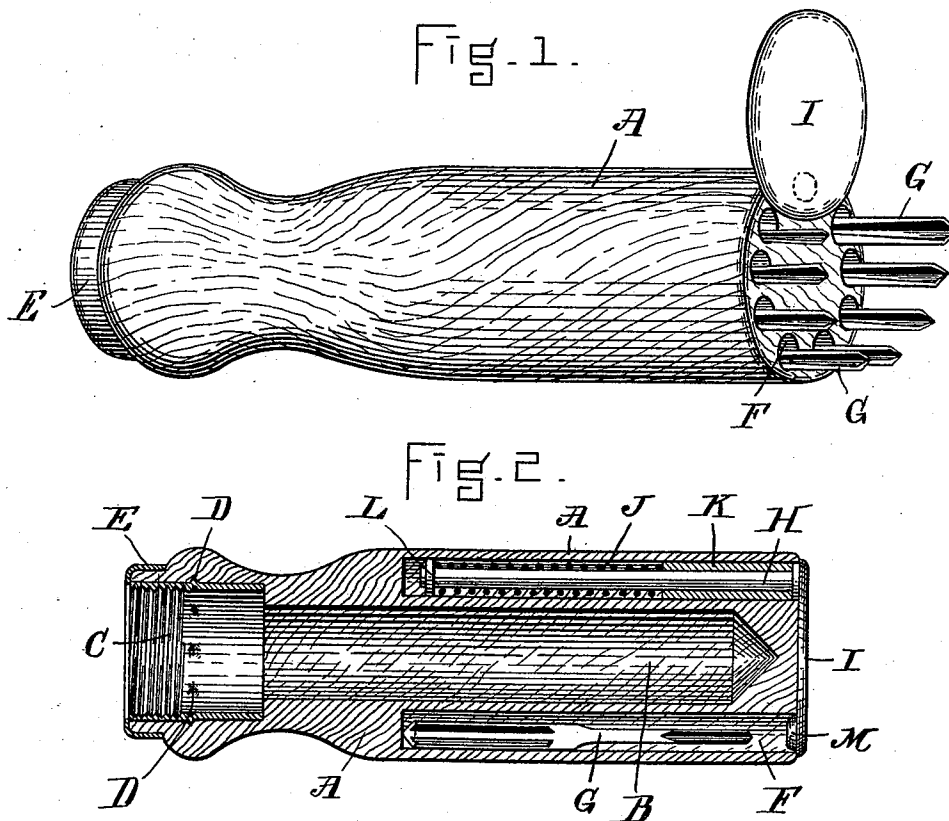


(No Model.)

W. J. JOHNSON.
TOOL HANDLE.

No. 518,106.

Patented Apr. 10, 1894.



WITNESSES.

G. Henry Marsh.
Samuel P. Thrasher.

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UNITED STATES PATENT OFFICE.

WILLIAM J. JOHNSON, OF NEWTON, MASSACHUSETTS.

TOOL-HANDLE.

SPECIFICATION forming part of Letters Patent No. 518,106, dated April 10, 1894.

Application filed May 15, 1893. Serial No. 474,174. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. JOHNSON, of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Tool-Handles, of which the following, taken in connection with the accompanying drawings, is a specification.

The object of my invention is to provide an improved tool handle especially adapted to be screwed upon and to become part of a boring tool, for which purpose it is provided with a series of parallel longitudinal cells, for holding bits or like tools separately, and is furnished with a spring-pressed swinging end-cap to close and open the cells so that all the tools may be exposed at once. The several cells are arranged in a circle, the socket for the spindle which forms the pivot of the end-cap being one of the series. A lug or protuberance on the underside of the cap enters one of the cells opposite the pivot, when the cap is closed and holds it in that position. The threaded socket is held within the opposite end of the handle by outwardly extending burrs entering the wooden wall inclosed by the ferrule. These various features of improvement are hereinafter described and specified in the appended claims.

In the drawings, Figure 1 is a perspective view of the handle, showing the end-cap swung open and the tools protruding from the exposed cells. Fig. 2 is a longitudinal section of the device closed, showing the end-cap and its spindle in elevation, and its lug in position to hold the cap from swinging when closed.

A represents the handle, preferably formed of hard wood with an axial concavity B closed at the outer end.

C is a threaded bushing within the inner end of the handle, for the purpose of screwing thereto the body of the boring tool or other implement. DD are outwardly-extending burrs formed in this bushing after it is in position in the handle-end by punching the metal at intervals to cause prongs to project outwardly into the surrounding wood, whereby the bushing is firmly united to the handle. To prevent any danger of splitting,

and to secure a better finish, I prefer to apply a sheet metal ferrule E as shown in the drawings.

The cylindrical wall of the handle is formed with a series of cells F parallel with and equidistant from the axis, to receive an assortment of bits G or other tools. One of the cells in the circularly arranged series is occupied by the spindle H fixed firmly to the end-cap I at one side thereof and by the spring J and sleeve K which surround the spindle. The sleeve K fits tightly in the outer part of the cell while the spindle slides and turns freely within it, the spring being compressed between the inner end of the sleeve and a collar L at the inner end of the spindle. See Fig. 2. The tendency of the spring is therefore to hold the cap to the end of the handle with a yielding pressure. Small washers may be interposed at either end of the spring and sleeve to ease the rotary movement of the cap and spindle. The spindle H thus forms a yielding pivot for the end cap I to which it is firmly affixed. The under surface of the cap has a rounded protuberance or lug M fitting into the mouth of one of the cells opposite to the spindle. The spring holds the cap pressed against the end of the handle with the lug M in its proper cell. This retains the several bits in place; but when access to them is desired the cap and spindle are drawn slightly outward against the resistance of the spring and the cap swung on its pivot so as to expose any or all of the tools, as in Fig. 1. The lug will register with one cell only and the cap fits flat against the flat end of the handle, the whole exterior being perfectly smooth.

I do not claim, broadly, a tool handle having a circularly-arranged series of tool cells, for this I am aware is old; nor do I claim, broadly, a tool-handle furnished with an end-cap having a pivot-spindle fixed to it near one edge, as such swinging end-caps are old. My invention lies, rather, in the peculiar combination and arrangement of parts herein shown and described, and specifically stated in the claims.

I claim as my invention—

1. A tool handle formed with a series of tool cells arranged in a circle in combination

with an end-cap pivoted near one edge, the pivot socket being one of the series and in the same circle with the tool cells, whereby all the tools are concealed or exposed simultaneously, substantially as set forth.

5 2. A tool handle formed with a series of tool cells and with a cap-spindle cell all parallel with and equidistant from the axis, in combination with an end-cap closing all said
10 cells, a rigidly affixed spindle with spring and sleeve in said cap spindle cell, and a locking

lug or protuberance formed on the under side of the end cap, registering with an opposite cell substantially as set forth.

In testimony whereof I have signed my
15 name to this specification, in the presence of two subscribing witnesses, on this 13th day of April, A. D. 1893.

WILLIAM J. JOHNSON.

Witnesses:

THOMAS J. KENNY,
A. H. SPENCER.