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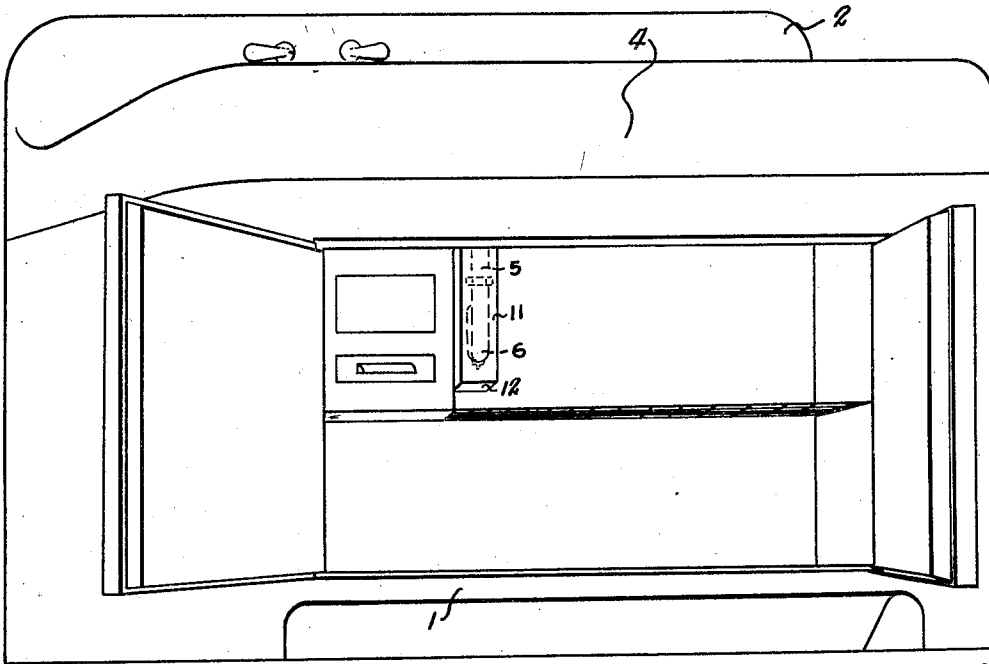
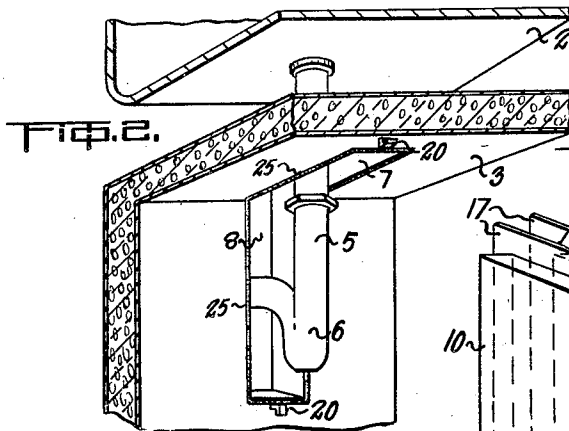
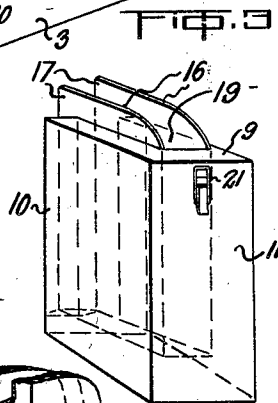
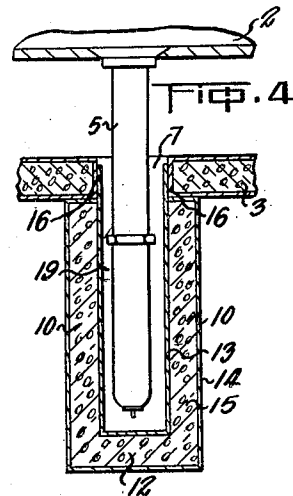
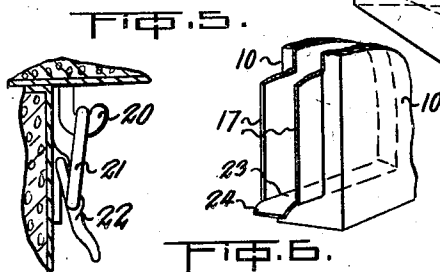
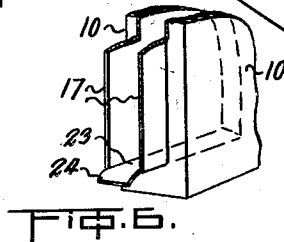
C. M. WEINHEIMER

1,866,435

REFRIGERATOR

Filed July 19, 1930

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UNITED STATES PATENT OFFICE

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REFRIGERATOR

Application filed July 19, 1930. Serial No. 469,182.

My invention relates to improvements in refrigerators and is more particularly directed towards the domestic type of refrigerator in what is known as a combined refrigerator and sink. In this type of unit a kitchen sink is positioned upon a refrigerator so as to form a refrigerator sink unit and thus utilize the space beneath the sink which heretofore in most cases has been more or less wasted space.

As the waste pipe with its U shaped trap must necessarily depend downwardly from the sink into the refrigerator, the object of my invention is to furnish a suitable waste pipe casing which will effectively insulate the waste pipe from the refrigerator, and in which such casing may be readily removed to leave the waste pipe conveniently accessible.

My invention consists of a refrigerator and waste pipe casing therefor constructed and arranged all as hereinafter more particularly described and illustrated in the accompanying drawing in which:—

Fig. 1 is a perspective view of a refrigerator and sink unit, the refrigerator doors being open.

Fig. 2 is an enlarged perspective view of a fragmentary portion of the refrigerator casing and sink showing the waste pipe depending from the sink through the slot in the refrigerator casing.

Fig. 3 is a perspective view of the waste pipe casing which engages the slot in the refrigerator casing as illustrated in Fig. 2.

Fig. 4 is also an enlarged vertical cross sectional view through a fragmentary portion of the refrigerator and waste pipe casing, together with the waste pipe contained therein.

Fig. 5 is a further enlarged vertical cross sectional view through fragmentary portions of the refrigerator and waste pipe casings showing the locking members extending therebetween, and

Fig. 6 is a perspective view of a fragmentary portion of the waste pipe casing.

Like characters of reference indicate corresponding parts in the different views of the drawing:

The refrigerator sink unit consists of a refrigerator casing 1 having a sink 2 positioned upon the top thereof, such refrigerator casing having insulated walls and an insulated top 3 which is in proximity to the bottom of the sink, the skirt 4 of the sink sitting on top of the refrigerator.

The waste pipe 5 and its U shaped trap 6 depends downwardly from the sink and therefore must pass into the refrigerator, and as illustrated in Fig. 2 I have shown such waste pipe extending through horizontal and vertical slots 7 and 8 in the top and back of the refrigerator casing, such slots opening into each other to form a substantially L shaped slot.

It will be readily apparent that if the waste pipe were not effectively insulated from the refrigerator that the cold air in the refrigerator would possibly freeze the water in the waste pipe trap, or on the other hand the passage of hot water through the pipe from the sink would radiate heat into the refrigerator and impair its efficiency. In order to overcome these objections and also to furnish an insulated casing for the waste pipe which can be readily removed if it is necessary to gain access to the waste pipe to clear the trap, or for any other purpose, I have devised the casing which I shall now describe.

The casing consists of a rectangular box shaped member 9 having its sides 10, front 11, and bottom 12 insulated. The casing wall construction follows standard practice and in the drawing I have shown it formed of inner and outer metal sheets 13 and 14 having heat insulating material 15 sandwiched therebetween.

The back and top of the casing is open, and the inner metal sheet 13 is extended in both of these directions to form a pair of top flanges 16 and a pair of back flanges 17, the ends 18 of the flanges adjacent to the front of the casing being curved. The central open portion 19 of the casing 9 receives the waste pipe, and when such casing is positioned in place the flanges 16 and 17 extend into the slots 7 and 8, lying against their side walls. The flanges 16 and 17 are of course of the same length, or a little shorter, than the slots 7 and

8, so that the waste pipe casing fits tightly in place with its top face lying against the inner top face of the refrigerator casing, and its back face lying against the back inner face

of the refrigerator casing.

The bottom of the central open portion 19 of the casing which consists of the upper face of the casing bottom 12 is sloped rearwardly as illustrated in Fig. 3, so that any water which might possibly leak from the waste pipe 5 or its trap will run downwardly towards the rear wall of the trap casing and go through the slot 8 and down behind the back of the refrigerator. In order to further prevent any such possible leakage passing into the refrigerator around the back of the waste pipe casing I position a sheet portion 23 which extends between the bottom edges of the back flanges 17 and is furnished with a downwardly extending lip 24 which extends exteriorly of the rear wall of the refrigerator casing when the waste pipe casing is in position. It will therefore be readily apparent that any drip from the waste pipe will run down the bottom of the open portion 19 across the sheet 23, which is a continuation of such bottom, and over the lip 24 out of the refrigerator casing.

In order to furnish an air tight closure between the waste pipe casing and the refrigerator casing I position a rubber or similar pliable beading 25 extending around the slots 7 and 8 and against which the top and rear faces of the waste pipe casing abut. It will be understood that my particular construction incorporating an L shaped slot in the refrigerator casing and my waste pipe casing extending around such slot effectively insulates the waste pipe from the interior of the refrigerator, and at the same time leaves the waste pipe open to the free circulation of air through the top slot 7 and the back slot 8.

For retaining the waste pipe casing in position, and also for drawing it tightly in place I have furnished a pair of locking members which extend respectively between the front of the waste pipe casing and the top of the refrigerator casing, and between the bottom of the waste pipe casing and the inner face of the refrigerator casing.

These locking members each consist of a hook 20 which is secured to the refrigerator casing, and the loop 21 which is carried by the waste pipe casing and adapted to engage the hook. The loops 21 are swingably mounted upon levers 22 intermediately of the length of the levers, such levers being pivotally mounted upon the waste pipe casing. When the waste pipe casing is being positioned in place the bottoms of the flanges 17 are inserted into the slot 8 so that the sheet member 23 is positioned upon the bottom of the slot and the lip 24 protruding therethrough. The casing is then swung upwardly so that

the flanges 17 completely enter the slot 8, and the flanges 16 the slot 7, and when this is done the levers 22 are swung towards their respective hooks 20 and the loops 21 positioned upon the hooks. The levers 22 are then swung away from the hooks, thus drawing the loops into tight engagement with the hooks 20 and securing the waste pipe casing tightly in place against the beading 25.

When it is desired to remove the casing the levers 22 are swung towards their hooks which permits the loops 21 to be disengaged. The casing can then be drawn from about the waste pipe and by the provision of the rounded ends 18 upon the flanges, the casing can be swung downwardly to facilitate removal without danger of the ends of the flanges jamming against the ends of the slot 7.

From the foregoing description it will be apparent that I have devised a very simple yet effective casing for waste pipes in refrigerator sink units of the character described, which will effectively shield the waste pipe from the refrigerator temperatures and also shield the refrigerator from the waste pipe temperatures, and although I have shown and described a particular embodiment of my invention and a particular form of attachment it is to be understood that I can change the form of attachment or relation of the waste pipe casing to the refrigerator casing without departing from the spirit of my invention as set forth in the appended claims.

What I claim as my invention is:

1. In a refrigerator casing adapted to be placed beneath a sink, and having a slot therein through which the projecting waste pipe extends into the refrigerator casing, of a casing surrounding such projecting portion of the waste pipe and detachably secured to the refrigerator casing, and members extending from the casing surrounding the waste pipe into the slot in the refrigerator casing.

2. In a refrigerator casing adapted to be placed beneath a sink and having an L-shaped slot extending through the top and back thereof and through which the projecting waste pipe extends into the refrigerator casing, of a casing detachably surrounding such projecting portion of the waste pipe and having its top and one side open for the reception of the waste pipe.

3. In a refrigerator casing adapted to be placed beneath a sink and having an L-shaped slot extending through the top and back thereof and through which the projecting waste pipe extends into the refrigerator casing, of a casing detachably surrounding such projecting portion of the waste pipe and having its top and one side open for the reception of the waste pipe, flanges formed on the waste pipe casing along the edges of

its open top and side and insertable into the slot in the refrigerator casing, and means extending from the refrigerator casing to the waste pipe casing for drawing the waste pipe casing into engagement with the refrigerator casing.

4. In a refrigerator casing adapted to be placed beneath a sink and having an L-shaped slot extending through the top and back thereof and through which the projecting waste pipe extends into the refrigerator casing, of a casing detachably surrounding such projecting portion of the waste pipe and having its top and one side open for the reception of the waste pipe, and vertical flanges extending from the waste pipe casing along the edges of its open top and side and insertable into the slot in the refrigerator casing to bear against the sides of the slot.

5. In a refrigerator casing adapted to be placed beneath a sink and having an L-shaped slot extending through the top and back thereof and through which the projecting waste pipe extends into the refrigerator casing, of a casing detachably surrounding such projecting portion of the waste pipe and having its top and one side open for the reception of the waste pipe, and means extending from the refrigerator casing to the waste pipe casing for drawing the waste pipe casing into engagement with the refrigerator casing.

CARL M. WEINHEIMER.