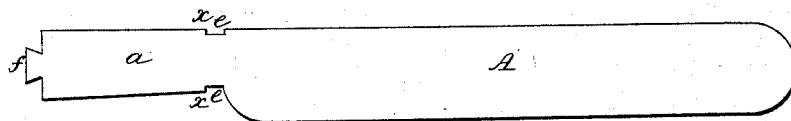


*J. O. Ely,*  
*Table Knife.*

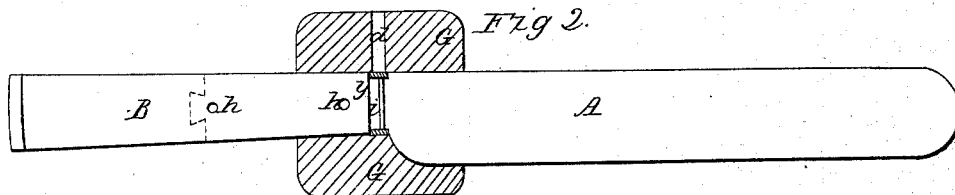
*N<sup>o</sup> 49,246.*

*Patented Aug. 8, 1865.*

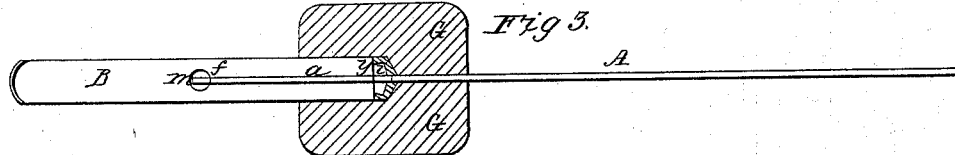
*Fig 1.*



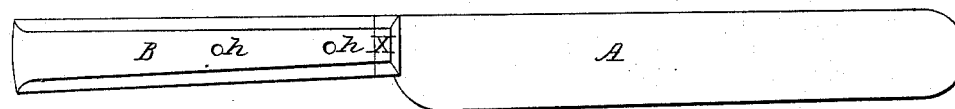
*Fig 2.*



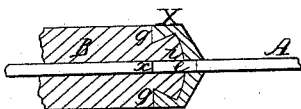
*Fig 3.*



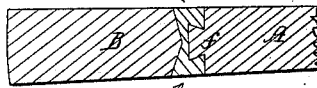
*Fig 4.*



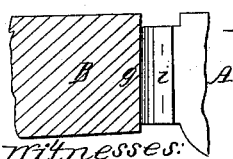
*Fig 6.*



*Fig 5.*



*Fig 7.*



*Witnesses:*

*Wm. Allent Steel*  
*John Parker*

*Inventor:*

*J. O. Ely*  
*By his Attor*  
*Henry Howson*

# UNITED STATES PATENT OFFICE.

J. OLDEN ELY, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN TABLE-KNIVES.

Specification forming part of Letters Patent No. 49,246, dated August 8, 1865.

*To all whom it may concern:*

Be it known that I, J. O. ELY, of Philadelphia, Pennsylvania, have invented an Improvement in Table and other Knives; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists in the simple, efficient, and inexpensive mode, fully described hereinafter, of securing the blades of table and other knives to the handles.

In order to enable others skilled in the art to practice my invention, I will now proceed to describe the manner of carrying it into effect.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 represents a flat piece of steel comprising the blade and tang of the knife; Figs. 2 and 3, views illustrating the manner of casting the bolster to the blade and tang; Fig. 4, a view of the knife completed; Fig. 5, a sectional view illustrating the mode of securing the end of the tang to the handle; Figs. 6 and 7, enlarged sectional views of part of the blade, tang, and handle, drawn to an enlarged scale.

Similar letters refer to similar parts throughout the several views.

The blade A and its tang *a* are cut or punched from a sheet of steel to the form represented in Fig. 1, two notches, *e* and *e'*, being made, one in each edge of the steel strip at the point where the blade meets the tang, and the latter terminating in a projection, *f*, of a dovetailed or other equivalent form, for a purpose described hereinafter.

The handle B, which may be made of wood, ivory, or other material usually employed for the purpose, is sawed or otherwise cut so as to form a slot extending to a point about midway between the front and rear end for the admission of the tang *a*. A portion of the handle, at the front end of the same, is reduced in size, so as to form a projection, *i*, of the dovetailed shape best observed on reference to the enlarged views, Figs. 6 and 7. After the blade of the knife has been properly ground and polished the tang is inserted into the slot of the handle, care being taken to so adjust the blade that the ends *x x* of the notches *e*

and *e'*, Fig. 1, are in line with the shoulders *y y*, Fig. 6, formed by the projections *i* of the handle, to which the tang is now secured by rivets *h h*, or by the mode which I will describe hereinafter, or by both. The knife is now removed to a mold composed of two pieces, G and G', (shown by blue lines, Figs. 2 and 3,) which is arranged to inclose a portion of the handle and blade, there being in the mold a space of a form corresponding to that of the desired bolster X, for the reception of molten metal or alloy, which is poured through an orifice, *d*, the alloy being such that it will melt at a comparatively low temperature, and yet be hard and tough when cool. The two portions of the mold are now taken apart and the knife, with its bolster X, removed. It will be observed that this bolster incloses the dovetailed projection *i* of the handle, and penetrates the notches *e* and *e'* of the blade, which is thus firmly secured to the handle, inasmuch as any attempt to withdraw the blade from the bolster must be resisted by that portion of the latter which has penetrated the notches, and any attempt to withdraw the bolster from the handle must be resisted by the dovetailed projection *i*. At the same time the bolster forms a neat finish at the point where the handle and blade meet.

The tang is secured to the handle by means of rivets *h h*, and additional security is afforded by the peculiar manner, which I will now proceed to describe, of securing the dovetailed end of the tang to the handle.

I bore through the handle a hole, *m*, not straight, but in the inclined direction pointed out by the arrows, Fig. 5, the hole being bored first into one edge and then into the other edge of the handle, and communicating with the slot which receives the tang. This hole is so situated as to receive the dovetailed end *f* of the tang, and is of such dimensions that there shall be a space between the interior of the hole and the said dovetailed end of the tang, into which space I pour molten metal, which, when cool, cannot be removed from the hole, owing to the peculiar shape of the same, while the dovetailed projection prevents the tang from being forced from the metal which surrounds it.

I claim as my invention and desire to secure by Letters Patent—

1. The metal bolster X, cast to and arranged to embrace the handle and blade of a knife, substantially as and for the purpose herein set forth.

2. The projection *i*, of a dovetailed or equivalent form, on the end of the handle, when arranged for the retention of the bolster X, as set forth.

3. The bolster X, the dovetailed projection *i*, and shoulders *y y* of the handle, and the

notches *e* of the blade, the whole being arranged as and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

J. OLDEN ELY.

Witnesses:

HENRY HOWSON,  
JOHN WHITE.