

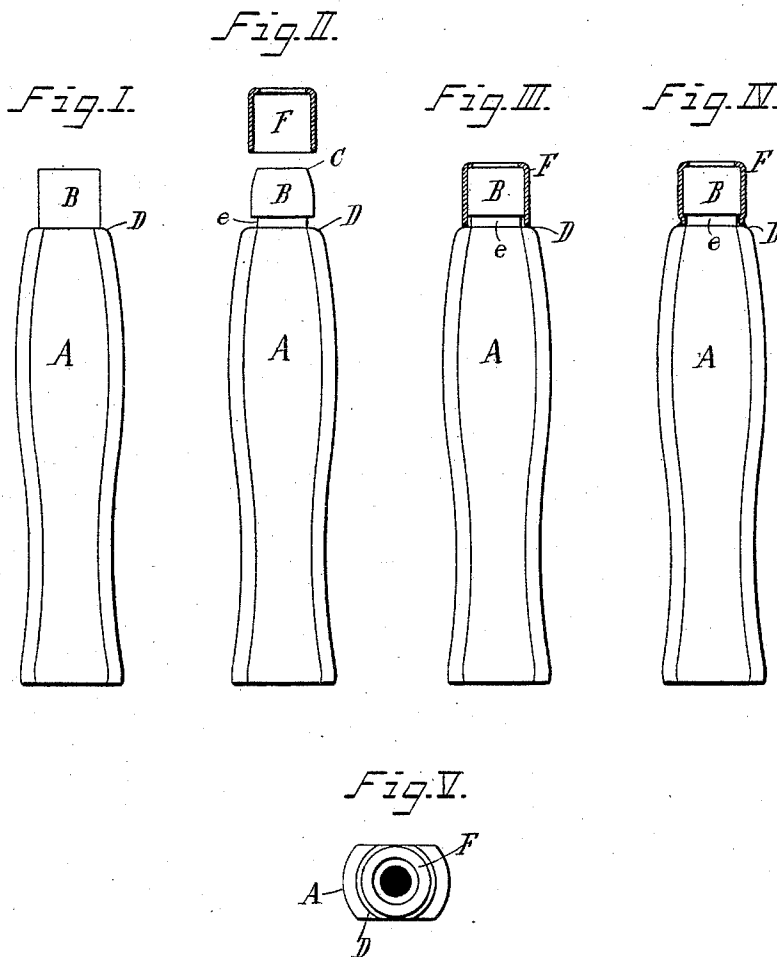
(No Model.)

P. T. GATES.

METHOD OF APPLYING FERRULES TO HANDLES.

No. 474,061.

Patented May 3, 1892.



WITNESSES:
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METHOD OF APPLYING FERRULES TO HANDLES.

SPECIFICATION forming part of Letters Patent No. 474,061, dated May 3, 1892.

Application filed December 9, 1890. Serial No. 374,007. (No model.)

To all whom it may concern:

Be it known that I, PHILEMON TENNEY GATES, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in the Method of Applying Ferrules to Handles, of which the following is a specification.

My invention is a novel method of applying a ring or ferrule to a wooden handle for a tool or other device; and it has for its object to produce a self-fitting joint of the ferrule on a tenon of the handle with ease and facility of its adjustment and without the liability of splitting or defacing the stock of the handle.

In the accompanying drawings, Figure 1 is a side view of a handle with a plain tenon. Fig. 2 is a like view thereof with the finished tenon, showing also a ferrule in cross-section in position for adjustment on the tenon. Fig. 3 shows the handle with the ferrule in position on its tenon. Fig. 4 shows a ferrule depressed in the grooves of the tenon. Fig. 5 is a top end view of the handle.

Similar letters of reference indicate similar parts.

The letter A indicates the stock of the wooden handle; B, a tenon formed at one end thereof; C, a tapered end or extremity of the tenon; D, a shoulder at the base of the tenon, and *e* a groove in the circumference of the tenon at a point next or adjacent to the shoulders.

F indicates the ferrule.

In carrying out my invention I cut the tenon B to a cylindrical shape and with a less diameter than the part of the handle below it, thereby creating the shoulder D. I then taper the extremity C of the tenon, leaving, however, the inner and major portion thereof cylindrical, and cut the circumferential groove *e* at the required point in the tenon. I then force the ferrule F upon the tenon from the tapered extremity C, bringing the lower edge of the ferrule in contact with the shoulder D, as shown in Fig. 3, when the handle is ready for use.

For the purposes of my invention I employ a cylindrical ferrule F, the inner diameter of

which is slightly less than the original diameter of the tenon B, as shown in Fig. 2, and hence, when this ferrule is forced on the tenon, a portion of the side of the tenon is cut away and removed by the leading end of the ferrule, the effect of which is to produce a self-fitting joint of the ferrule on and with the tenon. It will be apparent that the tapered extremity C of the tenon facilitates the placing of the smaller ferrule F on the larger tenon B, and also the incision of the proper end of the ferrule in the part of the wood of the tenon to be thereby removed, while the groove *e* serves to divide the tenon from the stock A in such a manner as to limit the cutting action of the ferrule to the part above the groove, without affecting the part below the groove, so that the stock is not liable to be split or become defaced from that source.

The ferrule F, applied to the tenon B as above stated, is held in place by friction, due to the snug fit; but, if desired, it may be further secured by depressing the sheet metal thereof into the groove *e*, as shown in Fig. 4.

In some cases I coat the whole surface of the handle, both as to the stock A and tenon B, with enamel, so that, when the ferrule F is forced on the tenon, the enamel, coacting upon the shoulder *e*, insures a neat finish at the junction of the ferrule and stock.

What I claim as new, and desire to secure by Letters Patent, is—

The method of applying a ferrule to a wooden handle, which consists in forming on the handle a cylindrical tenon with a tapered extremity, a shoulder at its base, and a circumferential groove adjacent to the shoulder and then forcing on the tenon from its said tapered extremity a cylindrical ferrule, the inner diameter of which is less than the original diameter of the tenon, whereby a portion of the side of the tenon is cut away above the groove, leaving the part below the groove unaffected by the ferrule, as and for the purpose herein described.

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Witnesses:

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