H. BERNAY.

FILE HANDLE.

APPLICATION FILED NOV. 1, 1919.

1,374,715. Patented Apr. 12, 1921.

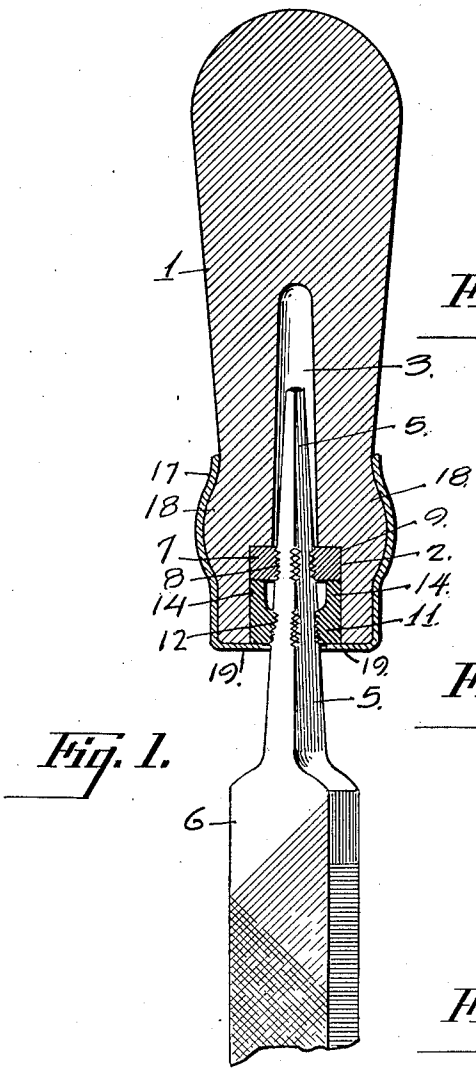



Fig. 1.

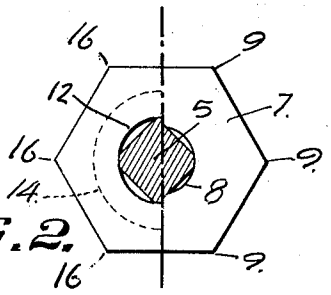



Fig. 2.

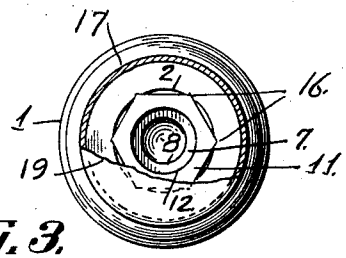



Fig. 3.

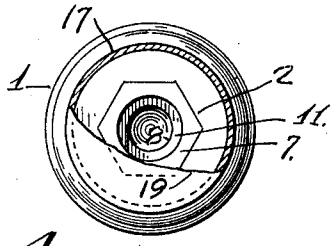



Fig. 4.

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# UNITED STATES PATENT OFFICE.

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## FILE-HANDLE.

1,374,715. Specification of Letters Patent. **Patented Apr. 12, 1921.**

Application filed November 1, 1919. Serial No. 335,525.

*To all whom it may concern:*

Be it known that I, HENRI BERNAY, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented a certain new and useful Improvement in File-Handles, of which the following is a specification.

My invention relates to improvements in file handles wherein a pair of rigidly fixed dies in spaced relation and having cutting threads of different diameter operate to engage the tang of a file or the like at different points longitudinally.

The primary object of my invention is to provide new and improved means for rigidly retaining a file or the like within a handle.

It is a further object of the present invention to provide an improved, simple and economical construction whereby a pair of dies may be rigidly held in spaced relation within a handle.

A still further object is to provide new and improved means for preventing the rotation of the dies within the handle whereby rotation of the tang of a file or the like within said dies will actuate the same to engage the tang at different points longitudinally.

A still further object of the present invention is to provide a new and improved set of dies of such shape that they may be easily and readily tempered to a sufficient hardness to readily cut the corners or edges of the tang of a file or other similarly tanged tool, such as chisels and the like.

I accomplish these several objects by means of the device disclosed in the drawings forming a part of the present specification wherein like characters of reference are used to designate similar parts through the said specification and drawings, and in which:

Figure 1 is a broken vertical sectional view of a portion of a file disclosing my improvement attached thereto;

Fig. 2 is an enlarged detailed view, in two planes, disclosing the manner in which the corners of the tang of a file are engaged by the differently diametered dies;

Fig. 3 is an enlarged broken end view of the handle disclosing the manner in which the dies are held against rotation; and

Fig. 4 is a view similar to Fig. 3 but disclosing a preferred form for holding the dies against rotation.

Referring to the drawings the numeral 1 is used to designate a handle preferably of wood or the like, having a longitudinally extending central circular bore 2 having a reduced portion 3 for the reception of the unengaged portion of the tang 5 of a file 6.

Fixed within the bore 2 and remote from the end of the handle 1 is a die 7 having cutting threads 8 and longitudinally extending external edges 9 of greater diameter than the bore 2 whereby said edges 9 may be embedded within the walls of said bore 2 when the die is inserted to prevent rotation of said die.

A second die 11 is fixed within the bore 2 adjacent the end thereof and likewise provided with cutting threads 12 of larger diameter but of the same pitch as the cutting threads 8 of the die 7, the purpose of which will hereinafter be more fully set forth. The second die 11 is also provided with an annular flange 14 formed integral therewith and having its end abutting the die 7 for the purpose of retaining the said die 11 in spaced relation with the die 7 whereby said dies will be actuated to engage the corners of a tang of a file 6 or the like when said tang is rotated within the cutting threads 8 and 12 to rigidly engage said tang and thereby rigidly retain the same within said dies.

A suitable ferrule 17 is arranged to engage an enlarged portion 18 of the handle 1 and is provided with an apertured end 19 to engage the second or outermost die 11 and thereby rigidly retain both dies within the bore 2.

The bore 2 may be circular in shape as disclosed in Fig. 3 of the drawings in which case the longitudinal edges 9 and 16 of the dies 7 and 12 respectively are embedded in the walls of the circular bore 2 when said dies are inserted thereby providing an irregular bore to engage the dies 7 and 11 and preventing rotation of said dies; or said bore 2 may be hexagonal or any other irregular shape to conform to the shape of the nuts or dies as disclosed in Fig. 4 of the drawings.

In assembling the device the die 7 is first inserted and rigidly fixed within the bore 2 and remote from the end of the handle

1. The second die 11 is then inserted with its flange 14 innermost and abutting the first die 7 thereby retaining said dies in spaced relation.

The ferrule 17 is then placed upon the end of the handle 1 and pressed to partially surround the enlarged portion 18 of the handle 1 so that the end 19 of said ferrule 17 will engage the outermost die 11 and thereby rigidly retain said dies in position within the bore 2 of the handle 1.

In operation the tang 5 of the file 6 is inserted within the dies 7 and 11 and disclosed in Fig. 1 of the drawings and rotated thereby actuating the cutting edges 8 and 12 of the dies 7 and 11 respectively, to engage the corners of said tang at different points longitudinally thereby effectively securing a rigid and efficient purchase upon said tang.

As the pitch of both cutting threads 8 and 12 is the same it is evident that said tang may be easily be engaged by both cutting threads during the rotation of said tang.

To remove the file from the handle the above operation is reversed.

It is obvious from the foregoing that I have provided improved and simplified means for engaging the tang of a file or the like at different points longitudinally as well as improved and simplified means for rigidly retaining the dies in spaced relation within the bore of the handle. It is also obvious that by making the die in two distinct parts the process of tempering is facilitated and the beneficial effect of constantly maintaining the dies in spaced relation is also obtained. The feature of securing the dies in an irregular hole in the wooden handle adds materially to the structure for the reason that a simple, cheap and effective means is obtained to prevent rotation of said dies in said handle.

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

A file handle having a recess in the end thereof, a pair of separate interiorly screw-threaded dies held from rotation in said recess, one of said dies having an extension flange whereby the two screw threaded parts are spaced a distance apart, said dies being adapted to receive and hold the tang of a file twisted into the same, the screw threads of the outer die being of greater diameter than the screw threads of the inner die, and the interior diameter of said flange extension being greater than the interior diameter of the screw thread in the outer die.

In witness whereof I hereunto set my signature.

HENRI BERNAY.