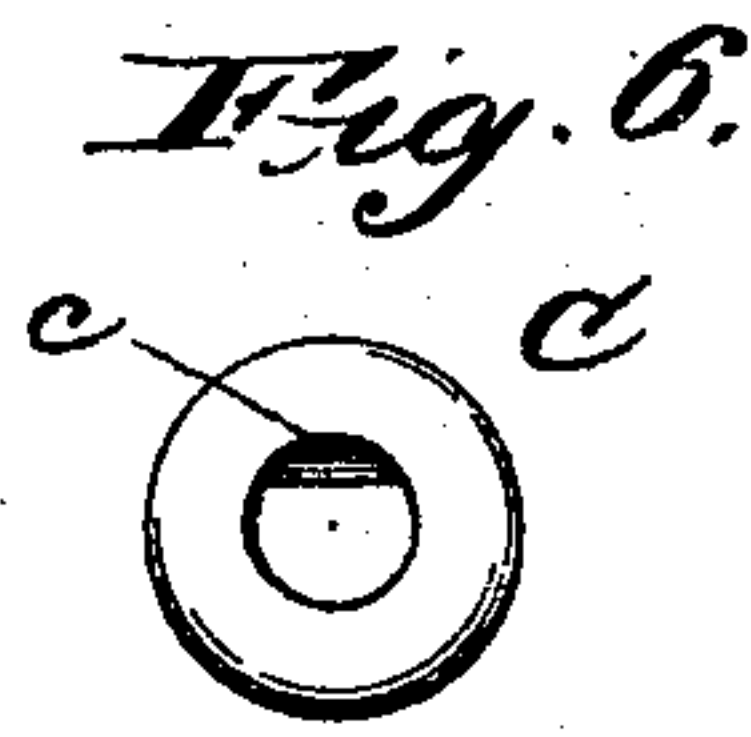
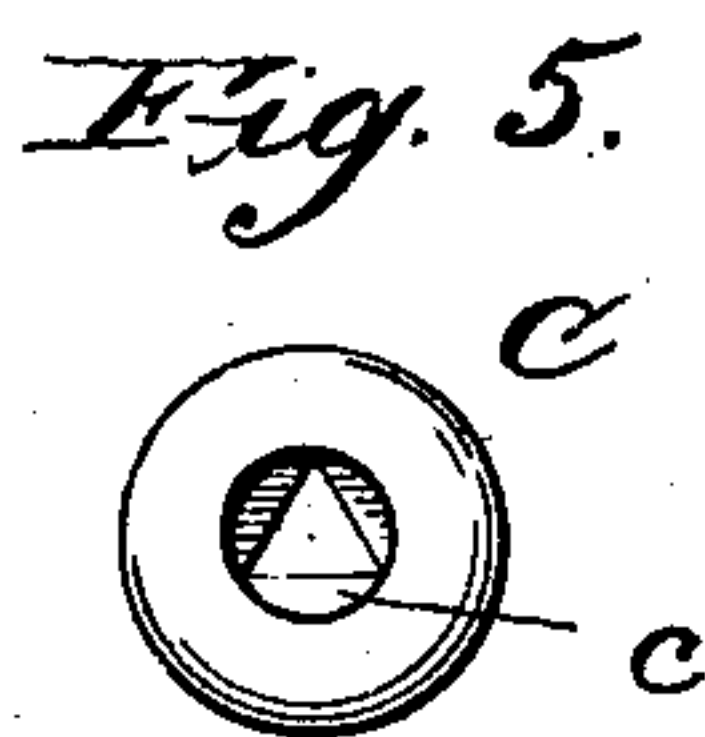
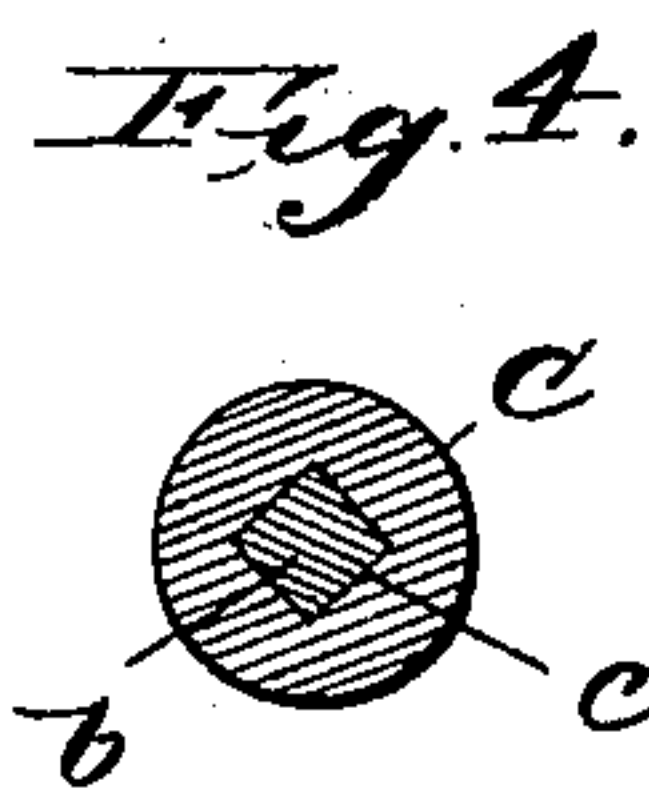
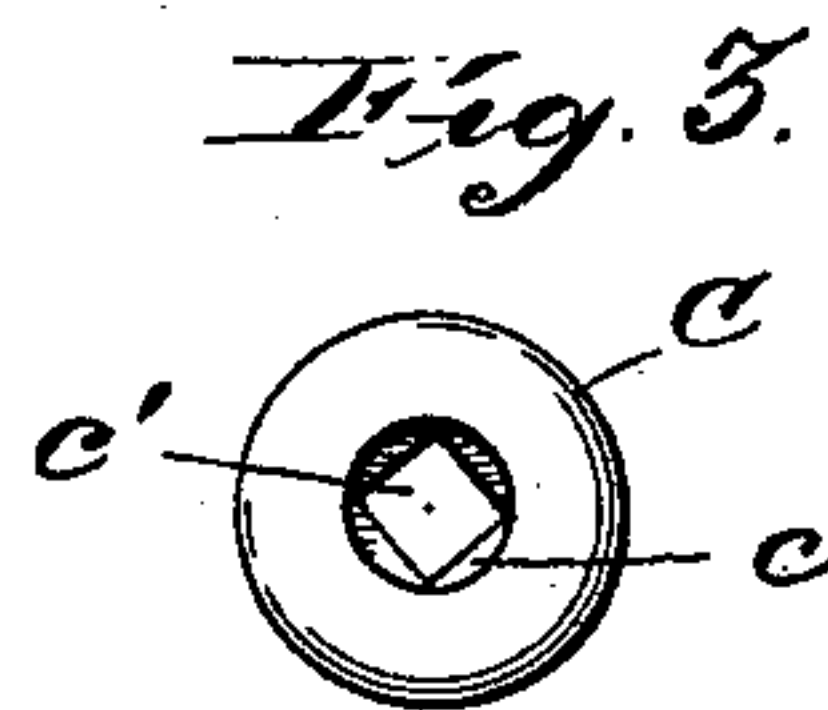
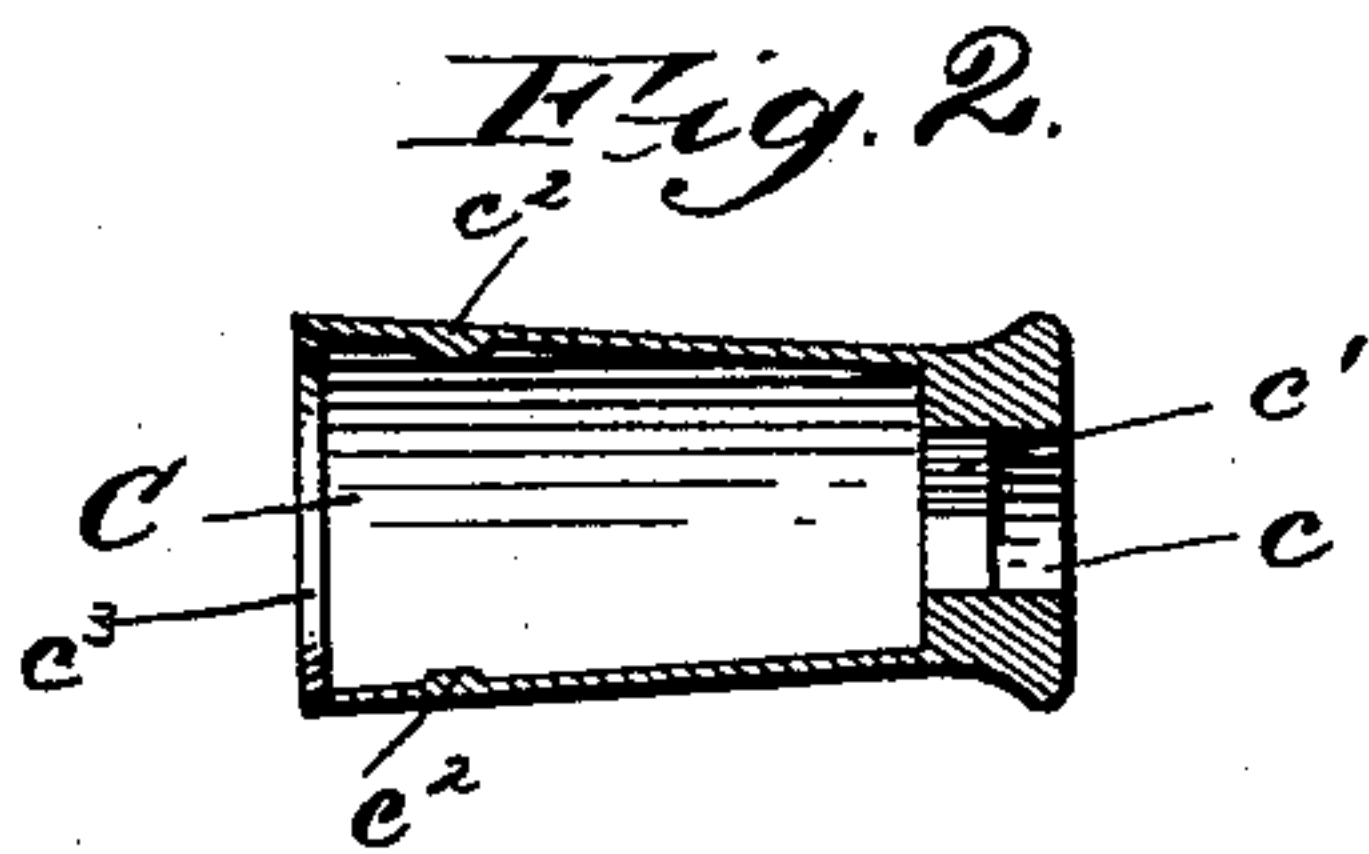
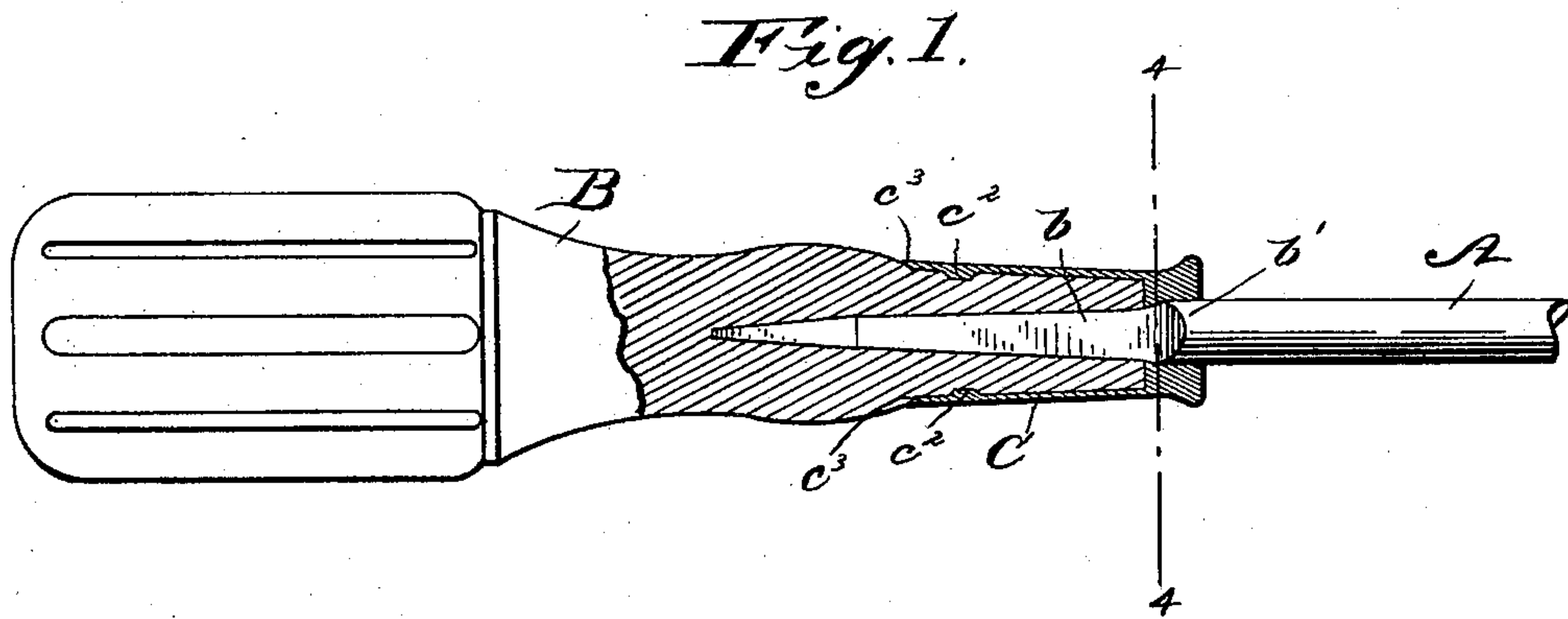


(No Model.)

C. A. VAUGHN.  
TOOL HANDLE.

No. 591,512.

Patented Oct. 12, 1897.



Witnesses  
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Inventor  
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# UNITED STATES PATENT OFFICE.

CHARLES A. VAUGHN, OF VINELAND, NEW JERSEY.

## TOOL-HANDLE.

SPECIFICATION forming part of Letters Patent No. 591,512, dated October 12, 1897.

Application filed June 28, 1897. Serial No. 642,626. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES A. VAUGHN, a citizen of the United States, residing at Vineland, in the county of Cumberland and State of New Jersey, have invented certain new and useful Improvements in Tool-Handles, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has for its object to provide a tool-handle which is more particularly adapted for use as a screw-driver handle, but which may also be used for other kinds of tools, my improved handle being of simple construction, so that it may be cheaply manufactured, while being very strong and durable in use.

To this end my improved handle comprises a ferrule the outer thick end of which is provided with a hole or opening for the reception of the tang of the tool, and the outer part of which hole or opening is round, while the inner part thereof is square or is provided with one or more flat sides, against which the square or otherwise shaped flat-sided part or parts of the tang of the tool will closely fit to prevent the tool from turning in the handle, the round outer part of the ferrule fitting closely about a rounded portion of the tang of the tool to make a neat and close joint between the tool and the ferrule.

The tang of the tool is formed square or of other angular shape, so that it will drive tightly into the usual round socket bored for its reception in the tool-handle, and thus be held more or less strongly from turning in its handle, while the square or flat-sided part or parts of the tang of the tool, fitting against the correspondingly-shaped parts of the ferrule, will still further resist the tendency of the tool to turn in the handle. Thus a difficulty which sometimes arises owing to the twisting of the tang of the tool in the wooden handle, and thereby permitting the tool to become loose from its handle, will be prevented by the resisting metallic contact or contacts between the tang of the tool and the ferrule at the squared or angular portions of said tang and ferrule.

The squared portion of the tang of the tool is made within a circle corresponding to the

size of the round portion thereof, thereby forming shoulders at the junction of the round and squared portions of the tang, and which shoulders will come in contact with similar shoulders on the ferrule and thus prevent the tool from being driven farther into the handle than is intended, thereby preventing the handle from being split by driving the tang of the tool too far into the handle.

To prevent the ferrule from turning on the handle, the former is preferably provided with one or more inwardly-projecting lugs, which, as the ferrule is driven onto the handle, will take a strong hold upon the latter, and to enable the ferrule to be driven onto the handle with a snugger or closer fit than would otherwise be practicable without cutting or roughening the wood I preferably bevel the inside of the inner end of the ferrule at a more or less acute angle.

In the accompanying drawings, Figure 1 is a view, partly in longitudinal section, of a screw-driver embodying my invention. Fig. 2 is a longitudinal section, and Fig. 3 is an outer end view, of my preferred form of ferrule. Fig. 4 is a cross-section through the ferrule, the tool-handle, and the tang of the tool on line 4 4 of Fig. 1. Figs. 5 and 6 are end views of ferrules embodying slight modifications of my invention.

A denotes a tool, and B the wooden handle thereof, the tool being provided with the usual square tang portion *b*.

C is a metal ferrule in the form of a cap having a thick outer end provided with a hole for the passage of the tang of the tool, said hole being formed partly round at *c* and partly square or of other flat-sided or angular form at *c'*. The square or angular portion *c'* of the ferrule is closely filled by the squared or angular portion *b* of the tang, while the round portion *c* of the ferrule is closely filled by the round portion *b'* of the tang of the tool. As the squared portion of the tool-tang is formed within a circle corresponding to the size of the round portion of the latter, there will be shoulders *b<sup>2</sup>* at the junction of the round and squared portions of the tang, and which shoulders will fit against corresponding shoulders formed on the ferrule when the tang is driven into the handle,



thereby preventing the tang from being driven farther into the handle than is desirable and thus avoiding any danger of splitting the said handle in driving the tool-tang into the latter.

The metallic contact between the squared or angular portion of the tool-tang and the correspondingly-shaped portion of the ferrule will serve to hold the tool strongly from turning in its handle, and to prevent the ferrule from turning on the handle the said ferrule is preferably provided with one or more inwardly-projecting lugs  $c^2$ , which, as the ferrule is driven onto the handle, will take a strong hold upon the latter, as will be obvious. The inner end of the ferrule is preferably beveled or chamfered off at  $c^3$  at an acute angle to enable the ferrule to be driven smoothly onto the handle with a closer fit than would otherwise be practicable.

While I prefer to form the hole in the ferrule with a squared portion  $c'$  in connection with the rounded portion  $c$ , I do not wish to limit my invention to the squared shape for the ferrule, as it is obvious that the angular portion of the hole in the ferrule might be formed triangular, as shown in Fig. 5, or might simply have one flat side, as shown in Fig. 6, without departing from the spirit of my invention.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A wooden tool-handle provided with a metal ferrule having a thick outer end with a hole or opening therethrough formed partly round and partly angular, combined with a tool the tang of which is provided with round and angular portions corresponding to the round and angular parts of said hole or opening and at the juncture of which round and angular portions of said ferrule and tang are formed shoulders, said tang extending through said hole or opening in the outer end of said ferrule into said wooden handle with the round and angular portions of said tang opposite the round and angular parts of the

said hole or opening of the ferrule, substantially as shown and described.

2. A wooden tool-handle provided with a metal ferrule having a thick outer end with a hole or opening therethrough formed partly round and partly angular, combined with a tool the tang of which is provided with round and angular portions corresponding to the round and angular parts of said hole or opening, with shoulders at the juncture of said round and angular portions of said ferrule and tang, said tang extending through said hole or opening in the outer end of said ferrule into said wooden handle with the round and angular portions of said tang opposite the round and angular parts of the said hole or opening of the ferrule, and said ferrule being provided with one or more inwardly-projecting lugs to afford hold of the ferrule on the handle to prevent the former from turning on the latter.

3. A wooden tool-handle provided with a metal ferrule having a thick outer end with a hole or opening therethrough formed partly round and partly angular, combined with a tool the tang of which is provided with round and angular portions corresponding to the round and angular parts of said hole or opening, with shoulders at the juncture of said round and angular portions of said ferrule and tang, said tang extending through said hole or opening in the outer end of said ferrule into said wooden handle with the round and angular portions of said tang opposite the round and angular parts of the said hole or opening of the ferrule, the inner end of said ferrule being beveled or chamfered off internally to enable the ferrule to be driven tightly on the handle without cutting the wood of the latter.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES A. VAUGHN.

Witnesses:

A. C. TAYLOR,

MARIE PEARL COOPER.