Sept 10, 1957 B. J. BREZOSKY 2,805,826

WASTE DISPOSAL APPARATUS

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FIG. 1

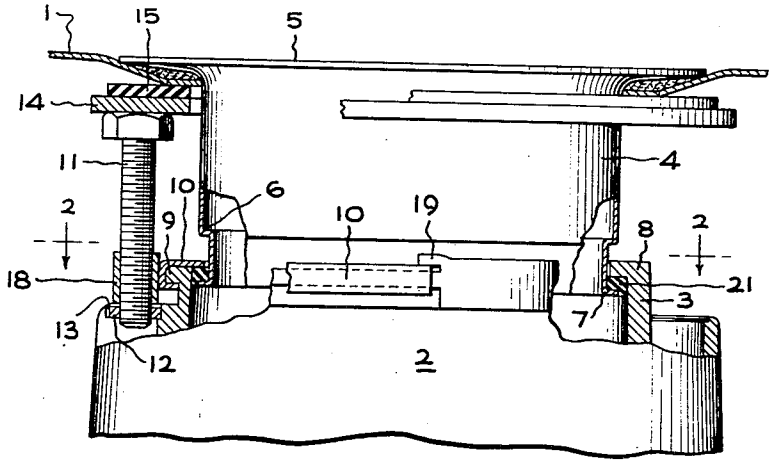
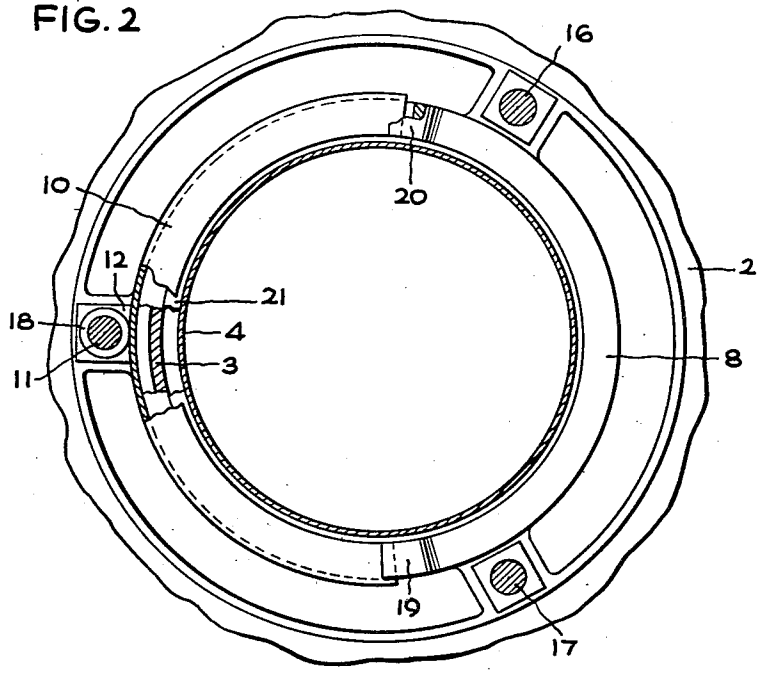


FIG. 2



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WASTE DISPOSAL APPARATUS

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2 Claims. (Cl. 241—100.5)

This invention relates to waste disposal apparatus of the type having mechanism for grinding and discharging waste material into a plumbing system and adapted to be mounted below a sink drain opening, and has as its principal object the provision of an improved mounting arrangement for securing such apparatus to the sink.

Further objects and advantages of the invention will become apparent as the following description proceeds, and the features of novelty which characterize the invention will be pointed out with particularity in the claims annexed to and forming a part of this specification.

Briefly stated, in accordance with one aspect of my invention, I provide a food waste disposer having a housing including an upper inlet opening, a sleeve disposed in the sink drain opening and adapted to support the housing, a flange on the housing projecting inwardly along a portion of the marginal edge surrounding its inlet opening and adapted to engage a flange on the lower end of the sleeve, and locking means for securing the two flanges in engagement.

For a better understanding of my invention, reference may be made to the accompanying drawing in which:

Fig. 1 is a fragmentary elevation view, partly in section and with some parts broken away, of waste disposal apparatus constructed in accordance with my invention.

Fig. 2 is a sectional view taken along the line 2—2 in Fig. 1.

Referring to the drawing, the numeral 1 designates the bottom wall of a kitchen sink having a drain opening below which waste disposer 2 may be supported. Waste disposer 2 includes a housing 3 enclosing a comminuting chamber (not shown) and a tubular sleeve member 4 disposed in the sink drain opening so as to support housing 3 and provide a passage between the sink and the comminuting chamber enclosed by housing 3. Waste disposer 2 is, of course, provided with suitable comminuting or grinding means at the bottom of the comminuting chamber and supported on housing 3, but inasmuch as the details of the grinding mechanism do not form a part of the present invention, they are not described herein. The upper inlet opening defined by sleeve member 4 may be closed by any suitable drain stopper (not shown) which may be of the type adapted to seat on flange 5 at the upper end of sleeve 4 or on a seat 6 within sleeve 4 if it is desired that the stopper not project above the bottom wall of the sink.

It will be observed that housing 3 has a circular top inlet opening aligned with the sink drain opening, and that sleeve 4 not only provides a passageway from the sink to the interior of the housing but also supports the housing by means of novel interlocking flange structure now to be described. Formed on the lower end of sleeve 4 is an outwardly projecting flange 7 adapted to be disposed within the top inlet opening of housing 3. Cooperating with flange 7 is an inwardly projecting flange 8 positioned along a semi-circular portion of the marginal edge of the housing surrounding its top inlet opening and adapted to be secured in overlapping engagement with

flange 7. Housing 4 is also provided with an outwardly projecting flange 9 extending along the portion of the marginal edge of its top inlet opening not occupied by flange 8. Thus waste disposer 2 may be supported on sleeve 4 by positioned housing 3 so that flange 8 overlaps flange 7 and the structure may be secured together by suitable clamping means engaging flange 9 and the portion of flange 7 adjacent thereto. Thus in the illustrated form of my invention, I provide a semi-circular clamp member 10 having a pair of spaced flange portions engageable with flanges 7 and 9 respectively so as to support flange 9 on flange 7 and thus securely support housing 3 around the entire periphery of its top inlet opening.

To prevent lateral displacement of housing 3 with respect to sleeve 4, suitable locking means for securing clamp member 10 in the position shown in the drawing are provided, and as illustrated therein, a clamping bolt 11 engageable with housing 3 may be utilized for this purpose. Bolt 11 engages a rectangular nut 12 positioned in a rectangular recess 13 adjacent the top inlet opening and is adapted to bear against a clamping ring 14 encircling sleeve 4 and spaced from the bottom wall of sink 1 by a sealing washer 15. The mounting structure also includes bolts 16 and 17 angularly spaced around the periphery of sleeve 4 at intervals of 120° and similarly arranged to bear against clamping ring 14, it being evident that waste disposer 2 may be securely mounted on sink 1 by tightening bolts 11, 16 and 17 so that the marginal edge of the sink drain opening is clamped between flange 5 of sleeve 4 and clamping ring 14.

Bolt 11 is also provided with a spacer member 18 which rests in engagement with clamping member 10 so as to prevent its lateral movement with respect to housing 3, and thus secures the entire waste disposer mounting assembly against lateral movement. While spacer member 18 and clamp member 10 are shown as separate parts, these may, of course, be formed as a single integral part if desired. To facilitate assembly of clamp member 10 with flanges 9 and 7, flange 8 may be provided with overlapping tongue members 19 and 20 at each end thereof so as to guide and secure the two ends of clamp 10. The joint between flange 7 and flanges 8 and 9 may be conveniently sealed by a gasket element 21, which, of course, will also reduce the transmission of vibration from waste disposer 2 to the sink.

In mounting waste disposer 2 on sink 1, rubber gasket 21 is first placed around the bottom of sleeve 4 in engagement with flange 7, flange 5 is embedded in suitable plastic sealing material placed around the marginal edge of the sink opening, and sealing gasket 15 and clamping ring 14 are located on flange 4 and cocked to hold them in place. Waste disposer 2, with bolts 16 and 17 mounted thereon, is then raised into position with flange 8 overlying a portion of flange 7 and gasket 21; clamping ring 10 may then be inserted into engagement with flange 9 and seated so as to overlie the other semi-circular portion of flange 7 and gasket 21.

Finally, bolt 11 with spacer 18 and nut 12 assembled thereon, is placed in the position shown in Fig. 1 so that nut 12 rests in rectangular recess 13, thus locking clamp member 10 in the position shown. The mounting operation is completed by tightening bolts 11, 16 and 17 against clamping ring 14, thus compressing gaskets 15 and 21 so as to provide fluid tight seals and securing the entire structure against further movement.

While I have shown and described a particular embodiment of my invention, I do not desire the invention to be limited to the particular construction disclosed, and I intend by the appended claims to cover all modifications within the true spirit and scope of my invention.

What I claim is:

1. Waste disposal apparatus for use in connection with a sink having a drain opening comprising a housing enclosing a comminuting chamber having an inlet opening for water and waste material at the top thereof, a sleeve disposed in said drain opening, a first flange on the upper end of said sleeve adapted to overlie the marginal edge of said drain opening, a second outwardly projecting flange on the lower end of said sleeve, a third inwardly projecting flange on said housing positioned along a portion only of the marginal edge surrounding said inlet opening and adapted to be secured in overlapping relationship with said second flange, a fourth outwardly projecting flange extending along the portion of the marginal edge of said inlet opening not occupied by said third flange, a channel member adapted to cooperate with said second and fourth flanges so as to support said fourth flange on said second flange, and means for locking said channel member in cooperative relationship with said second and fourth flanges.

2. Waste disposal apparatus for use in connection with a sink having a drain opening comprising a housing enclosing a comminuting chamber having a circular inlet opening for water and waste material at the top thereof, a cylindrical sleeve disposed in said drain opening, a first flange on the upper end of said sleeve adapted to overlie

the marginal edge of said drain opening, a second outwardly projecting flange on the lower end of said sleeve, a third inwardly projecting flange on said housing positioned along a semi-circular portion of the marginal edge surrounding said inlet opening and adapted to be secured in overlapping relationship with said second flange, a fourth outwardly projecting flange on said housing extending along the portion of the marginal edge of said inlet opening not occupied by said third flange, a semi-circular clamp member having a pair of spaced flange portions adapted to cooperate with said second and fourth flanges respectively so as to support said fourth flange on said second flange, a first bolt in engagement with said housing and said clamp member so as to lock said clamp member in assembled relation with said second and fourth flanges, a clamping ring surrounding said sleeve between said sink and said housing, and second and third bolts spaced about said inlet opening in engagement with said housing, said bolts being adjustable upwardly into engagement with said clamping ring.

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