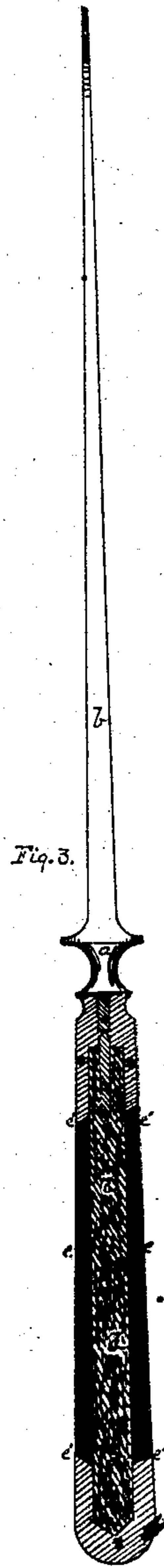
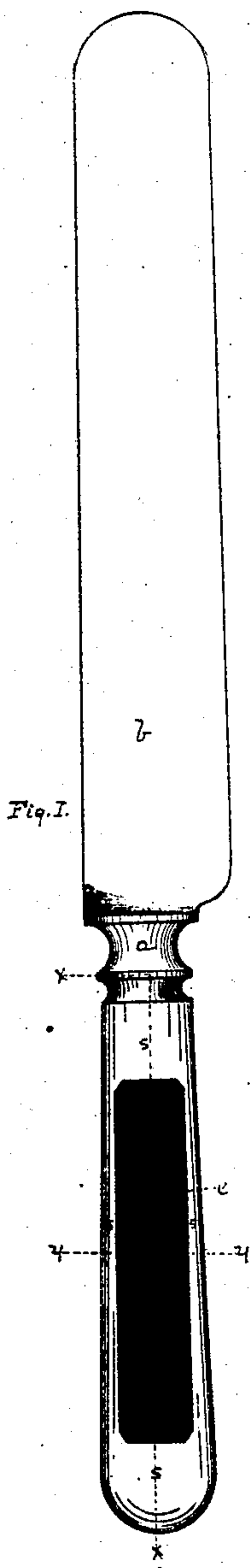


Nichols & Bower,

Cutlery.

No. 102,306.

Patented Apr. 26. 1870.



Witnesses:
Alfred Wrenshaw
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Inventors:
Josiah H. Nichols
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by *Bakewell & Horst*,
their Attys.

United States Patent Office.

JOSIAH H. NICHOLS AND WILLIAM BOWER, OF BEAVER FALLS, PENN-
SYLVANIA.

Letters Patent No. 102,306, dated April 26, 1870.

IMPROVEMENT IN 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 we, JOSIAH H. NICHOLS and WILLIAM BOWER, of the borough of Beaver Falls, in the county of Beaver and State of Pennsylvania, have invented a new and useful Improvement in Cutlery; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a side view of a table-knife made in accordance with our improvement;

Figure 2 is a sectional view through *y-y*, fig. 1; and

Figure 3 is a sectional view through *x-x*, fig. 1.

Like letters of reference indicate like parts in each.

The nature of our invention consists in an improved mode of making the handles of articles of table-cutlery.

To enable others skilled in the art to make and use our improvement we will proceed to describe the same, with particular reference to its use in the making of handles of table-cutlery.

The blade *b* is forged of steel, and along with it are forged the bolsters *a*, or such bolsters may be cast along with the case skeleton of the handle.

On the base end of the blade *b*, or of the bolster *a*, if the bolster be forged, we make a tang, *c*, of any desired length, though such length need not be great.

Onto the end of this tang *c* we attach a core, *d*, of wood or other light cheap material adapted to such use, but somewhat less in size than the handle desired.

On the sides of the core *d*, corresponding to the sides of the complete handle, we then fasten scales *e* of mother-of-pearl, metal, hard rubber, or other suitable or desirable material, and each such scale being of such size and regular or irregular form as may be desired, or several such scale-pieces may be attached to each face of the core.

Any mode of attachment may be adopted, the use of some adhesive matter, however, being preferable to riveting.

The core *d* and scales *e* are of such thickness and so put together that the outer face of the scales *e* shall

come against the face of the mold cavity, and consequently, in the complete knife, they will be flush with the face of the skeleton parts *s* cast thereon. The skeleton *s*, of any suitable metal or metallic alloy, is then cast onto the core *d* and around the scales *e*.

The handle, after being removed from the mold, is finished in any of the ways known to the art.

But in order that the scales *e* may be held securely in place by the skeleton itself, and also in order to secure as perfect a joint as possible between the two, we make either a part or all of the edge of each scale-piece, *e*, with a bevel as shown at *e'*, so that the metal which forms the skeleton shall, in casting, solidify onto such bevel, and thereby lock such scale-piece securely in place by a dovetail-joint. Such bevel need not necessarily be made on all parts of the edge of each scale-piece, it only being necessary to make in each scale a short bevel at such point or points as will, when the casting is done, prevent the displacement of such scale-piece.

A durable connection between the tang *c* and skeleton; *s*, is effected by making a notch, *c'*, in the tang, or other equivalent means may be adopted to secure the same end.

By varying the shape of the mold-cavity, any desired form can be given to the skeleton *s*, and the scales *e* may, as already stated, be of any desired form, style, or number.

The mode of manufacture described we claim in its application to all handled articles of table or toilet furniture.

What we claim as our invention, and desire to secure by Letters Patent, is—

The combination, in handles of table-cutlery, of core, bevel-edged scales and skeleton, substantially as described.

In testimony whereof the said JOSIAH H. NICHOLS and WILLIAM BOWER have hereunto set their hands.

JOSIAH H. NICHOLS.
WILLIAM BOWER.

Witnesses:

C. W. TAYLER,
E. A. BARNES.