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ATTACHABLE PLATE AND METHOD OF MAKING THE SAME.

APPLICATION FILED JULY 25, 1921.

1,425,841. Patented Aug. 15, 1922.

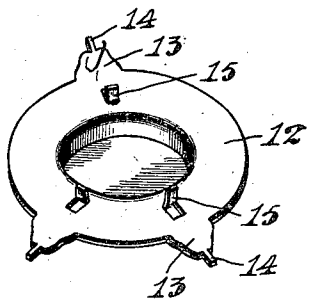


Fig.1.

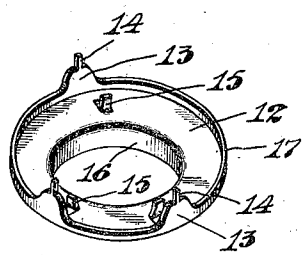


Fig.2.

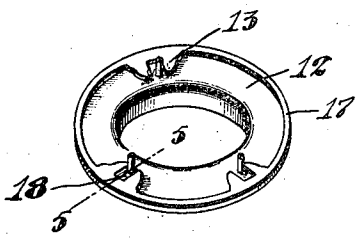


Fig.3.

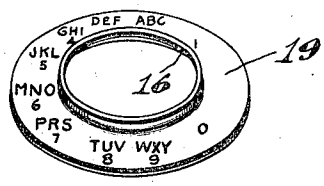


Fig.4.

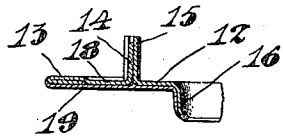


Fig.5.

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ATTACHABLE PLATE AND METHOD OF MAKING THE SAME.

1,425,841. Specification of Letters Patent. Patented Aug. 15, 1922.

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To all whom it may concern:

Be it known that I, FRANK G. DAVISON, a citizen of the United States, and resident of Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Attachable Plates and Methods of Making the Same, of which the following is a specification.

This invention relates to sheet metal plates employed for the purpose of exhibiting legible characters on one surface and which have pins or so-called "feet" projecting from the other surface to enable the plate to be attached to another member. Such plates are employed for clock and watch dials, telephone number disks, and elsewhere such as signs or name plates at the entrance of office buildings.

Plates of the type referred to and most commonly in use are made of sheet metal such as copper, to the back of which the pins or "feet" are secured by soldering. This method of production is expensive and requires great care to ensure correct location of said feet.

The object of the present invention is to provide improved plates which, while having the same appearances as those now in use, are comparatively inexpensive and also stronger. With this object in view the invention consists in a plate having pin-shaped feet which are integral therewith without leaving any irregularities in the surface of the portion of the plate which carries the usual enamel.

Another object of the invention is to provide plates with integral pins or feet which are self-bracing against lateral displacement or bending. This object is accomplished by bending separate but adjacent tongues of the metal into contact with each other and interlocking them. Preferably the interlocked portions of each pair of tongues are so treated as to present a pin or foot which is round in cross section.

In the accompanying drawings which illustrate one form of plate constructed according to my invention, which plate is designed for use around the transmitter mouth piece of an "automatic exchange" telephone,

Figures 1, 2, 3 and 4 are perspective views illustrating different conditions of the article during its manufacture and

Figure 5 represents a section on line 5—5 of Figure 3 on a larger scale.

Similar reference characters designate similar parts of the article in all of the views.

The plate 12, which may be of any size or configuration according to the use to which it is to be put, is stamped or otherwise cut from suitable material such as sheet copper, and when so made the requisite number of marginal projections or tongues are formed, such as illustrated in Figure 1. Each of the tongues or projections comprises a wide portion 13 integral with marginal portions of the plate and terminating in a narrow tip 14 and said tongues or projections are so spaced relatively to each other, and are of such length that when they are altered in shape and interlocked with the lips 15 as presently described the plate will have the required number of feet extending downwardly from the back thereof at the proper distance in from its margin.

The lips are preferably formed by cutting the plate and bending rectangular portions 15 which are integral with inner portions of the plate as indicated in the drawings, and said lips are so located as to properly register with the tongue tips 14 for interlocking them as presently described. In other words, the members 14 and 15 are integral with the plate at different portions of the latter.

In the particular embodiment of the invention illustrated, the plate is stamped to the form shown in Figure 1, and the central portion then cut out so as to leave a circular wall 16 (Fig. 2), and the extreme edge 17 of the plate is bent in a direction opposite to the direction in which the wall 16 stands. The bending of the edge 17 carries the marginal tongues 13, 14 with it. A continuation of the bending of the edge 17 and the tongues in an inward direction brings the narrow tips 14 into contact with the outer faces of the lips 15, and by further operations the lips 15 are wrapped around the tongue tips 14 (Figs. 3 and 5) so as to interlock therewith and form pins or feet standing perpendicular to the plate. Mid-width portions of the tongues are pressed into the holes resulting from the cutting and bending up of the lips 15, so as to fill said holes and cause that surface which is to carry enamel 19 to be smooth. The displaced areas of the tongues which fill the holes are indicated at 18 in Figures 3 and 5.

Preferably the tongue tips 14 are of

slightly less length than the lips 15 so that when the latter are wrapped around the former each pin or foot has a recess in its end as indicated in Figure 5. Then when the plate is to be attached to something which is of less thickness than the height or length of the pins, the cylindrical ends of the portions 15 beyond the ends of the members 14 can be enlarged, or flared out by any suitable tool to clinch the plate in secure position.

It will now be understood that the plate is readily and cheaply made with its pins or feet accurately located, and that the finished article is strong since each of the feet is composed of a plurality of members integral with outer and inner portions of the plate itself. An important feature is that although the feet are integral with the plate, the face which is to carry the enamel presents no uneven or irregular areas.

Having now described my invention, I claim:

1. A plate having feet each of which is composed of a plurality of interlocked members integral with the plate at different portions of the latter.

2. A plate having feet each of which is composed of interlocked members integral with outer and inner portions of the plate.

3. A plate having feet composed of tongues integral with marginal portions of the plate and lips integral with inner portions of the plate, said lips enclosing portions of said tongues.

4. A plate having feet composed of tongues integral with marginal portions of the plate and lips integral with inner portions of the plate, said lips enclosing portions of said tongues, the lips being of greater length than the portions of the tongues enclosed therein.

5. A plate having feet composed of tongues integral with marginal portions of the plate and lips integral with inner portions of the plate, portions of the tongues being displaced to substantially fill the openings caused by the formation of said lips.

6. The method of making an attachable plate, consisting in forming a blank comprising a plate having marginal extensions and inner lips, and then bending said marginal extensions inwardly and interlocking portions thereof with said lips.

7. The method of making an attachable plate, consisting in forming a blank comprising a plate having marginal extensions and inner lips, and then bending said marginal extensions inwardly and bending said lips around portions of said extensions.

In testimony whereof I have affixed my signature.

FRANK G. DAVISON.