(No Model.)

F. C. FEICKER.

TABLE CUTLERY.

No. 401,739. Patented Apr. 23, 1889.

FIG. 1.

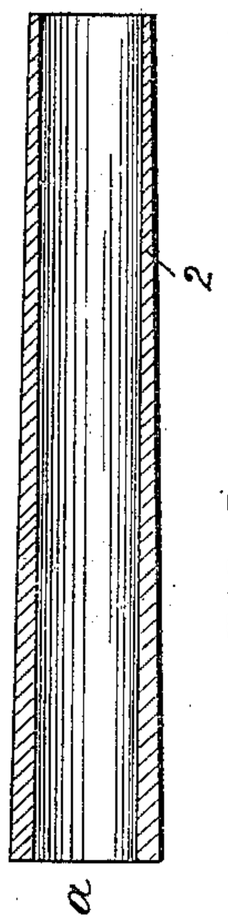


FIG. 2.

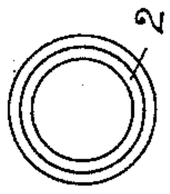


FIG. 3.

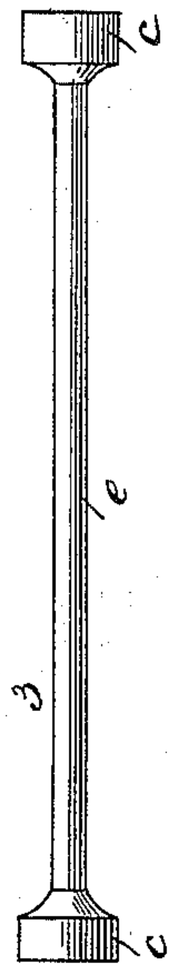


FIG. 4.

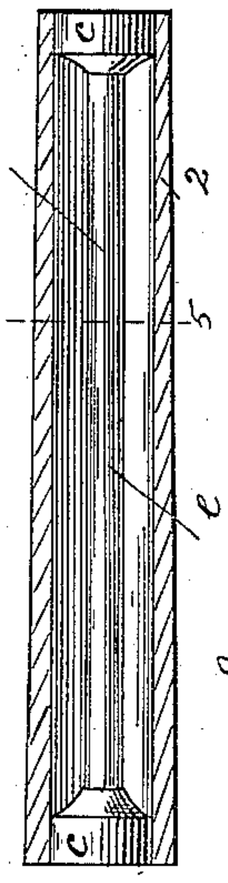


FIG. 5.

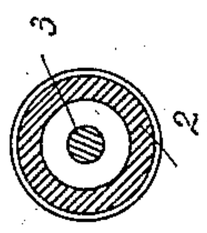


FIG. 6.

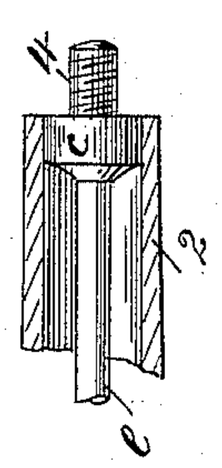


FIG. 7.

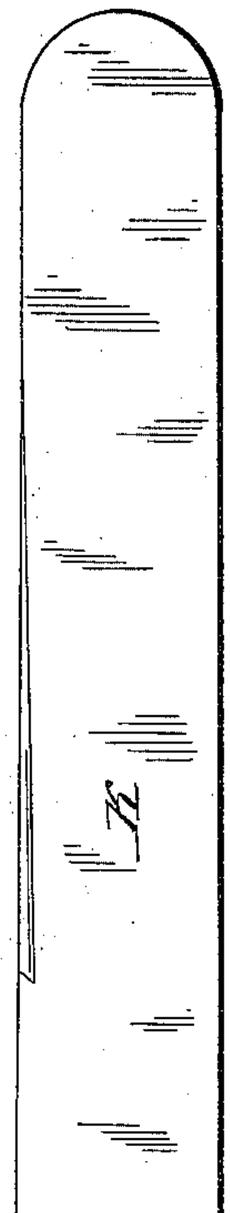


FIG. 8.

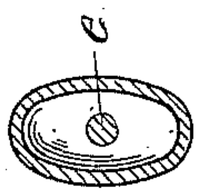


FIG. 9.

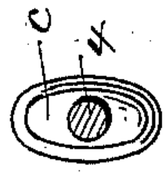
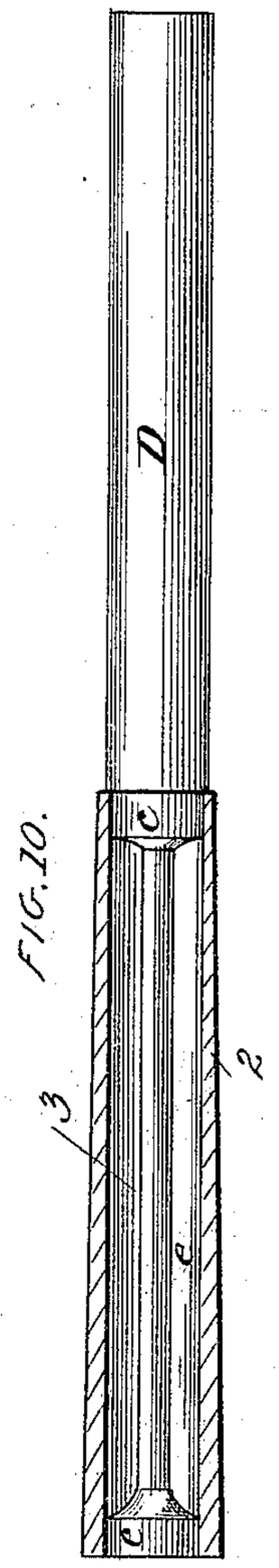


FIG. 10.



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By his Attorneys, Chamberlain & Co.

UNITED STATES PATENT OFFICE.

FREDRICK C. FEICKER, OF NORTHAMPTON, MASSACHUSETTS.

TABLE-CUTLERY.

SPECIFICATION forming part of Letters Patent No. 401,739, dated April 23, 1889.

Application filed September 25, 1888. Serial No. 286,311. (No model.)

To all whom it may concern:

Be it known that I, FREDRICK C. FEICKER, a citizen of the United States, residing at Northampton, in the county of Hampshire and State of Massachusetts, have invented new and useful Improvements in Handles for Table-Cutlery and Similar Uses, of which the following is a specification.

This invention relates to handles for table-cutlery and other similar uses, the object being to provide an improved hollow metallic handle for said uses; and the invention consists in the peculiar construction of said improved handle, all as hereinafter fully described, and pointed out in the claims.

In the drawings forming part of this specification, Figure 7 is a side elevation of a table-knife having a hollow metallic handle applied thereto constructed according to my invention, the said handle and the bolster of the knife-blade being shown in longitudinal section. Fig. 8 is a transverse section of the hollow handle on the line 8 8, Fig. 7. Fig. 9 is an end elevation of the handle and a section through the tang thereof on the line 9 9, Fig. 7. Fig. 1 is a longitudinal sectional view of a piece of tubling from which the metallic shell of the handle is formed. Fig. 2 is an end elevation of said tube. Fig. 3 is a side elevation of the plug-piece of the handle. Fig. 4 is a longitudinal section of said tube, Fig. 1, and a side elevation of the plug-piece, Fig. 3, within said tube. Fig. 5 is a transverse section on the line 5 5, Fig. 4. Fig. 6 is a longitudinal section of one end of the tube, Fig. 1, and a side elevation of one end of the plug-piece, Fig. 3, said plug-piece being shown in this figure with a tang formed thereon. Fig. 10 is a side elevation of a portion of a metal bar from which said plug-piece is formed and of the latter, (shown on the end of said bar,) and a longitudinal section of the tube, Fig. 1.

In the drawings, 2 indicates a cylindrical metallic tube, preferably of soft steel or homogeneous metal, which tube is made, preferably, with walls of gradually-decreasing thickness from one end to the other, such variation in thickness of the shell being provided in order that the end *a* thereof, which forms the butt-end of the handle, may be the heavier end when the handle is finished. The ends of the said tube 2 are tightly plugged by the insertion therein of the plug-piece 3, which consists of two circular plugs, *c*, united by a connecting strip or bar, *e*. The said plug-piece is made, preferably, from the same or similar metal to that of which the said tube 2 is formed, in order that the latter and the plug-piece may be solidly united together by welding, as below described, although said parts may be constructed from other metals and brazed or soldered together, if desired. The said plug-piece 3 may be made in several different ways; but the preferable manner of forming the same is by forging it from the end of a cylindrical bar, D, (see Fig. 10,) by means of a rapidly-acting trip-hammer and suitable dies. In forging said plug-piece, as aforesaid, the plugs *c* are brought to such size as adapts them to fill the ends of the tube 2 when placed therein, as shown in Figs. 4 and 10, and the uniting strip or bar *e* between said plugs need be made only of such diameter as will enable the operator to conveniently manipulate the piece while forging the same, and in finally uniting it with the tube, as below described. The said plug-piece 3 may consist simply of the said plugs *c* and their uniting-strip, or one of said plugs may be cut off of sufficient length from the bar D to provide for forming on the end of the same a tang, 4, which may be screw-threaded to provide one means of uniting the completed handle to the blade of the knife, as shown in Fig. 7.

If desired, the bar D, Fig. 10, may be of such quality of steel as will be suitable for the blade of the knife, and the plug-piece 3, after having been formed, as aforesaid, on the end of the bar, a part of which is to form the blade of the knife, may be left integrally attached to said bar, and the said piece of the latter may be forged and drawn out into a blade, thereby obviating the necessity of attaching the blade of the knife to the handle, as above referred to. The said tube 2 and plug-piece 3 having been united by placing one within the other, as shown in Fig. 4, are then suitably heated in a forge or other fire, whereby the parts may be united by welding, and are then placed in suitable dies in a forging-drop, and are thus struck and forged to unite the said parts, and at the same time to impart to the said tube the requisite oval form

in cross-section indicated by Fig. 8, which is a section of the finished handle, Fig. 7, on line 8 8 of said figure. The aforesaid drop-forging operation upon the tube 2 and plug-piece 3 solidly unites the rear end of the handle so formed or the butt thereof, as shown in section in Fig. 7, and tightly closes the opposite end of the handle upon the plug *c* within the same. After the hollow handle *b* has been made as aforesaid, it is suitably finished by polishing, and is then in condition to be united with the bolster end of the knife-blade K in any suitable way, as aforesaid.

The construction of the above-described hollow metallic handle by the employment of a piece of metallic tubing, 2, and the plug-piece 3 affords many advantages over the manner of constructing hollow metallic handles heretofore practiced, in that the tubing is comparatively inexpensive, and the manner of forming the plug-piece, whereby both plugs are formed at once upon the same piece, provides for economical manipulation of the plug parts in the manufacture of the handle which does not pertain to the manufacture of hollow metallic handles in which the plugs are separately formed and applied thereto, and the uniting strip or bar *e* of the plug-piece serves to bring, with great convenience to the operator, both of the plugs simultaneously to their proper positions within the tube 2 when placed therein for forging the handle, as aforesaid, and by forming the uniting-strip *e* of small diameter said strip does not add materially to the weight of the handle.

It is obvious that the plug in the end of the handle adjoining the bolster end of the blade K may, if desired, be drilled and tapped to receive a screw-threaded tang on the end of the blade.

What I claim as my invention is—

1. A hollow knife-handle consisting of a metallic tube and two metal plugs united by a bar, *e*, which said tube incloses and to which it is solidly united, one of said plugs having an extension beyond the end of said tube, from which to form a blade, substantially as set forth.

2. A hollow metallic handle consisting of a tube and the plugs *c c*, one thereof having a tang, 4, thereon, inserted within and closing the ends of said tube, said plugs being united by a bar, *e*, integral therewith, substantially as set forth.

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Witnesses:

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