SAFETY GUARD FOR GAS RANGE ON-AND-OFF VALVES
Morris Fox, 2366 E. 23rd St., Brooklyn 29, N.Y. Filed Mar. 9, 1960, Ser. No. 13,805
2 Claims.
(CI 125—42)

This invention relates to protective guards or covers for gas ranges and the like, and an important object of the invention is the provision of a readily attachable and removable cover or guard which, when in position, completely conceals the petcots of the range and maintains them inaccessible to small children. Thus inadvertent or playful turning on of until gas jets with the consequent undesirable effects, is avoided.

Another object of the invention is the provision of a guard such as mentioned above, which embodies novel and useful structural improvements for releasably maintaining the guard in place against possible efforts of small children to detach or move it while permitting a grown person to remove the guard at will. Thus, for example, when a home is being visited by a small child the guard may be mounted in place and left there until the child has departed.

Still another object of the invention is the provision of a gas jet petcok or valve guard for gas ranges and the like wherein the guard is a complete integral unit including the means for attaching it to the range, and whereby no alteration, defacement or any work of any kind is required to be done to or on the range. Thus after the guard has been removed the range has identically the same appearance as before it was applied.

A still further object of the invention is the provision of a guard for the purpose mentioned wherein the means for attaching it to the range includes magnets which grip the ferrous housing of the range.

The above as well as additional objects will be clarified in the following description wherein reference numerals will be used in conjunction with the accompanying drawing. It is to be noted that the drawing is intended primarily for the purpose of illustration and that it is therefore neither desired nor intended to limit the invention necessarily to any or all of the exact details shown or described except insofar as they may be deemed essential to the invention.

Referring briefly to the drawing,

FIG. 1 is a fragmentary perspective view of a gas range having the protective guard of the present invention attached thereto.

FIG. 2 is partly a top plan view of FIG. 1 and partly a sectional view taken on the line 2—2 of FIG. 1.

FIG. 3 is a rear elevational view of the guard per se.

FIG. 4 is an enlarged fragmentary sectional view taken on the line 4—4 of FIG. 3.

FIG. 5 is a fragmentary enlarged rear elevational view.

Referring in detail to the drawing, the numeral 10 indicates a gas range or the like having, in the usual manner, a row of valves, petcots or the like 12 positioned at or near the upper edge of the front wall 11 and adapted to be turned on and off for ignition of the burners 13.

The present invention utilizes a housing 14 which is elongated sufficiently to exceed the distance between the outlines as at 15. The housing is made of a light weight material. In the illustration this material is assumed to be aluminum, in which case either narrow openings, in suitable positions as indicated at 19, are provided in the top wall 17 to serve as windows, or similar suitable openings covered with a transparent fireproof material, such as, for example, mica, not shown, are provided. The windows serve to give visual access to the valves 12. The housing may also be constructed of any suitable synthetic plastic material, not shown, of a transparent type, in which case windows would not be required.

At each end of the housing 14 a magnet 20 is secured against the inside of the end wall 18 in a suitable manner. One example of such securement is illustrated, in the form of a bolt or rivet 21 passed through the magnet and the end wall. The rear contact surface end surface 20a of the magnets is flat or, at least, such surfaces lie in the plane of the rear edges of the top and bottom walls. Secured against the inner surface of each magnet 20 is one web 26 of an angle-shaped ferrous member or attachment 22, the other web 24 having its flat outer surface 25 lying flush with and in the plane of the magnet surface 20a. The angle iron 23 thus increases the magnetic contact area of the magnet 20 and serves an additional purpose clarified below.

The guard, as far as thus described above, is obviously attachable to the wall 11 about the valves 12, as illustrated in FIG. 2, with the magnets holding the housing against the ferrous front wall of the range. The angles 23 may of course also be magnetized, but even if they are not there will be a magnetic flux issuing into the angles from the magnets thus increasing the magnetic contact area.

The exterior surfaces of such ranges are usually coated with an enamel or other hard and smooth finish, upon which the magnets 20 may be subject to sliding movement in case of accidental impact thereagainst. In order to minimize such possible sliding, the following additional improvements are provided. At each end of the housing a molding-like strip or flange of soft rubber 26 is mounted adjacent the rear end of each magnet 20 in vertical position with the rear edge 27 protruding somewhat beyond the said plane through the rear edges of the top and bottom walls. Additionally, the edge 27 of the strip is provided with a longitudinal groove 28. In order to accommodate the strips 26 the rear portions of the end walls 18 are deformed outward to provide them with flared extensions or flanges 28a within which the strips register. The strips 26 may readily be cemented or otherwise fixed within these flanges. The vertical rear edges 29 of the guard also lie flush with the same plane as the rear edges of the top and bottom walls 17 and 16, respectively.

Upon applying the housing 14 against the range wall 11 in the manner illustrated in FIGS. 1 and 2, the magnetic contact surfaces of the magnets 22 and, if the angles 23 are also of ferrous material, the webs 24, will firmly be held against the wall 11. During this procedure the ridges 30 of the strips 26, which define the groove 28, will be compressed and spread, thus providing a non-slip cushion surface which is also in contact with the surface 11. In FIG. 4 the ridges 30 are shown exaggerated in size. Thus, when the guard is mounted in place any force tending to slide it on the surface is resisted by the cushioning soft rubber strips 26.

The webs 24 of the angle irons 23 also serve the following function. It is to be noted that each valve or petcok 12 has its rotatable handle or hand grip positioned forward of, and to the side of, the valve at 12. In the case illustrated in FIG. 2, each valve is shown spaced forward of a fixed boss 31. It is apparent that in the event that the housing 14 is accidentally bumped or pushed horizontally or nearly horizontally, the edge of the web 24 will meet the boss 31 and stop further movement of the housing before the adjacent web 22 or magnet 20 strikes the valve. Thus accidental turning on or
off of the valve as a result of such movement of the housing is prevented, and the guard provides assurance at all times against inadvertent actuation of the petcocks or valves.

Assuming that the guard is mounted in place on the range when the range is not in use, it is a simple and easy matter for a grown person or one old enough to bear responsibility, that is, all persons other than irresponsible small children, to pull the guard outward and out of the way to gain access to the gas valves.

It is desirable that the housing 14 be made of any suitable lightweight material, as is obvious, and any kind of windows may or may not be provided, in any position or positions in the housing, as a matter of choice.

It is to be noted that the rear surfaces 20a of the magnets 20, as well as the surfaces 25 of the extensions 24, may be positioned rearward of the plane through the rear edges of the housing walls, or even slightly forward of the said plane. In the latter case, however, the magnetic attraction between the wall 11 and the magnets would be of a lesser degree than when the magnets actually contact the range wall.

The invention having thus been described, what is claimed and desired to be secured by Letters Patent is as follows:

1. A safety guard for a gas range having a ferrous front wall and a row of bosses thereon extending forward therefrom and a rotatable on-and-off valve projecting forward from each of the bosses, comprising an elongated hollow housing of non-magnetic material adapted to have a length in excess of the distance between the endmost bosses of said row and including top and bottom walls, a front wall and end walls, the rear of the housing being open, the rear edges of said end walls lying in a common plane, said top and bottom walls extending rearward to said plane, a magnet secured against the inner surface of each of said end walls and having a flat face lying substantially in said plane, cushioning means secured to said end walls adjacent said magnets having a surface thereof extending rearward beyond said plane, said magnets having right-angle extensions of ferrous material secured thereto and having free extremities extending toward each other, the rear surfaces of said extensions lying substantially in said plane, the free extremities of said extensions adapted to be normally positioned spaced from said endmost bosses.

2. A safety guard according to claim 1, each of said end walls having an outwardly and rearwardly extending flange thereon adjacent the flat face of the magnet forming a recess with a side portion of the magnet, said cushioning means comprising a soft yieldable cushion registering in and secured in said recess.

References Cited in the file of this patent

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Patent Number</th>
<th>Inventor</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,472,793</td>
<td>Conterno</td>
<td>June 14, 1949</td>
</tr>
<tr>
<td>2,621,661</td>
<td>Gaskin</td>
<td>Dec. 16, 1952</td>
</tr>
<tr>
<td>2,696,389</td>
<td>Cessford</td>
<td>Dec. 7, 1954</td>
</tr>
<tr>
<td>2,778,356</td>
<td>Pugach</td>
<td>Jan. 22, 1957</td>
</tr>
</tbody>
</table>