

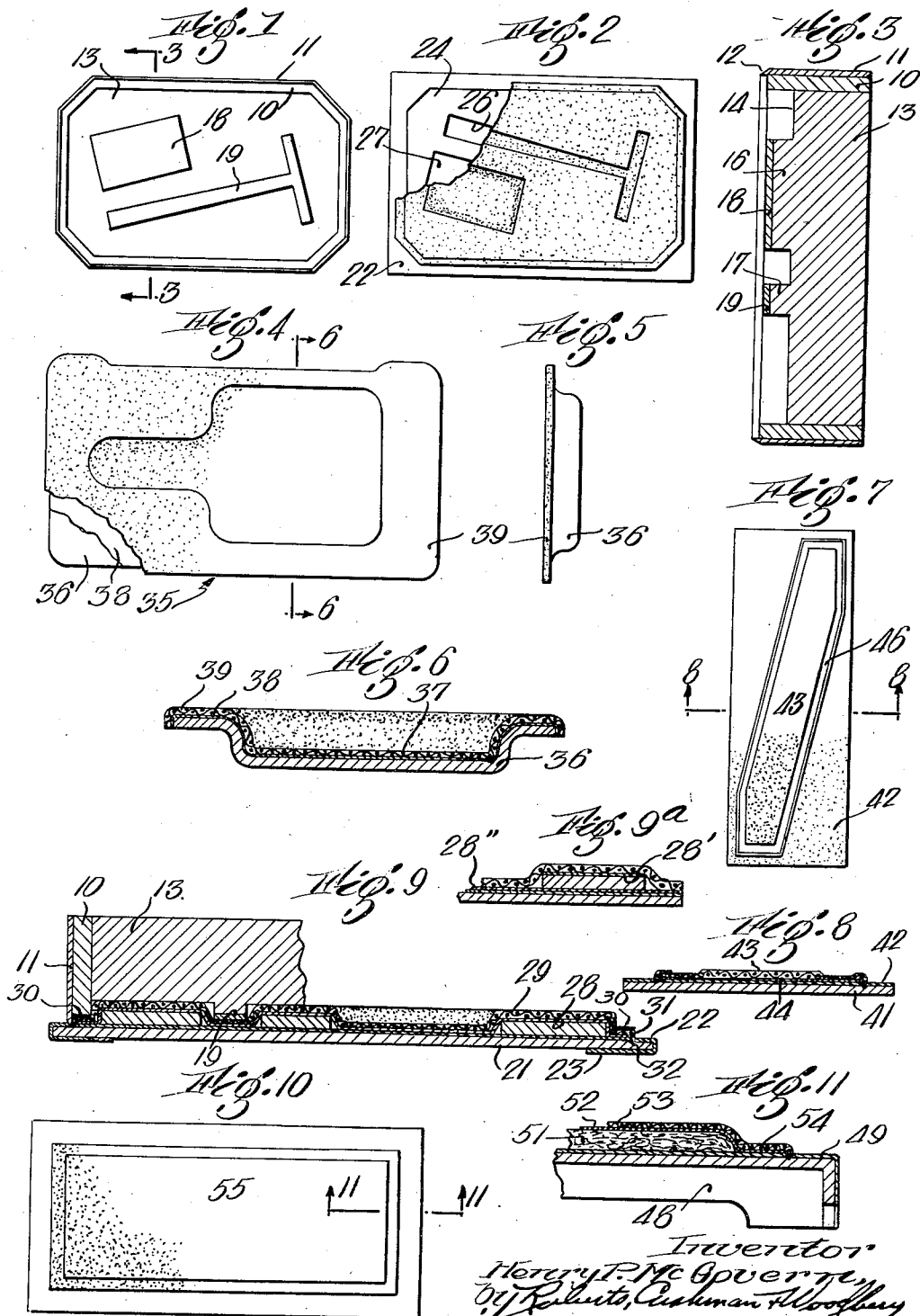
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INLAY PAD AND MEANS FOR AND METHOD OF MAKING THE SAME

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INLAY PAD AND MEANS FOR AND METHOD OF MAKING THE SAME

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This invention relates to means for making covered articles and to the art of covering articles with fabric or other suitable material as well as to covered articles of the general type comprising a base and covering material affixed thereto. Book covers and display or inlay pads are representative of articles of this general class. These pads frequently have recesses or depressions to receive various articles, particularly pieces of jewelry, safety razors and the like, and in many instances the pad itself constitutes a part of a container, as the body portion of a box or a removable tray for the same. A great variety of covering materials are commonly used for covering such articles, the materials more frequently used for this purpose being plush and like fabrics and also various kinds of leathers. It is customary to attach the covering material to the base member by means of a suitable adhesive or binder applied between these parts.

It is important, however, that the free, severed edge of the covering material be protected to avoid fraying and preferably concealed so that in any event it can not detract from the appearance of the completed article. While various ways have been devised for accomplishing this result, such for example as folding under the marginal portion of the covering material and laying this folded edge against the upper surface of the base member, or again by folding the marginal portion around the edge of the base, such modes of procedure involve operations which are somewhat tedious and expensive to carry out. Obviously in a product of this character, uniformity and precision of workmanship in arranging this edge portion are required. Furthermore, as products of this kind have various shapes and contours, it is advantageous to stamp out the sheets or strips of covering material to the required configuration by means of dies.

Objects of the present invention are to improve the art of making covered articles so as to simplify as well as to expedite the process of forming and attaching the covering material to the base of an article of the class referred to; to provide for combining the op-

eration of cutting the covering material to the desired shape and attaching the covering material to an article of the class described; to provide for performing these operations at a single stroke; to provide for cutting the covering material, attaching the latter to the base member of an article and effectively concealing and securing the free, severed edge thereof; to provide for combining with these operations the step of impressing metallic or other decorative material upon the article; to provide improved means for performing these operations; and also to provide an article of the class described having an improved construction and arrangement of parts.

In the drawings:

Fig. 1 is a bottom plan view of a die;

Fig. 2 is a top plan view of a pad with a portion of the covering material broken away;

Fig. 3 is an enlarged section taken substantially along the line 3—3 of Fig. 1;

Fig. 4 is a top plan view of another form of pad with a portion of the covering material broken away;

Fig. 5 is an end view of the pad shown in Fig. 4;

Fig. 6 is an enlarged section taken substantially along the line 6—6 of Fig. 4;

Fig. 7 is a top plan view of another form of pad;

Fig. 8 is a section taken substantially along the line 8—8 of Fig. 7;

Fig. 9 is a vertical section showing a portion of the die superimposed on a pad of the type shown in Fig. 2 in the process of making the same;

Fig. 9^a is a detail view of a modification of the pad shown in Fig. 9;

Fig. 10 is a top plan view of a further modified form of pad; and

Fig. 11 is an enlarged section taken substantially along the line 11—11 of Fig. 10.

The die shown in Fig. 1 of the drawings comprises a substantially continuous band 10 preferably of material having good heat conductivity, such as brass, and an outer steel band 11 having a sharp cutting edge 12 (Fig. 3) protruding below the lower squared edge

of the band 10. These continuous bands are secured together in any approved manner and the body portion 13 is formed within the inner band 10 preferably by being cast therein. This body portion is so formed that the surface 14 thereof is spaced inwardly from the edge of the band 10. The raised portions 16 and 17 protrude from the surface 14 and preferably carry plates 18 and 19 of heat conducting material such as copper.

The pad shown in Figs. 2 and 9 comprises a base member 21 which may be of cardboard or other suitable material and which is preferably covered with a sheet of paper 22, the paper being turned over the edge and attached at 23. A suitable filler 24, which may be either soft or hard, is disposed on the upper surface of the base and is provided with recesses 26, 27 which are preferably in the form of openings extending through the filler to receive the raised portions 16 and 17 of the die shown in Fig. 1.

In the process of making the pad shown in Figs. 2 and 9 the filler 24 is placed upon the base in the proper position and a coating of adhesive, preferably a sheet of thermoplastic material 28 is laid over the filler and a sheet of covering material 29 such as plush, for example, is laid on the sheet of thermoplastic material. The die 13 shown in Fig. 1 is then brought down on the pad in such a manner that the raised portions 16 and 17 will register with and be received in the recesses 26 and 27 of the filler, this operation serving to press the covering and the thermoplastic material into these recesses as shown more clearly in Fig. 9. During this operation the lower edge of the band 10 presses the outer marginal portion 31 of the covering material down against the base member and the knife edge 12 severs the covering material as well as the thermoplastic material and is pressed into the base member to form a cut or score 32 therein. Previous to performing this operation, the plates 18 and 19 and the lower portion of the band 10 are heated so that when these members come in contact with the covering material 29, they will be effective to transfer heat to the thermoplastic material 28 and also to press the covering material and the thermoplastic material against the base member thereby rendering the thermoplastic material effective for securing these parts together. During this procedure any of the lower surfaces of the die may be utilized for printing or otherwise applying a decorative coating to portions of the pad. As shown in Figs. 2 and 9 a band 30 of decorative material, such as gold leaf, is impressed around the marginal portion of the covering material by the lower surface of the band 10 of the die. The knife edge 12 also functions to tuck in and embed the free severed edge of the covering mate-

rial in the base member so as to secure this free edge portion to the base by impressing it into the score 32, the thermoplastic material also being effective to assist in securing this free edge portion. It will be seen that the covering material may be cut in this manner to any desired configuration and may be attached to the base of the pad and have the free, raw edge of the covering material secured and concealed from view by a single stamping operation.

In some cases it is advantageous, instead of using a substantially continuous layer or coating of adhesive material 28, to provide independent upper and lower sheets or layers preferably of thermoplastic material. As shown in Fig. 9^a, the upper layer 28' is disposed only on the upper surface of the filler 24 and another layer or sheet 28'' is disposed on the base member contiguous to the adjacent surface of the filler and also of the covering material where the latter is disposed in the recesses. Both of these layers receive heat from the die during the forming operations so that the lower layer forms a bond between the base and the covering material which is pressed into the recesses while the upper layer becomes effective to secure the covering material to the upper surface of the filler. If sufficient heat is applied the lower layer of thermoplastic material also serves to bond the filler directly to the base. It will be seen therefore that whether one layer of thermoplastic or other adhesive material is used, as in Fig. 9, or two layers 28', 28'', as in Fig. 9^a, the covering material may nevertheless be attached to the filler and, in the recesses, to the base member by a single operation of the die.

The pad 35 shown in Figs. 4, 5 and 6 is adapted to be used as a removable tray for a box in which the side walls project slightly above the edges of the base member or at least to a height to conceal these edge portions. This pad comprises a base member 36 having a depression 37 therein. A layer of adhesive, preferably of thermoplastic material 38 is laid over the base 36 and a sheet of covering material 39 is arranged above the thermoplastic material. This pad is then formed by a single operation in the same manner as the pad shown in Figs. 2 and 9 with the obvious exception that the parts of the die are arranged to be complementary to the shape and configuration of the pad being completed. The knife edge of the die severs the covering material and the thermoplastic material and impresses this covering material into the outer edge portion of the base member 36 so as effectively to secure this free severed edge of the pad to the edge of the base member by means of the adhesive material 38 as well as by embedding this free edge into the outer edge of the base member.

The pad shown in Figs. 7 and 8 comprises

a base member 41 having a decorative covering 42 thereon and the pad proper comprises a strip of covering material 43 which is laid over a sheet of adhesive material 44 and affixed to the base member 41 in the same manner as employed in making the pad shown in Fig. 2, the free severed edge of the covering material 43 being embedded in and affixed to the base member 41 as clearly shown in Fig. 8. The die used in forming this pad differs from the one shown in Figs. 1 and 3 in that parts corresponding to the raised portions 16 and 17 are omitted and the knife edge 11 and the heating band 10 follow the proper contour to produce a pad of the shape shown in Fig. 7. This pad also has a metallic or other band 46 of decorative material such as gold leaf, for example, impressed around the marginal portion of the covering material 43 by the lower edge of the part 10 of the die.

The pad shown in Figs. 10 and 11 comprises a base member in the form of a relatively low platform 48 which may have its upper surface covered with paper 49. In this form of pad a sheet of covering material 53 is laid over a sheet of adhesive material 52, the latter being disposed over the filler 51 which rests upon the base member. The adhesive and the covering material extend laterally over the base member beyond the edges of the filler so as to form a marginal portion 54 around the pad. The free edge of the covering material is secured and concealed in the same manner as in the previous modifications. This form of pad differs essentially from previous modifications in that it is free from any recesses and consists of a raised portion 55 adapted to receive articles to be displayed.

The use of thermoplastic material as shown herein in connection with certain aspects of the invention is disclosed and claimed in the copending application of William J. McNally, Serial No. 489,325, filed Oct. 17, 1930.

It should be understood that the present disclosure is for the purpose of illustration only and that this invention includes all modifications and equivalents which fall within the scope of the appended claims.

I claim:

1. A covered article comprising a base, and a sheet of covering material disposed above the base and having an edge portion thereof embedded in the base.

2. A covered article comprising a base and a sheet of fabric covering material having a marginal portion thereof sealed to the base, the free edge of the marginal portion being embedded in the base.

3. A covered article comprising a base, a sheet of covering material having a marginal portion thereof affixed to the base, the free edge of the marginal portion being embedded in the base, and a coating affixed on the outer surface of the marginal portion.

4. A covered article comprising a base hav-

ing a score therein and a strip of fabric covering material having a free edge portion thereof impressed in the score.

5. A covered article comprising a base having a score therein and a strip of covering material having a free edge portion thereof affixed in the score below the surface of the base.

6. A covered article comprising a base and a sheet of covering material affixed thereto, the covering material having a free edge portion thereof tucked downwardly below the surface of the base and in a direction approximately normal to said surface.

7. A pad comprising a base, a filler supported by the base and having recesses therein, and covering material overlying the filler and affixed in said recesses, the covering material having a free edge portion thereof embedded in the base.

8. The method of affixing covering material to a base to form a covered article which comprises cutting the covering material to the desired shape and pressing the raw edge of the covering material downwardly below the surface of the base.

9. The method of affixing covering material to a base to form a covered article which comprises simultaneously severing the covering material to the desired pattern and pressing the severed edge of covering material below the surface of the base.

10. The method of affixing covering material to a base to form a covered article which comprises simultaneously severing the covering material and affixing the raw, severed edge of the covering material in the base below the surface thereof.

11. The method of making a covered article which comprises arranging covering material over a base and simultaneously severing the covering material, affixing the raw, severed edge of the covering material in the base below the surface thereof, and applying a decorative coating to the article during the affixing operation.

12. Means for affixing fabric and like covering material to a base member, comprising a central body portion and knife edge extending along the side of the body and protruding below the same for severing the covering material and embedding the raw, severed edge of the covering material in the base member, the knife edge being rigid with the body portion.

13. Means for affixing fabric and like covering material to a base member, comprising a central body and a band extending substantially entirely around the side and end walls of the central body and rigid therewith, the lower edge of the band being sharpened for severing fabric and like material, this sharpened lower edge being arranged to protrude below the lower surface of the cen-

tral body a sufficient distance to sever the covering material and to embed the raw severed edge of the covering material in the base member.

5 Signed by me at Framingham, Mass., this fifteenth day of October, 1930.

HENRY P. McGOVERN.

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