United States Patent [19]

Guth

[11] **3,797,764**

[45] **Mar. 19, 1974**

[54] **SELF-LATCHING WASTE FOOD DISPOSER MOUNTING ASSEMBLY**

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[73] Assignee: **General Electric Company**, Louisville, Ky.

[22] Filed: **June 29, 1972**

[21] Appl. No.: **267,490**

Related U.S. Application Data

[63] Continuation of Ser. No. 67,106, Aug. 26, 1970, abandoned.

[52] **U.S. Cl.** **241/100.5**, 285/314, 285/359

[51] **Int. Cl.** **B02c 18/42**

[58] **Field of Search**... 241/32.5, 46 A, 46 B, 257 G, 241/100.5; 285/314, 359

[56] **References Cited**

UNITED STATES PATENTS

3,025,007	3/1962	Wieczorek	241/100.5
3,246,132	4/1966	Jordan et al.	285/158
3,288,380	11/1966	Clements et al.	241/100.5

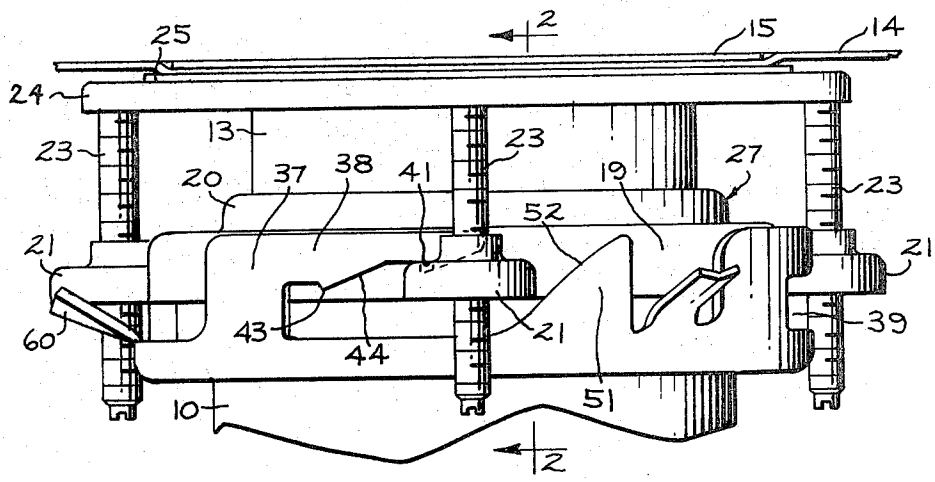
Primary Examiner—Granville Y. Custer, Jr.

Attorney, Agent, or Firm—Francis H. Boos, Jr.

[57] **ABSTRACT**

A sink mount support assembly for a waste food disposer includes a pair of annular members adapted to automatically engage with each other and latch a disposer in a first holding position relative to a sink drain sleeve when the disposer is axially aligned and lifted toward its installed position on a sink drain sleeve. The self-latching feature is accomplished by auto-rotation of one of the connecting members and serves to hold the disposer on the drain sleeve in a relatively loose arrangement whereby the disposer may be axially rotated to facilitate the connection of a drain line to the disposer's sump. Thereafter, the disposer may be more firmly fastened to the sink sleeve by manually further rotating the connecting member a short distance about the vertical axis of the assembly to a second, locked position. This completes the mounting operation, and the hopper of the disposer is thereby firmly sealed in drain flow communication with the drain sleeve. The assembly can be quickly disconnected as required by reversing the latter procedure and counter-rotating the connecting member.

9 Claims, 8 Drawing Figures



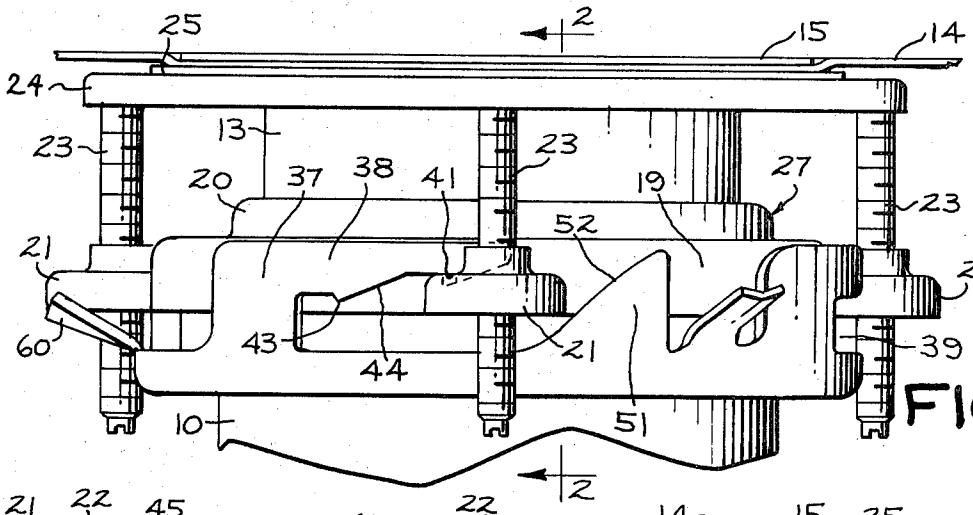


FIG.1

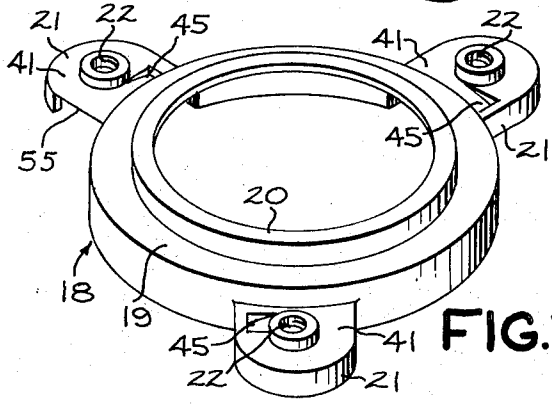


FIG.3

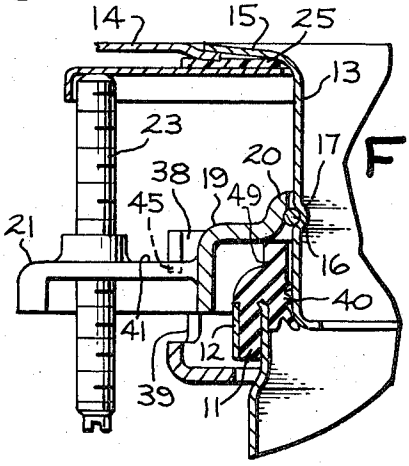


FIG.2

FIG. 5

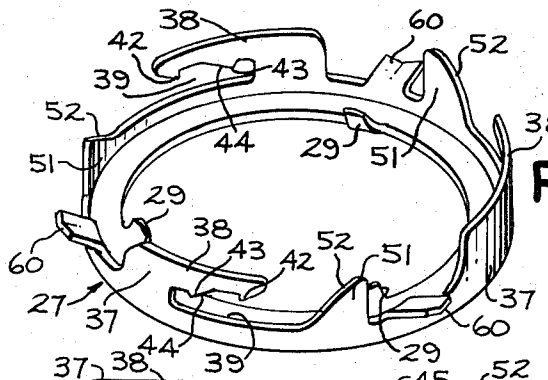
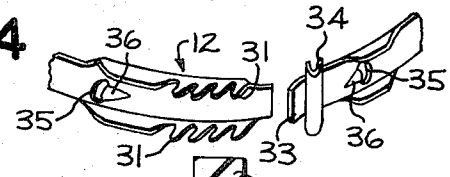


FIG.4



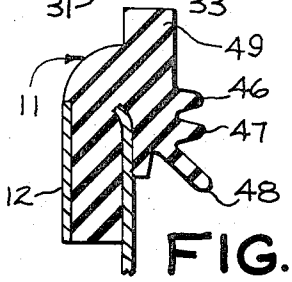


FIG.6

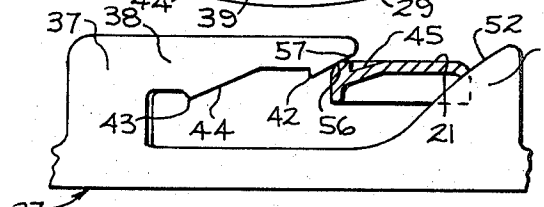


FIG.7

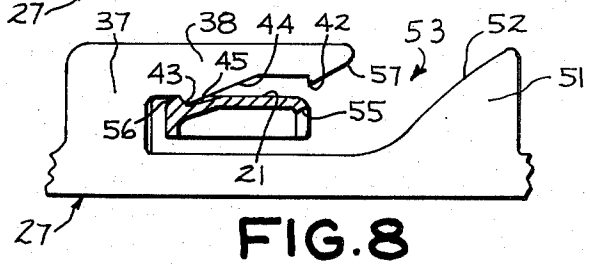


FIG.8

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SELF-LATCHING WASTE FOOD DISPOSER MOUNTING ASSEMBLY

This is a continuation of application Ser. No. 67,106 filed Aug. 26, 1970, and now abandoned.

BACKGROUND OF THE INVENTION

This invention relates generally to means for mounting a food waste disposer and more particularly pertains to a quick connect and disconnect mounting assembly for coupling a disposer to a tubular drain sleeve beneath a sink.

It has for years been common practice to suspend a food waste disposer from a tubular drain sleeve fastened in sealed relation in the drain opening of a sink. Although the tubular sleeve has undergone changes through the years from a particularly heavy cast body to a comparatively thin-walled construction generally of stainless steel, until relatively recently the most common arrangement for coupling the disposer housing to the drain sleeve remained substantially unchanged primarily due to its proven dependability.

For example, in U.S. Pat. No. 2,166,786, issued to Adalbert Alexay, on July 18, 1939, an assembly for coupling a food waste disposer to a sink sleeve is illustrated that comprises a rigid drain sleeve having an annular radially-outwardly projecting ridge on which a coupling member or clamping ring is carried. The upper end of the disposer housing is provided with a radially-outwardly projecting flange that serves as a second clamping ring whereby bolts may be screwed upwardly through threaded circumferentially spaced-apart openings extending through both clamping rings to affix the upper end of the disposer housing to the drain sleeve. The vertically aligned bolts extend upwardly through the clamping rings whereby they contact an annular sink fitting and press it upwardly against the under surface of the sink around the sink's drain opening. The force exerted upwardly against the annular fitting pressing against the under surface of the sink is translated through to the sink sleeve which is drawn downwardly whereby its upper outwardly extending flange is pulled tightly against the sink's inner surface circumjacent the sink's drain opening. The vertically oriented bolts also tend to pull the clamping rings together against an annular sealing member disposed inwardly therebetween to establish a watertight seal between the upper end of the disposer housing and the sink sleeve.

Although disposer hanging assemblies patterned generally in the arrangement illustrated in the Alexay patent continue to be used as a reliable means of mounting a disposer to a sink, more recent prior art devices have been introduced that are less difficult and time-consuming to assemble and are more functional in reducing vibrations that are transmitted to the sink. Such a device, developed to be more acceptable to the plumbing trade than certain other prior art devices and to provide savings in manufacturing costs, is disclosed in a copending application Ser. No. 67,107, now U.S. Pat. No. 3,734,416 issued May 22, 1973 and entitled "Improved Waste Food Disposer Mounting Assembly," that is assigned to the assignee of this invention.

In that application, structure is illustrated and described including an annular boot disposed to seal against the outer circumferential surface of a disposer's hopper lip, and an annular compressing band provided

to squeeze the boot and seal it against the hopper lip. A stationary rigid annular connecting member is disposed about the lower extended portion of the drain sleeve at an intermediate position therealong and is prevented from moving downwardly on the sleeve by an annular ledge preferably formed by a snap ring retained in a circumferential groove formed in the drain sleeve. The stationary connecting member has a plurality of spaced-apart bosses projecting radially-outwardly therefrom to support vertically disposed threaded studs each in a threaded hole in each boss, thereby the studs may be screwed upwardly to exert pressure against an annular clamping ring or sink fitting thereabove. A sealing putty compound may be employed in the area around the sink opening so that the annular clamping ring, with a resilient gasket between it and the under surface of the sink to protect against chipping the sink's surface, forms a watertight seal between the drain sleeve and the sink.

Also disclosed in the previously mentioned copending application is a rigid rotatable annular connecting member that is disposed about the disposer hopper throat below the hopper's lip. The rotatable connecting member has engaging means preferably including rigid shoulder portions disposed in a spaced-apart relationship to each other and projecting upwardly from the rotatable connecting member. A rigid arm portion extends laterally from each shoulder portion to form a hook-like configuration. The under surface of each arm portion is preferably provided with a plurality of spaced-apart downwardly projecting teeth for engaging in recesses provided therefor in the bosses of the stationary connecting member when the two connecting members are brought together and interconnected as directed. This structural arrangement provides for connecting the disposer to the sink sleeve in a first holding position wherein the disposer is fully suspended but free to be rotated about its vertical axis to facilitate plumbing connectings thereto, and a final locking position that involves a firm engagement between the teeth of the arm portions and the recesses in the bosses. Attachment of the assembly in its first and final positions is accomplished by manual rotation of one connecting member relative to the other.

SUMMARY OF THE INVENTION

The present invention comprehends a significant improvement in the structure of the invention set out in the U.S. Pat. No. 3,734,416, mentioned heretofore, whereby the manual act of lifting the disposer toward its installed position causes the connecting members to automatically cooperate in attaining the first holding position. In other words, means are provided on the two connecting members whereby contact between the two members causes the rotatable one of the two connecting members to rotate relative to the other and establish the first holding position that loosely suspends the disposer relative to the sink sleeve. The latter action is accomplished without the need for the installer to touch the connecting members, and the installer may safely withdraw his hands from the body of the disposer once it has been moved upwardly onto the sink sleeve with the assurance that it will remain suspended there while he completes the necessary plumbing and electrical connections to the disposer.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an elevational view of the upper end of a food waste disposer and the presently preferred embodiment of an improved assembly for connecting the disposer to a sink in accordance with the present invention;

FIG. 2 is a sectional view taken along lines 2—2 of FIG. 1;

FIG. 3 is a perspective view of a rigid stationary member that is a part of the illustrated embodiment of the improved mounting assembly of the present invention;

FIG. 4 is a perspective view of a rotatable rigid connecting member that is a part of the illustrated embodiment of the improved mounting assembly of the present invention;

FIG. 5 is a view in perspective showing the ends of a band or clamping strap, a preferred means for compressing a resilient annular boot to the upper end of a disposer housing in accordance with the present invention;

FIG. 6 is a view in vertical section of the resilient annular boot component of the present invention, shown as it appears in position on the upper end of the disposer housing before being placed into its operative position relative to the other components in the assembly of the present invention; and

FIGS. 7 and 8 are fragmentary elevational views of portions of the connecting members of the illustrated embodiment showing successive stages of the automatic latching feature and the manner in which the action occurs when the connecting members of the assembly are initially brought together for the installation of the assembly.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

With reference to FIGS. 1 and 2, there is illustrated a disposer housing upper end or hopper **10** having a sealed means in the form of an annular resilient gasket or boot **11** fastened thereto by means of a fastening means preferably in the form of a metal clamping strap **12** (shown in detail in FIG. 5). The disposer hopper **10** is disposed in drain flow communication with a tubular drain sleeve **13** extending downwardly from the drain opening in a sink **14**. The tubular drain sleeve **13** has an upper annular radially-outwardly extending flange portion **15** that contacts the inner sink surface circumjacent the drain opening of the sink **14**.

A radially-outwardly extending annular ridge is provided intermediate the length of the tubular drain sleeve in the form of a snap ring **16** carried in a circumferential groove **17** formed in the body of the drain sleeve **13**. A stationary connecting member **18** (shown separately in FIG. 3) is carried around the drain sleeve **13**. The stationary connecting member **18** has an annular major body portion **19** with a radially-inwardly extending flange portion **20** that rests on the snap ring **16** carried in the groove **17** of the drain sleeve **13**. Extending radially-outwardly, preferably in equidistantly spaced relationship to each other, from the major body portion **19** of the stationary connecting member **18** are knob-like portions or bosses **21**. Each boss has a threaded opening **22** therein to accommodate a vertically disposed stud **23**.

The studs **23** (see FIGS. 1 and 2) are screwed upwardly through the bosses **21** whereby their upper ends exert pressure against an annular clamping ring or sink fitting **24** disposed around the drain sleeve **13**. Sealing means in the form of an annular resilient gasket **25** is compressed upwardly by the clamping ring **24**. With particular reference to FIG. 2, it will be noted that the gasket **25** underlies the sink surface circumjacent the sink's drain opening and will also seal against a portion of the drain sleeve flange **15**. A putty compound (not shown) familiar to plumbers is generally used around the sink opening to insure a watertight seal between the drain sleeve **13** and the sink **14**.

When the plumber or installer prepares to install the disposer beneath the sink **14**, his first operation is to drop the end of the sink sleeve **13** through the sink opening, using the putty compound around the sleeve flange as needed. He then brings the annular gasket **25** up from beneath the sink **14** and over the body of the drain sleeve **13** into the position shown in FIG. 2. Then the stationary connecting member **18** is slipped up over the drain sleeve **13** after which the snap ring **16** is placed into the groove **17** on the drain sleeve **13**. The studs **23** are then threaded up through the bosses **21**. By screwing the studs **23** through the openings **22** provided therefor in the bosses **21** and then screwing the studs upwardly, a force is exerted between the clamping ring **24** and the stationary connecting member **18** whereby the flange **20** of the stationary connecting member **18** is forced downwardly against the snap ring **16** and the clamping ring **24** is pressed upwardly toward the sink **14**. Tightening the studs **23** serves to rigidly mount the sleeve **13** to the sink **14** and also firmly fastens the stationary connecting member **18** in position on the drain sleeve **13**. The heretofore described procedure is normally completed by the installer even before the disposer is taken from its shipping carton. Once these preparatory steps are completed, the drain sleeve **13** is firmly positioned and ready to have the disposer mounted thereon.

A rotatable rigid connecting member **27** is carried about the neck of the disposer hopper **10** and has an annular body portion **28** with inwardly projecting flange means, preferably in the form of separate spaced-apart fingers **29**, projecting radially-inwardly therefrom for engagement against the under surface of the resilient boot **11**. The rotatable connecting member **27** is preferably placed in position about the neck of the hopper **10** before the disposer leaves the factory. The resilient boot **11** is preferably clamped into position as part of the factory assembly line operation, also.

The clamping band **12** is of a type requiring a specific type of tool for its installation and removal so that, unlike many prior art mounting assemblies, the hopper sealing means cannot be easily or inadvertently removed and lost once it has been placed in position on the hopper lip. The clamping band **12**, as shown in FIG. 5, is preferably a semi-flexible, one-piece tempered steel spring strap having a series of outwardly protruding teeth **31** along opposite edges near an end **32** thereof. The other end **33** of the band has a transverse channel portion extending outwardly from opposite edges thereof to provide inwardly-directed ridge portions **34** for engaging across opposite sets of the teeth **31**.

At a point set back from each end of the band **12**, an opening **35** is provided. Adjacent each opening **35**, the

band side wall is expanded outwardly to provide a projection or lip portion 36. The purpose of the two lip portions 36 is to enable the ends 32 and 33 of the band 12 to be gripped by a plier-like tool (not shown). By proper manipulation of the tool a force may be applied to the two outwardly projecting lips 36 whereby, with end 33 overlapping end 32, the band ends may be drawn toward each other to thereby compress the band 12 around the boot 11. This action moves the ridges 34 along the parallel rows of outwardly projecting teeth 31 whereby the ridges will engage a set of opposed teeth. Moving the ridges 34 further along the rows of teeth 31 in ratchet fashion and compressing the band 12 tighter serves to press the resilient boot 11 tightly against the outer surface adjacent the lip of the disposer hopper 10. This type of strapping band connection makes a particularly neat, unobtrusive arrangement that fastens the band 12 quite firmly to the hopper, and, unlike typical circular clamps or bands that utilize circumferentially oriented bolts for tensioning the band, there are no bulky outward projections to interfere with the installation of the other parts of the mounting assembly.

With particular reference now to the rotatable connecting member 27 shown separately in FIG. 4, it will be seen that it has engaging means comprising integral shoulder portions 37 extending upwardly from the body portion 28 and that each shoulder portion 37 has an arm portion 38 projecting laterally in the direction of rotation of the member 27. Each arm portion 38 extends preferably coextensive with the outer periphery of the body portion 28 of the rotatable connecting member 27 and in spaced relation thereto whereby each arm portion 38, with its base shoulder portion 37, forms a deep throated hook portion 39.

The under surface of each arm portion 38 is preferably provided with at least two teeth, 42 and 43, that project downwardly from the arm portion. It will be realized that from the ensuing description of the operation of the teeth in conjunction with the stationary connecting member 18 that a single tooth could be provided on each arm portion or on one arm portion only, and the structure of the invention would nevertheless be operable. However, it is preferred that each arm portion be identical for smoothness of operation and to obviate the need for special orientation of the connecting members relative to each other when the installation operation is begun.

As shown in FIG. 4, the downwardly projecting tip of the tooth 43 is at a substantially lower level than the tip of the tooth 42. A portion of the undersurface of each arm portion 38, intermediate the teeth 42 and 43, is inclined whereby a camming surface 44 is provided. the inclined under surface area constituting the camming surface 44 terminates inwardly as a side of the tooth 43. As shown in FIGS. 1 and 8, the teeth 42 and 43 of each arm portion 38 cooperatively engage an upper surface recess 45 provided in each boss 21 of the stationary connecting member 18, whereby two successive coupling positions are obtained between the connecting members 18 and 27: the first position is an initial holding position as shown in FIG. 1, whereby the disposer is relatively loosely suspended from the sink sleeve 13; and, a second substantially tight, locked position as illustrated in FIG. 8 wherein the disposer is relatively rigidly locked to the drain sleeve 13 in drain flow communication therewith.

In the final locked position wherein teeth 43 reside in the respective recesses 45, the connecting members 18 and 27 are clamped firmly against the boot 11. The boot 11, as shown in FIG. 6, has a substantially large portion thereof that extends radially-inwardly from the disposer hopper lip. Projecting therefrom are annular lips 46, 47 and 48, which are adapted to seal against the outer side wall surface of the drain sleeve 13 as shown in FIG. 2. The boot 11 also has an upwardly projecting hump-like portion or ridge 49 for contacting the under surface of the body portion 19 of the connecting member 18. When the connecting members 18 and 27 are in the final locked position, a substantially vertically directed clamping force is exerted between the rotatable connecting member 27, via the fingers 29, and against the under surface of the connecting member 18. By this arrangement, there is no dependence upon the clamping pressure between the connecting members 18 and 27 for fastening the resilient boot 11 to the disposer hopper lip.

The upwardly projecting ridge 49 of the resilient boot 11 may be a continuous annular portion that circumferentially contacts the under surface of the connecting member 18, or may comprise a plurality of circumferentially spaced-apart, separate ridge portions as, for example, four equidistantly spaced projections disposed about the boot 11 in a quadrant relationship, whereby the under surface of the connecting member 18 is contacted by the boot 11 at circumferentially spaced apart points thereon. The latter configuration is workable inasmuch as it is not necessary that a watertight seal be established on the top side of the boot 11 against the under surface of the connecting member 18, and such an arrangement will occasion less friction between the boot 11 and the connecting member 18 when the disposer is rotated on its vertical axis by the installer completing plumbing connections thereto.

When the connecting members are disposed in the first holding position as shown in FIG. 1, the ridge 49 of the boot 11 may lightly contact the under surface of the connecting member 18. Compressive force through the boot 11 is exerted when the rotatable connecting member 27 is moved to the locked position wherein pressure of the ridge 49 against the under surface of the stationary connecting member 18 prevents axial rotation of the disposer body.

During the initial step in the installation of the disposer 10 as the boot 11 is moved into position upwardly over the outer surface of the drain sleeve 13 (FIG. 2), the bottom peripheral edge of the drain sleeve 13 progressively contacts all of the lips 46, 47 and 48, and pushes the longest inwardly extending lip 48 downwardly. This flexure is translated back to the body of the boot 11 and tends to cause the two shorter lips 46 and 47 to spread away from each other while twisting inwardly against the outer side wall surface of the drain sleeve 13 whereby the lips 46 and 47 press against the drain sleeve side wall in a squeegee action. Thus, a watertight seal is established between the drain sleeve outer wall and the resilient boot 11 that is nevertheless yieldable to unusual stress between the disposer and the drain sleeve such as the resultant torque when the disposer's motor is energized. Moreover, as compared to other known mounting assemblies wherein the diameter of the tubular drain sleeve and the diameter of the upper end of the disposer housing are substantially the same and a resilient annular seal is compressed rela-

tively rigidly therebetween, more resiliency is obtained in the boot **11** in combination with the assembly disclosed herein whereby transmittal of vibrations between the body of the disposer and the sink is substantially reduced.

When the disposer is first suspended to the drain sleeve **13** in its comparatively loose first position, the resilient boot is disposed relative to the sleeve whereby the lip **48** is projecting radially-inwardly beneath the lower edge of the sleeve and therefore only the boot lips **46** and **47** are in relatively firm contact against the sleeve's side wall. The final connecting operation, when the rotatable connecting member **27** is turned and caused to cam upwardly by means of the cam surface **44** of each shoulder portion **38** sliding over the side edge guide surface of the corresponding boss **21**, serves to move the entire boot **11** upwardly along the side wall surface of the drain sleeve **13** so that the annular lip **48** is deformed outwardly and stretched tightly against the sleeve's side wall surface. The upward movement of the boot **11** on the sleeve **13** is caused by the fingers **29** moving upwardly and digging into the under surface of the boot **11** and pressing the boot's upwardly projecting ridge **49** against the connecting member **18.**

As shown in FIGS. **1, 4, 7** and **8,** the connecting member **27** has a plurality of upwardly projecting rigid ear portions **51** each having an inclined edge **52** facing toward the outer end of an adjacent arm portion **38.** Each arm portion **38** and its forwardly adjacent ear portion **51** defines therebetween a ramp area **53** adapted to accommodate one of the bosses **21** therebetween as shown in FIG. **7.**

When the installer lifts the disposer upwardly in vertical axial alignment beneath the sink sleeve **13,** he need only be certain that the rotatable member **27** is properly oriented with reference to the stationary member **18** whereby the upper end of the inclined surface **52** will strike a boss side edge **55** (FIG. **3**). In the particular configuration of the connecting member **18** shown, each boss is cut away along a side edge thereof to provide the edge **55.** As shown in FIG. **7,** when the connecting members **18** and **27** are brought together, the edge **55** will strike the camming surface **52** while the tip of the adjacent arm portion **38** will override the opposite side of the boss **21.** Continued upward force against the connecting member **27** then causes the member **27** to rotate from the position shown in FIG. **7** to the first holding position shown in FIG. **1.** This first rotative action results from the act of bringing the members **18** and **27** together as heretofore described and occurs automatically in the sense that the installer causes the rotative action to occur by the act of pushing upwardly on the disposer body without touching the connecting member **27** with his hands.

In the occurrence of the foregoing action, the inclined surface **52** of each ear **51** and an inclined surface **57** downwardly adjacent the outer tip of each arm **38** act as camming surfaces which may slide against opposite sides of the boss **21** and translate the upward force against the connecting member **27** whereby such force is expended in rotation of the member **27** relative to the stationary connecting member **18** and the disposer **10.** This action results in each tooth **42** sliding into a respective accommodating recess **45** whereby, thereafter, the full weight of the disposer drawing downwardly on the connecting member **27** prevents inadvertent counter-rotation of the connecting member **27.** When the installer is prepared to complete the connection between the disposer and the drain sleeve, he need only tap against an outwardly projecting tab **60** to cause the rotatable connecting member **27** to move from the position shown in FIG. **1** to the final locked position shown in FIG. **8.** It should be noted that the camming action of the arm surface **57** against the boss surface **56** is not required to obtain the self-latching action heretofore described. For example, the outer end of arm **38** could be tilted upwardly to clear the boss **21** entirely, and the contact of the boss **21** against camming surface **52** will cause the necessary rotative action to move the tooth **42** into the recess **45.**

The foregoing description and the accompanying drawings pertain to the presently preferred embodiment of the invention heretofore disclosed. It is not intended that the invention be limited to either that which has been shown in the accompanying drawings or described in the specification since it will be obvious to those skilled in the art that various changes and modifications may be made after benefit of this disclosure. It is therefore intended that the appended claims cover all changes and modifications embraced within the true spirit and scope of the invention.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. An assembly for removably connecting a food waste disposer to a sink sleeve including:

a. a pair of connecting members adapted to be removably engaged with each other by rotation of one of the connecting members relative to the other, and

b. means associated with the connecting members for automatically latching one connecting member with the other in response to the disposer being lifted into aligned position with the drain sleeve whereby thereafter the drain sleeve supports the weight of the disposer thereon in a substantially loose engagement permitting manual rotation of the disposer about its vertical axis.

2. The invention of claim **1** wherein the means for automatically engaging the connecting members includes a cam face on one of the connecting members and a cam guide surface on the other connecting member which coact to rotate one of the connecting members when the disposer is lifted into aligned position with the drain sleeve.

3. An assembly for removably connecting a food waste disposer to a sink sleeve including:

a. a pair of connecting members adapted to be removably engaged with each other,

b. the connecting members having means therewith acting to draw one toward the other by a camming action therebetween,

c. means associated with the connecting members for automatically latching one connecting member with the other when the disposer is lifted into aligned position with the drain sleeve so that the drain sleeve supports the weight of the disposer thereon in a substantially loose engagement permitting manual rotation of the disposer about its vertical axis, and

d. a first of the connecting members having a plurality of circumferentially spaced-apart shoulder portions extending therefrom in a line generally parallel to the axis of the disposer, each shoulder portion having an arm portion projecting therefrom in a di-

rection generally transverse to the axis of the disposer, and the second of the connecting members having a plurality of circumferentially spaced-apart bosses extending radially outwardly therefrom for respective engagement beneath the arm portions.

4. The invention of claim 3 wherein at least one of the arm portions has a tooth portion projecting therefrom for engaging one of the bosses on the second connecting member.

5. The invention of claim 3 wherein an intermediate area on the under surface of each arm portion is inclined on a line that ascends toward the outer end of the arm portion and thereby provides a cam face for sliding against one of the bosses whereby the connecting members will be drawn closer to each other in a camming action therebetween when one of the connecting members is manually rotated a short distance relative to the other.

6. In combination with a food waste disposer, means for removably connecting the disposer to a sink drain sleeve, comprising:

a. a pair of annular connecting members adapted to be removably engaged with each other and having means therewith acting to draw one towards the other by a camming action therebetween,

b. a first of the annular connecting members being adapted to be rotatable with respect to the other and having a plurality of rigid shoulder portions extending upwardly therefrom in spaced-apart relationship to each other,

c. each of the shoulder portions having a rigid arm portion extending laterally therefrom generally in the direction of rotation of the connecting member,

d. the second of the connecting members having a plurality of radially-outwardly projecting bosses circumferentially spaced apart and adapted to be engaged respectively by the arm portions when the first connecting member is manually rotated, and

e. means associated with the connecting members whereby the first connecting member is automatically rotated when the connecting members are brought together by the act of aligning the disposer axially beneath the drain sleeve and lifting it upwardly into contact therewith such that the connecting members self-latch to each other.

7. An assembly for removably connecting a food waste disposer to a sink sleeve including:

a. a pair of connecting members adapted to be removably engaged with each other,

b. the connecting members having means therewith acting to draw one toward the other by a camming action therebetween,

c. means associated with the connecting members for automatically latching one connecting member with the other when the disposer is lifted into aligned position with the drain sleeve so that the drain sleeve supports the weight of the disposer thereon in a substantially loose engagement permitting manual rotation of the disposer about its vertical axis, and

d. means for firmly fastening the connecting members together in a relatively tight arrangement whereby axial rotation of the disposer is thereafter prevented.

8. The invention of claim 3 further including a resilient sealing means carried between the connecting members for sealing the sink sleeve in drain flow communication with the disposer.

9. The invention of claim 3 further including a resilient annular boot for sealing about the upper end of the disposer whereby the disposer is in drain flow communication with the sink sleeve, and an annular compressing band disposed around the annular boot for sealing it against the disposer.

* * * * *

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,797,764 Dated March 19, 1974

Inventor(s) Lauren W. Guth

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Claim 1, line 28, after "sink" insert -- drain --.

Claim 3, line 49, after "sink" insert -- drain --.

Claim 7, line 11, after "sink" insert -- drain --.

Signed and sealed this 9th day of July 1974.

(SEAL)
Attest:

McCOY M.GIBSON, JR.
Attesting Officer

C. MARSHALL DANN
Commissioner of Patents