

May 23, 1961

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2,985,377

TOILET BOWL DEODORIZERS

Filed Jan. 29, 1958

2 Sheets-Sheet 1

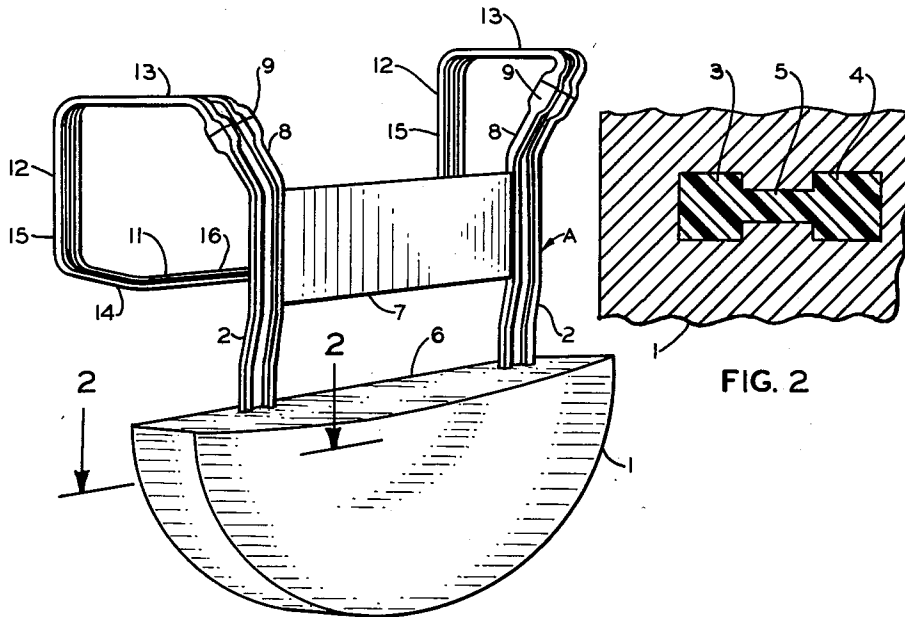


FIG. 1

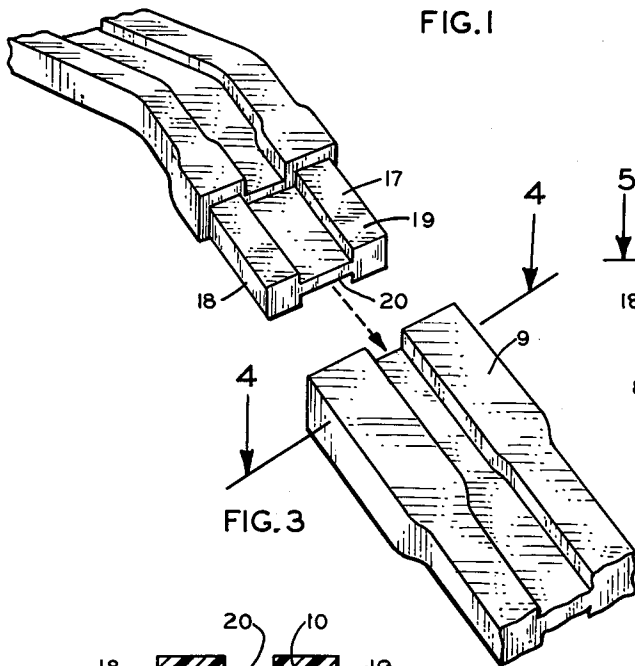


FIG. 3

FIG. 4

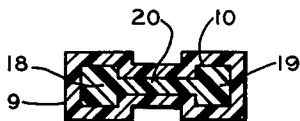


FIG. 5

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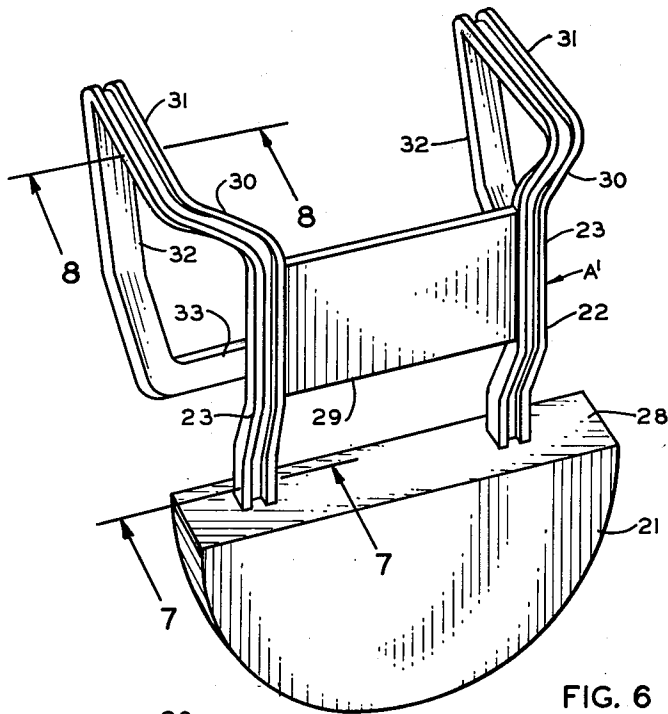


FIG. 6

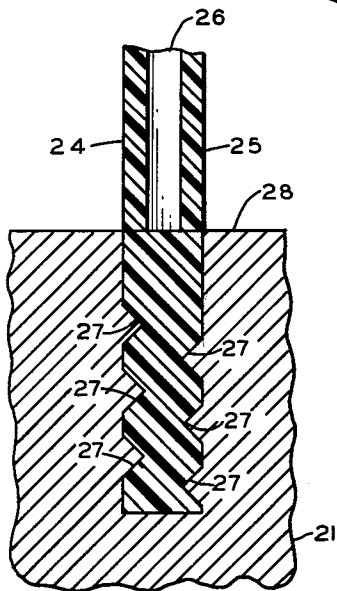


FIG. 7

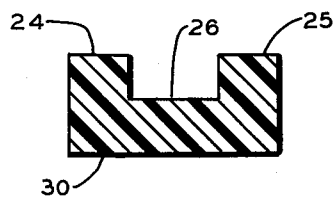


FIG. 8

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**TOILET BOWL DEODORIZERS**

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4 Claims. (Cl. 239—57)

This invention relates to toilet bowl deodorizers and holders therefor.

It has become a common practice in households to place deodorizers in and around toilet bowls. These deodorizers ordinarily consist of a block of paradichlorobenzene, which is held within the toilet bowl by a wire bracket fitted over the rim of the toilet. In the manufacture of the deodorizers, the block is molded with the wire embedded therein and, thereafter, the wire is bent so as to conform to the shape of the rim of the toilet bowl. The wire is usually of ordinary steel since it is generally uneconomical to employ high cost corrosion resistant alloys, such as stainless steel and the like, with the result that, in time, the wire tends to rust and become unsightly in appearance. Moreover, since the wire contacts the toilet bowl, there is a tendency for rust spots to form on the porcelain of the toilet bowl. Furthermore, the gray color of the wire is not particularly attractive as it does not conform to the general decor of the bathroom.

It is, therefore, one of the objects of the present invention to provide a toilet bowl deodorizer which is rust and corrosion free.

It is also an object of the present invention to provide a toilet bowl deodorizer which can be made in a variety of colors and is, therefore, capable of conforming to the general decor of the bathroom.

It is a further object of the present invention to provide a toilet bowl deodorizer of the type stated which is relatively economical to manufacture.

With the above and other objects in view, my invention resides in the novel features of form, construction, arrangement, and combination of parts presently described and pointed out in the claims.

In the accompanying drawings—

Fig. 1 is a perspective view of a toilet bowl deodorizer constructed in accordance with and embodying the present invention;

Fig. 2 is a fragmentary sectional view, on an enlarged scale, taken along line 2—2 of Fig. 1;

Fig. 3 is an exploded perspective view, on an enlarged scale, showing a portion of the mounting bracket forming a part of the present invention;

Fig. 4 is a fragmentary sectional view taken along line 4—4 of Fig. 3 showing the parts of the mounting bracket connected together;

Fig. 5 is a fragmentary sectional view taken along line 5—5 of Fig. 4;

Fig. 6 is a perspective view showing a modified form of toilet bowl deodorizer; and

Figs. 7 and 8 are fragmentary sectional views, on an enlarged scale, taken along lines 7—7 and 8—8, respectively, of Fig. 7.

Referring now in more detail and by reference characters to the drawing, which illustrates a practical embodiment of the present invention, A designates a toilet bowl deodorizer comprising a semi-circular block 1 of paradichlorobenzene having embedded therein a pair of spaced

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substantially parallel arms 2, 2, formed of flexible, low impact strength molded polystyrene or other suitable plastic material. The arms 2, 2, are firmly embedded in the block 1 during molding thereof, and consist of spaced parallel ribs 3, 4, which are connected by a thin web 5. As seen by reference to Fig. 1, the arms 2, 2, extend upwardly from the upper flat face 6 of the block 1 and are cross connected by a plate 7, the latter being integrally molded with the arms 2, 2, and spaced upwardly from the face 6. The plate 7 imparts structural rigidity to the arms 2, 2, and also may be used to conveniently display legible indicia, such as the name or trademark of the manufacturer.

Upwardly of the plate 7, the arms 2, 2, are bent in the provision of upwardly and rearwardly diverging connecting portions 8, 8, which terminate in somewhat enlarged sockets 9, 9, each formed with a recess 10 having a cross-sectional shape and size similar to that of the ribs 3, 4, and web 5. Provided for cooperation with the arms 2, 2, is a molded plastic bracket member 11 preferably of the same material and contour as the arms 2, 2, and comprising a pair of U-shaped sections 12, 12, having upper legs 13, 13, and lower legs 14, 14, joined together by bights 15, 15. At their forward ends, the lower legs 14, 14, are joined by a connecting spar 16, and the forward ends of the upper legs 13, 13, are bent to form downwardly and forwardly converging plug-like extensions 17, 17, which include ribs 18, 19, connected by a web 20. The extensions 17, 17, are companion-shaped with the recesses 10 and fit snugly and retentively therein, as best seen in Figs. 4 and 5.

The bracket member 11 is molded as one piece separately from the arms 2, 2, and block 1, and prior to insertion of the plug-like extensions 17, 17, in the recesses 10, the extensions 17, 17, are dipped in a suitable solvent or adhesive so as to tackify the outer surfaces thereof and immediately inserted into the recesses 10. Upon drying of the solvent or adhesive, a strong interface bond will be formed between the extensions 17, 17, and the walls of the recesses 10. Moreover, the ribs 18, 19, and connecting web 20 form a plug-like extension 17, which provides a structurally strong connection within the recesses 10 which is resilient and will not break, shatter or otherwise separate from the recesses 10 during use. At the same time, the arms 2, 2, and bracket member 11 form a relatively flexible holder for the block 1, which can be flexed to conform to the shape and size of the toilet bowl so as to hold the block 1 snugly and retentively in place.

The bracket member 11 and arms 2, 2, may be of a variety of colors, and since the bracket member 11 is permanently attached to the arms 2, 2, after the block 1 has been molded therearound, the bracket member 11 does not produce a cumbersome extension which would interfere with the molding of the block 1.

It is also possible to provide a modified form of toilet bowl deodorizer A', as shown in Figs. 6—8, which comprises a block 21 of paradichlorobenzene and a holder 22 molded of somewhat flexible, low impact strength polystyrene or similar plastic material. The holder 22 is molded in one piece and comprises spaced parallel depending arms 23, 23, which are formed by spaced parallel ribs 24, 25, connected by a thin web 26. At their lower ends, the arms 23, 23, are embedded in the block 21 and are provided with notches 27 for enhancing the molded interlocking engagement of the holder 22 and block 21. The arms 23, 23, extend upwardly from the upper surface 28 of the block 21 and are integrally joined by a flat plate 29, the latter being similar to and for the same purposes as the plate 7, previously described.

Upwardly of the plate 29, the arms 23, 23, are bent

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to provide rearwardly diverging portions 30, 30, which merge into parallel legs 31, 31, the latter terminating in spaced parallel rear arms 32, 32. The arms 32, 32, extend somewhat forwardly toward the arms 23, 23, and are integrally cross-connected at their lower ends by a bight 33.

During molding of the block 21 around the lower end of the arms 23, 23, the legs 31, 31, rear arms 32, 32, and bight 33 may be readily pulled out of the way since the entire one-piece holder 22 is of sufficient flexibility and resiliency and can, therefore, be easily flexed or bent in the region of the mold. Upon completion of the block-molding operation, the legs 31, 31, rear arms 32, 32, and bight 33 will spring back to its normal position shown in Fig. 6, so as to provide a holder 22 of sufficient rigidity to support the block 21 and hold it snugly in place adjacent the rim of the toilet bowl.

It should be understood that changes and modifications in the form, construction, arrangement, and combination of the several parts of the toilet bowl deodorizers may be made and substituted for those herein shown and described without departing from the nature and principle of my invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A toilet bowl deodorizer comprising a block capable of giving off vapor, a holder having a pair of arms embedded in and projecting outwardly from said block, said holder consisting of flexible, low impact strength polystyrene, each of said arms including a pair of spaced beads integrally connected by a web, said arms being substantially larger in width than in depth and projecting from the block in spaced relation with the beads and webs being facewise presented and co-planar, and a plate of low impact strength polystyrene integrally connected to and joining said arms and extending between the complementary beads on the spaced arms.

2. A toilet bowl deodorizer comprising a block capable of giving off a deodorizing vapor, a holder of low impact strength polystyrene for said block, said holder comprising a pair of spaced-apart arms extending upwardly away from the block each of said arms including a pair of spaced beads integrally connected by a web, said arms continuing into outwardly diverging sections which in turn continue into angularly bent top sections lying in a plane substantially perpendicular to the plane of the diverging sections, the top sections in turn con-

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tinuing into downwardly extending rear sections which are connected at their ends by a transversely extending bight portion, and a plate integrally connected to and extending between said arms, said rear portions adapted to be flexed away from the arms under a force and to return toward said arms when the force is removed.

3. A toilet bowl deodorizer comprising a block capable of giving off a deodorizing vapor, and a holder of low impact strength polystyrene for said block, said holder being an integral unit and comprised of a pair of spaced-apart arms each of which includes a pair of beads connected by a web, top sections extending substantially perpendicular to the plane of the arms, rear sections extending from the top sections and spaced from the arms, a bight portion extending between the rear sections at a location away from the top sections, and a plate extending between the arms, said rear portions adapted to be flexed away from the arms under a force and to return toward said arms when the force is removed.

4. A toilet bowl deodorizer comprising a block capable of giving off a deodorizing vapor, a holder of low impact strength polystyrene for said block, said holder being an integral unit and comprised of a pair of spaced-apart arms, means on the arms for holding the arms imbedded in the block, means along the arms for adding rigidity to the arms, top sections extending substantially perpendicular to the plane of the arms, rear sections extending from the top sections and spaced from the arms, a bight portion extending between the rear sections at a location away from the top sections, and a plate extending between the arms, said rear portion adapted to be flexed away from the arms under a force and to return toward said arms when the force is removed.

#### References Cited in the file of this patent

##### UNITED STATES PATENTS

D.104,077	Miller	Apr. 13, 1937
2,011,732	Saeks	Aug. 20, 1935

##### FOREIGN PATENTS

798,387	France	Mar. 10, 1936
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##### OTHER REFERENCES

"Plastic Fasteners" (Cathcart), from Fasteners, volume 10, Number 2, 1955, pages 3 and 4 relied on.