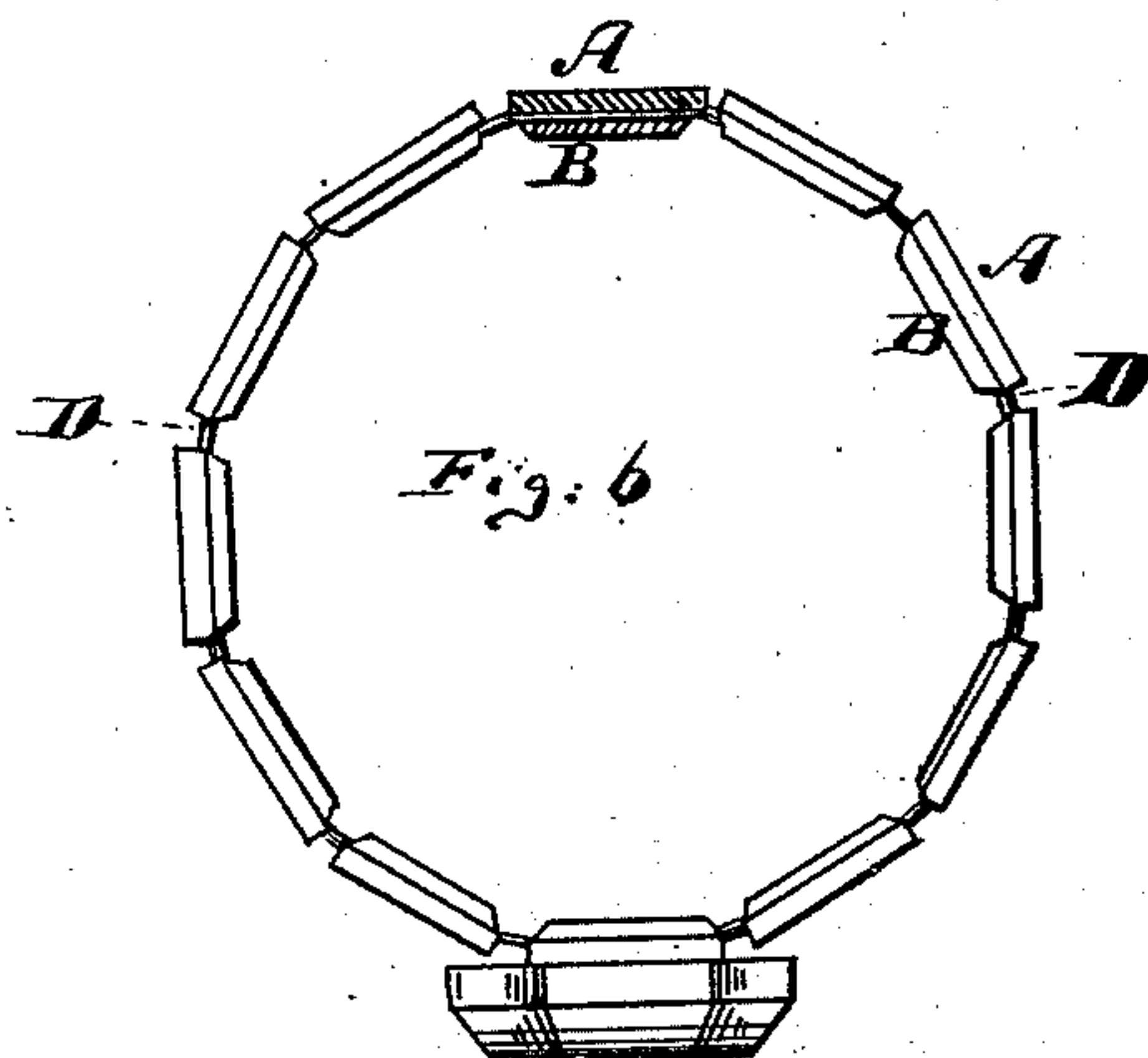
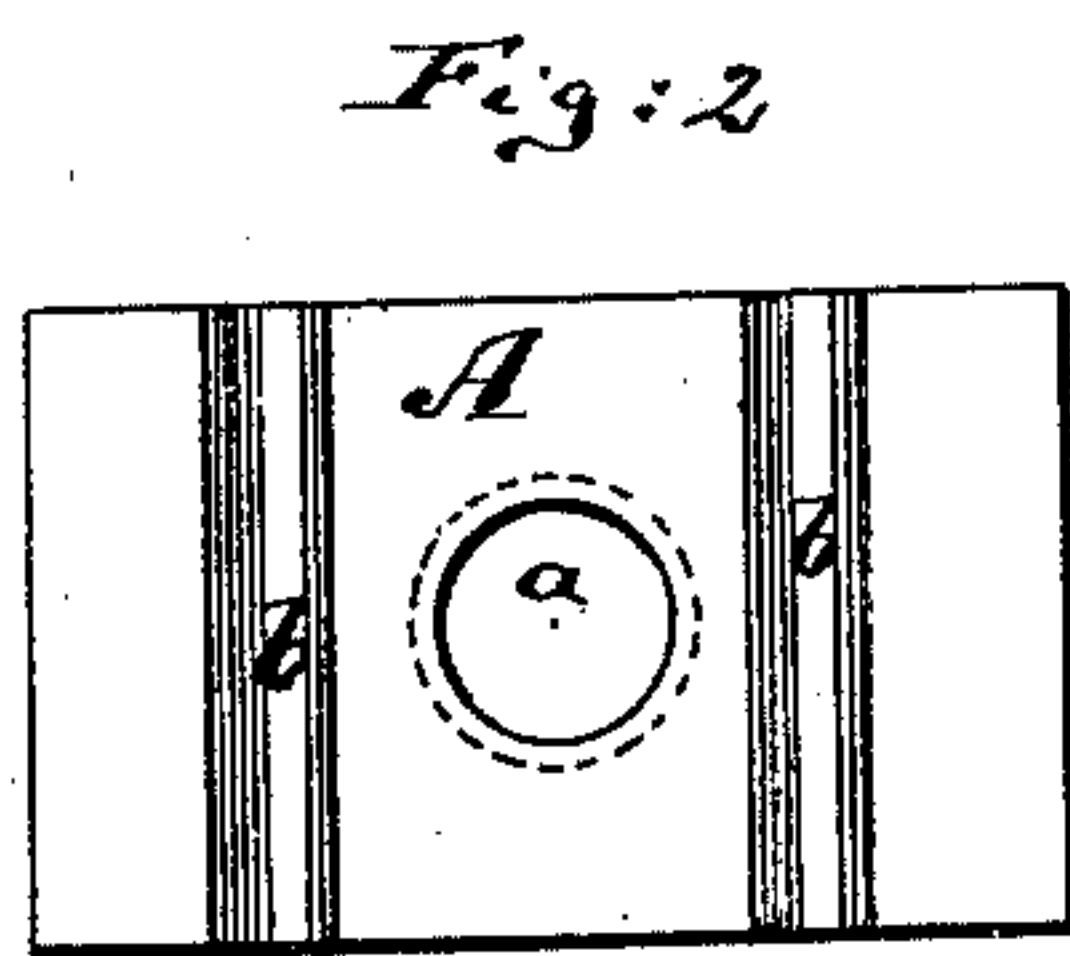
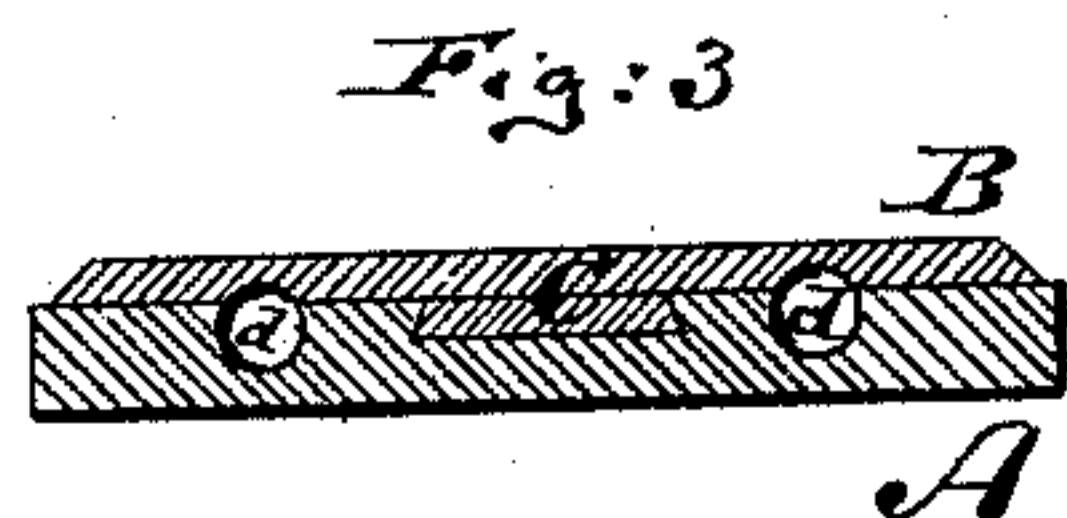
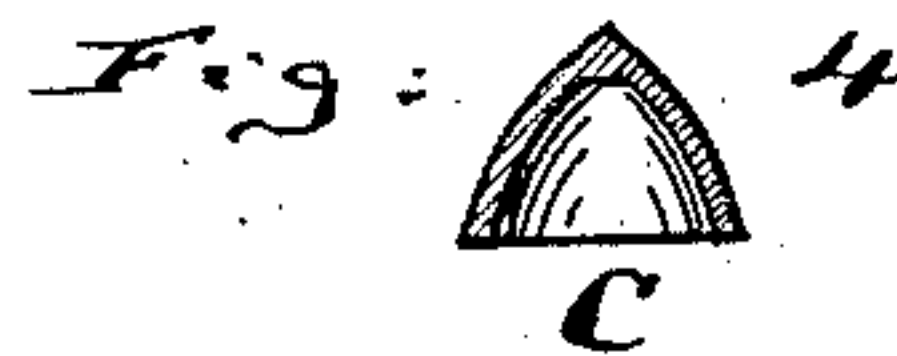


C. FEST.
 Mounting Mother-of-Pearl and Similar Substances on
 Metal.

No. 223,441.

Patented Jan. 13, 1880.



Witnesses:

John C. Tunbridge
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UNITED STATES PATENT OFFICE.

CHARLES FEST, OF NEW YORK, N. Y.

MOUNTING MOTHER-OF-PEARL AND SIMILAR SUBSTANCES ON METAL.

SPECIFICATION forming part of Letters Patent No. 223,441, dated January 13, 1880.

Application filed May 13, 1879

To all whom it may concern :

Be it known that I, CHARLES FEST, of the city, county, and State of New York, have invented an Improvement in Mounting Mother-of-Pearl and Similar Substances on Metal, of which the following is a specification.

Figure 1 is a vertical longitudinal section of a plate of mother-of-pearl prepared to be mounted according to my process. Fig. 2 is a back view of the same. Fig. 3 is a vertical longitudinal section of the same, showing it mounted. Fig. 4 is a sectional view of the metallic plug used for uniting the mother-of-pearl to the metal back; Fig. 5, a top view thereof. Fig. 6 is a side view, partly in section, of a bracelet made of pieces that are constructed according to my invention.

Similar letters of reference indicate corresponding parts in all the figures.

This invention has for its object to insure the secure attachment of plates of mother-of-pearl, jet, agate, or analogous substances to metallic mountings or backs without requiring the use of rivets or the perforation of the costly face-pieces.

The invention consists, principally, in forming a countersunk cavity in the back of the mother-of-pearl, filling said cavity with metal, and then soldering thereto the back plate of metal, the solder being melted by heat applied through said back plate, all as herein-after more fully described.

The invention also consists of other details of improvement hereinafter more fully pointed out.

In the accompanying drawings, the letter A represents a plate of mother-of-pearl; B, the plate of metal attached to the back thereof.

After the piece A has received its proper shape and polish, its back is provided with a countersunk cavity, *a*, which is wider at the base than at its mouth, and which does not extend entirely through the plate A. More than one such cavity may be formed in the back of the plate A. Into this cavity is then placed a plug, C, of metal, (see Figs. 4 and 5 and dotted lines in Fig. 1,) and the same is thereupon hammered down to fill the cavity

and to be anchored therein, owing to the inner enlargement of said cavity. The projecting part of the plug is then carefully cut or filed off, so that its outer face will be flush with the back of the plate A, as shown in Fig. 3. The plate B, properly shaped, is then placed upon the back of the plate A, together with a sufficient quantity of solder to insure adhesion, and then the plate B is heated, so that the heat, striking through it, will melt the solder and cause the plate B to be properly and firmly united to the plug C as soon as the parts are cooled. In this manner I obtain complete adhesion, and do not deface the mother-of-pearl where it is exposed to view, nor mar its appearance.

The invention is applicable also to the mounting of jet, agate, and analogous substances, and will be found useful in the manufacture of bracelets, breastpins, studs, lockets, and other articles of jewelry, or, in fact, wherever goods are to be ornamented with beautifying face-plates.

For making such articles into bracelets, as in Fig. 6, I use elastic cords D, upon which the combined plates A B are strung. To this end I form grooves *b b* in the back of each plate A, as indicated in Figs. 1, 2, and 3, and also in the contiguous faces of the plates B, to form tubular passages *d* for the reception of the cords D.

I claim—

1. In the art of mounting mother-of-pearl or analogous substances on metal, the process of soldering the metal back to a metal plug fitted into the mother-of-pearl by heat applied through the metal back, substantially as specified.

2. The combination of the metal back B with the plug C, anchored in the back of the plate A, of mother-of-pearl or analogous substance, substantially as herein shown and described.

CHARLES FEST.

Witnesses:

W. G. E. SCHULTZ,
W. H. C. SMITH.