E. G. Durant,

Table Cutlery.

No. 108,463. Patented Oct. 18, 1870.

Fig. 1.

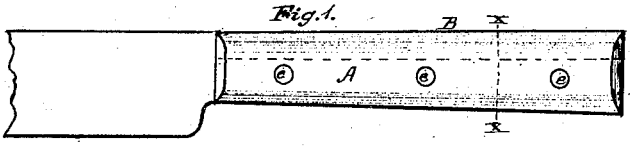


Fig. 2.

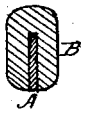


Fig. 3.

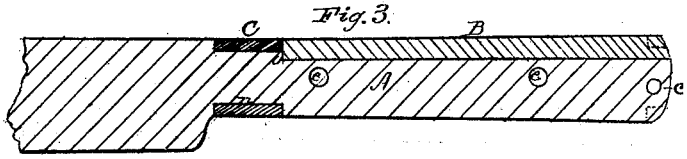


Fig. 5.

Fig. 4.

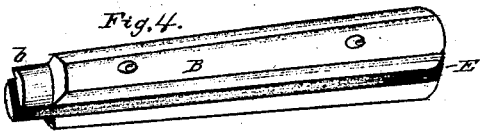


Fig. 10.

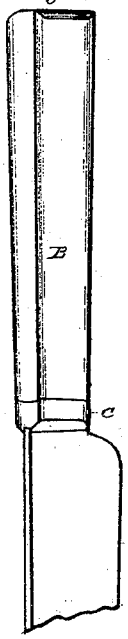


Fig. 6.

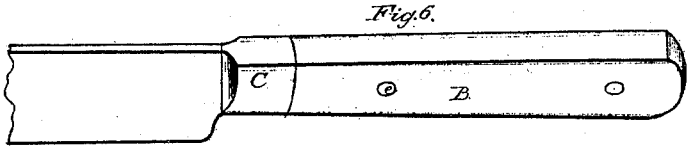


Fig. 7.

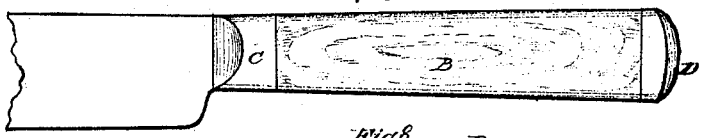


Fig. 8.

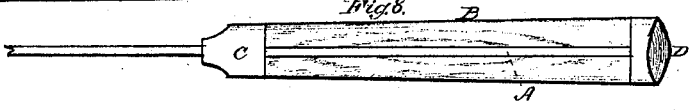
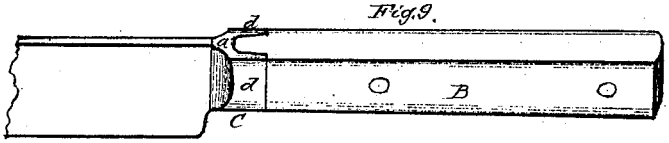


Fig. 9.



Witnesses

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EDWARD G. DURANT, OF NORTHAMPTON, MASSACHUSETTS.

Letters Patent No. 108,463, dated October 18, 1870.

IMPROVEMENT IN TABLE-CUTLERY.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EDWARD G. DURANT, of Northampton, county of Hampshire and State of Massachusetts, have invented certain Improvements in Cutlery; and I do hereby declare that the following is a clear and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon forming a part of this specification.

My invention relates to improvements in cutlery; and

The invention consists, first, in the method of constructing and attaching the handle to the knives, or knives and forks.

It further consists in combining with such handles a bolster, or a bolster and tip, all as hereinafter explained.

In the accompanying drawing I have represented my improvements applied to table-knives—

Figures 1 and 2 representing the handle applied without bolster or tip;

Figures 3, 4, 5, and 6, views of knives with bolsters;

Figures 7 and 8 representing a knife with bolster and tip both applied; and

Figures 9 and 10 showing modified forms of the bolster, the improved construction of handle being represented in all the figures.

In the manufacture of table-cutlery, it has usually been customary to make and attach the handle in one of the two following methods: either to make the handle of a single piece, and insert the tang into a hole bored in the end of the handle, the tang being made small and round for that purpose, or to make the tang flat, and then secure thereto a handle, consisting of two flat pieces, technically called "scales," these pieces or scales being usually fastened on the opposite sides of the flat tang by rivets passing through all three parts.

To these plans there are serious objections. In the first, the tang, being short, is liable to become loose, and the handle to work off, and hence it is almost impossible to sell that style of cutlery, especially of the cheaper or more common sorts. To the second plan, there are several objections: first, there are so many more cracks or openings, which enlarge with use, and become filled with dirt; second, the handle, being made of two pieces, necessitates double the number of operations and handlings, both in fitting it for and in securing it to the tang; third, being secured by rivets, which are liable to be bent in the act of riveting, thus throwing one or both of the scales, more or less, to one or the other side, thereby causing them to project beyond the edge of the tang on one or both sides, it becomes necessary to make the handle, or the scales composing it, somewhat wider than the tang, and then to finish the handle by grinding it down to the required size and form on a succession of emery-wheels; and, as this has to be done by hand, it is tedious and expensive, and, besides, requires great skill, in order to prevent them from being misshaped by grinding off either too much or too little on its various parts. Another objection to this style of handles is, that, being thus finished by hand-grinding, it is impossible to make them with exact uniformity of size, and, consequently, it is difficult to cast on them the soft-metal bolsters or tips, which are now generally preferred, because some are too large, or others too small, or not exactly of the right size and form to fit the mold in which they must be fitted to have these parts cast on; and, in case they do not exactly fit, then there is additional care and labor required to finish these defective parts, which generally consists of a surplus of metal running through the cracks or openings in the mold, and which must afterward be removed, and the parts smoothed and finished up where it is cut off, besides creating a waste of the soft metal, which is expensive.

It is to obviate these difficulties that my invention is designed, and the manner in which I accomplish this result is as follows:

In the first place, I construct the fork or knife-blade, as the case may be, with a flat tang, A, about two thirds or three-fourths as wide as the intended handle, and of a length fully equal to that of the handle, as represented in figs. 1, 2, and 3. I then take a piece of wood, bone, ivory, or other suitable material for the handle, and, by means of a suitable machine, I turn or cut it to the exact form and size required, as represented by B in the various figures. I then, by means of a circular saw or other suitable tool, cut longitudinally along the center of one edge of the handle B a slit or groove, E, of the proper depth and width to receive the tang A, which fits snugly therein. I then drill transversely through this handle B two or three holes, *e*, which I counterbore at the same operation, the drill being suitably made for that purpose, corresponding holes having been previously punched in the tang A. With the tang and handle thus formed, the latter is slipped onto the former, and the holes *e* filled with the fusible metal, the same as is used for the bolster or tip.

In cases where no bolster or tip is applied, as in fig. 1, I prefer to have three rivets; but, when a bolster is applied, two are sufficient; and, when both bolster and tip are applied, the rivets may be entirely dispensed with, if desired.

When it is desired to construct my improved handle with a bolster, the tang A has a notch, *n*, cut in its lower edge at the point where the bolster C is to be cast upon it, as represented in fig. 3, and on its

upper edge it is formed with a corresponding projection, the latter being formed with a square shoulder, *o*, at its rear end. The handle B, in such case, has its front end turned or cut off on each side, leaving tenons *b* projecting, as represented in fig. 4, this being done in a machine constructed for that purpose with perfect uniformity. When the parts are thus constructed, the handle B is slipped onto the tang A until its shoulder at the front upper corner of the slit or groove E strikes against the shoulder *o* of the tang, when the parts are inserted in a suitable mold, and the bolster C formed by casting the fusible metal therein, the bolster surrounding the front end of the handle B and the tang A, as shown in section in fig. 5, and in perspective in fig. 6, thus firmly uniting the parts, and, at the same time, forming an ornamental bolster, corresponding in size and form exactly to the handle, and which, consequently, requires no other finishing than simply polishing.

When the bolster is used, the tang need not extend entirely through the whole length of the handle, as in such case the handle can be made sufficiently secure without.

It is obvious that these bolsters may be made of any desired form and style. In figs. 9 and 10, I have represented a modification of the same. In fig. 9 a narrow part only extends across the edges of the handle, as shown at *a*, while the sides *d* are longer, and extend farther back on the sides of the handle B. When made in this form, I prefer to make a hole through the tenon *b* of the handle, and also through the tang A, for the metal to flow through, and thus unite the parts *d*, and hold them firmly in place.

In fig. 10, the bolster is shown made shorter, and of nearly uniform length on its edges and sides, the handle, in such case, being slightly beveled at its front end on its sides, instead of having a tenon formed thereon, as in the other cases.

In order to apply a tip of the same kind of metal to the handle, the latter has a tenon formed on its rear end, in a manner similar to that on the front when a bolster is used, there being a notch or corner cut out of the tang at its lower rear corner, to permit the metal to flow around it, as represented in fig. 3, which represents the parts in section.

To prevent this tip D from becoming loose or working off, a hole, *c*, is made through the tang at that point, to permit the metal to flow through it, and thus secure the tip firmly in place, there being a corresponding hole or recess formed in the handle also.

When the bolster and tip are both used, no rivets are necessary, as the bolster and the tip secure the handle firmly to the tang, in such a manner that it cannot be detached without breaking the tip or bolster, or both.

It is obvious that, if desired, the tip D may be applied without the bolster; but this will not generally be preferred.

By this method of constructing and applying the handle, I am enabled to produce a very perfect article, and to do so at much less expense than heretofore.

By this means, also, I am enabled to finish the handle to an exact size and form by machinery before applying it to the tang, thus saving much subsequent labor, and also to cast the bolster and tip of the exact size and form required, thus saving much time, labor, and material; and thus my invention constitutes an important improvement in the art of manufacturing cutlery, as well as in the article itself.

I am aware that it has been proposed to make a handle having a slit or groove cut in one side for about one-half its length; but such a handle is neither durable nor satisfactory, and such I do not claim; but

Having thus described my invention,

What I claim is—

1. As an improvement in cutlery, the handle B, having a longitudinal slit or groove formed in it, with the tang A therein the entire length of the handle, substantially as described.

2. In combination with a handle constructed and applied substantially as herein described, the bolster, C, cast thereon, as herein set forth.

3. In combination with a handle constructed and applied substantially as herein described, the tip, D, cast thereon, substantially as set forth.

EDW. G. DURANT.

Witnesses:
O. F. SHAW,
JOHN C. SHAW.