W. A. SCHENCK.

TOOL HANDLE REINFORCING DEVICE.

APPLICATION FILED JUNE 2, 1917.

1,283,323. Patented Oct. 29, 1918.

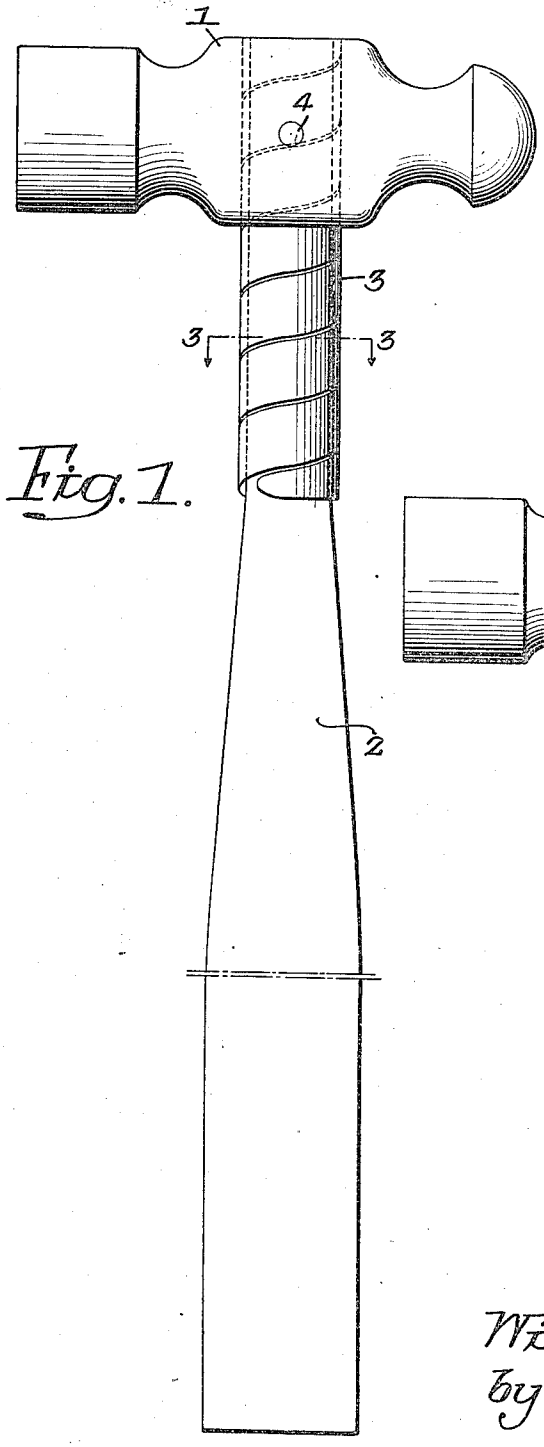


Fig. 1.

Fig. 2.

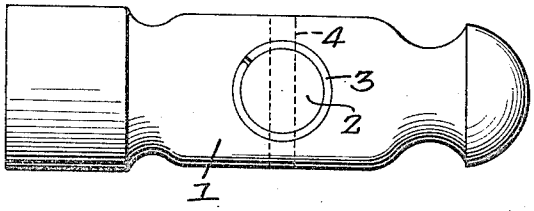
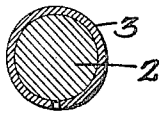


Fig. 3.



Inventor-
Wilkens A. Schenck
by his Attorneys-
Howson & Howson

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILKENS A. SCHENCK, OF PHILADELPHIA, PENNSYLVANIA.

TOOL-HANDLE-REINFORCING DEVICE.

1,283,323. Specification of Letters Patent. Patented Oct. 29, 1918.

Application filed June 2, 1917. Serial No. 172,470.

To all whom it may concern:

Be it known that I, WILKENS A. SCHENCK, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented Tool-Handle-Reinforcing Devices, of which the following is a specification.

One object of this invention is to provide a structure particularly designed to be interposed or mounted between a handle and the object such as a tool head, to which it is attached which will serve to reinforce or strengthen said handle at and adjacent its point of engagement with said object, the arrangement of parts being such as to effectually prevent the accidental separation of the object from the handle.

Another object of the invention is to provide a novel form of bushing structure, which while being laterally flexible to a certain degree, shall materially reinforce a handle or similar structure adjacent the point at which it enters or is connected to a tool head or equivalent body.

A further desire is to provide a novel form of ferrule for a tool handle which in addition to being so applied as to tend to remain in position thereon, shall firmly grip a tool mounted upon it, with a view to retaining the latter in position, as well as reinforcing the adjacent portions of the handle.

These objects and other advantageous ends I secure as hereinafter set forth, reference being had to the accompanying drawings, in which:

Figure 1 is a side elevation of a hammer provided with my invention;

Fig. 2 is a plan of the structures shown in Fig. 1; and

Fig. 3 is a transverse section on the line 3—3, Fig. 1.

In the above drawings 1 represents a tool head which in the present instance has the form of a common type of hammer in which the eye or handle receiving opening is circular in outline though it may be elliptical or of any other suitable form without departing from my invention. The handle 2 is diminished in cross section toward its head-receiving end where it is made circular in cross section and of smaller diameter than the diameter of the opening in the head.

Mounted on this reduced handle end is a spring coil 3 made of spring strip material such as steel strip or wire wound in helical form and applied under tension to the end of the handle so as to at all times exert a compressive stress thereon. For this purpose the interior diameter of the coil, ferrule or bushing is made slightly smaller than the exterior diameter of the reduced part of the handle, which with the opening through the head 1, if desired may be slightly tapered.

This opening is of such diameter that the spring coil 3 when mounted upon the handle, will make a driven fit therewith, and in order to still further insure the retention of the head, I provide a pin 4 which extends transversely through its center from side to side thereof and passes through the helical sleeve 3 as well as the handle 2. Such a construction as that above described is laterally flexible outside of the tool head to a greater or less extent so that there is no tendency for the handle to break off at or adjacent the point where it enters this sleeve.

Moreover since the latter extends from the interior of the head upon that part of the handle immediately adjacent thereto which is subjected to breaking stresses under operating conditions, I have found that it so far strengthens the handle as to render its breakage highly improbable. Moreover owing to its frictional compressive grip upon the handle as well as to its tight fit within the tool head, it tends to hold the latter in position upon said handle even without the pin 4 which may be omitted without departing from my invention.

I claim;—

The combination of a head having an opening; a handle for said head; and a coil of spring material maintained under tension to exert compressive stress upon and frictionally grip the handle, said sleeve fitting into the opening in the head.

WILKENS A. SCHENCK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."