

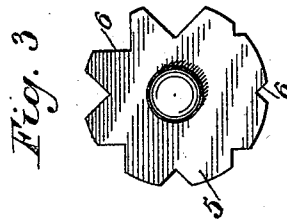
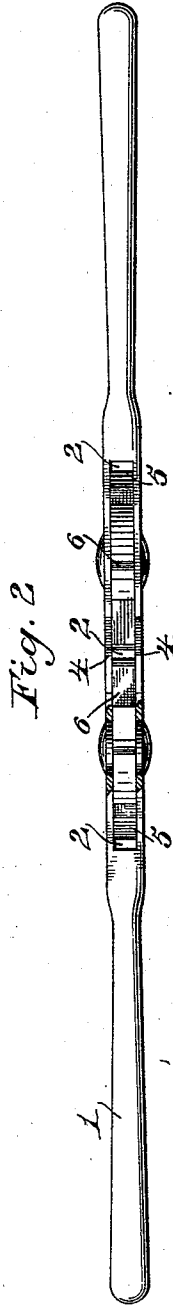
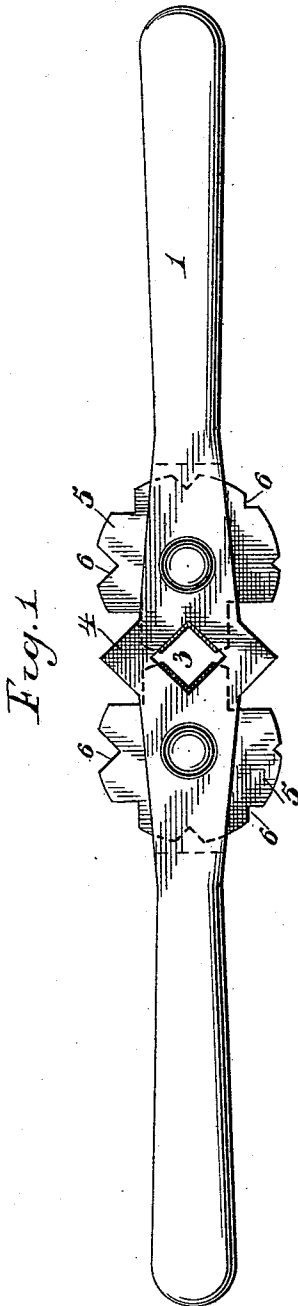
(No Model.)

T. E. AVERY.

ADJUSTABLE HANDLE FOR TAPS, REAMERS, &c.

No. 469,035.

Patented Feb. 16, 1892.



WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS E. AVERY, OF DANBURY, CONNECTICUT, ASSIGNOR OF ONE-HALF TO
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ADJUSTABLE HANDLE FOR TAPS, REAMERS, &c.

SPECIFICATION forming part of Letters Patent No. 469,035, dated February 16, 1892.

Application filed July 8, 1891. Serial No. 398,742. (No model.)

To all whom it may concern:

Be it known that I, THOMAS E. AVERY, a citizen of the United States, residing at Danbury, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Adjustable Handles for Taps, Reamers, &c.; 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.

My invention has for its object to produce an adjustable handle for taps, reamers, &c. It is of course well understood that various articles for this purpose which are more or less expensive to produce and have more or less complicated adjustments have been devised.

My invention is exceedingly simple and inexpensive to produce, consisting of three pieces only, is practically impossible to get out of repair, and is adapted to engage equally well any of the styles and sizes of taps and reamers that are likely to be required in common use.

With these ends in view I have devised the simple and novel tool which I will now describe, referring by numerals to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation of my novel tap and reamer handle; Fig. 2, an edge view thereof, and Fig. 3 is a view of one of the disks detached.

1 denotes the handle, which is preferably cast in a single piece and is provided with an opening 2 through the center thereof, said opening being in the horizontal plane of the tool.

3 is an angular opening through the center of the tool in the vertical plane—that is, at right angles to opening 2—said opening 3 being of ample size to receive the shank of any ordinary tap or reamer. The body of the handle is preferably enlarged at the center, as at 4, to increase the strength at the point where the greatest strain comes in use.

5 denotes disks having different-sized angular notches 6 in their edges. These disks are pivoted in fixed positions in the handle on pins located at such distance from each other that the peripheries of the two disks will just touch each other at the center of opening 3, so that when the disks are turned to

place corresponding notches in operative position the sides of the notches will lie parallel to the sides of opening 3, as clearly shown in Fig. 1. The corresponding notches in the two disks may, if preferred, be suitably marked to assist the operator in setting the two corresponding notches in the disks in place opposite to each other. This, however, is not necessary in practice, as the eye of the operator will indicate instantly when the proper notches are opposite to each other. The disks are made to turn freely, yet with sufficient friction so that they will remain in any position in which they are placed while the tool is being handled. In ordinary use in shifting from one sized tap or reamer to another it will be simply necessary to move the two disks sufficiently to bring the two corresponding notches opposite to each other, which are best adapted to engage the shank of the special-sized tool that is to be used.

It will of course be apparent that the usefulness of this handle is not confined to eight tool-shanks corresponding in size with the eight notches in the disks, but that a large number of combinations of notches may be made, so that practically any size of regular or irregular shaped shank within the limits of the tool may be grasped and held firmly. For example, in a handle of this class whose disks have eight notches each, as shown in the drawings, there are thirty-six different adjustments that may be made by the disks.

Having thus described my invention, I claim—

A handle for taps, reamers, &c., having an opening to engage a shank and an opening at right angles thereto in which disks are pivoted, said disks having different-sized angular notches in their edges, so that any-sized shank may be grasped and held firmly by one of the combinations of notches, the pins on which said disks are pivoted being secured in fixed positions in the said handle at such positions distant from each other as to permit said disks to be turned without moving the said pins.

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

THOMAS E. AVERY.

Witnesses:

WILLIAM G. RANDALL,
FREDERICK W. RANDALL.