Oct. 9, 1923. 1,470,100

W. R. PORTER

TOOL HANDLE

Filed Sept. 23, 1920

FIG. 1.

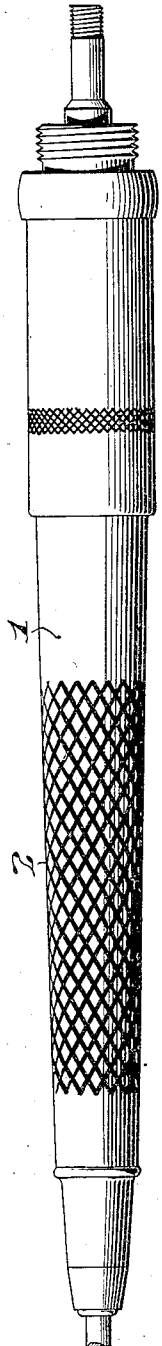


FIG. 2.

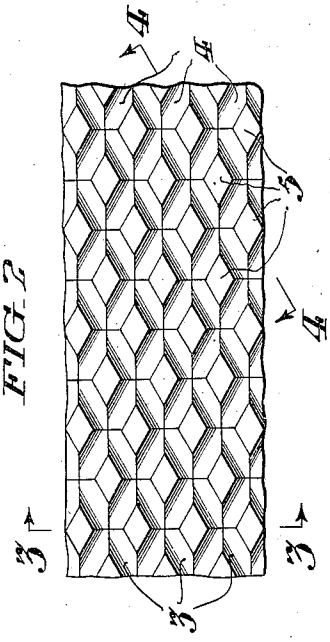


FIG. 4.

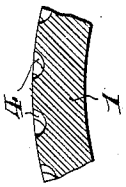
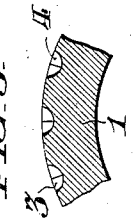


FIG. 3.



Witness

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Patented Oct. 9, 1923. 1,470,100

UNITED STATES PATENT OFFICE.

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TOOL HANDLE.

Application filed September 23, 1920. Serial No. 412,334.

To all whom it may concern:

Be it known that I, WILL R. PORTER, a citizen of the United States, and a resident of Prince Bay, in the county of Richmond, State of New York, have invented certain new and useful Improvements in Tool Handles, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates particularly to tool handles having finger-holds or hand-holds wherein the surface is provided with knurling to prevent the hand or fingers slipping thereon, and is especially directed to the form of knurling employed.

It has been the practice to form knurling for handles having finger-holds or hand-holds by gouging or cutting the surface of said handle to provide parallel intersecting V-shaped grooves which formed an infinite number of pyramidal projections, the points of which are adapted to engage the hand or fingers of the operator to prevent slipping.

It is the purpose of my invention to provide a handle having finger-holds or hand-hold with knurling which will greatly increase the resistive effect and afford a firmer hold than has been attained by knurling heretofore employed.

Specifically stated, the form of my invention as hereinafter described provides a tool handle having finger-holds with knurling formed by gouging or cutting parallel and intersecting grooves of semicylindrical contour having their axes so spaced as to afford an infinite number of flat surfaces having substantially sharp edges.

My invention also includes all of the various novel features of construction and arrangement as hereinafter more definitely specified.

In the accompanying drawings, Figure 1 is a side elevational view of a dental engine handpiece having its hand-hold provided with knurling formed in accordance with my invention; Fig. 2 is an enlarged side elevational view showing a fragment of the knurling depicted in Figure 1; Fig. 3 is a fragmentary sectional view of the structure shown in Fig. 2, taken on the line 3—3 in said figure; and Fig. 4 is a fragmentary sectional view taken on the line 4—4 in Fig. 2.

In said figures, the handpiece comprises the hand-hold 1 provided with knurling 2, which as best shown in Figs. 2, 3 and 4, comprises a plurality of parallel semi-cylindrical grooves 3 intersected by a plurality of parallel semi-cylindrical grooves 4, the grooves 3 and 4 being so spaced as to provide an infinite number of flat surfaces 5, preferably rhomboidal, and having sharp edges against which the hand or fingers of the operator bear, and which afford such resistance as to prevent any possible slippage of the hand or fingers of the operator thereon.

It may be here noted that in knurling having the pyramidal projections, the hand or fingers of the operator tend to ride up the inclined walls of said pyramidal projections and are only engaged by the points thereof which afford insufficient surface to properly engage the hand or fingers of the operator, and, therefore, to prevent slippage it requires that the operator grasp said knurling with a much greater effort than is required in grasping the knurling constructed in accordance with my invention.

I do not desire to limit my invention to the precise details of construction and arrangement as herein set forth, as it is obvious that various modifications may be made therein without departing from the essential features of my invention as defined in the appended claims.

Having thus described my invention I claim:—

1. A tool handle comprising a finger-hold having a plurality of intersecting grooves, so spaced as to form a plurality of minute surfaces of approximately equal dimensions with said grooves and affording sharp substantially right-angled edges.

2. A tool handle comprising a finger-hold having a plurality of intersecting grooves, so spaced as to form a plurality of minute rhomboidal surfaces of approximately equal dimensions with said grooves, and having their acute angles directed in planes coincident with the axis of said tool handle.

In witness whereof, I have hereunto set my hand this 21st day of September, A. D., 1920.

WILL R. PORTER.

Witnesses:
SAMUEL R. BARTON,
CLIFTON C. HALLOWELL.