W. G. A. Bonnill,

Screw Driver.

No. 50,328, Patented Oct. 10, 1866.

Fig. 1.

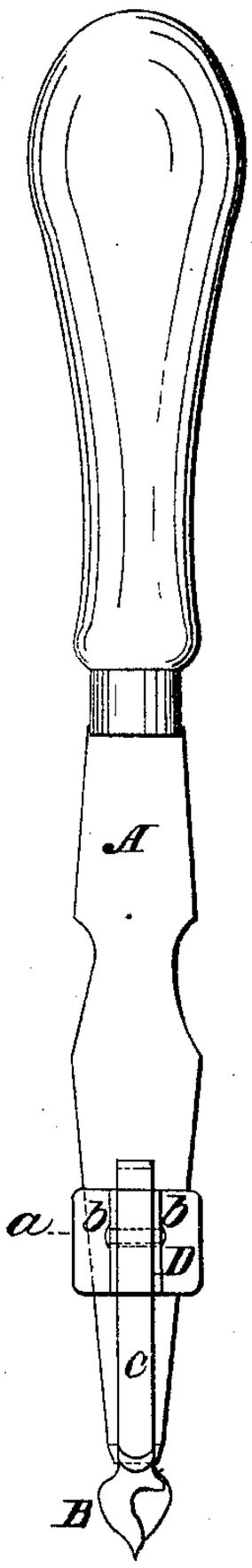
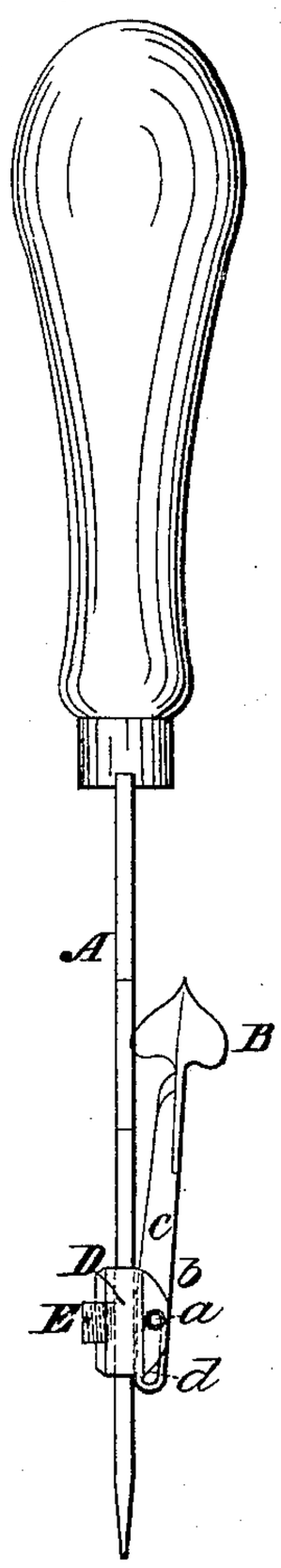


Fig. 2.



Witnesses:

M. M. Livingston.

C. L. Tobliff.

Inventor:

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UNITED STATES PATENT OFFICE.

WM. G. A. BONWILL, OF DOVER, DELAWARE.

IMPROVEMENT IN SCREW-DRIVERS.

Specification forming part of Letters Patent No. **50,328,** dated October 10, 1865; antedated August 27, 1865.

To all whom it may concern:

Be it known that I, W. G. A. BONWILL, of Dover, in the county of Kent and State of Delaware, have invented a new and useful Improvement in Combining a Screw-Driver with other Tools; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a face view of a screw-driver which has a countersink combined therewith. Fig. 2 is an edge view thereof, the countersink being turned out of the way.

Similar letters of reference indicate like parts.

This invention consists in combining with a screw-driver any other tools which are commonly used in connection therewith, such as a countersink, gimlet, reamer, &c., by means of a sliding socket and joint, the socket being made removable or fixed.

A is a screw-driver, which may be of ordinary construction as to shape and material.

B is a countersink, which is here taken as an example to show how that and any other tool may be combined with a screw-driver so as to be operated by means of that implement with as much efficiency as though they were each supplied with separate handles.

C is the shank of the countersink. It is shown here as being made flat, so as to lie snugly against the face of the screw-driver when extended for use. A slot, *d*, of considerable length is formed in the upper end of the stock C, parallel with its flat side, for the purpose of making a joint by which the countersink can be turned down for work or turned up out of the way.

D is a sliding socket fitted to the blade of the screw-driver, and to which it is capable of being clamped by means of a set-screw, E, through its back, which is strengthened for the purpose of receiving the screw and enabling it to hold the socket steady. The face of the socket has two flanges, *b*, extending from it at right angles, and which are far enough apart to receive the stock of the countersink between them. They are connected to each other by a stout pin, *a*, which also serves as the joint-pin for the stock of the countersink, being inserted through the slot or loop *d* formed in the end of that stock. The length of the stock C, the length of its slot *d*, and the position of the socket D upon the screw-driver are adjusted with reference to each other, so that when the countersink is in the position shown in Fig. 1 it will clear the end of the screw-driver. In order to turn it up from that position and enable one to use the screw-driver, it is only necessary to move the countersink down until the hinge-pin *a* strikes against the outer end of the slot *d*, when the stock C can be turned up and laid against the upper part of the screw-driver. It is then secured in this position by pushing the stock downward until the pin *a* strikes the inner end of the slot. The same movements reversed will restore the countersink to the position shown in Fig. 1.

Any other tool capable of being operated by means of a handle like the handle of a screw-driver may be combined therewith in the same way. The socket D may also be held by friction or be locked to the blade of the screw-driver by a spring-locking device or be permanently fastened to it; and by removing the set-screw to one side or employing some other convenient mode of fastening the socket or collar *d* another tool can be applied to the other side of the screw-driver, and the like may be done on each edge of the screw-driver.

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

Combining a countersink or other tool which can be operated by a straight handle with a screw-driver by means of a socket, D, and a sliding joint, substantially as and for the purpose above described.

WM. G. A. BONWILL.

Witnesses:

M. M. LIVINGSTON,

C. L. LOPLIFF.