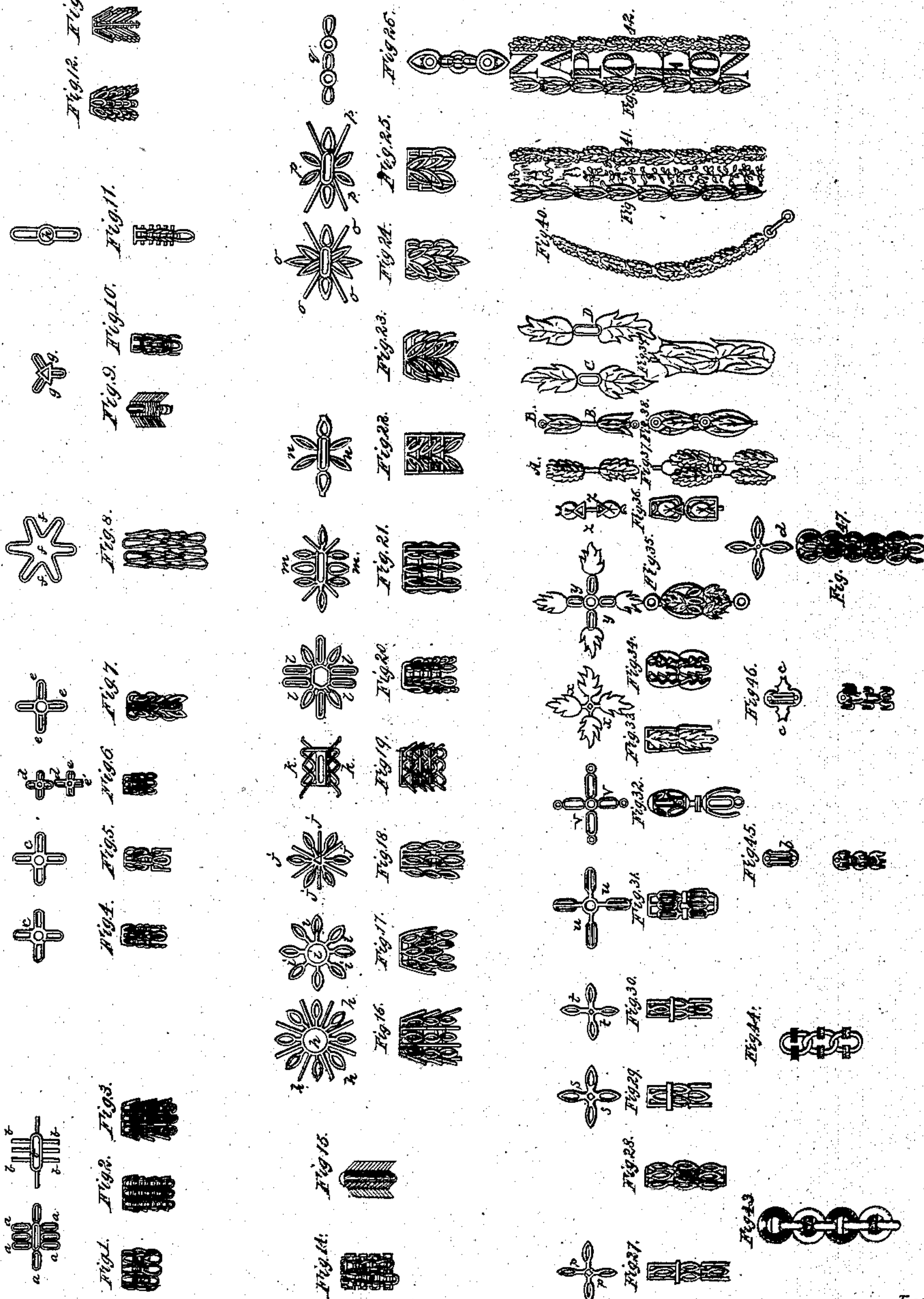


P. M. C. Beziel

Making Ornamental Chains

N<sup>o</sup> 62,178.

Patented Feb. 19, 1867.



Witnesses:

*E. H. H. H.*  
*E. H. H. H.*

Inventor:

P. M. C. Beziel



# United States Patent Office.

P. M. C. BÉZIEL, OF PARIS, FRANCE.

*Letters Patent No. 62,178, dated February 19, 1867.*

## IMPROVED METHOD OF FORMING THE PARTS, LINKS, &c., OF CHAINS, BRACELETS, &c.

*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, PIERRE M. C. BÉZIEL, of Paris, in the Empire of France, have invented a new and useful Improvement in the Manufacture of Chains, Bracelets, and other articles of jewelry; and I do hereby declare that the following is a full and exact description thereof.

This invention has for its object certain improvements in the manufacture of chains, bracelets, necklaces, and other articles of jewelry. It may also be applied with advantage in all cases where delicate metal ornaments are required. This will readily be understood from the following description of my mode of proceeding.

Having engraved a suitable design in two hollow dies or moulds, corresponding one with the other, and whose edges are properly formed to cut out the edges and openings of the patterns, I take a sheet of copper, or other equivalent malleable metal, soluble in acids, and place it between two sheets of gold, whose thickness, as also that of the copper, is determined by the nature of the article of which it is to form part. The three sheets thus arranged are placed between the dies, to which pressure is gradually applied until they meet, and the design thus cut out and formed. The piece is then withdrawn, and the rough edge smoothed down by suitable instruments until it has attained a sufficient degree of finish. I must here observe that when chains, bracelets, necklaces, or similar articles are to be manufactured, the design must be of such a nature as will admit of the piece or link formed in the moulds being readily and elegantly joined by solder or otherwise to a similar piece. When the article is so completed, the chain, or whatever it may be, is subjected to a nitric acid bath, which dissolves out the copper, leaving the gold intact. In some cases it may be desirable to have a half-design; by this I mean one uncomplemented by its fellow. In such a case I make use of one sheet of gold and one of copper, treating them, however, as before, except that one die only is sunk, the only difference being, in one case the model has a solid appearance, in the other the model is in relief only on one side. The chief feature of my invention, therefore, consists in stamping or cutting out, and forming by pressure in suitable dies, with the aid of a relief plate of malleable metal soluble in acid or otherwise, the links, leaves, or other models suitable for manufacture into chains, bracelets, and all such similar articles, whether for use or ornament. In some cases, and for a particular class of ornament, I make use of a wire of copper, or other equivalent malleable metal soluble by acid, in place of the sheet of copper before alluded to. This I cover with gold leaf, the copper being employed simply to give sufficient solidity to admit of the gold leaf bearing the pressure to which it is subjected between the moulds, as explained hereinbefore, and the wire may be either square, round, oval, or flat, and indeed any form to suit the purpose and ornament to be manufactured therefrom, and may be either retained in its casing of gold, or be dissolved out by nitric acid. In this latter case small holes are made in the gold casing to allow the acid to reach the copper.

Having thus fully described my invention, I claim as new, and desire to secure by Letters Patent—

The method, substantially as herein set forth, of forming links, leaves, or other similar articles, of gold or silver, for ornamental or useful purposes.

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

P. M. C. BÉZIEL.

### Witnesses:

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