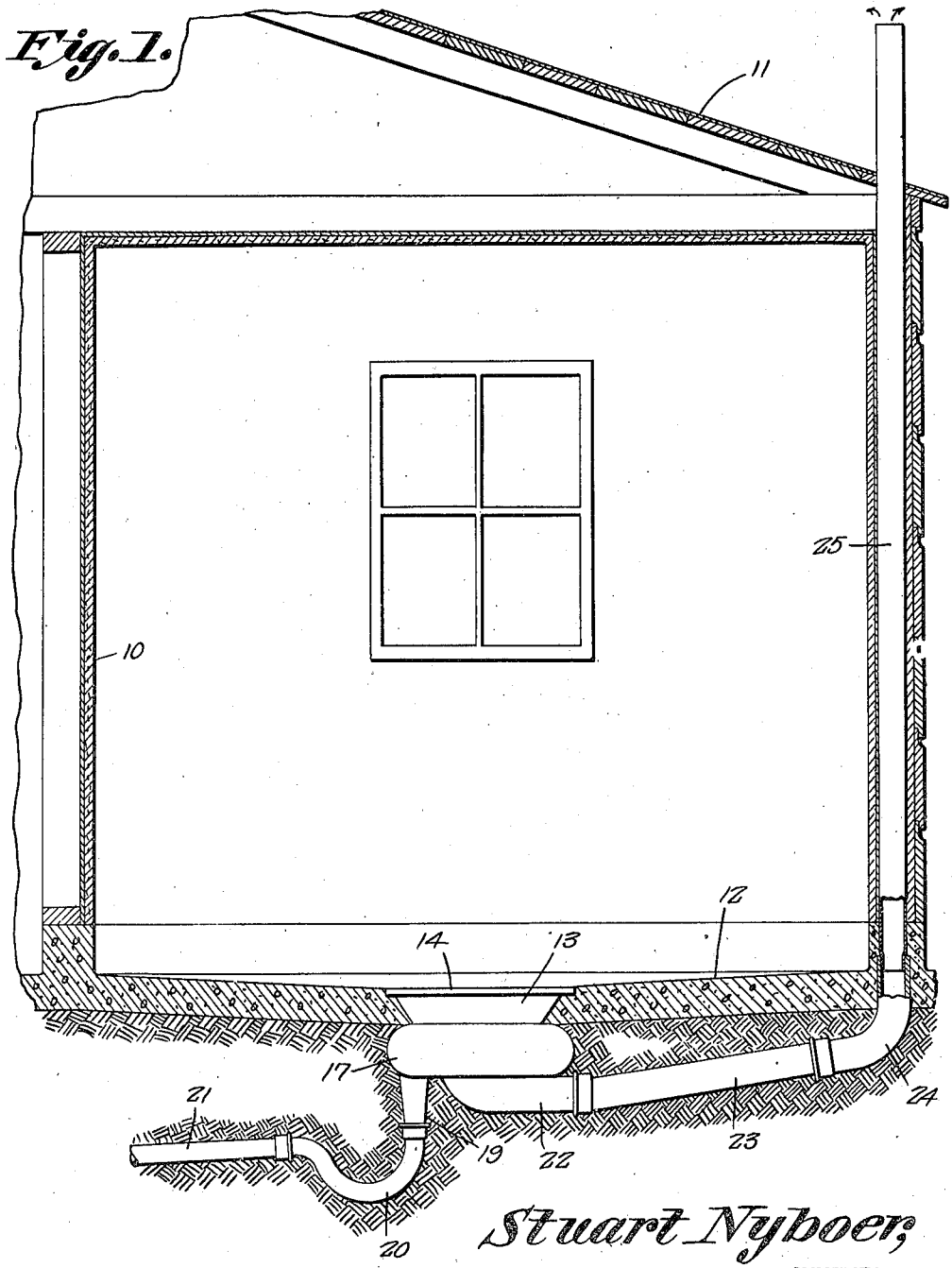
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GAS DISCHARGING SEWER TRAP

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Fig. 1.



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Fig. 2.

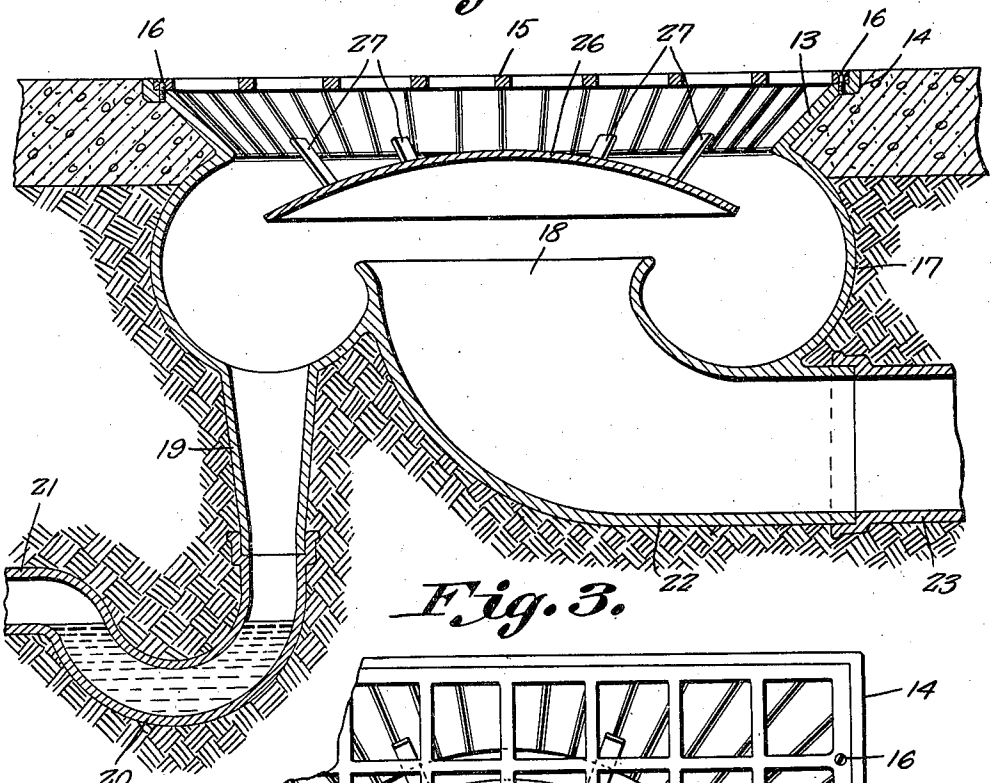
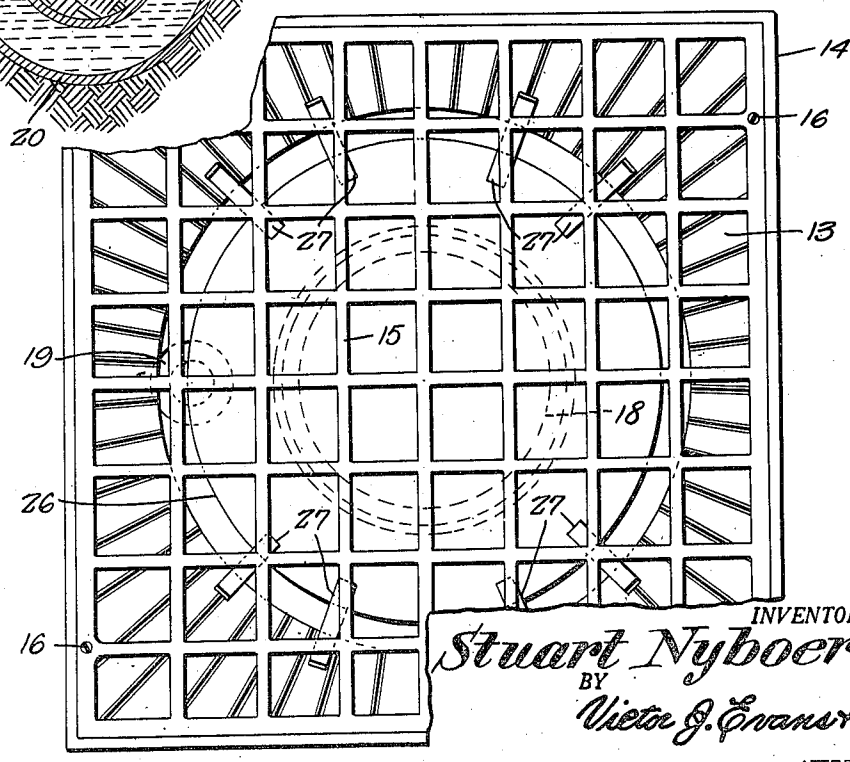


Fig. 3.



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GAS DISCHARGING SEWER TRAP

Stuart Nyboer, Webster, N. Y.

Application April 10, 1942, Serial No. 438,497

3 Claims. (Cl. 182—11)

This invention relates to a gas discharging sewer trap and has for an object to provide a device of this character adapted to discharge carbon monoxide gas from garages attached to living quarters and eliminate the danger of this poisonous gas from entering the domicile.

It is well known that carbon monoxide is a heavy gas and tends to accumulate on the floor of a garage and then gradually arise when the doors are closed and seep over the sills and doors and be hazardous to the health and life of children playing in a garage and of the occupants of an attached home. With this in mind it is a further object of the present invention to provide a bowl in the garage floor having the dual purpose of a sewer drain, and a carbon monoxide gas discharging device, for this purpose the bowl having an annular trough which is connected to the sewer for discharging water, the trough extending around an aperture in the bottom of the bowl, which aperture is connected to an updraft pipe extending through the roof of the garage adapted to receive and carry off carbon monoxide gas.

A further object is to provide apparatus of this character which will be formed of a few strong, simple and durable parts, which will be inexpensive to manufacture, and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings forming a part of this specification:

Figure 1 is a vertical sectional view of a garage equipped with a gas discharging sewer trap constructed in accordance with the invention.

Figure 2 is a vertical sectional view of the gas discharging sewer trap.

Figure 3 is a top plan view of the gas discharging sewer trap.

Referring now to the drawings, in which like characters of reference designate similar parts in the various views, 10 designates the walls of the garage, 11 the roof, and 12 the floor of the garage, the latter being formed of concrete as is customary and sloping toward a central point between the walls to which point the gas discharging sewer trap is located, and will now be described.

The gas discharging sewer trap comprises a bowl having an inverted frustrum shaped wall 13 provided with a shoulder 14, see Figure 2, to receive a grating cover 15 which is removably secured to the shoulder by screw bolts 16. Below the wall 13 the bowl is provided with an inwardly rolled wall 17, integral at the upper end with the wall 13 and having a flared central opening 18, the wall 17 providing an annular trough around the central opening 18. At a point in the bottom of the trough a funnel shaped pipe 19 is connected to an elbow 20 which forms a trap in a sewer 21.

An arcuate pipe 22 is formed integral with the trough 17 and terminates in a flared end which constitutes the central opening 18 of the bowl. The pipe is connected to a tile pipe 23 which inclines upwardly through the earth underneath the garage floor and is terminally equipped with a tile elbow 24 which extends upwardly through the floor between the joists of one of the walls 10 and is connected to a metal stand pipe 25 which projects above the roof 11 of the garage.

A convex deflector plate 26 is provided with arms 27 on its upper surface, these arms being inclined upwardly and outwardly at the same angle as the wall 13 of the bowl, and the upper ends of the arms rest upon the wall 13 to removably attach the deflector plate to the wall 13 at a point directly above the opening 18. The deflector plate extends at its edge beyond the opening 18 and terminates short of the rolled wall 17 of the trough, see Figure 2.

Water escaping from the garage floor through the grating cover 15 will be deflected by the deflector plate 26 into the trough formed by the rolled wall 17 and escape through the trap 20 into the sewer pipe 21. Carbon monoxide gas settling through the grating cover 15 will be drawn around the perforated edge of the deflector plate by the updraft in the stand pipe 25, and enter the arcuate pipe 22, as indicated by the arrowhead, and from thence escape from the garage through the stand pipe.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

1. A device adapted to aid in the removal of poisonous gases from garages comprising a bowl adapted to be mounted in the garage floor and having a wall formed with an inclined upper portion provided with a shoulder, a grating carried by the shoulder, the wall having a lower portion centrally apertured and rolled inwardly to pro-

vide an annular trough surrounding the aperture, a convex deflector plate carried by the inclined portion of the bowl wall disposed above and in spaced relation to said aperture, means for suspending the deflector plate from the inclined portion of the wall of the bowl, a drain pipe opening into the bottom of the trough adapted to be connected to a sewer pipe, an arcuate pipe integral with the rolled wall of the bowl opening through said aperture inwardly of the peripheral edge of the deflector plate, an upwardly inclined pipe connected to the arcuate pipe, and a stand pipe adapted to project above the roof of a garage and provide an updraft for carrying off carbon monoxide gases settling through the grating cover and seeping under the peripheral edge of the deflector plate into said aperture and arcuate pipe.

2. The structure as of claim 1 and in which said means for suspending the deflector plate from the bowl comprises arms integral with the deflector plate and inclined at the same inclination as the inclined upper portion of the bowl, said arms being adapted to be supported upon said inclined upper portion of the bowl.

3. The structure as of claim 1 and in which said deflector plate projects at the peripheral edge over the trough for deflecting liquids into the trough and away from the carbon monoxide escaping aperture of the bowl.

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