C. W. BUTTS.

PROCESS OF MAKING SWISS BOWS.

APPLICATION FILED JAN. 26, 1911.

1,038,845.

Patented Sept. 17, 1912.

2 SHEETS—SHEET 2.

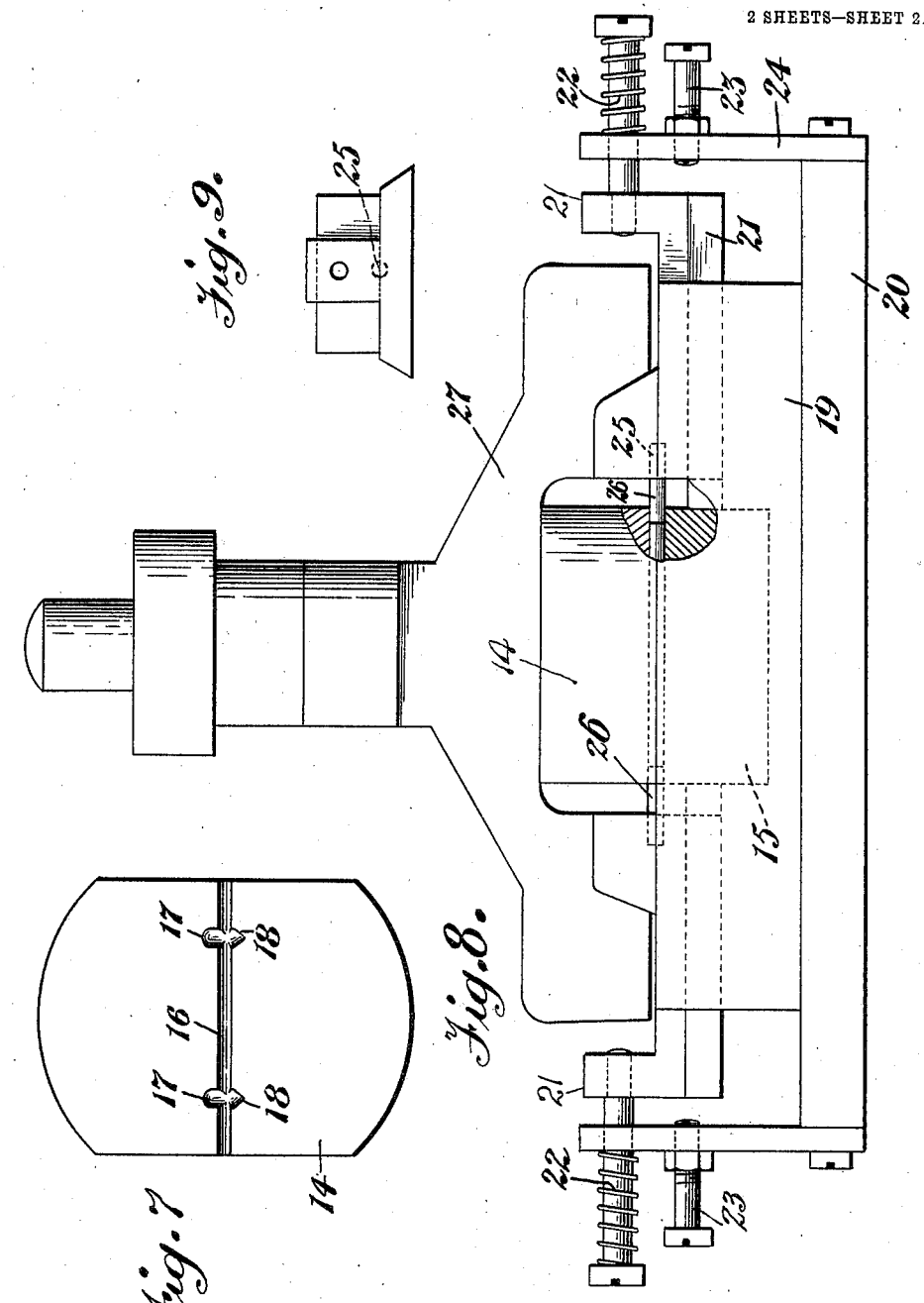

Fig. 9.

Fig. 8.

Fig. 7

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2 SHEETS—SHEET 1.

Fig. 1.

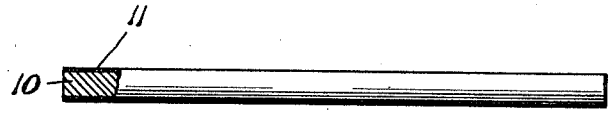


Fig. 2.

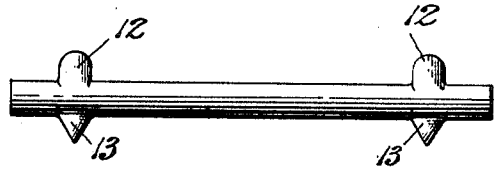


Fig. 3.

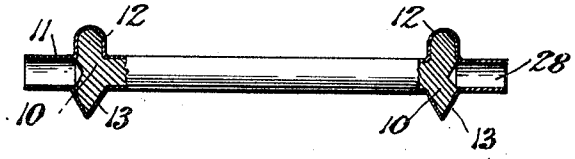


Fig. 4.

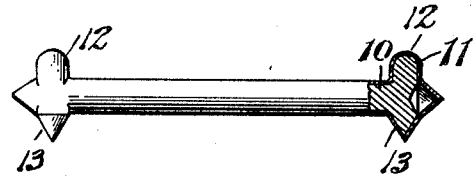


Fig. 5

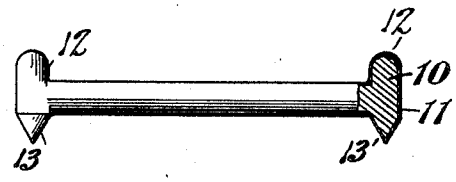
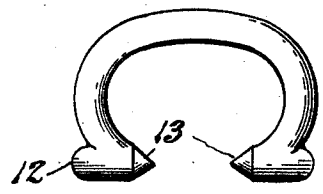


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHARLES W. BUTTS, OF SAG HARBOR, NEW YORK, ASSIGNOR TO JOSEPH FAHYS & CO., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

PROCESS OF MAKING SWISS BOWS.

1,038,845. Specification of Letters Patent. Patented Sept. 17, 1912.

Application filed January 26, 1911. Serial No. 604,777.

To all whom it may concern:

Be it known that I, CHARLES W. BUTTS, a citizen of the United States, residing at Sag Harbor, in the county of Suffolk, in the State of New York, have invented certain new and useful Improvements in Processes of Making Swiss Bows, of which the following is a specification.

My invention relates to a process of making Swiss or French bows for watch cases; that is to say, those consisting of a bow proper with transverse bars at their ends by which the bow is secured in a pendant. The process is more especially applicable to the manufacture of such articles from filled stock; for example, that consisting of an inner or base metal or composition with an outer shell or tube of gold or other precious metal.

Up to the present time the production of a Swiss or French watch case bow of filled stock has met with such difficulty due to the necessity of preventing the appearance of the inner metal on the exposed surface that Swiss or French bows for gold filled watch cases are ordinarily made of solid gold.

The main object of my invention is to provide a process which eliminates the difficulty above referred to and makes possible the production of a Swiss or French watch case bow of gold filled stock without exposing the inner or base metal at the surface.

An embodiment of my invention is illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of a piece of gold filled stock with the end broken away to illustrate the inner and outer layers; Fig. 2 is a similar view of the same with the ears or nibs struck up to form the ends of the bars; Fig. 3 is a similar view after the inner or base metal has been removed from the ends of the stock; Fig. 4 is a similar view with the ends of the stock partially stamped in to contract the precious metal upon itself to form a closure at the ends; Fig. 5 is a similar view with the closure completed; Fig. 6 is an elevation of the completed bow; Fig. 7 is a face view of one of the die plates employed in the operation of striking up the ears or nibs illustrated in Fig. 2; Fig. 8 is an elevation with parts in section showing the die press at the end of the descent, and Fig. 9 is an end view of one of the slides forming a part of the die press.

Referring now more specifically to said drawings, 10 indicates the inner or base metal or metal composition, and 11 the inclosing outer shell of gold or other precious metal. The filled stock is first subjected to the operation of striking up ears or nibs 12 and 13 near each end of the stock, the nibs 13 being preferably pointed or otherwise shaped for suitable mounting in the watch case pendant. The operation illustrated in Fig. 2 may be effected in the apparatus shown in Figs. 7, 8 and 9. In this apparatus upper and lower die plates 14 and 15 are provided with complementary recesses 16, 17 and 18 corresponding to the shape which is to be given to the stock in this first operation. These die plates are suitably mounted and secured together in a bed 19 secured to base plate 20. At each side of the bed 19 is provided a slide 21 automatically drawn outward by return spring 22 against a stop screw 23, which is adjustably positioned in the sides 24 of the frame. Slides 21 are provided with perforations 25 in line with the recesses 16 of the die plates 14 and 15, for the reception of push-pins 26 which are adapted to be thrust into the recesses 16 against the stock therein when the slides move toward the die plates.

To effect the inward movement of the slides 21, they are provided with inclined upper surfaces which are simultaneously engaged by correspondingly inclined undersurfaces of a plunger 27 which in its descent thus forces the slides toward each other and causes the push-pins 26 to exert their pressure against the ends of the stock whereby the ears or nibs 12 and 13 are forced out into the recesses 16, 17 and 18 of the die plates.

Having formed the ears or nibs 12 and 13 near the ends of the stock, the inner or base metal beyond the ears or nibs is removed by drilling or otherwise as indicated at 28. The stock in this condition is then subjected to a series of stamping or other suitable operations whereby the precious metal projecting beyond the ears or nibs is crowded inward and contracted upon itself until eventually the end is completely inclosed with precious metal. The stock with the completed bars thus formed thereon is then subjected to the bowing operations in any

suitable or well-known manner and the material brought into the form illustrated in Fig. 6, which is the completed bow. The bow may then be planished or otherwise finished to suit the requirements of its particular use.

It will be apparent, that the several operations described may in actual practice each represent a series of repeated or consecutive treatments which taken together have the effect indicated as one operation in this specification.

I claim:

1. The process of producing Swiss or French bows of filled stock, which comprises striking up ears or nibs forming the inner and outer ends of the bars, removing base metal from the ends of the stock beyond the ears and subsequently contracting the precious metal at the ends of the stock to completely inclose the base metal, and bowing the stock.

2. The process of producing Swiss or French bows of filled stock which comprises forming the preliminary bow having integral bow portion and bar portions of filled stock with base metal exposed in the ends of the stock intermediate the two ends of each bar portion and subsequently contracting the precious metal shell of the ends of the stock and thus covering the said exposed base metal with the precious metal shell.

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Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."