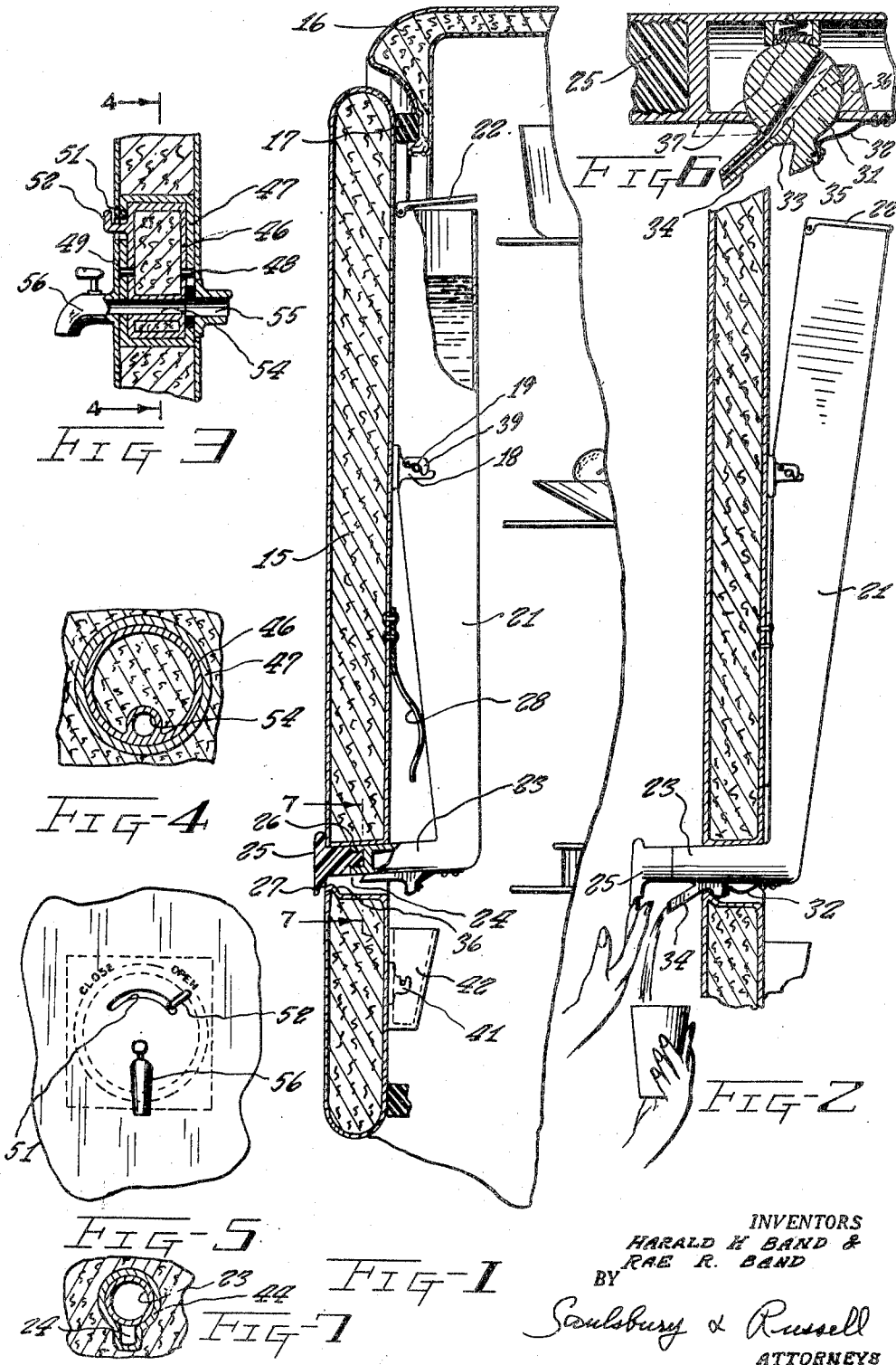


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REFRIGERATOR WATER FOUNTAIN

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## REFRIGERATOR WATER FOUNTAIN

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6 Claims. (Cl. 62—89)

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This invention relates to a water fountain for use with refrigerators.

It is an object of the present invention to provide a water fountain which is adapted to be mounted upon a door of a refrigerator on the interior of the same and wherein the outlet for the fountain is extended through the door and adapted to be operated so that insulation material will always lie within the space through which the water passage extends when the fountain is not being used whereby little cold loss results from the extension of the fountain outlet through the door.

Other objects of the present invention are to provide a water fountain for refrigerators which is adapted to be connected to a refrigerator door which is of simple construction, easy to operate, inexpensive to manufacture, easily accessible to the person desiring the water, and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which

Fig. 1 is a longitudinal sectional view taken through a refrigerator door and the fountain embodying the features of the present invention mounted on the rear of the door and adapted to be extended in the refrigerator and with the fountain returned to the refrigerator in such a manner as to place insulation within the opening through which the fountain is extended.

Fig. 2 is a sectional view similar to Fig. 1 but where the fountain has been extended out of the refrigerator door for dispensing the liquid within the same.

Fig. 3 is a fragmentary sectional view of a door with a modified form of water outlet for the door and wherein the water outlet when not in use can be insulated at the location of the water outlet opening.

Fig. 4 is a sectional view taken on line 4—4 of Fig. 3.

Fig. 5 is a fragmentary plan view looking upon the face of the door and upon the adjusting member and spigot.

Fig. 6 is a fragmentary and enlarged sectional view taken through the valve mechanism of the form of the invention shown in Figs. 1 and 2.

Fig. 7 is a sectional view taken on line 7—7 of Fig. 1.

Referring now particularly to Figs. 1, 2, 6 and 7, 15 represents a refrigerator door which is hinged to a refrigerator body 16 and is sealed

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upon being closed by sealing material 17. Mounted on the rear of the door is a bracket 18 adapted to receive trunnions 19 of a fountain 21 adapted to contain water to be cooled. This fountain is open at the top and may be closed by a cover 22 which is lifted when the fountain is to be filled with water. The fountain is formed of metal which will conduct the heat of the water to the cold exterior surface whereby the water will be chilled. The lower end of the fountain has a neck portion 23 which is adapted to extend outwardly through an opening 24 in the door. This neck opening 24 is adapted to receive an insulating member 25 threaded upon the neck portion 23 in a sleeve formation 26 especially provided for the same. The insulating member has a depending flange portion 27 beneath which fingers can be extended for the purpose of pulling the neck portion 23 outwardly in the manner as shown in Fig. 2 for the purpose of dispensing the water from the fountain. A spring 28 is secured to the inner wall of the door 15 and the outward movement of the neck portion will be against the action of this spring 28. When the insulating handle 25 has been released, the spring 28 will return the fountain 21 to the normal position upon the door, which is as shown in Fig. 1. When the fountain is in the position shown in Fig. 1, the insulating member 25 will be extended into the opening 24 whereby to prevent the extension of heat from the exterior of the door through the opening 24.

In the neck portion 23 is a rotary valve element 31 which is normally maintained in a closed position by a spring 32. This rotary element 31 has an opening 33 therein and a spout 34. A projection 35 extends from the rotary member and is adapted to be engaged by a raised portion 36 in the opening 24 in the door. As shown in Fig. 6, the rotary valve 31 will be extended downwardly to dispense the water through the spout 34. When the neck portion of the fountain is returned, the spring 32 will cause the spout 34 to be elevated to the dotted line position, as shown in Fig. 6, and so that the opening 33 will be closed by valve seat portion 36 in the neck portion 23. A spring device 37 maintains the rotary valve 31 on its seat opening.

The trunnions 19 are retained on the bracket 18 by a lift latch 39. Below the neck portion 23 and mounted on the rear of the door is a bracket 41 adapted to receive a cup 42 for catching any drippings from the neck portion 23 when the same has been returned to the position shown

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in Fig. 1. The opening 24 is provided in a sleeve portion 44 of the door casing.

Referring now more particularly to Figs. 3, 4 and 5, there is shown a modified form of the invention wherein insulation is placed in the water outlet opening in a different manner and by a rotation of a casing 46 within a casing 47 mounted in the door casing. The casing 46 is connected to the casing 47 by pivot pins 48 and 49. A slot 51 is provided in the casing 47 and in the casing of the door and from the casing 46 there is extended an arm 52 which operates in the opening 51 to rotate the casing 46 on the pins 48 and 49.

Within the casing 46 is a water passage 54 which can be brought into registry with a water pipe 55 and a spigot 56 as when the arm 52 is moved to the open position as shown in Fig. 5. When the casing 46 is moved to the closed position, insulating material will be placed between the pipe 55 and the spigot 56. Accordingly, there will be little cold loss as a result of providing a water outlet in the refrigerator door.

It will be apparent that there has been provided an arrangement of water fountains for refrigerator doors wherein insulation can be placed within the opening through which the water is extended when the fountain is out of use.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

We claim:

1. A water fountain arrangement for refrigerators comprising a container portion adapted to contain the water, a neck portion extending from the lower end of the container portion, said neck portion adapted to be extended through an opening in a refrigerator wall, valve means carried on the neck portion and operable automatically upon the extension of the neck portion through the casing wall, and handle means on the neck portion to effect the movement of the neck portion through an opening in the refrigerator casing wall.

2. A water fountain arrangement for refrigerators comprising a container portion adapted to contain the water, a neck portion extending from the lower end of the container portion, said neck portion adapted to be extended through an opening in a refrigerator wall, valve means carried on the neck portion and operable automatically upon the extension of the neck portion through the casing wall, and handle means on the neck portion to effect the movement of the neck portion through an opening in the refrigerator casing wall, said container portion adapted to be connected to the interior of the refrigerator for pivotal movement, and a spring return device adapted to extend between the refrigerator casing and the container portion whereby to automatically return the neck portion to its position within the refrigerator upon the handle means being released.

3. A water fountain arrangement for refrigerators comprising a container portion adapted to

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contain the water, a neck portion extending from the lower end of the container portion, said neck portion adapted to be extended through an opening in a refrigerator wall, valve means carried on the neck portion and operable automatically upon the extension of the neck portion through the casing wall, and handle means on the neck portion to effect the movement of the neck portion through an opening in the refrigerator casing wall, and said handle means being of insulating material and adapted to partly fill the opening in the refrigerator casing through which the neck portion is extended.

4. A water fountain arrangement for refrigerators comprising a container portion adapted to contain the water, a neck portion extending from the lower end of the container portion, said neck portion adapted to be extended through an opening in a refrigerator wall, valve means carried on the neck portion and operable automatically upon the extension of the neck portion through the casing wall, and handle means on the neck portion to effect the movement of the neck portion through an opening in the refrigerator casing wall, said valve means comprising a rotary valve having an opening therein, a spout extending from the rotary valve, a projection on the rotary valve adapted to be engaged by a portion of the refrigerator casing as the neck portion is withdrawn through the casing whereby to tilt the spout downwardly for dispensing the water, and means for automatically returning the rotary valve to its normally closed position and the neck portion is returned to the refrigerator.

5. In combination, an insulated casing, relatively movable inner and outer casings within the insulated casing containing insulating material, said inner and outer casings having water passages adapted to be registered with one another when the inner casing is moved to one position and adapted to be placed out of registry when the inner casing is moved to another position and to cause the insulation to be disposed between the openings of the outer casing, and handle means extending from the inner casing by which the same may be moved.

6. In combination, an insulated casing provided with an opening therein, a vessel adapted to contain water positioned in said casing, and water outlet means positioned in said opening in said insulated casing, said water outlet means being movable in one direction within said opening to permit the water to flow through said opening within said insulated casing, and movable in the opposite direction to place insulation material within the casing opening.

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#### REFERENCES CITED

The following references are of record in the file of this patent:

#### UNITED STATES PATENTS

Number	Name	Date
1,890,461	Hamburg	Dec. 13, 1932
2,078,097	Radzinsky	Apr. 20, 1937