Jan. 14, 1958 M. N. LUPU 2,820,112

RETRACTABLE CORD MECHANISM

Filed May 24, 1956

FIG. 1

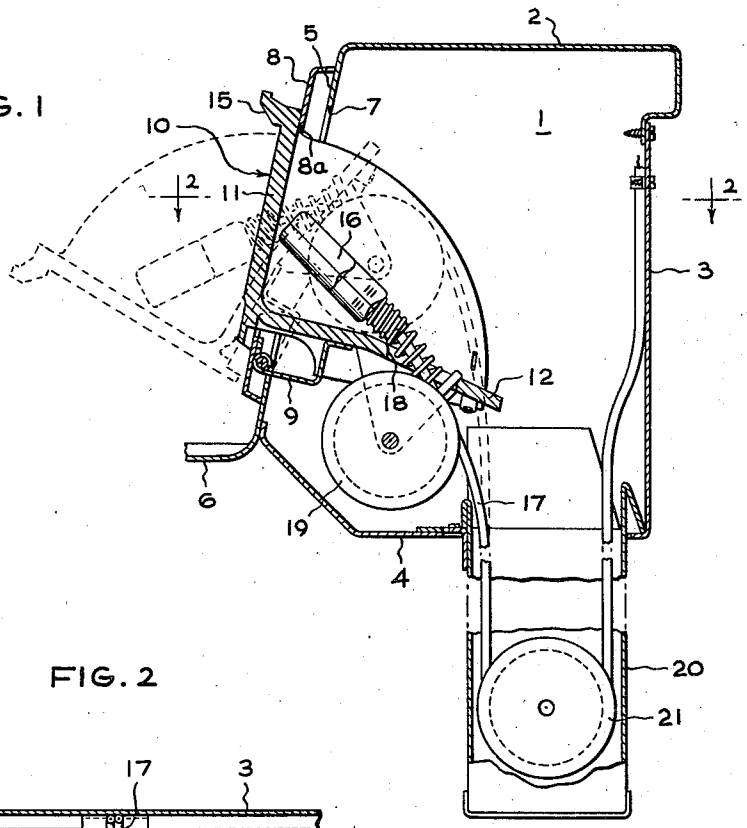
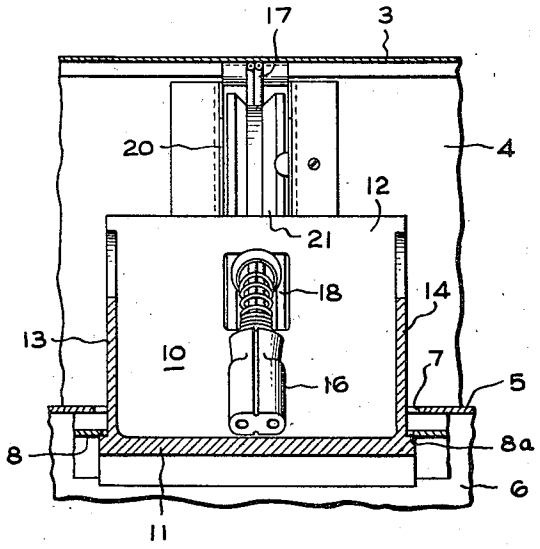


FIG. 2



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United States Patent Office 2,820,112 Patented Jan. 14, 1958

2,820,112

RETRACTABLE CORD MECHANISM

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Application May 24, 1956, Serial No. 587,004

2 Claims. (Cl. 191—12.2)

This invention relates to retractable electric cord mechanisms, and has as its principal object the provision of a structure of this type which may be conveniently mounted in a cabinet housing or the like and which is so arranged that the terminal plug of the cord is concealed in the housing when not in use.

Further objects and advantages of this 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 the specification.

Briefly stated, in one embodiment of my invention a pivotally mounted terminal plug support member including a door element is arranged for mounting in a suitable housing so that a looped portion of an electric cord connecting the terminal plug to a power source may be withdrawn from the housing when the support member is pivoted to its open position.

For a better understanding of this invention, reference may be made to the following description and the accompanying drawing in which:

Fig. 1 is a fragmentary elevation view, partially in section, of the retractable cord mechanism of this invention;

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

Referring to Fig. 1 of the drawing, the numeral 1 designates a housing in which the cord retractor mechanism of my invention may be mounted, this housing being illustrated as the hollow backsplasher of a kitchen appliance center of the type disclosed in application Serial No. 535,406, filed September 20, 1955, by J. W. Yartz and assigned to the assignee of the present application. However, it should be recognized that other housing structures, such as cabinets, work benchs and hollow building walls, may be utilized as the enclosure for the mechanism of my invention.

Housing 1 includes a top wall 2, a rear wall 3, a bottom wall 4, and a front wall 5 provided with a generally rectangular opening 7. As previously noted, in the present embodiment these walls form a backsplasher along the rear of the countertop or work surface 6 of a kitchen appliance.

Mounted on front wall 5 of housing 1 and overlying rectangular opening 7 is a rectangular plate 8 secured to wall 1 by suitable means such as screws or the like (not shown). Mounting plate 8 together with hinge 9 located along the lower edge of a rectangular opening 8*a* in the plate form mounting means for pivotally mounting a support member generally designated by the numeral 10 for movement into and out of housing 1 about a horizontal axis. Support member 10 includes a pair of generally rectangular walls 11 and 12 joined along a common edge in substantially right angle relationship, and a pair of sector shaped side walls 13 and 14 arranged so as not to interfere with pivotal movement of support member 10 about hinge 9 between the position shown in full lines in Fig. 1 and the position shown in broken lines. Support member 10 may be conveniently made in one-piece form,

the preferred material being a moldable plastic composition. Manual movement of the support member from its full line position to its broken line position may be facilitated by the provision of a molded handle formation 15 along the top edge of front wall 11. It will be observed that front wall 11 is in a generally vertical position and covers the openings 8*a* and 7 in mounting plate 8 and front wall 5 when in its full line position, and that when moved to its broken line position, wall 12 is generally coextensive with opening 7 in front wall 5.

Removably supported upon support member 10 is a terminal plug 16 of an electric cord 17 which is arranged to be withdrawn from housing 1 when support member 10 is moved to its open position so that terminal plug 16 of an electric cord 17 which is arranged to be withdrawn from housing 1 when support member 10 is moved to its open position so that terminal plug 16 may be connected to a power operated device such as an electric appliance. Cord 17 extends through a rectangular opening 18 in wall 12 of support member 10, this opening being of a size such that terminal 16 is retained on the support member. On the lower side of wall 12 a pulley 19 aligned with opening 18 and mounted on a horizontal axis is arranged to guide cord 17 during its movement through opening 18 upon its withdrawal or retraction from housing 1. Depending from pulley 19 is a looped portion of cord 17 which extends downwardly into a tubular housing member 20 suspended from the bottom wall 4 of housing 1 and arranged to support and guide the looped portion of cord 17 during its movement into and out of housing 1. At the lower end of the looped portion the cord 17 is a free weighted pulley in engagement therewith so as to exert a downward force sufficient to return cord 17 to its retracted position when terminal plug 16 is lifted and positioned with respect to support member 10 so that free pulley 21 acts against only the weight of cord 17. The secured end of cord 17 is supported on back wall 3 and may be connected to an electric power source by suitable connecting means (not shown).

Referring now to the mode of operation of my invention, terminal plug 16 may be withdrawn from housing 1 and connected to an appliance or the like located on counter top 6 after movement of support member 10 to the position shown in broken lines in Fig. 1. In this position wall 12 of the support member is substantially coextensive with the rectangular front opening 7 in front wall 5 of the housing, and terminal plug 16 is thus exposed so that it may be easily grasped by the user. After use, plug 16 may be returned to its storage position by raising it above the surface of counter top 6 so that only the weight of an intermediate portion of electric cord 17 need be overcome by free pulley 21 in its downward movement into tubular housing 20. As plug 16 approaches wall 12 it may be released and the continuing movement of pulley 21 will not only complete the retraction of the cord but also return support member 10 to its closed position.

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

What is claimed is:

1. A retractable cord mechanism comprising a support member including first and second walls joined along a common edge in substantially right angle relationship, mounting means for pivotally mounting said support member in an opening in a generally vertical wall of a housing or the like for movement about a horizontal axis at the lower edge of said opening parallel and closely adjacent to said common edge, said support member being pivotally movable from a first position in which said first wall is generally vertical and covers said opening to a second

position in which said second wall is generally coextensive with said opening, a pulley carried by said support member for rotation about a horizontal axis below said second wall, an electric cord including a terminal plug removably supported on said support member so that said cord passes over said pulley, said cord including a looped portion depending from said pulley, said terminal plug being exposed for withdrawal from said housing only when said support member is in said second position, and a free pulley associated with said looped portion of said cord so as to exert a downward force thereof.

2. A retractable cord mechanism comprising a support member including first and second walls joined along a common edge in substantially right angle relationship, mounting means for pivotally mounting said support member in an opening in a generally vertical wall of a housing or the like for movement about a horizontal axis at the lower edge of said opening parallel and closely adjacent to said common edge, said support member being pivotally movable from a first position in which said first wall is generally vertical and covers said opening to a second position in which said second wall is generally co-

extensive with said opening, a pulley carried by said support member for rotation about a horizontal axis below said second wall, an electric cord including a terminal plug removably supported on said support member so that said cord passes over said pulley, said cord including a looped portion depending from said pulley, said terminal plug being exposed for withdrawal from said housing only when said support member is in said second position, a vertically arranged tubular housing enclosing said looped portion, and a weighted free pulley in engagement with said looped portion.

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