Dec. 6, 1927. 1,652,128

J. HARE

COLD AIR GRATE.

Filed Sept. 30, 1925

Fig. 1.

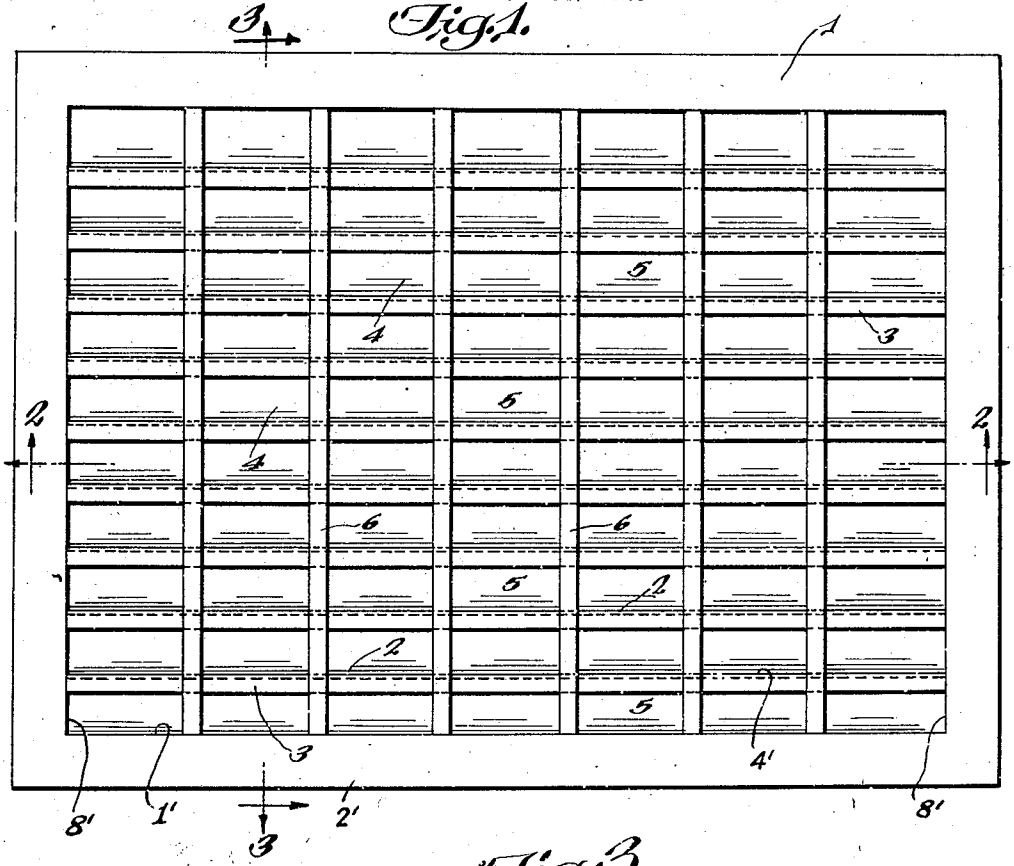


Fig. 3.

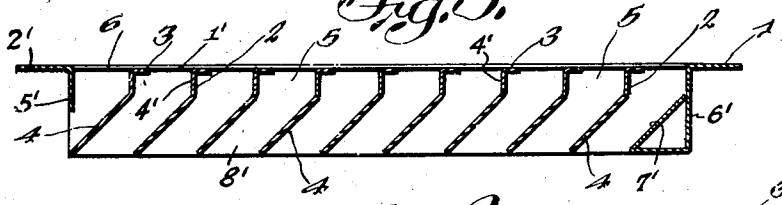


Fig. 2.

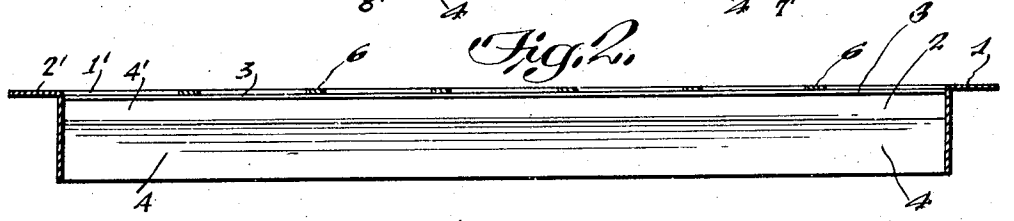


Fig. 4.



Jacob Hare
INVENTOR

BY Victor J. Evans

ATTORNEY

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UNITED STATES PATENT OFFICE.

JACOB HARE, OF CHICAGO, ILLINOIS.

COLD-AIR GRATE.

Application filed September 30, 1925. Serial No. 59,687.

This invention relates to new and useful improvements in cold air grates and more particularly to a grate of the above character which is arranged upon the interior of a building thru which cold air passes. The main object of my invention, is the provision of a grate of the above character wherein the bars of the grate are disposed at an angle relative to the frame thereof so that the passageway thru the frame is closed to a certain extent whereby a person looking at the grate will not see directly thru the same into the air duct as is usually the case at the present time.

In air grates in use at the present time, the bars of the grate are so disposed as to expose the interior of the air conduit and as considerable dirt and dust accumulates in these conduits, and beneath the grate, it presents a rather unsightly appearance and in order to cover this unsightly appearance my invention provides means whereby it will be impossible to look directly thru the grate into the conduit but the efficiency of the grate is not decreased in any way whatever.

With the above and other objects in view, my invention consists in the novel features of construction and the combination and arrangement of parts to be more fully described, pointed out in the claim, and shown in the accompanying drawings, in which:

Fig. 1 is a plan view of an air grate constructed in accordance with my invention,

Fig. 2 is a longitudinal section on the line 2—2 of Fig. 1,

Fig. 3 is a transverse section on the line 3—3 of Fig. 1, and

Fig. 4 is a detailed transverse section illustrating a slightly modified form of the invention.

In carrying out my invention, I provide a substantially rectangular plate 1, having its central portion removed to provide a rectangular opening 1′ surrounding which is a lateral collar 2′. Arranged within the collar 2′ and extending transversely of the opening 1′ are a plurality of spaced plates 2 which, in the present instance, are formed from sheet metal. The end portions 3 of each of the plates are bent substantially at right angles with respect to an intermediate portion 4′. The opposite end portions 4 of the plates 2 are bent with respect to the intermediate portions 4′ and these portions 4 extend transversely of the passages 5 between the plates whereby to obstruct direct vision through these passages 5. As shown in Fig. 3 the wall portion 5′ of the collar 2′ is partly removed to provide an inner mouth of the passage adjacent thereto. The opposite wall portion 6′ of the collar has its lower end portion bent inwardly and diagonally supported by this end portion is a plate 7′ which defines a wall of the passage adjacent thereto. The collar 2′ is adapted to fit into an opening in a wall or floor of the building with which the grate is associated.

The plates 2 are secured together in spaced relation with respect to each other by strips 6 which extend transversely across the plates and is secured to the end portions 3. The strips 6 are equally spaced apart as shown in Fig. 1 and secured to the end portion 3 by welding or the like. The plates 2 have their end portions secured to adjacent walls 8′ of the collar 6 by welding or the like.

In Fig. 4 I have illustrated a modified form in which the frame 1^a and bars 2^a are formed of a wood, a supplemental supporting frame 1^b being secured to frame 1^a and provided with an outwardly projecting supporting flange 1^c. The bars 2^a are supported at an inclination with the upper portion of each bar overlapping the lower portion of the succeeding bar so as to obstruct vision straight downwardly through the grate.

It will be apparent from the foregoing that I have provided a simple and inexpensive device of this character which will replace the well known grates in use at the present time and which will overcome the objections of exposing the dirt and other accumulations within the air conduit so that the air grate will present a neat and comparatively clean appearance from the exterior thereof. It will also be apparent that the device can be quickly and readily installed so as to replace the form of grate in use at the present.

While I have shown and described the preferred form of my invention, it will be obvious that various changes in the details of construction and the combination and arrangement of parts may be resorted to for successfully carrying my invention into practice without departing from the scope of the appended claim.

Having thus described my invention, what I claim is:

In a grate of the class described, a substantially rectangular shaped plate having its central portion removed to provide a sub-

stantially rectangular opening, a collar surrounding the opening and having a lower end portion of one wall thereof turned inwardly, a plurality of plates arranged within the collar and extending transversely with respect to the opening, said plates having corresponding end portions bent substantially at right angles with respect to intermediate portions thereof and opposite end portions bent with respect to the said intermediate portions, said plates providing a plurality of passages and said inclined opposite end portions of said plates obstructing direct vision through said passages, a plurality of equally spaced strips extending transversely of the plates in engagement with and connected to the said corresponding end portions, said plates connected to opposite corresponding wall portions of said collar, and a plate supported at an inclination by said turned end portion of said wall portion of the collar, said plate providing a wall for the passage adjacent thereto.

In testimony whereof I affix my signature.

JACOB HARE.