

Feb. 2, 1954

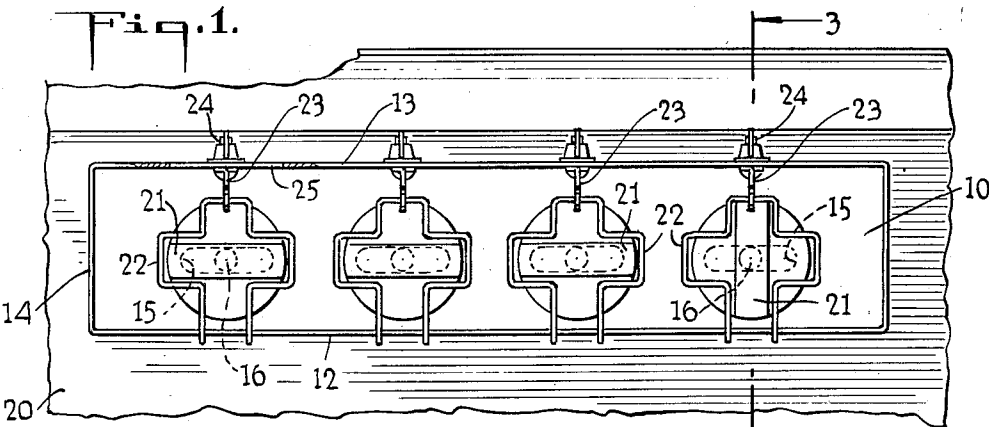
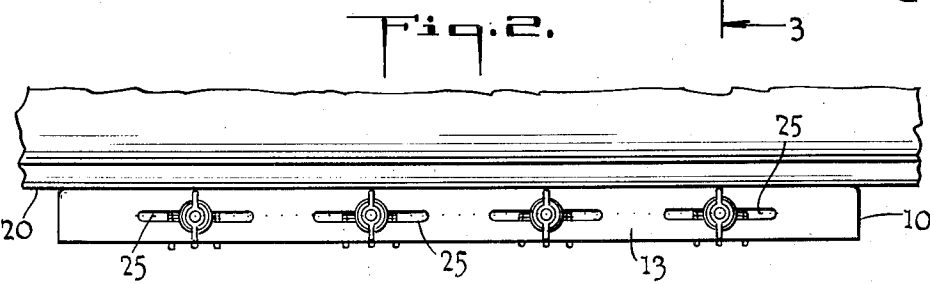
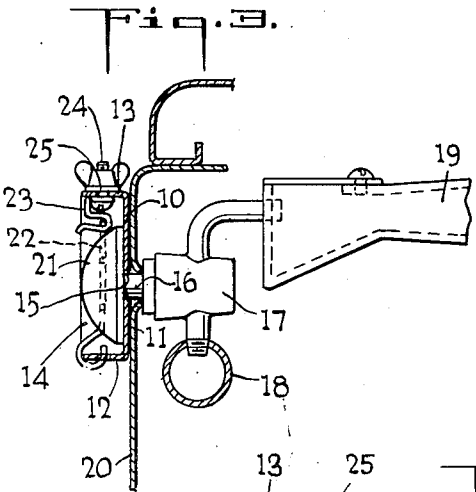
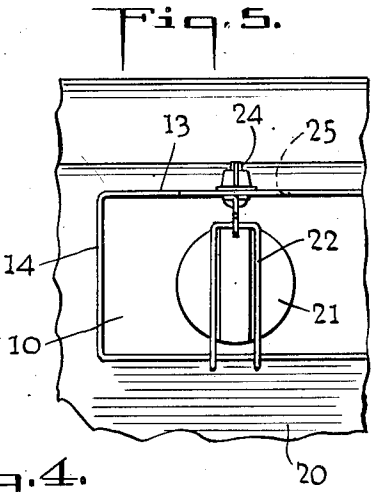
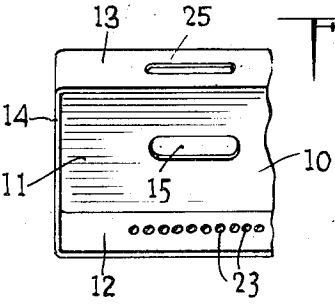
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2,667,864

SAFETY ACCESSORY FOR GAS STOVES

Filed Dec. 29, 1949

2 Sheets-Sheet 1



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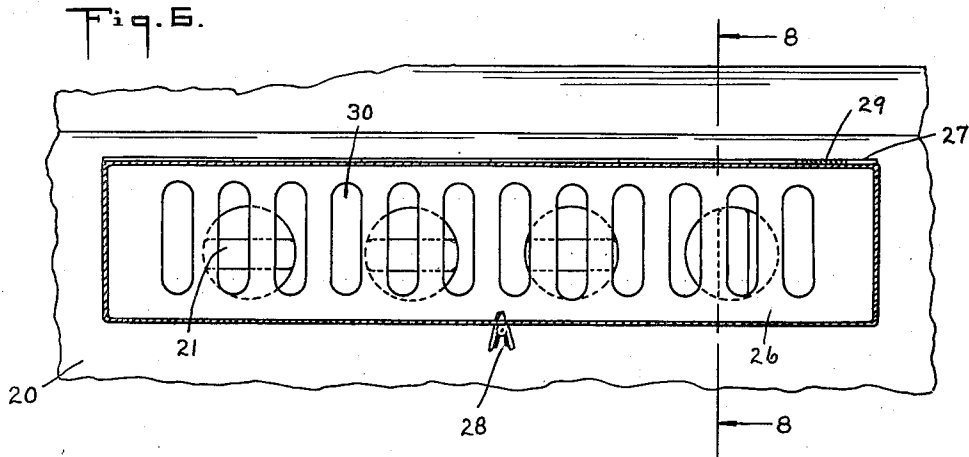
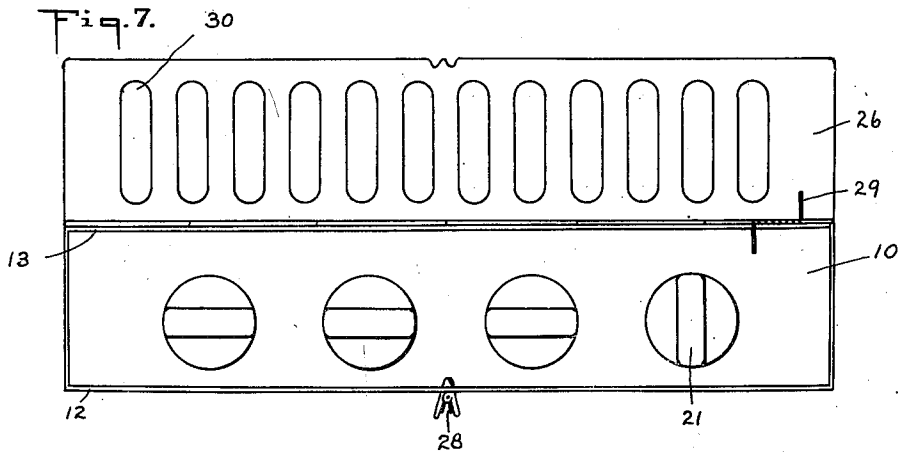
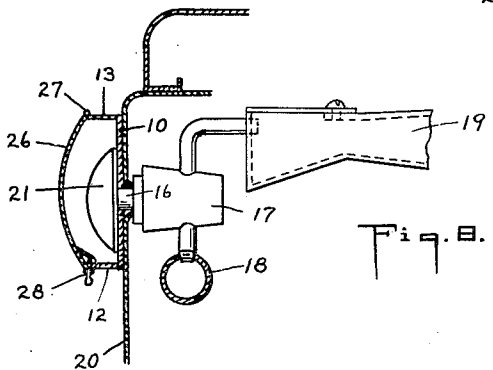
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SAFETY ACCESSORY FOR GAS STOVES

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2 Sheets-Sheet 2



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SAFETY ACCESSORY FOR GAS STOVES

Adolph Marx, Brooklyn, N. Y.

Application December 29, 1949, Serial No. 135,590

4 Claims. (Cl. 126—42)

This is a continuation-in-part of my copending application Serial No. 114,130, filed September 6, 1949, now abandoned.

This invention relates to safety accessories for gas stoves. Gas ordinarily used as fuel in domestic cooking stoves is highly poisonous and inflammable and the dangers from accidentally escaping gas are well known. Leakage of gas may result from a variety of causes, the gas then continuing to flow to form a poisonous and possibly explosive mixture with the surrounding air. Children too small to realize the danger may turn on a valve controlling the flow of gas to a burner and allow gas to escape. In attempting to shut off the flow of gas to a burner, one may inadvertently not quite close the valve and the flame may be extinguished with a resulting leakage of the gas. The general object of the invention is to provide an improved safety accessory for gas stoves which will prevent or at least greatly minimize the danger of accidental and dangerous leakage of gas from the burners. Another object of the invention is to provide a safety accessory of the type indicated which is simple in construction and inexpensive and which may be easily and quickly attached to a gas stove without the use of tools or at least without the use of any special tools.

The objects and advantages of the invention will become more apparent from the following description taken in connection with the accompanying drawings in which Fig. 1 is a front or face view of a safety accessory constructed in accordance with the invention and mounted in operative position on a gas stove, a small top portion only of the stove being shown, Fig. 2 is a plan view of the safety accessory shown in Fig. 1, Fig. 3 a sectional view on the line 3—3 of Fig. 1, Fig. 4 is a perspective view of a portion of a sheet metal base for supporting the operative parts of the accessory, Fig. 5 is a partial front view similar to Fig. 1 but indicating a modified form of the safety accessory, Fig. 6 is a front view of another form of the invention mounted on a gas stove with the burner valves guarded, Fig. 7 is a view similar to Fig. 6 but with the valves unguarded and Fig. 8 is a sectional view on the line 8—8 in Fig. 6.

Like reference characters indicate similar parts in the different figures of the drawing.

The invention as shown in Figs. 1 to 5 inclusive includes a channel shaped base or support 10 formed of a thin flat back sheet or plate 11 with an upper edge flange 13, a lower edge flange 12 and end flanges 14. The support 10 thus has

the form of a channel with all its edges bent to form an integral flange and is preferably formed of metal which may have an enamel or other desirable finish.

The channel support 10 has a series of openings 15 spaced approximately along the center line of its back plate 11, the spacing of these openings 15 being approximately that of the stems 16 of the valves 17 which control the flow of gas from the manifold 18 to the gas burners 19 of the stove.

In the usual construction of modern gas stoves, the stems 16 of the valves 17 controlling the flow of gas to the burners extend through spaced openings in the front 20 of the stove, the valve stems 16 being provided with knobs or handles 21 for convenience in turning them.

The channel support 10 is placed against the front of the stove with the valve stems 16 extending through the openings 15 in the support. This is easily accomplished by removing the knobs 21, with the valve stems if necessary, placing the channel support in position against the front of the stove and replacing the knobs 21 with the valve stems 16 extending through the openings 15 of the support, the support 10 being retained and held in place by the knobs 21. These openings 15 are preferably elongated to accommodate them to variations in the spacing of the valve stems or to permit the accessory to be mounted on stoves with differently spaced valve stems.

A latch or guard 22 is positioned in front of each gas valve knob or handle 21 which it engages when the valve is in closed position to prevent accidental opening of the valve. The modern gas valve control knob usually has a disk shaped base portion with a flat projecting grip portion as indicated in Figs. 1, 3 and 5. As indicated in Fig. 1, it is assumed that the valve 17 is closed when the grip portion of its control knob 21 is in a horizontal position. Under these conditions, the guard 22 has its opposite sides formed with recesses to fit over the ends of the grip portion of its knob 21 to prevent turning of the knob and opening of its valve. These guards 22 are formed of stiff wire with the opposite sides bent outwardly to provide the knob-retaining recesses. The open lower ends of the two sides of each guard are hook-shaped and passed loosely through two of a series of openings 23 in the lower flange of the support 10, the guards thus being pivotally supported by this lower flange 12. A series of closely spaced openings is preferably provided to permit adjustment of the guards along the lower flange 12 to accom-

modate them to the positions of the corresponding valve knobs 21.

Above each guard 22, a guard retainer 23 is adjustably secured to the upper flange 13. As shown in the drawing, these retainers are formed of spring wire secured in position by bolts 24 passing through openings 25 in the upper flange, the openings 25 being preferably elongated to permit adjustment of the retainers along the flange. The lower ends of the retainers 23 are hook shaped to receive and grip the upper ends of the guards 22 and thus greatly minimize release of the valve knobs 21 and inadvertent or accidental opening of the valves controlling flow of gas to the burners.

As indicated in Fig. 5 where a modified form of the invention is shown, it is assumed that the closed position of the gas valve corresponds to the vertical position of the grip portion of the control knob 21. The guard 22 is of simple U-shape with straight parallel sides to engage the vertical grip portion of the control knob 21 when in position to close its valve. Otherwise, the construction indicated in Fig. 5 is similar to that already described and shown in Figs. 1 to 4.

The arrangement of the invention shown in Fig. 1 is for use in connection with a series of four equally spaced gas burner valves but it is obvious that the device may be constructed for use in connection with any other desired number of valves.

The safety accessory has been described and illustrated in Figs. 1 to 5 with the guards pivoted to the lower flange and the retainers secured to the upper flange, but it is clear that it may be assembled with the stove in the reverse position, if desired.

In the form of the invention shown in Figs. 6, 7 and 8, the flanged supporting plate 19 is similar to that of Figs. 1 to 5 and is mounted and held in place on the stove in the same way by the knobs or handles 21. In this form of the invention, however, the guard is in the form of a cover or shield 26 connected to the upper flange 13 by a hinge 27. This cover or guard 26 may be held in closed position as shown in Fig. 6 by a spring latch 28 which should have a spring strong enough to prevent its release by small children. It may be released without difficulty by an adult, however, to permit the guard 26 to be opened as indicated in Fig. 7. With the guard 26 in open position, the valve control handles 21 are freely accessible and the gas may be turned on and off as desired. The guard 26 is shown as being provided with a spring 29 to open the guard 26 automatically upon release of the latch 28. The guard 26 is preferably provided with small openings 30 to improve the appearance of the device and to permit easy inspection of the valve handles 21 to determine their positions at any time. These openings 30 should, of course, be small enough to prevent small children from reaching through them to turn the handles 21. An important advantage of the form of the invention described in connection with Figs. 6, 7 and 8 is that the guard or cover 26 need not engage the knobs 21 and this form of device may therefore be used in connection with knobs of any shape and design.

The invention provides a simple, inexpensive and very effective arrangement for preventing or at least greatly minimizing the danger of leakage of gas from gas stoves.

What I claim is:

1. In a gas stove having a valve stem projecting from a wall of said stove, and an operating knob arranged on the projecting stem so as to leave a space between said wall and knob, a safety accessory comprising a support member having an opening for accommodating the projecting valve stem, said support member extending in the space between said wall and knob and held in place against said wall by said knob, guard means mounted on said support member for movement from a first position guarding said knob to a second position permitting operation of said knob with the support member held between said wall and knob, and locking means for retaining the guard means in said first position.

2. In a gas stove having valve stems projecting from a wall of said stove, and operating knobs arranged on the projecting stems so as to leave a space between said wall and knobs, a safety accessory comprising a support member having a plurality of spaced elongated openings for accommodating the projecting valve stems, said support member extending into the spaces between said wall and knobs and held in place against said wall by said knobs, guard means pivotally mounted on said support member for movement from a first position guarding said knobs to a second position permitting operation of said knobs with the support member held between said wall and knobs, and locking means for retaining the guard means in said second position.

3. In a gas stove having valve stems projecting from a wall of said stove, and operating knobs arranged on the projecting stems so as to leave a space between said wall and knobs, a safety accessory comprising a base plate, a pair of flanges on said base plate having a plurality of spaced elongated openings for accommodating the projecting valve stems, said base plate extending into the spaces between said wall and knobs and held in place against said wall by said knobs, a cover pivotally connected to one of said flanges for movement from a closed position guarding said knobs to an open position permitting operation of said knobs with the base plate held between said wall and knobs, and a spring latch secured to the other of said flanges for locking the cover in said closed position.

4. A safety accessory as claimed in claim 3, in which said cover is provided with openings to permit inspection of said operating knobs.

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