Dec. 22, 1931. A. O. SAMUELS 1,838,003

METHOD OF MAKING METALLIC SHELLS

Filed July 22, 1931

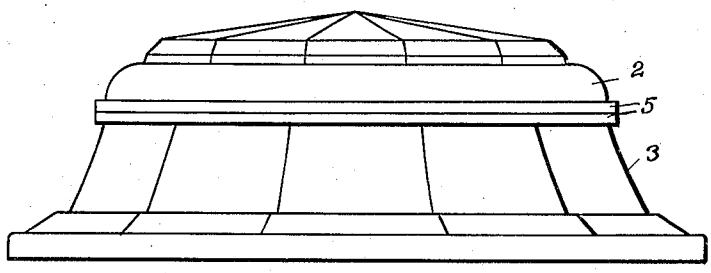


FIG. 1.

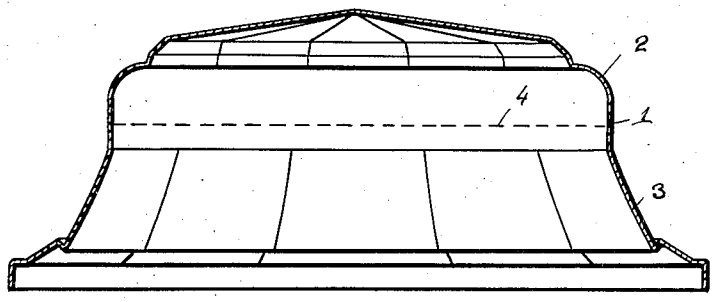


FIG. 2.

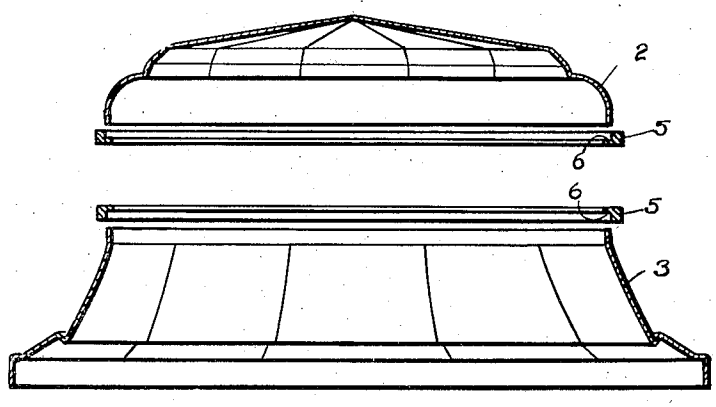


FIG. 3.

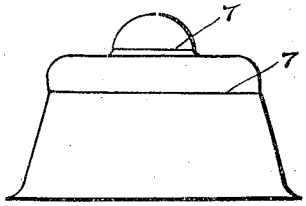


FIG. 4.

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UNITED STATES PATENT OFFICE

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METHOD OF MAKING METALLIC SHELLS

Application filed July 22, 1931. Serial No. 552,464.

This invention relates to methods of forming metallic shells for use in the construction of waffle irons or other apparatus having a housing made up of a plurality of shells and the object of this invention is to provide an improved method of making such shells by means of which the cost of manufacture thereof is materially reduced.

Another object of this invention is to permit the finishing of the outside of the shells in a single unit because such a unit can be more efficiently handled for the finishing operation.

Other objects and attendant advantages will become more readily apparent from the detailed description of the invention, reference being had to the accompanying drawings in which

Figure 1 is an elevation of a housing for a waffle iron made up in accordance with the new method.

Figure 2 is a vertical sectional view of the shell as it is made in the first step of the method.

Figure 3 is a similar sectional view of the shell after it has been divided to form the body and the cover of the housing.

Figure 4 is a sectional view of a shell illustrating how the same method may be used to produce a housing made of more than two sections.

In the figures like reference numerals indicate like parts.

The method of making metallic shells for housings of electrical or other apparatus and utensils of all kinds forming the subject matter of this invention not only reduces the initial cost of making the shell but it also permits the handling of it during any operation so that it can be done more rapidly and with more ease. The outline and general shape of a housing made in accordance with this invention need not be like the one shown in the drawings as any shell or housing having an open bottom with a cover for the top may be made in accordance with this invention.

Heretofore such housings were either stamped or drawn separately in two parts, the body proper having both its top and bottom open and the cover having only its bottom open. In making the body section separately, the center portion of the blank from which this section is formed up is stamped out. This means that for every body section made separately there is a large wasted center section which can only be used as scrap material. In my present invention this otherwise wasted center material is utilized for the cover section and the body and cover are formed up in a single operation, eliminating all waste material and shortening the time for making these two sections.

As illustrated in Figure 2 of the drawings the shell is drawn up or formed in a single piece. The top section 2 is severed from the body section 3 along the dotted line 4 at an intermediate point 1 so that the cover and body sections appear as illustrated in Figure 3. In the manufacture of the housing illustrated in Figures 1 to 3, the edge of the open bottom of the cover section 2 and the edge of the open top of the body section 3 are finished off by adding to each of them a flange 5. This flange is preferably made up of a casting and is provided with an annular groove 6 into which the open ends of the cover and body section are adapted to telescope to permit them to be suitably fastened thereto. In this way the severed ends of the cover and body section are simultaneously finished off and reinforced.

When the outside of the housing is to be finished it is done before the cover section and the body section are severed. Thus if the housing is to be subjected to a polishing operation this operation is performed while the sections are still in a single unit in the form of a shell which is closed at the top and open at the bottom. The workman is thus able to handle the shell with more ease during the polishing operation so that this operation can be done quicker and better than if the two sections had to be handled separately. Furthermore forming the cover with the body in a single unit will keep the body and cover sections rigid so that they cannot be bent out of shape at their ends but will retain their original shape and when

finished will fit together in the manner desired.

In Figure 4 I have shown a shell which is to used for a housing made up in three sections, a top, center and bottom section and it will be apparent from this and the other figures that my invention may be readily adapted for use in the manufacture of housings having any number of sections. In Figure 4 reference numeral 7 indicates the dividing lines between the several sections.

I claim:

1. The method of making thin metallic housings made up of two sections adapted to be supported one on top of the other, which consists in simultaneously forming two sections in a single shell and then severing one section from the other at a point intermediate of the single shell, and finishing and reinforcing the cut edges of the sections by telescoping a pair of wide, overhanging and opposing flanges over the sections to provide supporting bearing surfaces between the sections.

2. The method of making thin metallic housings made up of two sections adapted to be supported one on top of the other, which consists in simultaneously forming two sections in a single shell and then severing one section from the other at a point intermediate of the single shell, and finishing and reinforcing the cut edges of one of the sections by telescoping a wide, overhanging flange over one of the sections to provide a supporting bearing surface for the other section.

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