

P. P. BARNEY.
 FRONT FOR ARTICLES OF JEWELRY.
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1,024,055.

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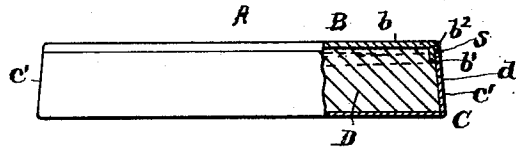


Fig. 1.

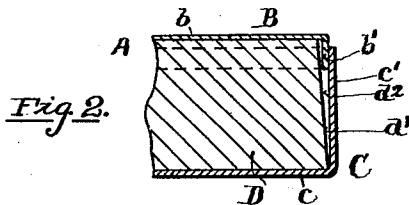


Fig. 2.

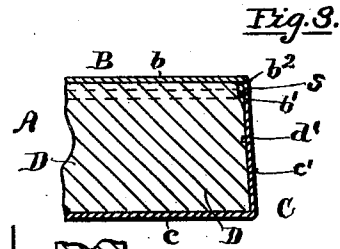


Fig. 3.

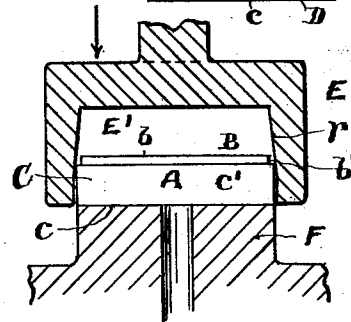


Fig. 4.

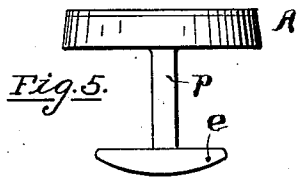


Fig. 5.

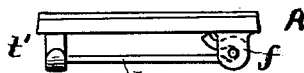


Fig. 6.

WITNESSES.

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FRONT FOR ARTICLES OF JEWELRY.

1,024,055.

Specification of Letters Patent.

Patented Apr. 23, 1912.

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To all whom it may concern:

Be it known that I, FRANK P. BARNEY, a citizen of the United States, residing at Chartley, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Fronts for Articles of Jewelry, of which the following is a specification.

My invention relates to improvements in the manufacture of "fronts," as they are termed, for buttons, studs, brooches and other analogous articles of jewelry formed from a plurality of metal members rigidly secured together; and it consists in the novel construction and combination of parts, all as more fully hereinafter set forth and claimed.

The object I have in view is to produce in a simple, rapid and inexpensive manner "fronts" of the general character referred to, having any suitable or desired form and size. To this end I employ a pair of oppositely disposed cup-shaped members formed or "struck-up" from thin gold or rolled-plate stock, and having the peripheral flange of the upper member inserted or positioned within the other member and forming a hollow casing, somewhat similar to a shallow sheet-metal box and its cover, and a solid, disk-like core member of suitable thickness stamped from soft metal, as for example, a mixture of lead and tin, shaped so as to conform to and adapted, when positioned, to practically fill the interior space or chamber of the casing; the said three members being subsequently rigidly secured together by forcibly pressing the outer flange inward against the adjacent side of the core and the inner flange, the latter at the same time being deformed by the pressing action and caused to be embedded in the adjacent side of the disk.

It may be stated that when the parts are loosely assembled the peripheral walls or flanges of the two outer or casing members are normally perpendicular to the plane or flat faces of the casing and have the adjacent peripheral surface of the inclosed soft-metal core slightly beveled; so that the action of the press bends the flanges inward into snug engagement with the beveled face of the core, thereby securing the said parts together by a single operation and without the employment of solder, the beveled portions serving to positively prevent the members from lateral separation.

In the accompanying sheet of drawings, Figure 1 represents, in greatly enlarged scale, a side elevation, in partial section, of a solderless "front" constructed according to my invention. Fig. 2 is a partial transverse sectional view, further enlarged, showing the three normally positioned and assembled members before being subjected to the press action. Fig. 3 is a similar view showing the parts rigidly connected together. Fig. 4 represents a vertical central section of a pair of dies, capable of being mounted in a press, showing the normally assembled members of the "front" (shown in Fig. 2) positioned between them preparatory to being rigidly secured together (as indicated in Figs. 1 and 3) by the action of the dies; and Figs. 5 and 6 represent articles of jewelry provided with "fronts" embodying my improvement.

My improved "front" A comprises three elements, viz., the top or thin sheet-metal cap member B, the oppositely disposed thin sheet-metal base member C, the two constituting the outer casing or shell portion of the "front," and the thick soft-metal core D, the latter practically conforming to and filling the casing chamber. The said element B (referring to Fig. 2) is cup-shaped and produced from thin gold, rolled-plate, or other suitable stock, and is provided with a flat top or table b terminating in a downwardly extending, relatively short peripheral flange b^1 disposed at right angles thereto. The fellow member C is or may be cupped from suitable thin sheet-metal stock, and is also provided with a flat base c having a comparatively long vertical peripheral wall or flange c^1 , its upper edge, when disposed with respect to member B, surrounding or inclosing the major portion of the flange b^1 ; or, in other words, the inner diameter of flange c^1 is equal to the outer diameter of the flange b^1 .

Within the casing's chamber is located a core D of compressible soft metal, its base diameter being substantially equal to the inner diameter of the flange c^1 ; the sides of the core extend upward and are beveled inward, the degree of inclination corresponding with the thickness of said flange; the parts when assembled forming an inner narrow peripheral wedge-shaped space d^2 between the adjacent surfaces, all as clearly represented in Fig. 2. The thus assembled members are, or may be rigidly

secured together by placing the same flatwise on the lower or fixed die F (Fig. 4) and forcing the upper die E downward; the suitably beveled sides r of the die cavity E^1 thereby engaging the vertical flange or rim c^1 and pressing it inward into snug engagement with the tapering sides d^1 of the core; at the same time, too, the die action eliminates the said space d^2 and forcibly presses the upper portion of the rim c^1 inwardly against the adjacent portion of the fellow rim or flange b^1 , thereby both abruptly bending or infolding the stock and embedding the remaining portion of the part b^1 into the adjacent or upper edge of the compressible core, substantially as shown in Fig. 3. As thus constructed, the normal shape and diameter of the table part b of the cap member B remains unchanged by the die action, although portions of the rim b^1 are folded or bent inwardly flatwise from the outer edge a short distance immediately below the table, thus producing the double-thickness edge b^2 , the latter also forming a lip having a lateral projection just equal to the thickness of the wall c^1 of the lower member C, and so that when completed, as in Fig. 3, the upper edge of said wall will be wholly concealed and protected, its outer surface alining and registering with the outer periphery of the edge portion b^2 , and in which the resulting juncture line or seam s is practically invisible.

It is to be noted that the thickness of the stock represented in the drawings is greatly exaggerated, whereas in practice the stock used is or may be but a few thousandths of an inch thick, thus rendering it susceptible of being readily acted upon by the tools and dies. If the casing members are formed from rolled gold-plated stock, in lieu of all-gold stock, it is clear that the "front" will have a superficial surface of gold, since the lip b^2 serves to both protect and conceal the back or base metal of the wall c^1 at the juncture point s ; the whole being produced without the use of solder.

It may be further added that while the drawings represent my improved "front" A as being flat and substantially cylindrical, the form of the "front's" casing may be varied as desired. In any event, however, the soft-metal core member should have a corresponding shape and practically fill the casing's chamber.

The "fronts" may be produced and sold as articles of manufacture, the purchaser in such case converting them into an article of jewelry, as for example, a button, by

the addition of a post p and back e , as shown in Fig. 5, or a pin or brooch, by providing the "front" with a hinge-joint f , pin-tongue t , and keeper t^1 , as indicated in Fig. 6.

I claim as my invention and desire to secure by United States Letters Patent:—

1. As a new and improved article of manufacture, a solderless "front" for articles of jewelry, the same consisting of a pair of suitably shaped, oppositely disposed, peripherally flanged sheet-metal members, the flange of one member being positioned within that of the other and forming a chambered casing, a soft-metal core member conforming to and practically filling the casing's chamber, and having said flanges fitting in snug engagement with the adjacent surface of the core.

2. The improved solderless front for articles of jewelry, said front consisting of oppositely disposed sheet metal cup-shaped members having the peripheral side wall or flange of the upper or face member positioned within and snugly engaged by the corresponding wall or flange of the other or base member and forming a ridgeless peripheral outer surface, and a soft-metal core practically filling the interior of the front and rigidly held in position therein by the inward pressure of said walls upon it.

3. The solderless "front" herein described, the same comprising a two-part hollow casing, each part provided with a peripheral rim or flange, one flange being inserted within the other, a soft-metal core positioned in and conforming to the casing's chamber, the said core being prevented from independent movement and the casing from lateral separation by bending the said walls inwardly against the contiguous surfaces.

4. The solderless "front" herein described, the same consisting of a suitably shaped casing comprising a top member and a base member, each having a peripheral side wall or flange, one flange being inserted within the other, a soft-metal core practically filling the interior of the casing and held in position by bending the flanges inwardly thereagainst, and having the outer or exposed surfaces of the thus bent flanges in alinement or flush with each other.

In testimony whereof I have affixed my signature in presence of two witnesses.

FRANK P. BARNEY.

Witnesses:

GEO. H. REMINGTON,
CALVIN H. BROWN.