Sept. 19, 1944. J. J. LARMOUR 2,358,720

INLAID ARTICLE AND METHOD

Filed Aug. 22, 1940

Fig. 1

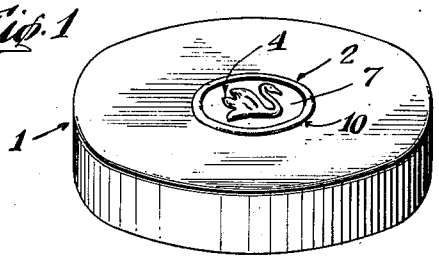


Fig. 3a

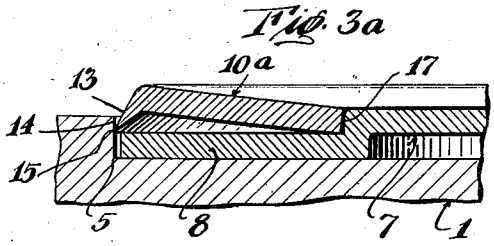


Fig. 2

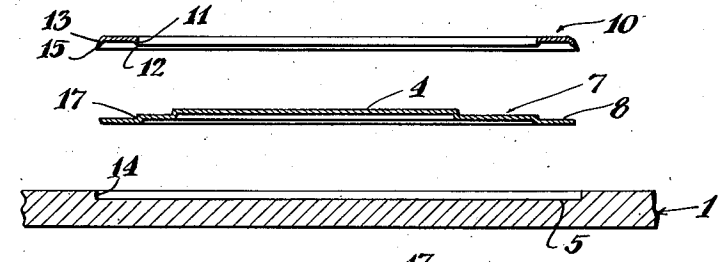


Fig. 3

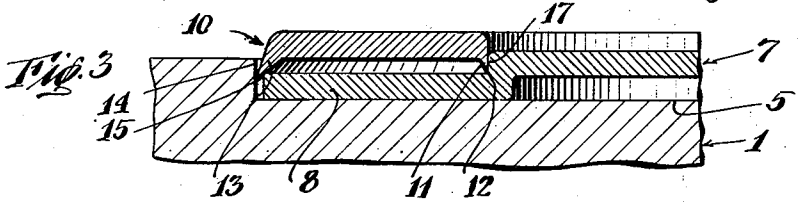


Fig. 4

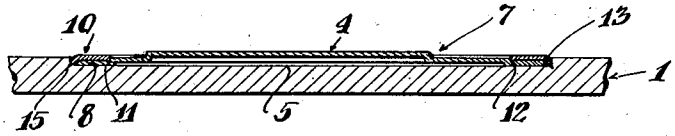


Fig. 5

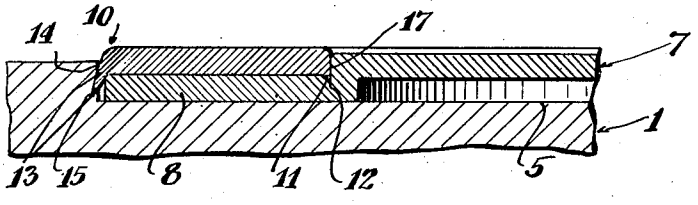
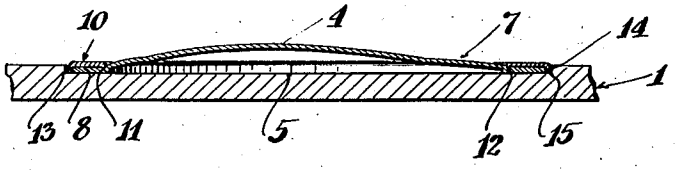


Fig. 6



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INLAID ARTICLE AND METHOD

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Application August 22, 1940, Serial No. 353,603

7 Claims. (Cl. 41—35)

The present invention relates to a new and improved type of inlaid article and to a new and improved method of decorating articles by inlaying.

Inlays have become popular for articles made of many types of materials, and particularly for articles made of plastics. The latter articles are in most cases chosen because of their beauty, and the addition of inlays greatly enhance their appearance and desirability. Certain requirements must be met in inlaying. The cost of the inlays and their application must be kept at a minimum because the articles inlaid are generally used in large quantities, for example, for automobile knobs, buttons and other similar articles. The inlays must be securely attached so that they will not come out when subjected to various weather and moisture conditions. The present invention is an improvement upon the Milford Guy Sypher Patent No. 2,152,161 and is directed to an inexpensive and more attractive inlay which may be securely fixed in articles without danger of accidental detachment. The invention utilizes an ornamental holding member which rigidly secures an ornamental inlay in position and at the same time exposes a substantial part of said inlay for decorative purposes, and constitutes a superimposed ornamental design which may be of a contrasting metal or color that blends with and beautifies the exposed design. In this way the attractiveness of the design is increased without impairing the security of the inlay and without increasing the cost thereof. The holding member serves the two-fold function of attaching and ornamenting the exposed inlay design.

An object of the present invention is to provide a new and improved type of inlaid article.

Another object of the invention is to provide an article with an ornament which is securely held in position at all times.

Another object is to provide a type of decoration which may be easily and quickly inlaid into an article.

Still another object of the invention is to provide an article with an ornament which is locked with the article and with a holding means.

A further object of the invention is to provide an article inlaid with an ornament having an improved type of raised design thereon.

A still further object of the invention is to provide a new and improved method of achieving an inlaid decoration with an improved design thereon.

Other and further objects of the invention will be obvious upon an understanding of the illustrative embodiment about to be described, or will be indicated in the appended claims, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

A preferred embodiment of the invention has been chosen for purposes of illustration and description and is shown in the accompanying drawing, forming a part of the specification, wherein

Fig. 1 is a perspective view of an article illustrating a preferred embodiment of the invention;

Fig. 2 is an exploded sectional view showing the decorative members about to be applied to an article;

Fig. 3 is an enlarged fragmentary sectional view showing the ornamentation in the recess of an article prior to being secured therein;

Fig. 3*a* is an enlarged fragmentary sectional view of a modified form of ornamentation in the recess of an article prior to being secured therein;

Fig. 4 is a sectional view of an inlaid article;

Fig. 5 is an enlarged sectional view of a portion of the inlaid article shown in Fig. 4; and

Fig. 6 is a sectional view of a modified form of inlaid article.

The proportions of the parts illustrated in Figs. 2–6, and even more particularly in Figs. 3 and 5, have been exaggerated more clearly to bring out the features of the invention.

Referring more particularly to the drawing, there is shown an article 1 provided with a decoration 2 having a raised design 4 thereon. The present decoration is particularly adapted for application to articles made from synthetic molding compounds such as pyroxylin, formaldehyde or urea resins, hard rubber, cellulose acetate, casein, and the like. It is to be understood, however, that the application of the design is not limited to such compounds, but that such substances as linoleum, wood, metal and other materials may also be inlaid. Further, in the present application the invention is shown as being applied to an article similar to a powder box cover but it will be clear that it may be applied to objects generally regardless of their shape or contour and regardless of the contour of the design.

The article 1 to be inlaid is preferably provided with a recess 5 of a size suitable to receive the decoration to be applied to the article. With certain types of materials the recess may be molded at the time the article is molded and it may be formed in other materials in any suit-

able manner. It will generally be desirable to have the recess 5 of a shape corresponding to that of the decoration to be inlaid.

The inlay may comprise an ornament member 7, is preferably made of metal or some other relatively hard material, and may fit freely into the recess 5 of the article to rest on the bottom thereof. The ornament member 7 preferably has a depressed ledge or shelf 8 at the periphery thereof to form a seat for a holding member to be described. Providing the ornament member 7 with an embossed or outstruck design 4 enhances its appearance as this provides a pleasing raised or bas relief effect and making the raised portion 4 of a different color from that of the other parts further enhances the decorative effect.

A holding member 10 is adapted to secure the ornament member 7 in position and to serve also as contrasting ornamentation. Fig. 3 shows the article 1, ornament member 7 and holding member 10 in assembled relation in a recess 5 prior to interlocking the parts. It will be noted that the holding member 10 conforms generally to the shape of the marginal portions or periphery of the ornament member 7 and that it is shown as fitting freely into the recess 5 of the article 1 to rest against the ledge or shelf 8 of the ornament 7. The holding member, like the ornament member 7, is preferably made of metal and has a smooth upper surface and a substantially channel-shaped underside, the legs 11 and 13 forming the respective inner and outer legs of the channel. These inner and outer legs preferably terminate in relatively sharp edges 12 and 15, the outer leg being slightly longer than the inner leg.

To fasten or interlock the ornament member 7 and holding member 10 with an article 1, the parts are placed upon an anvil or other support, in the relation shown in Fig. 3, and a pressing member (not shown) is moved downwardly against the upper surface of holding member 10. Downward movement of the pressing member tends to flatten the holding member and to cause the legs 11 and 13 to spread outwardly with respect to each other. Inward movement of the inner leg 11 is limited, however, by the upwardly extending wall 17 at one side of the ledge 8 of the ornament member 7 and the free edge 12 thereon presses downwardly into the surface of the ornament member to insure a firm locking together of the parts. As the outer leg 13 spreads, it comes into engagement with a wall 14 of the recess 5; continued downward movement of a pressing member and flattening of the holding member causes the outer leg 13 to dig into the wall 14. Where the outer leg 13 projects over the edge of an ornament member 7, as in Fig. 3, the adjacent upper corner of the ornament member assists in guiding the leg 13 outwardly into engagement with a recess wall 14.

The inner leg 11 may be omitted, if desired, and a holding member 10*a* like that shown in Fig. 3*a* utilized to lock the parts together. The parts shown in Fig. 3*a* are preferably pressed and locked together in the same manner as the preferred embodiment.

The pressure applied against the holding member 7 may be a steady pressure or tapping and, in instances where the article is made from molding compounds, the pressure applying means may be heated so as to heat the holding member and also slightly soften the article adjacent the holder. This facilitates penetration of the free edge 15 of the outer leg 13.

In some instances it may be desired to further enhance the appearance of the decoration by utilizing an ornament having portions thereof disposed interiorly of the holding member 10 curved or domed slightly upwardly (Fig. 6). The curved effect is preferably obtained by forming an ornament member into the desired shape at the time that it is stamped out of a sheet of material.

The curved effect may also be obtained during the inlaying operation as hereinafter set forth. When the outer leg 13 of a holding member 10 is firmly in engagement with the wall 14 of a recess 5, continued flattening of the holding member tends to force the inner leg 11 radially inwardly against the upright portion 17 on the ornament member. The inwardly acting force occurs about the periphery of the ornament member 7 and causes the central or interiorly disposed portions thereof to curve upwardly in the direction of least resistance. In this method it is necessary that the proportions of an ornament member with its ledge 8 and of a holding member 10 be such that flattening of the holding member will so contact the side 17 of the ornament member as to cause upward curving thereof. In both the curved and uncurved embodiments of the invention the inner side of the holding member 10 grips tightly against the ridge 17 of the ornament member 10 to lock the ornament member firmly in position.

In final form, the ornament member 7 is held in position by the holding member 10, which latter member rests against the ledge or shelf 8 adjacent the periphery of the ornament member 7. The upper surface of the holding member 10 is substantially flush with adjacent interiorly disposed portions of the ornament member 7 so as to provide a smooth decoration of unitary appearance. The inner leg of the holding member 10 is interlocked with the ornament member and the outer leg is in engagement with the recess wall 14. A securely interlocked assembly of parts is thus obtained.

A brass holding member 10 and copper ornament member 7 is a combination of materials ductile enough to produce a pleasing curve of the ornament member, in instances where such is desired, and also a secure engagement of a holding member 10 with the ornament and with a wall of an article. Any suitable metals may be utilized.

By making the holding member 10 a different color than the ornament member 7, various contrasting decorative effects may be obtained. A blue ornament member with a raised chromium plated design thereon, and a chromium plated holding member is an effective color combination. Coatings of contrasting color may also be effectively used. While the term "ornament member" has been applied to the member 7 and the term "holding member" to the member 10, it will be clear that both are, in effect, ornament members; the member 10 is a holding member in addition.

It will be seen that the present invention provides a new and improved inlaid article and method of inlaying. The holding member serves the twofold purpose of holding the inlay in place and at the same time forms a component part of the design. The cost of inlaying and the cost of the parts are sufficiently low so that they may be adopted in mass production of articles with-

out unduly increasing the cost thereof. The multi-component design lends itself to various configurations and to contrasting colors not possible heretofore. In addition, the inlay is rugged in construction and fully capable of withstanding the rough usage and the various climatic conditions to which it may be subjected.

As various changes may be made in the form, construction and arrangement of the parts herein without departing from the spirit and scope of the invention and without sacrificing any of its advantages, it is to be understood that all matter herein is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim:

1. An article of manufacture comprising, in combination, a member having a recess adapted to receive an ornament member, an ornament member in said recess, and a substantially channel-shaped holding member extending over a portion of said ornament member with said channel facing the plane of said ornament member and with a leg portion adjacent the inner edge of said holding member interlocked with said ornament member and with a leg portion adjacent the outer edge thereof in engagement with a wall of said recess to retain the ornament member in said recess.

2. An article of manufacture comprising, in combination, a member having a recess adapted to receive an ornament member, an ornament member in said recess, and a holding member extending over a portion of said ornament member with leg portions at the respective edges thereof and with the leg portion adjacent the inner edge thereof interlocked with said ornament member and with the leg portion adjacent the outer edge thereof extending into a wall of said recess adjacent the upper surface of the ornament to lock said members together and retain the ornament member in said recess.

3. An article of manufacture comprising, in combination, a member having a recess adapted to contain an ornament member, an ornament member in said recess, and a comparatively narrow substantially planar member with the major part thereof overlying said ornament member and having a shape conforming generally to the shape of the marginal portions of said ornament member with a downwardly projecting inner edge engaging said ornament member and with a relatively sharp outwardly divergent free outer edge thereof embedded into the side of said recess adjacent the upper surface of the ornament member to retain said ornament member in the recess.

4. An article of manufacture comprising, in combination, a member having a recess adapted to receive an ornament member, an ornament member in said recess having a ledge at portions of the periphery thereof adapted to form a seat for a holding member, and a holding member seated on said ledge with portions at the inner edge thereof in abutment with a wall of said ledge and in interlocking engagement with said ornament member and with portions at the outer edge thereof in engagement with a wall of said recess.

5. An article of manufacture comprising, in combination, a member having a relatively shallow recess adapted to receive an ornament member, an ornament member in said recess having a centrally disposed portion with a depressed ledge at portions of the periphery thereof adapted to form a seat for a holding member, and a holding member seated on said ledge with the upper surface thereof substantially flush with adjacent centrally disposed portions of the ornament member and with portions at the outer edge thereof embedded in a wall of said recess.

6. The method of inlaying decorations which comprises providing a member with a recess, placing an ornament in said recess, placing an apertured holding member on said ornament, and pressing said holding member toward said ornament to cause an outer edge of the holding member to engage the side wall of said recess, thereby to move upwardly portions of the ornament disposed within the apertures of said holding member.

7. The method of inlaying decorations which comprises providing a member with a recess, placing an ornament member in said recess, placing an apertured holding member having a projection at one side thereof on said ornament member, pressing said holding member toward said ornament member to cause the projection thereon to tend to dig into the wall of said recess and continuing to press said holding member toward said ornament member to cause to move upwardly portions of the ornament member disposed within the aperture of said holding member.

JAMES J. LARMOUR.