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TERMINAL REPLACEMENT FOR SEALED REFRIGERATION UNITS

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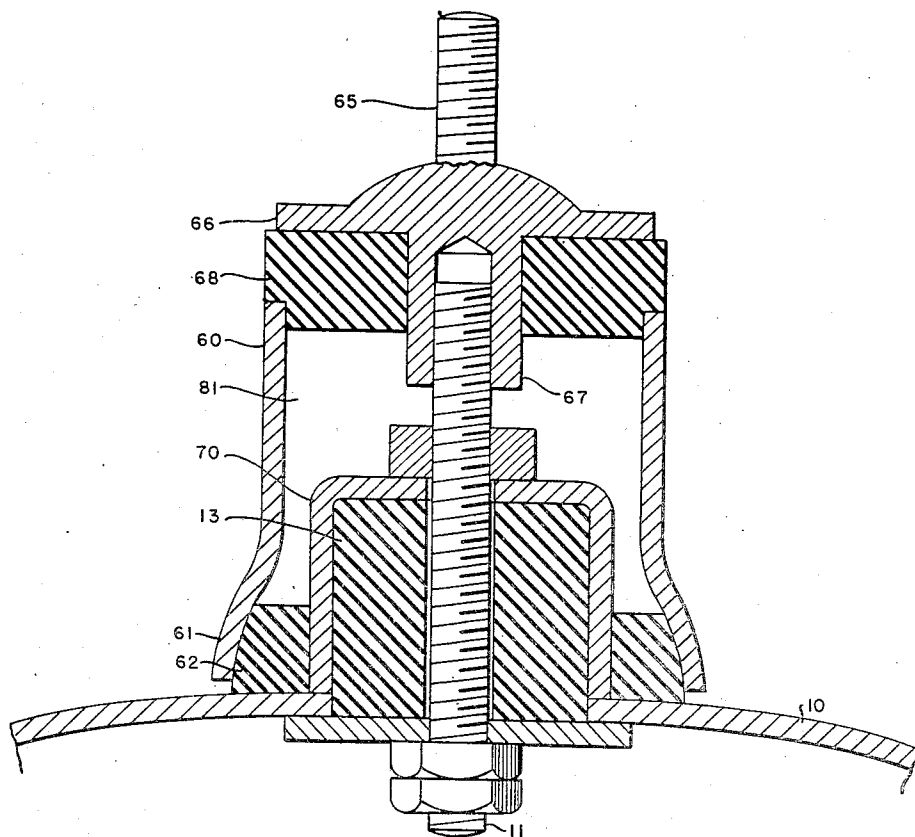


Fig. 1

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TERMINAL REPLACEMENT FOR SEALED REFRIGERATION UNITS

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2 Claims. (Cl. 174-77)

1

This invention relates to terminal replacements for sealed refrigeration units. Under conditions of normal use, as well as under abnormal conditions, hermetically sealed refrigeration units frequently develop leaks. These leaks usually occur in the area immediately surrounding the terminals and more particularly somewhere between the terminals and the casing proper. To repair these leaks it is customary to cut open the casing in order to replace the terminals and the ceramic material which surrounds them. This is an expensive operation and a time-consuming one.

The present invention is intended to provide a terminal replacement which may be applied to the unit without cutting it apart.

More particularly it is the principal object of this invention to provide a terminal replacement for sealed refrigeration units which, when installed, eliminates leaks at the original terminal.

Another object of the invention is the provision of a terminal replacement of the character described which may be applied to the refrigeration unit in the field and without necessitating removal of the unit to the repair shop.

A further object of the invention is the provision of a terminal replacement of the character described which may be applied very quickly and very effectively to conventionally hermetically sealed units without in any way modifying these units or cutting them open.

A preferred embodiment of this invention is shown in the accompanying drawing in which the figure is a longitudinal section through one of the replacement units made in accordance with the present invention.

It will be seen in the drawing that casing 10 of a standard hermetically sealed refrigeration unit is provided with a hole therein through which terminal 11 extends. Affixed to said casing at said hole is a collar 70. Ceramic insulation 13 is carried between said collar 70 and said terminal 11.

A replacement unit as herein claimed includes the use of a sleeve 60 which has a flared skirt 61. A substantially cylindrical rubber washer 62 is mounted on the collar 70 and under the skirt 61. It will be appreciated that a downward force applied to the sleeve 60 will have the effect of providing a tight joint between said washer 62 on the one hand and the collar 70 and skirt 61 on the other. This downward force is provided by means of terminal extension 65 which has an annular flange 66 and an internally threaded lower enlarged portion 67. Threaded portion 67 is adapted to be screwed upon the terminal 11.

2

A ring-shaped rubber washer 68 or a washer of any other suitable material is mounted on the threaded member 67 and between the flange 66 and the upper end of the sleeve 60. When the threaded member 67 is screwed down tight upon the terminal 11 a leak-proof seal is provided between the washer 68 on the one hand and the flange 66 and the sleeve 60 on the other hand. At the same time and by the same token a leak-proof seal is provided between the washer 62 on the one hand and the collar 70 and the skirted end 61 of the sleeve 60 on the other hand, as has been above described.

There are other ways by which a sleeve may be adapted to the collar surrounding the original terminal and there are other ways than that above described by which a leak-proof seal may be effected between the sleeve and the collar. These variations will suggest themselves to persons skilled in this art.

It should also be understood that although the above invention has been described as adapted for replacement purposes it can readily be used in the original installation.

I claim:

1. A terminal replacement for a refrigeration unit which is hermetically sealed in a casing and whose original terminals extend through holes in said casing, each original terminal being protected by a collar affixed to said casing and surrounding said terminal, said terminal replacement comprising a sleeve whose lower end flares outwardly to form a skirt, said sleeve being disposed around said collar concentrically therewith, a substantially cylindrical washer disposed between said skirt and said collar, a ring-shaped washer mounted on the top of the sleeve and a nut engaging the original terminal and clamping the ring-shaped washer to the top of said sleeve and also clamping the skirted lower end of said sleeve against the cylindrical washer, and thereby clamping said cylindrical washer to said collar, said nut being provided with an upwardly extending threaded portion which constitutes the extension terminal of the refrigeration unit.

2. A terminal replacement for a refrigeration unit which is hermetically sealed in a casing and whose original terminals extend through holes in said casing, each original terminal being protected by a collar which encircles it and which is affixed to the casing, said terminal replacement comprising a substantially cylindrical washer which encircles that portion of the collar which adjoins the casing, said washer being in contact both with said collar and with that portion of

the casing which immediately adjoins the collar, an outwardly flared sleeve disposed around said cylindrical washer, a ring-shaped washer mounted on top of the sleeve and a nut engaging the original terminal and clamping said ring-shaped washer to the top of the sleeve and also clamping said sleeve against the cylindrical washer and said cylindrical washer against the collar and the casing, said nut having an upwardly extending threaded stud connected thereto which constitutes the extension terminal of the refrigeration unit.

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