J. O. HANIGAN.

SUPPLEMENTAL HANDLE FOR FILES.

APPLICATION FILED MAR. 3, 1920.

1,375,634. Patented Apr. 19, 1921.

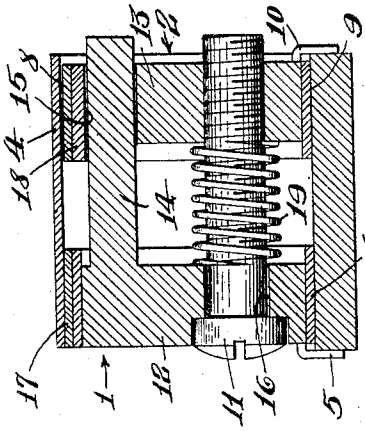


Fig. 3.

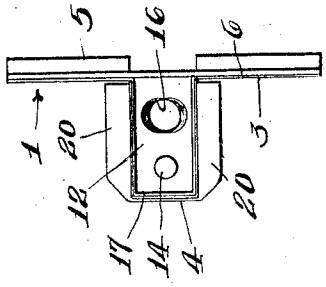


Fig. 5.

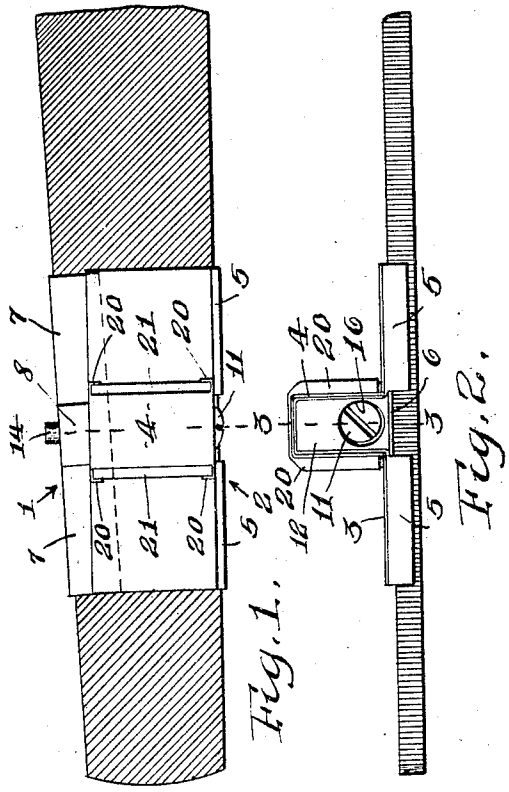


Fig. 1. Fig. 2.

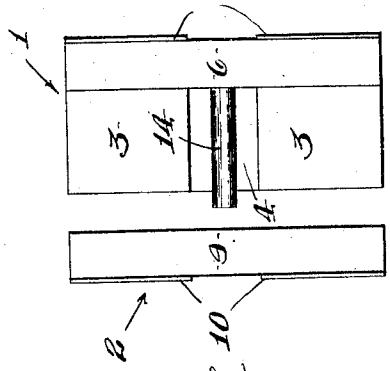


Fig. 6. Fig. 4.

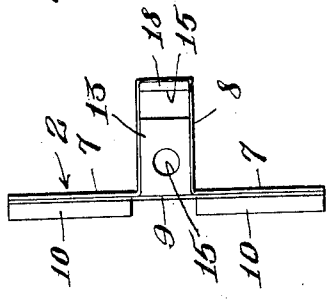


Fig. 7.

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SUPPLEMENTAL HANDLE FOR FILES.

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To all whom it may concern:

Be it known that I, JOHN O. HANIGAN, a citizen of the United States, and a resident of Syracuse, in the county of Onondaga and State of New York, have invented a certain new and useful Supplemental Handle for Files, of which the following is a specification.

This invention has for its object a supplemental handle for files which is particularly simple in construction and highly efficient and durable in use, and which can be readily attached and detached and adjusted to the various widths of different files.

The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawings in which like characters designate corresponding parts in all the views.

Figure 1 is a plan view of my supplemental handle for files, the same being shown as attached to the file.

Fig. 2 is a side elevation of parts seen in Fig. 1.

Fig. 3 is a sectional view, partly in elevation on the plane of line 3—3, Fig. 2.

Fig. 4 is an inverted plan view of one of the jaws or clamping pieces of the file.

Fig. 5 is an elevation of parts seen in Fig. 4 looking to the left.

Fig. 6 is a plan view of the other jaw or clamping piece, it being here shown in juxtaposition and slightly separated from the other clamping pieces in Fig. 4.

Fig. 7 is an elevation looking to the right in Fig. 6.

This supplemental handle for files comprises, generally, a pair of clamping members including plates, arranged to lie flatwise on the file and having flanges for engaging opposite sides or edges of the file, one of the clamping pieces to lie flatwise on the file and having flanges for engaging opposite sides or edges of the file, one of the clamping pieces having an upwardly extending portion serving as a handle, and means for clamping said pieces toward each other and permitting the same to rock relatively to each other to conform to the taper of the file.

1 and 2 are respectively, the clamping pieces. The pieces 1 comprise a plate 3 having a raised corrugation 4 between its ends which forms a housing for the clamping member as a screw to be presently described, the plate also having depending flanges 5 on opposite sides of the raised corrugation or housing 4. The flanges 5 are shown as provided on a strip 6 extending lengthwise of one margin of the plate 3 and across the open lower end of the housing 4.

The clamping piece 2 is similar in construction to the piece 1 but the base plate thereof is considerably narrower than the plate 3 of the jaw 1, and said plate 3 normally laps over the base plate 7 of the clamping piece 2.

The plate 7 is formed with a corrugation or housing 8 arranged to extend or telescope into the housing 4 of the jaw 1, and the plate 2 is also provided with the strip 9 and flanges 10 similar to the strip 6 and flanges 5 of the clamping piece. The strips 6 and 9 rest on the file when the handle is attached to the file.

The means for clamping the pieces 1, 2 toward each other is located in the housings 4 and 8 and as here shown this means comprises a screw 11 extending through a block 12 in the housing 4 and threading into a block 13 in the housing 8, the blocks being firmly secured in the housings and one of the blocks as the block 12 being provided with a projecting guide rod 14 and the other block 13 with a passage 15 for receiving the guide rod. The hole 16 in the block 12 for the shank of the screw 11 is larger than the shank of the screw to permit the screw and the jaws to have a universal or rocking movement relatively to each other so that the flanges 5 and 10 can conform to the tapers of various files. The housing and blocks form chambered projecting portions for the clamping means. Usually, strips 17, 18 are interposed between the tops of the blocks 12, 13 and the top wall of the housing 4.

Preferably, a spring 19 is provided tending to separate the jaws, this spring encircling the screw within the housing and interposed between the blocks 12 and 13. In the illustrated form of my invention, the

housing 4 is provided with external marginal flanges 20 which form external channels for the engaging members as of rubber 21.

In operation, this handle is placed on a file and is adjusted to the width and taper of the file and also secured to the file by merely turning the screw 11.

This device is particularly advantageous in that it can be used on various widths of files and is readily attachable to and detachable from the files and further in that it saves the hands of the operator from the injury incident to grasping the file with his bare hand, it being understood that the operator takes hold of the usual handle of the file at one end with one hand and steadies the file by taking hold of the supplemental handle.

What I claim is:

1. A supplemental handle for files comprising opposing clamping pieces for engaging opposite sides of the file, one having a projecting chambered portion serving as a handle, and the other having a complemental projecting portion extending into said raised portion of the former piece, and means for clamping said pieces toward each other, substantially as and for the purpose described.

2. A supplemental handle for files comprising opposing clamping pieces for engaging opposite sides of the file, one having a projecting or chambered portion serving as a handle, and the other having a complemental projecting portion extending into said raised portion of the former piece, and clamping means extending transversely through said projecting portion, substantially as and for the purpose specified.

3. A supplemental handle for files comprising opposing clamping pieces for engaging opposite sides of the file, one having a projecting or chambered portion serving as a handle, and the other having a complemental projecting portion extending into said projecting portion of the former piece, and clamping means extending transversely through said projecting portion, said means having a universal movement relatively to one clamping piece to permit said pieces to conform to the taper of the file, substantially as and for the purpose set forth.

4. A supplemental handle for files comprising opposing clamping pieces for engaging opposite sides of the file, one having a projecting or chambered portion serving as a handle, and the other a complemental projection portion extending into the chamber of the raised portion of the former piece, and means for clamping the jaws toward each other comprising a screw extending through the projecting portion of one piece and threading into the projecting portion of the other piece, substantially as and for the purpose specified.

5. A supplemental handle for files comprising opposing clamping pieces for engaging opposite sides of the file, one having a projecting or chambered portion serving as a handle, and the other a complemental projection portion extending into the chamber of the raised portion of the former piece, and means for clamping the jaws toward each other comprising a screw extending through the projecting portion of one piece and threading into the projecting portion of the other piece, and a spring tending to press the pieces apart against the action of the screw, substantially as and for the purpose set forth.

6. A supplemental handle for files comprising opposing clamping pieces, each comprising a plate having a flange along a longitudinal edge thereof opposed to the flange of the other plate, one plate being of greater width and lapping the other plate, the wider plate having an upwardly projecting portion between the ends thereof and having a block therein formed with a guide extending transversely of the pieces, and the other piece having a projecting portion complemental to the former projecting portion and having a block extending therein, the latter block having an opening for receiving the guide, and means for clamping the pieces together, substantially as and for the purpose described.

7. A supplemental handle for files comprising opposing clamping pieces, each comprising a plate having a flange along a longitudinal edge thereof opposed to the flange of the other plate, one plate being wider than and lapping the other and having an upwardly projecting handle, and means for clamping the plates toward each other, substantially as and for the purpose specified.

8. A supplemental handle for files comprising opposing clamping pieces, each comprising a plate having a flange along a longitudinal edge thereof opposed to the flange of the other plate, one plate being wider than and lapping the other and having an upwardly projecting handle, means for clamping the plates toward each other, said means being carried by the handle, substantially as and for the purpose set forth.

9. A supplemental handle for files comprising opposing clamping pieces including plates each having a flange along the longitudinal edge thereof opposed to the flange of the other plate, one plate being of greater width and lapping the other plate, the wide plate having an upwardly extending portion between the ends thereof and provided with a block therein formed with a guide extending transversely of the clamping piece, and

the other set having a raised portion provided with a block extending into the raised portion of the wider plate, the latter block having an opening for receiving the guide, a screw extending transversely through the blocks and threading into one of the blocks, and a spring encircling the screw and interposed between the blocks, substantially as and for the purpose described.

In testimony whereof, I have hereunto signed my name, at Syracuse, in the county of Onondaga, and State of New York, this 19th day of February, 1920.

JOHN O. HANIGAN.