head.

Referring now to the accompanying drawing in detail, the numeral 1 designates the body portion of the tool holder, which is adapted to be fastened in the chuck of the lathe, or the like, said body portion terminating at its outer end in the inclined member 1^a formed with a transverse bore 2 therein, said bore having a relatively wide flared end 3 terminating at the bottom of the inclined member, the flared portion of the bore merging into the central cylindrical portion 4 which is tapered or reduced as at 5, the tapered portion 5 communicating with the circular reduced end opening 6 of the bore, the latter being threaded as at 7.

The numeral 8 indicates the tool-holding head as an entirety, said head comprising the enlarged tool-holding member 9 having the outwardly tapered end 10 and the inwardly tapered end 11, while 12 designates a transverse passage for the reception of the tool T. The head is further provided

with a tubular shank 13 having the beveled end 14 adapted when the shank is inserted in the bore 2, to bear against the reduced tapered portion 5 thereof, the shank then occupying the position in the bore shown in dotted lines in Fig. 1. To retain the tool head in position, I employ a bolt 15 comprising the wrench engaging head 16, the flange 17 and the threaded shank 18, the latter being designed to be threaded into engagement with the end 6 of the bore and with the interiorly threaded socket 19 of the tubular shank 13. By such construction the tool-holding head may be rigidly and firmly held in its adjusted position at the end of the inclined member 1^a.

The face 20 of the inclined end of the tool holder against which the tool is adapted to bear is provided with a longitudinally extending relatively shallow channel 21 intersected by like diagonally extending channels or grooves 22 and 23, these channels 21, 22 and 23 being designed to receive the face of the tool when such face is in alignment therewith, the tool being thereby adjusted to lie straight or at an angle to the body of the holder. If desired, such inclined face 20 may also be roughened or scored as at 24 to enable the tool to be more firmly gripped.

From the above description, taken in connection with the accompanying drawings, the construction and operation of my device will be evident. The shank of the head which carries the tool is inserted in the bore of the inclined end member 1^a, and the tool inserted through the transverse bore 12 the required distance. The head is then rotated to bring the tool to the proper inclination. The bolt is then tightened so that the shank 18 thereof bears against the adjacent side of the tool and clamps the latter in position.

It will be noted that I have provided a simple yet efficient means by which the tool may be firmly clamped at a desired angle, and, furthermore, my device may be applied and used in connection with the chucks or holders of ordinary planing, milling and similar machines.

I claim:—

A tool holder comprising a body portion terminating in an inclined member having a bore extending therethrough, the bore having a relatively wide flared end merging into a small cylindrical portion and having a tapered wall reduced and apertured, a tool

carrying head formed with a transversely
extending passage for the tool, and a shank
extending from the head and of a configura-
tion conforming to the contour of the bore
5 in the inclined member and provided with
a threaded socket alining with the aperture
in said inclined member, and a headed bolt
having a flange contiguous the head thereof
and passed through said aperture in the
10 socket of the said tool carrying head to hold

the latter within the bore, said flange con-
tacting with the adjacent end wall of the
bore.

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

WILLIAM D. DUCKETT.

Witnesses:

WILLIAM G. SMITH,
B. ROYCE SHELDON.

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