(No Model.)

E. BUELL.

TOOL HANDLE.

No. 267,060. Patented Nov. 7, 1882.

Fig. 1.

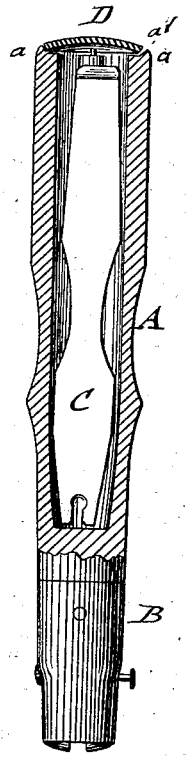


Fig. 2.

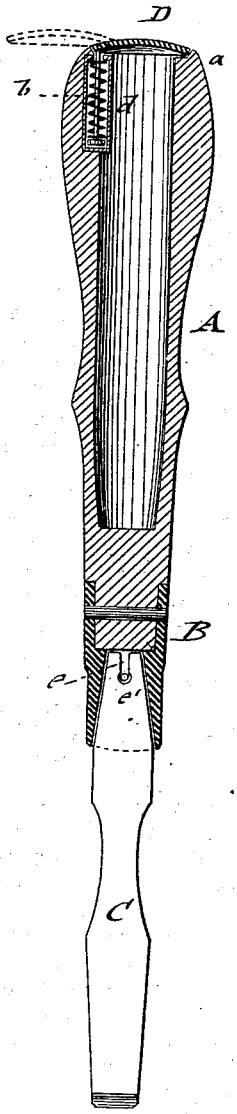


Fig. 3.

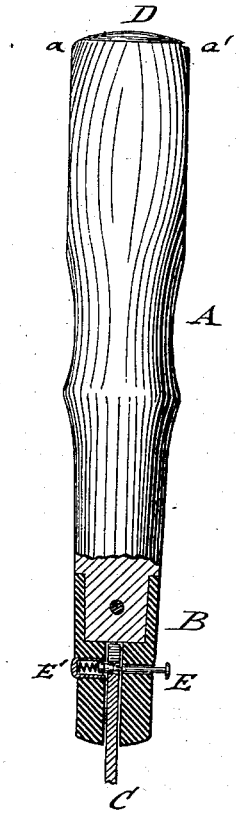
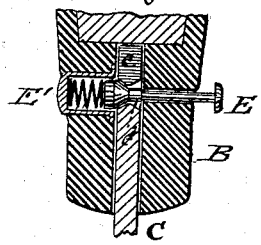


Fig. 4.



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EDGAR BUELL, OF CLINTON, CONNECTICUT, ASSIGNOR OF ONE-HALF TO ANDREW L. BUELL, OF SAME PLACE.

TOOL-HANDLE.

SPECIFICATION forming part of Letters Patent No. 267,060, dated November 7, 1882.

Application filed March 1, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDGAR BUELL, of Clinton, in the county of Middlesex and State of Connecticut, have invented certain new and useful Improvements in Tool-Handles, of which the following is a specification.

This invention has reference to an improved tool-handle for screw-drivers and similar instruments; and the invention consists, first, of a hollow handle which is closed by a disk-shaped end plate having a beveled circumference, said end plate being pivoted by a fixed and spring-pressed pin into a socket driven into a corresponding recess at the interior of the tool-handle. A nick in the butt-edge of the handle admits of taking hold of the end plate for swinging the same around its pivot, and opening thereby the hollow handle for the removal or insertion of the screw-driver or other tool.

The invention consists, secondly, of a locking mechanism, by which the shank of the screw-driver is secured firmly into a socket at the opposite end of the handle, said locking device consisting of a guided and spring-pressed pin or key having a conically-tapering portion and a shoulder in front of the same. The tool-shank is slotted and provided with a beveled socket-hole, into which the conically-tapering portion of the key is forced when the tool-shank is inserted, so as to properly lock the same.

In the accompanying drawings, Figures 1 and 2 represent vertical transverse sections of my improved tool-handle, said sections being taken on axial planes at right angles to each other. Fig. 3 is a side view, partly in section to show the connection of the handle with the steel tool; and Fig. 4 is a detail vertical transverse section of the part shown in Fig. 3, on an enlarged scale.

Similar letters of reference indicate corresponding parts.

A in the drawings represents a hollow tool-handle, which is provided at one end with a socket, B, for the insertion of the screw-driver or other tool, C, the latter being adapted to be removed from the socket and stored away in the interior of the handle A, as shown in Fig. 1. The opposite or butt end of the handle A is closed by a disk-shaped and slightly-convex end plate, D, which is beveled at its circumference and seated on a correspondingly-beveled rim, *a*, of the handle A, as shown clearly in Figs. 1 and 2. The end plate, D, is connected by a fixed pivot-pin, *b*, which is secured to the end plate near its circumference to a cylindrical socket, *d*, which socket is driven into a corresponding recess at the interior of the tool-handle A, as shown clearly in Fig. 2. A spiral spring is interposed between the upper end of the socket *d* and the head of the pivot-pin *b*, said spring tending to press the end plate, D, tightly upon its seat at the end of the handle A when the handle is closed by the end plate. At one point of the circumference of the beveled seat *a* of the handle A is arranged a notch or nick, *a'*, of sufficient size for the insertion of the nail of the thumb, so as to admit thereby the introduction of the nail below the beveled edge of the end plate, D, at a point sidewise of its pivot-pin, whereby the plate is slightly raised, and when simultaneously pressed sidewise thrown clear of the rim of the handle A and around its pivot-pin into a position sidewise of the handle, as shown in dotted lines in Fig. 2. In this position of the end plate the screw-driver or other tool, C, may be either removed from the hollow handle or inserted into the same for being stored away therein, after which the end plate is swung back into position on the handle and returned by the spring of its pivot-pin to its seat at the end of the handle. The spring of the end plate has to be sufficiently strong to keep the hollow handle tightly closed, so as to prevent the escape of the different sizes of screw-drivers stored away in the handle. By this construction the end plate is never detached, as is the case with screw-caps used for closing hollow handles heretofore, while it admits a more convenient and quicker opening and closing of the same.

The end of the shank of the screw-driver C is provided with a slot, *c*, and a socket-hole, *c'*, which is beveled inwardly from the faces, as shown clearly in Fig. 4. The end of the shank C is inserted into the recess of the socket B at the shank end of the handle A, and locked rigidly thereto by means of a spring-pressed

pin or key, E, which is guided by its shank in a radial perforation of the socket B, and by its enlarged end in a socket, E′, arranged in line with the guide-perforation of the shank, as shown clearly in Fig. 4. The outer end of the locking-key E is provided with a head or thumb-rest, *b*, while the inner enlarged end is made of cylindrical shape for being properly guided in the socket E′. Adjoining the cylindrical end the shank of the key E is made of conically-tapering shape, the taper of the same corresponding with the bevel of the socket-hole *e′* of the tool-shank. Adjoining the conically-tapering part of the enlarged end is arranged a shoulder, e^2, of slightly greater diameter than the shank of the pin, which shoulder bears against the inner end of the socket, so as to prevent it from passing beyond this point when the shank of the tool is not inserted. The enlarged end of the key E is acted upon by a spiral spring, which is interposed between it and the bottom of the socket E′, said spring forcing the key in outward direction.

For inserting the tool-shank the key is pressed inwardly against the spring, so as to permit the passage of the slotted end of the tool-shank over the shank of the pin until the tool-shank arrives at the bottom of the socket, when the key is released and thrown by its spring against the beveled socket-hole of the shank, so as to lock by its tapering part the tool-shank rigidly to the socket B of the handle. For removing the tool-shank the same operation is reversed.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of a hollow tool-handle having a butt-end with beveled rim, and a fixed socket at the interior of the handle, with an end plate pivoted to the interior socket and pressed upon the end of the handle by a spring interposed between the head of the socket and the enlarged end of the pivot-pin, substantially as specified.

2. The combination of a tool-handle having a shank-socket, a tool-shank having a slotted end and a beveled socket-hole, and a transversely-guided and spring-pressed locking-key having an enlarged inner end, a tapering portion, and a shoulder in front of the tapering portion, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

EDGAR BUELL.

Witnesses:
PAUL GOEPEL,
CARL KARP.