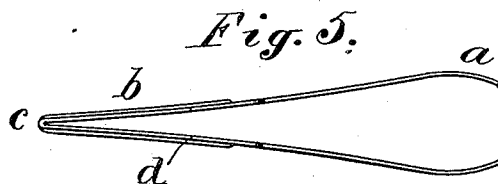
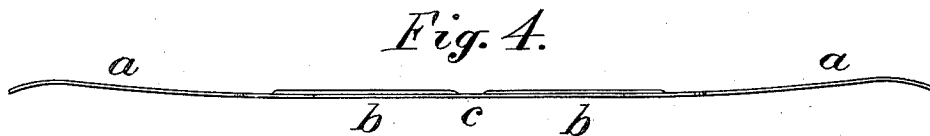
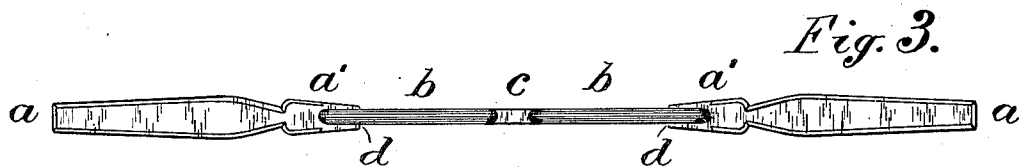
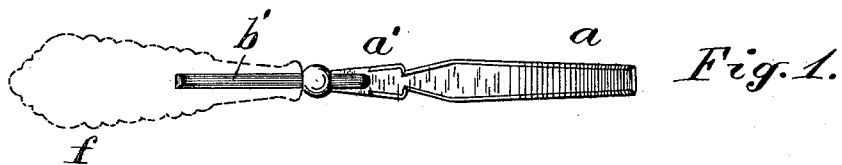


G. HAVELL.
TWEEZERS WITH SHANK ALL IN ONE PIECE.

(Application filed June 28, 1901.)

(No Model.)



Attest:
L. Lee.
Walter H. Falmage.

Inventor.
George Havell, per
Thomas S. Crane, Atty.

UNITED STATES PATENT OFFICE.

GEORGE HAVELL, OF NEWARK, NEW JERSEY, ASSIGNOR TO HAVELL MANUFACTURING COMPANY, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

TWEEZERS WITH SHANK ALL IN ONE PIECE.

SPECIFICATION forming part of Letters Patent No. 699,385, dated May 6, 1902.

Application filed June 26, 1901. Serial No. 66,118. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HAVELL, a citizen of the United States, residing at No. 30 Mount Prospect Place, Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Tweezers with Shank all in One Piece, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The object of this invention is to furnish a simple and inexpensive means of providing a tweezers with a tang to which an ornamental handle may be applied, so that the tweezers may be employed as part of a mounted toilet-set.

In carrying out the invention I form a blank from a single piece of sheet metal, which blank when folded transversely is adapted to form the tang and both jaws of the tweezers. With this construction the tang consists of two sections lying in the middle portion of the blank, and the jaws extend from such sections outwardly and form the ends of the blank. The tang-sections of the blank are preferably stamped into ribbed form, so as to be of semitubular or analogous cross-section, which greatly strengthens the tang-sections at their union with the jaws, and the jaws are preferably made wider than the tang-section at such union, which increases the strength of the junction and forms a shoulder for the application of a bolster or handle when applied to the completed tang.

The invention will be understood by reference to the annexed drawings, in which—

Figure 1 is a face view of the combined tweezers and tang with a dotted outline, showing the relation of a handle thereto. Fig. 2 is an edge view of the combined tweezers and tang without the handle. Fig. 3 is a face view, and Fig. 4 an edge view, of the blank for manufacturing the article; and Fig. 5 shows the blank bent at the middle before the application of the bolster to the tang.

a designates each jaw of the tweezers, and *b* a tang-section formed integral therewith and shown in the drawings of semitubular form. The shank *a'* of each of the jaws is made a little wider than the tang, which

forms a shoulder *d* at the junction, as shown in Fig. 3, and the tang-section is extended upward a little way upon the shank *a'* to strengthen the union of the tang and shank. The semitubular tang-sections are united at the middle of the blank by an integral joint *c*, and the folding of the blank transversely upon such joint, as shown in Fig. 5, brings the tang-sections into line, and the joint *c* at the outer ends of such sections to form the complete tang *b'*. (Shown in Figs. 1 and 2.) The tang-sections thus extend from the shanks of the jaw-sections and are united at their outer ends.

The semitubular form of the tang-sections produces a round tang when the sections are clamped together by the bolster *e*, made to slip snugly upon the tang. The bolster holds the jaws *a* in their operative relation, as represented in Fig. 2, and relieves the handle from the elastic strain of the sheet metal. The bolster is crowded against the shoulder *d* upon the shank of each jaw, and the handle is fitted upon the tang *b'* in contact with the bolster, as shown in Fig. 1.

It will be seen that by making the blank as shown in Fig. 3 the tang may be formed in sections integral with one another and with the two jaws of the tweezers, and the article may thus be produced with very little more expense than the tweezers made without the tang.

I am aware that tweezers have been formed with the bases of the jaws united at their continuous edges and an integral projection upon one of the jaws to form an ear-spoon; but in such case one of the jaws is integral with the spoon and the other is not, while neither of the jaws is provided with a tang, nor any means for applying a fancy silver handle to the tweezers to form part of a silver-mounted toilet-set, which is the ultimate product of my invention. In my construction the tweezers are formed of a continuous narrow strip of sheet metal which is no wider than the jaws themselves, the jaws being at the ends of such strip and the tang-sections at the middle of the strip, where the folding of the strip upon the middle line brings the tang-sections on top of one an-

other, so as to form a long narrow tang at one end of the jaws. This construction provides means for attaching an ornamental handle which performs a different function from the spoon, which has heretofore been made upon the base of one jaw.

Having thus set forth the nature of the invention, what is claimed herein is—

1. A tweezers having an integral tang and formed therewith in one continuous narrow strip of sheet metal, with the jaws at the ends of such strip and each jaw having an integral tang-section extended from its shank upon the middle of the strip, the tang-sections being integrally united at their contiguous ends, and folded upon one another to form the tang, and an ornamental handle secured upon such tang to form part of a mounted toilet set, substantially as herein set forth.

2. A tweezers having the jaws formed each of sheet metal with flat shank and integral tang-section of semitubular form extended

into the flat shank, and the shank having shoulders upon such tang-section to fit a bolster, substantially as herein set forth.

3. A tweezers formed in one piece of sheet metal with an integral tang having semitubular sections, the shank of the tweezers having shoulders upon such tang, and the bolster *e* applied to the tang next the shoulders to hold the jaws elastically together.

4. The tweezers formed in one piece of sheet metal with an integral tang having semitubular sections, the shank of the tweezers having shoulders upon such tang, the bolster *o* applied to the tang next the shoulders, and handle secured upon the tang in contact with the bolster.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEORGE HAVELL.

Witnesses:

J. D. CLARK,
THOMAS S. CRANE.