E. A. GEOFFROY.

TOOL HOLDING ATTACHMENT.

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1,050,447.

Patented Jan. 14, 1913.

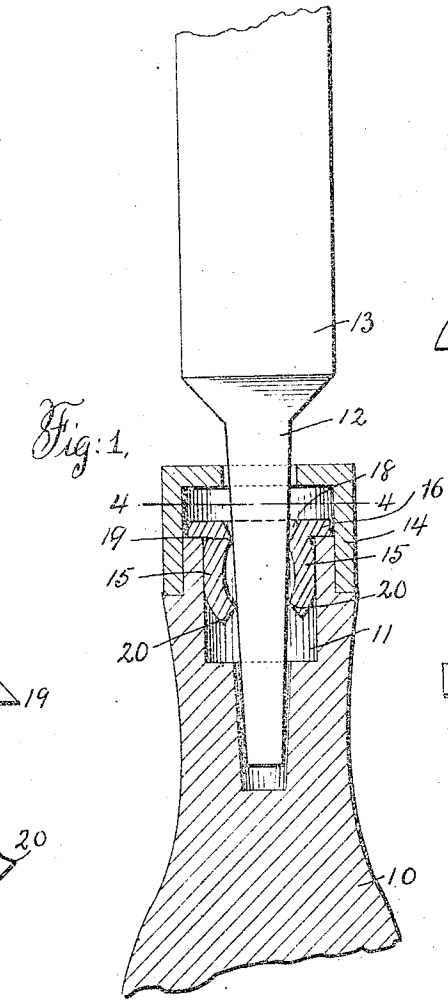


Fig. 1.

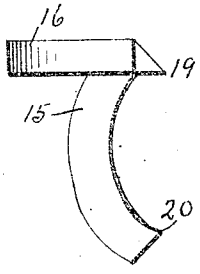
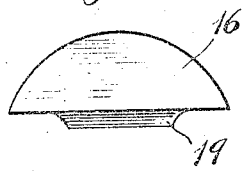


Fig. 2.

Fig. 5.



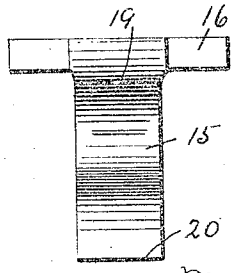


Fig. 3.

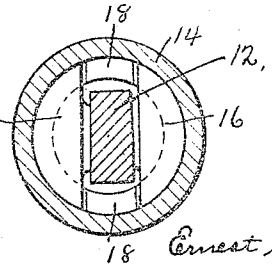


Fig. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

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TOOL-HOLDING ATTACHMENT.

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To all whom it may concern:

Be it known that I, ERNEST A. GEOFFROY, of the city of Newark, county of Essex, State of New Jersey, have invented a new and useful Improvement in Tool-Holding Attachments, of which the following is a full, clear, and exact description.

My invention relates to improvements in that class of devices which hold various kinds of tools in their handles.

My invention is especially adapted for use in connection with files, rasps, screw-drivers, bits and similar things which are detachable from the handle and in which a tang or similar portion is thrust into its handle.

The object of my invention is to produce a gripping device or attachment which is simple and inexpensive and which can be easily inserted in the hollow end portion of a handle or the like and which will grip the smooth tang of a file or other instrument so as to hold the instrument against accidental withdrawal. I am aware that many devices of this general character have been used but usually they are constructed so as to lie within the handle and grip some prepared part of the tang or analogous portion of a tool or other instrument.

My invention comprises two opposed clamping pieces which have curved backs and which have gripping portions spaced apart so as to grip the tang at the points well separated. The construction, as will be presently understood, enables the clamping pieces to grip the tang or instrument on opposite sides and to adapt themselves to any irregularity of such tang or instrument, while the tang can be readily inserted between the gripping devices in the handle but when firmly in place, cannot be pulled out accidentally.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar reference characters indicate corresponding parts in all the views.

Figure 1 is a broken sectional elevation showing my improved attachment applied to the handle and to the tang of the file. Fig. 2 is a side elevation of one of the clamping pieces. Fig. 3 is a face view of one of the clamping pieces, Fig. 4 is a cross section on the line 4, 4 of Fig. 1, and Fig. 5 is a plan view of one of the gripping members.

The handle 10 can be any approved form of handle or stock and it has the customary chambered end 11, which receives the tang 12 of the tool 13, which, as previously stated, may be any usual or desired tool. The handle is provided with a ferrule 14 which is only of the customary type and which holds against displacement the opposed clamping pieces 15, between which the tang 12 of the tool 13 is held.

Each clamping piece 15 is curved so as to have a rounded back and it has a shoulder or flange 16 of nearly semi-circular shape, which is adapted to lie upon the end of the handle 10 while the body of the clamping piece will extend down into the chamber of the handle. When the clamping pieces are inserted, they are prevented from turning around by the protruding end portions 18 of the handle 10, but this construction is not very important and they may be held apart in any convenient way. Each clamping piece 15 has a gripping edge 19 at its outer end and a gripping edge 20 near its inner end. These gripping points or edges need not be at the extremities of the device but they should be spaced well apart so that they will impinge on the tang 12 of the tool at well separated points. It will be noticed that these gripping edges 19 and 20 are shaped like well defined teeth, so that they will securely grip the tang 12 of the tool, and it will be further observed that the parts 18 of the handle or equivalent devices, prevent the parts 15 from turning so that they are always in the right position to engage the tang.

When the tool 13 is inserted through the slot of the ferrule 14, and between the clamping pieces 15, the rounded backs of the clamping pieces cause them to adapt themselves to the tang 12 so that the gripping portions 19 and 20 of each clamping piece will come firmly into contact with the tang 12; then, if a sharp blow is given on the outer end of the tool 13 or if the operator will drop the tool and handle so that the latter will strike on its butt end, the tool will be firmly inserted between the clamping pieces and it cannot be accidentally withdrawn, no matter how much strain is brought to bear upon it to remove it. If, however, a person will hold the tool 13 in one hand and with some instrument give a sharp blow to the inner end of the handle 10 and upon the ferrule 14, the handle will readily start from the tool so that the said parts can be separated.

From the foregoing description, it will be readily seen that the invention lies principally in the clamping pieces 15 which can be easily dropped into place in the handle and that the handle of the tool can vary widely without in the least affecting the invention.

I claim:—

1. A device of the kind described comprising a handle having a hollow end portion to receive the tang of a tool, and opposed clamping pieces held in the handle end, each clamping piece having a flange to rest on the handle end, and a section extending into the tool handle with a curved back for rocking contact with the side walls of the recessed handle, sharp well defined teeth located near the outer and inner ends, the teeth being inclined toward each other and adapted to impinge on the tool tang.

2. The combination with a hollow tool handle, of opposed clamping pieces on the handle end, said clamping pieces having segmental flanges to lie on the handle end, and members extending into the handle, said members having curved backs for rocking contact with the side walls of the recessed handle with sharp well defined teeth at the outer and inner ends, the teeth being inclined toward each other and adapted to impinge on the tang of a tool inserted in the handle.

3. The combination with a tool handle having a hollow end, of opposed clamping pieces held in the end of the handle, said clamping pieces having segmental flanges lying on the handle ends, and members extending into the handle, said members having curved backs for rocking contact with the side walls of the recessed handle, well defined teeth at the outer and inner ends to impinge on the tang of a tool passed between them, and means on the handle between the two clamping pieces to prevent the latter from turning.

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Witnesses:
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