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C. R. WALLIS ETAL

3,213,720

DISPOSER KEY

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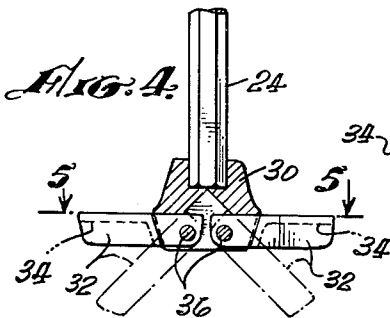
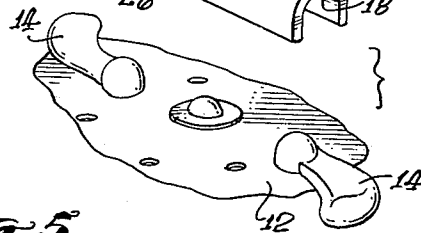
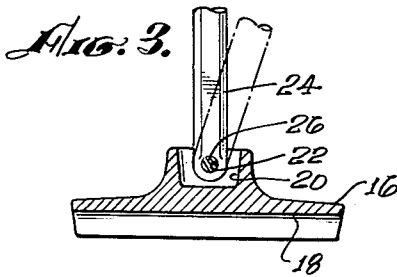
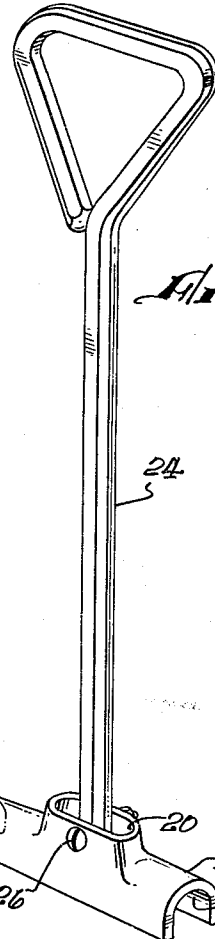
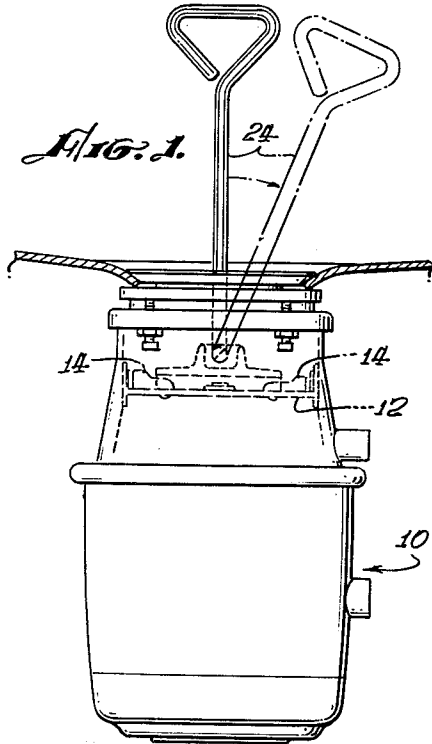
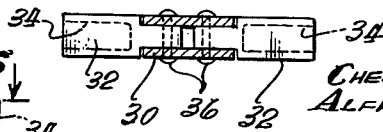


Fig. 5.



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DISPOSER KEY

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1 Claim. (Cl. 81—90)

This invention relates in general to garbage disposer grinding devices, and more specifically to a manual drive key for releasing the related parts thereof when jammed into an inoperative condition.

Household garbage disposal units operate essentially upon the same principle regardless of make or specific design. Generally a table is employed which has some type of fin or other impeller which will drive the material into cutting knives and cause its disintegration. Water then flushes the material away.

Occasionally a particularly hard substance will become jammed and stall the driving motor. When this occurs, the table must be reversed in order to release the material and allow the driving motor to gain full speed before it again engages material to be ground.

The units available have no external drive device to enable such manual operation of the table. Hence, it is the custom to use a broom handle or similar soft wooden item to break the jam by reversing the table. Use of a broom handle is dependent strictly upon poor leverage and sheer physical force, because the leverage points available are not properly related to the job to be done. If the material is jammed with extraordinary tightness, it may be necessary to seek professional help to loosen the impeller.

The makeshift manner of loosening is also unsatisfactory because very often the manner of loosening will cause a stress concentration beyond the ability of the brittle impellers to withstand the loosening action. These impellers are usually made of exceedingly hard and brittle material in order to withstand the abrasive action of the material being ground.

Therefore, it is an object of this invention to provide a tool for grasping and driving the impeller table of a domestic garbage disposer.

Another object of this invention is to provide such a tool having a maximum surface contact with the impeller of the disposer in order to prevent stress concentration.

In accordance with these and other objects which will become apparent hereinafter, a preferred form of the present invention is disclosed in the accompanying drawings wherein:

FIG. 1 is a side elevational view of a domestic garbage disposer, illustrating the impeller table thereof in phantom outline with the preferred embodiment of the tool engaged therewith;

FIG. 2 is a perspective view of the preferred embodiment of the invention and a portion of the impeller table, with the parts in position ready for engagement;

FIG. 3 is a longitudinal section view through the foot pad of the preferred embodiment of the invention;

FIG. 4 is a section similar to that of FIG. 3 of an alternative embodiment; and

FIG. 5 is a top view of the alternative embodiment pad as viewed along the line 5—5 of FIG. 4.

Referring now to the drawing for a better understanding of the invention, and an illustration of two embodiments for this purpose, a common type of garbage disposer is indicated by the reference character 10 in FIGURE 1. It must be understood that there are numerous

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brands and types of garbage disposers, and that in some the impeller and grinding mechanism is deeper within the housing than in others. Hence, FIG. 1 is only an illustration of one nationally known brand.

The disposers generally work on the same principle and have a table 12 which is directly driven by a high-speed electric motor contained within the housing of the disposer. The motor is not illustrated in the drawing.

In FIG. 2 a portion of the table 12 may be seen greatly enlarged. In this particular brand of disposer, two impellers 14 are carried by the table 12 and either touch the grinding elements carried around the periphery of the table, or come close thereto. In either event, the material put into the disposer will be impelled at great force against grinding elements carried at the periphery of the table and is thereby caused to disintegrate. It is a jam of such material between the elements around the periphery of the table and the impellers 14 that cause such disposers to stall and become inoperative. When this happens, it is usually necessary to reverse the direction of the table 12 in order to release the jammed material.

The present invention comprises a tool for grasping and placing a uniform pressure upon the table by grasping the impeller units, or other convenient surfaces of the table in order to manually apply a reversing drive.

In FIG. 2 the preferred embodiment of the tool is illustrated as having a pad 16 which is long enough to embrace both of the impellers 14 oppositely disposed across the table 12. The pad 16 has a longitudinal channel 18 in order to fit over these two impellers, or lugs.

The top of the pad 16 is provided with a socket 20 and a cross opening 22. Handle 24 is then fitted into the socket and is pivotally attached by means of pivot pin 26. Hence, the pad is pivotal with respect to the handle and therefore the lateral dimension of the tool may be reduced in order that the pad 16 may enter into a relatively small mouth of a disposer, and thereafter seat against the table without being unduly restricted inside.

By like token, the handle is then pivotable in order that a leverage action may be obtained if a force greater than a mere twisting of the handle is required. In FIG. 1 the tilting of the handle to a lever drive position is illustrated. Not always is it necessary to tilt the handle, because a strict twisting action may very often suffice.

In FIG. 4 an alternative embodiment is illustrated, which may be compared with the sectional view of FIG. 3. A coupler 30 is provided to couple the handle 24 to two swingable wings 32. Wings 32 are provided with channel 34 as best seen in FIG. 5 and are attached to the coupler 30 by means of pivot pins 36.

This alternative embodiment illustrates the fact that the pad may be constructed of two pieces in order to make an entry into a reduced opening, and also may be flexible in order to permit one end to grasp at a different elevational or tilted angle than the other in the event that operative conditions within the disposer so requires.

While the instant invention has been shown and described herein in what is conceived to be the most practical and preferred embodiments, it is recognized that departures may be made therefrom within the scope of the invention which is therefore not to be limited to the details disclosed herein but is to be afforded the full scope of the invention as hereinafter claimed.

What is claimed is:

A key, or crank device, for manual drive of a garbage disposal table, comprising:

a foot pad, said foot pad being a double-wing element having two opposed wing members each pivotally

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coupled to the handle, and pivotal between a minimum-maximum extension position, each said wing having a channel portion for engagement with a disposer table compeller or lug;
a drive handle; and
a pivot means joining said pad to said handle for providing a first relative pivoted position with the said pad folded into an angular relationship with said handle of minimum lateral extension from said handle for passage through an opening, and a second relative position extending to a maximum lateral extension with respect to said handle.

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References Cited by the Examiner

UNITED STATES PATENTS

169,489	11/75	Smeaton	81—121
1,560,254	11/25	Jackson	73—421
2,933,964	4/60	Wittlin	81—90

FOREIGN PATENTS

597,165 8/25 France.

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