

No. 864,205.

PATENTED AUG. 27, 1907.

W. H. SMITH.  
TABLE CUTLERY.

APPLICATION FILED JUNE 12, 1907.

Fig. 1.

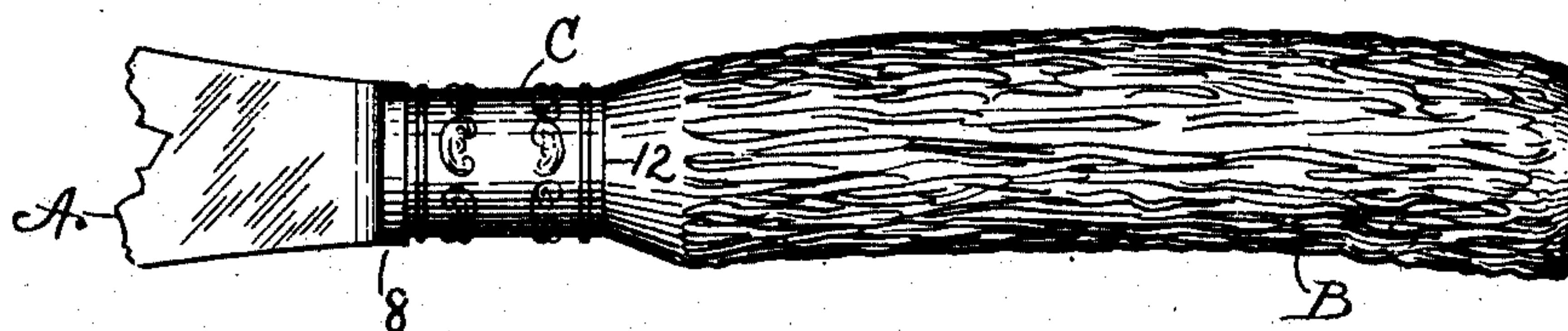


Fig. 2.

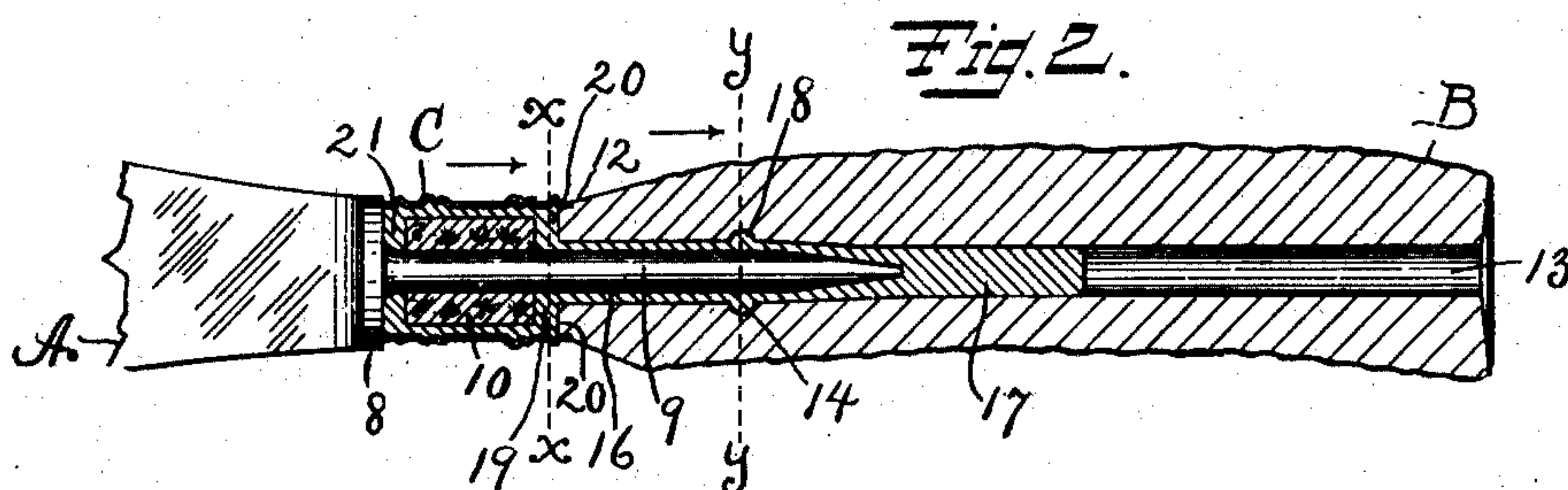


Fig. 3.

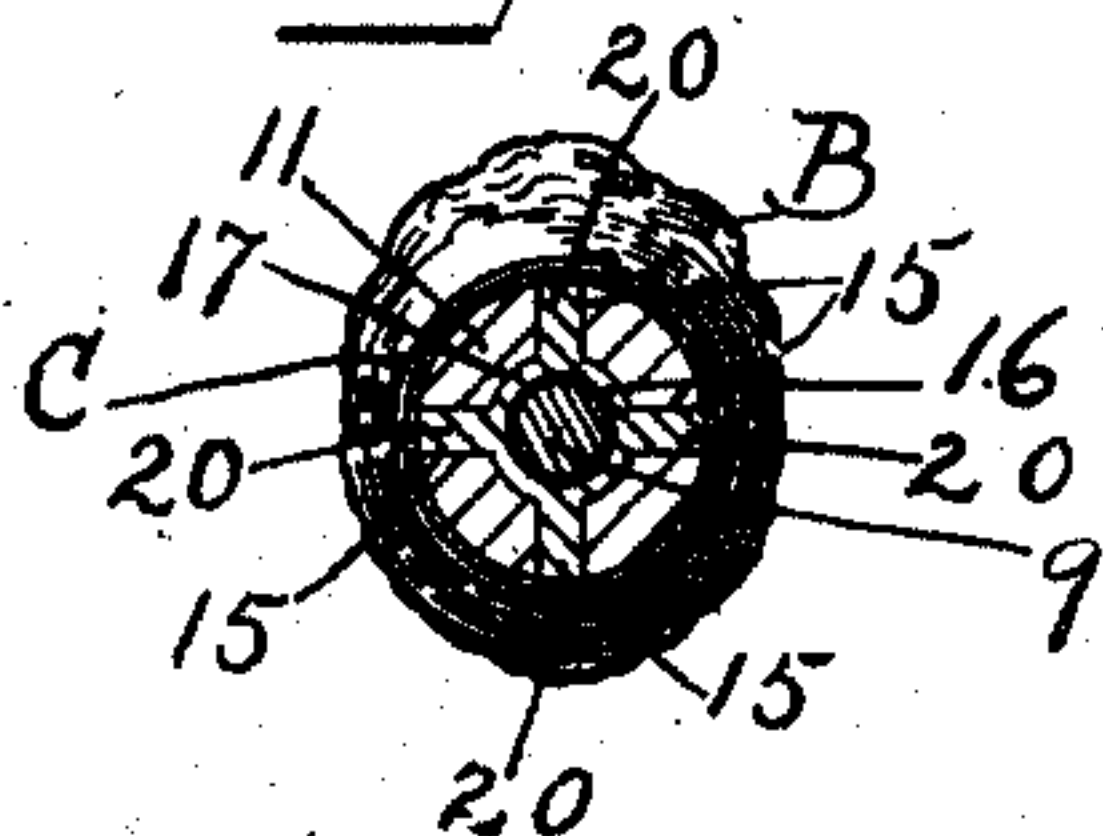


Fig. 4.

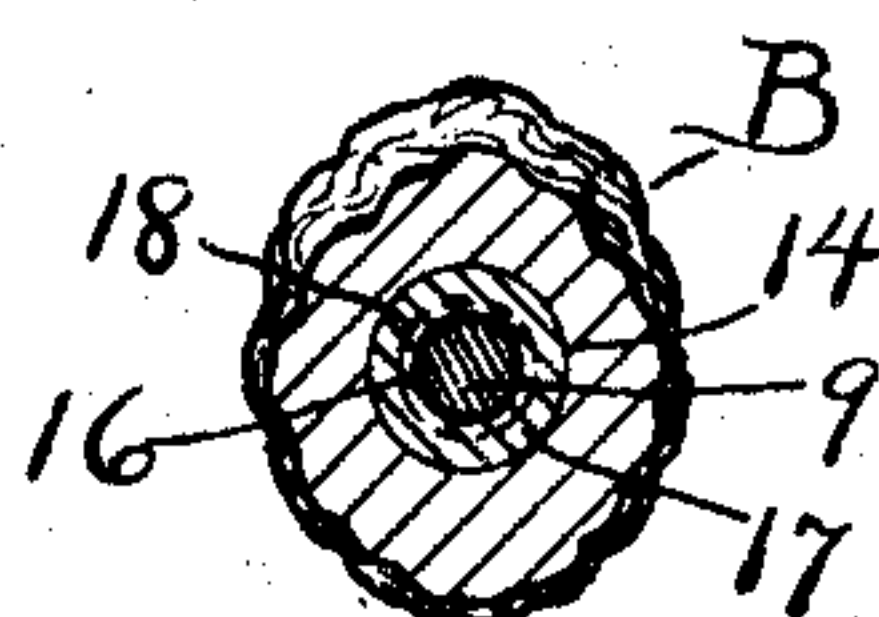


Fig. 5.

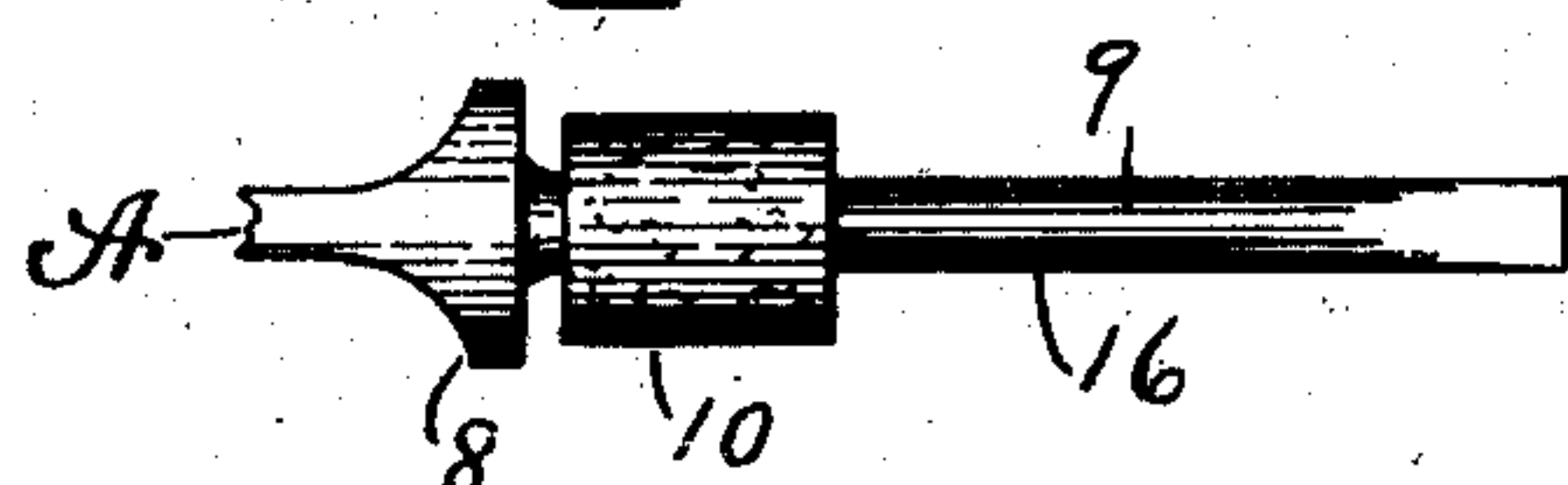


Fig. 6.

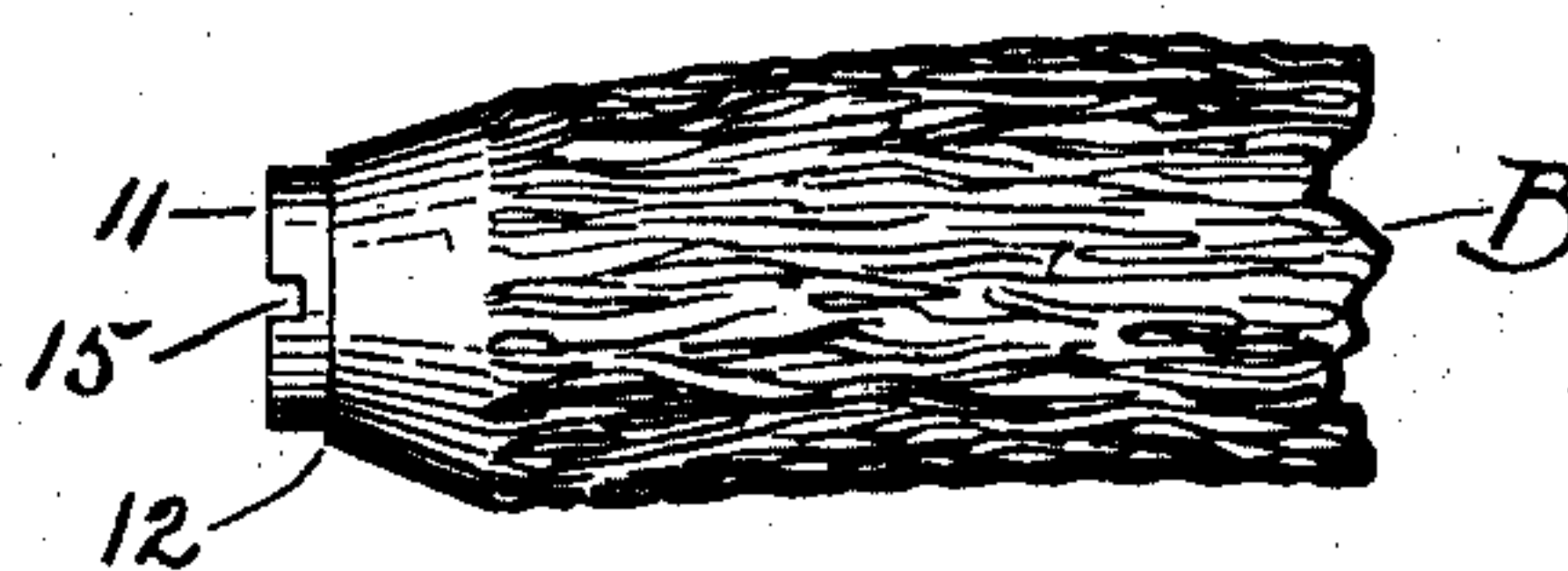


Fig. 7.

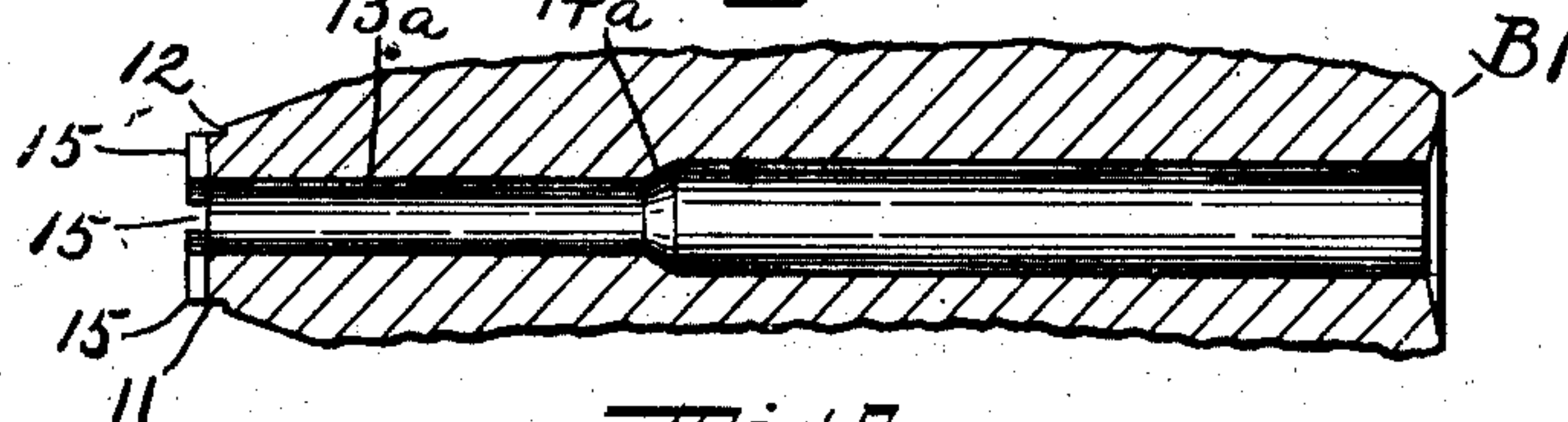
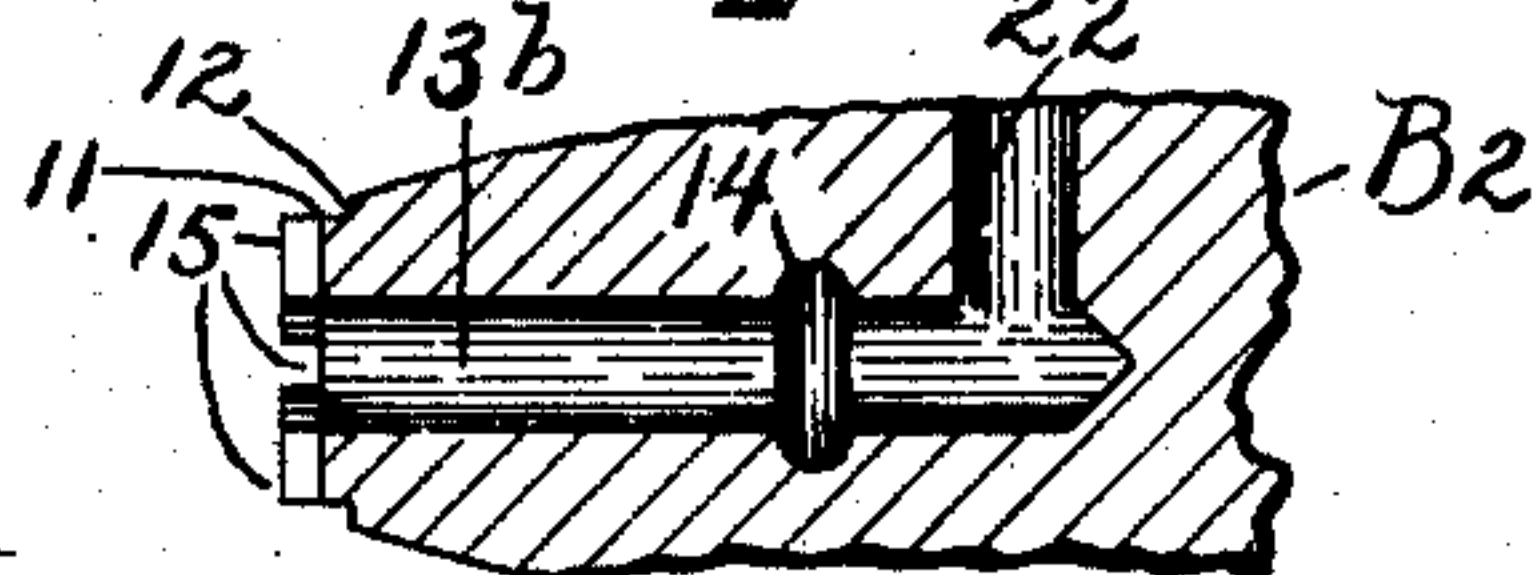


Fig. 8.



Witnesses.

S. H. Clarke.

P. J. Egan

Inventor.

William H. Smith.

By James Shepard  
Att'y.



# UNITED STATES PATENT OFFICE.

WILLIAM H. SMITH, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO LANDERS, FRARY AND CLARK, OF NEW BRITAIN, CONNECTICUT, A CORPORATION.

## TABLE-CUTLERY.

No. 864,205.

Specification of Letters Patent.

Patented Aug. 27, 1907.

Application filed June 12, 1907. Serial No. 378,546.

*To all whom it may concern:*

Be it known that I, WILLIAM H. SMITH, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Table-Cutlery, of which the following is a specification.

My invention relates to improvements in table cutlery and the objects of my improvement are simplicity and economy in construction, particularly with reference to attaching the handle to the tang of the implement in connection with a previously formed ferrule.

In the accompanying drawing:—Figure 1 is a side elevation of the handle portion of a knife made in accordance with my invention. Fig. 2 is a central longitudinal section of the handle parts with a side elevation of a portion of the blade, bolster and tang. Fig. 3 is a transverse section of the handle parts on the line *xx* of Fig. 2. Fig. 4 is a like view of the same on the line *yy* of Fig. 2. Fig. 5 is a plan view of the bolster end of the knife and tang together with a filling core mounted on the said tang. Fig. 6 is a side elevation of the smaller or tip end of the handle. Fig. 7 is a detached central longitudinal section of the handle in a modified form. Fig. 8 is a like view of a portion of the handle in another modified form.

The blade or implement A, its bolster 8 and tang 9 may be of any ordinary construction, the bolster being forged or otherwise formed thereon so that the blade, bolster and tang are rigid with each other independently of the other parts of the handle. I prefer to form the tang 9 substantially cylindrical although its end may be flattened or tapered off on two sides as shown, in order to give it a proper finish, and to facilitate inserting it into the handle B, and to assist in preventing the tang from rotating within the cast metal filling. The tang thus formed and projecting from the bolster is brightened in any ordinary manner and then firmly united to a thin coating 16 of tin or other soldering metal to which molten lead or the like will solder itself when it is cast around the said coated tang. A filling core 10 and heat reducer of some light material, as for example cork, and preferably of a cylindrical form, is bored centrally and then mounted on the coated tang as best shown in Fig. 5, care being taken that a small space be left between the shoulder of the bolster and the confronting end of the filling core. The bolster may be slightly oval in transverse section if desired.

The ferrule C is an open ended ferrule, open at both ends, and is preferably of a substantially round form in end view. It is designed to have one of its open ends abut against the face of the shoulder of the bolster 8, while its other open end is designed to receive a short tenon 11, and to abut against the shoulder 12 of the handle B. The relative length and diameter of the ferrule and filling core are such that when in proper posi-

tion, the filling core will be on the tang within the ferrule and with a space for the cast metal filling at both ends and the sides of the core. In other words, there is a space for the filling between the core and the bolster at one end of the core, between the core and end of the handle tenon 11 at the other end of the core, and between the periphery of the core and the inner wall of the ferrule.

The handle B is bored longitudinally through from end to end to form the bore 13, and the said bore 13 is counterbored to form an annular recess or enlargement 14 that surrounds the main bore. This annular enlargement may be formed by a suitable tool inserted in the bore of the handle from the end nearest to where the enlargement is to be located. The smaller or tip end of the handle has its tenon 11 cross cut to form the transverse recesses 15. I prefer to have two of these cuts crossing each other so as to form four notches in the end of the handle as shown by the sectional view Fig. 3.

The three parts, viz: the blade or implement having bolster and tang together with the filling core mounted on the said tang, the ferrule and the handle may now be assembled in their proper position and held in place by any suitable means. Molten metal of some suitable soldering material, and that will fuse at a moderate degree of heat, as for example white metal or lead, is then poured or run in through the butt end of the handle to fill the various spaces within the ferrule and handle as far or farther than the tang extends therein, thereby forming the cast metal filling 17 which melts the coating on the tang and thus solders the filling to the coated tang while the filling is firmly locked to the handle and all the parts rigidly united. The butt end of the handle may be capped or finished in any ordinary manner. Soldering the filling to the tang through its coat of tin prevents the tang from rotating within the filling that is cast thereon and also from being pulled out of the filling, so that it is unnecessary to notch the sides of the tang at any point or to make the tang of a non-circular form. The flattened end of the tang although not necessary may assist in preventing the tang from rotating within the filling. The bead 18 that is formed on the filling within the annular recess or enlargement will lock the filling within the handle so that it cannot be pulled out. The disk of metal 19 that is formed on a part of the filling in the space between the end of the handle tenon and the core, has on its handle side wings 20, that fill the cross cuts 15 in the end of the handle so that it is impossible to rotate the filling within the handle, or vice versa. From this disk 19 at the handle end of the core, the filling extends in tubular form to the disk 21 at the opposite end of the core, where it is soldered to the tang by the partial fusing of the coating of tin thereon. The core 10 not only effects a saving of metal but leaves



such a thin space between its periphery and the interior of the ferrule that the heat in casting is materially reduced and the ferrule is not unduly heated by the process of casting the filling.

5 It should be noted that it is only that side of the annular enlargement 14 and bead 18 which face the bolster that is effective in holding or locking the filling against being pulled out of the handle. In lieu of an annular recess that is larger than the bore on each side  
10 thereof, the bore 13<sup>a</sup> of the handle B<sup>1</sup> may be counter-bored from the butt end as shown in Fig. 7, thereby forming the effective or holding portion of an annular enlargement 14<sup>a</sup> that will form a coacting bead or enlargement of the filling within said recess and perform  
15 the same office as the recess 14 and bead 18. While I prefer to run the filling in through the butt end of the handle which can be readily and easily finished or capped over, the same general construction as first described may be embodied in a handle B<sup>2</sup> having a  
20 transverse bore 22 in its side that runs into the central bore 13<sup>b</sup>, and through which transverse bore 22 the filling may be run or cast.

By tinning the tang so that the filling in casting is soldered thereto, it is unnecessary to notch the tang  
25 and the filling and tang are firmly united so that they are not only locked together but they will be so firmly locked that there is not the least movement of one part within another as there frequently is in a notched tang and its surrounding filling. By the employment  
30 of an open ended ferrule, with one open end abutting the bolster and the other open end abutting the handle, and a filling within the ferrule between the bolster and end of the handle, I provide an inexpensive and neatly finished implement of an efficient and durable construction. By notching the handle to prevent  
35 its turning on the filling and locking the filling within the handle by an annular recess or enlargement in the handle and corresponding enlargement of the filling, there is no danger of breaking off the filling  
40 that locks the implement within the handle.

I claim as my invention:

1. In table cutlery, the combination of an implement having a bolster and a tang projecting from the said bolster with an open ended ferrule, a handle having a longitudinal bore to receive a portion of the said tang and a

shouldered tenon at the smaller end of the said handle, the said ferrule through which the said tang extends into the bore of the handle having one of its open ends abutting the shoulder of the bolster and its other open end on the handle tenon and abutting the shoulder thereof and a filling of cast metal surrounding the said tang within the said ferrule and longitudinal bore of the handle. 50

2. In table cutlery, the combination of an implement having a bolster and a tang projecting from the said bolster with an open ended ferrule, a handle having a longitudinal bore to receive a portion of the said tang, an annular enlargement of the said bore and a shouldered tenon with cross cuts in its end, the said ferrule through which the said tang extends into the said longitudinal bore having one of its open ends abutting the shoulder of the bolster and its other open end on the handle tenon and abutting the shoulder thereof, and a filling of cast metal surrounding the said tang within the said ferrule and longitudinal bore of the handle and the annular enlargement of the said bore. 55 60 65

3. In table cutlery, the combination of an implement having a tang with a handle having a longitudinal bore, an annular enlargement surrounding the said bore and cross recesses in the smaller end of the handle, and a filling of cast metal surrounding the said tang and filling the said bore, annular enlargement and the cross recesses of the said handle. 70

4. In table cutlery the combination of an implement having a tang with a filling core surrounding the said tang at its ferrule end, a ferrule longer than the said core and of a larger diameter, a handle having a longitudinal bore to receive the end of the said tang, and a filling of cast metal within the said ferrule and handle, the said filling covering the sides and ends of the said core within the said ferrule. 75 80

5. In table cutlery, the combination of an implement having a tang with a coating of tin covering the said tang and firmly united therewith, a handle having a longitudinal bore to receive the end of the said tang, and a filling of cast metal surrounding the said tang and to which the said coating of tin is soldered in the act of being cast thereon. 85

6. In table cutlery, the combination of an implement having a bolster and a tang projecting from the said bolster with an open ended ferrule, a handle having a longitudinal bore and a shouldered tenon, the said ferrule through which the said tang extends into the bore of the handle having one of its open ends abutting the shoulder of the bolster and its other open end on the handle tenon and abutting the shoulder thereof, a filling core mounted on the said tang and a filling of cast metal surrounding the said tang and core within the said ferrule and surrounding the said tang within the said longitudinal bore. 90 95

WILLIAM H. SMITH.

Witnesses:

LEROY H. PAGE,  
WILLIAM E. FIELDING.