D. B. SHIRK.

Cellar-Grating.

No. 202,381. Patented April 16, 1878.

Fig. 1

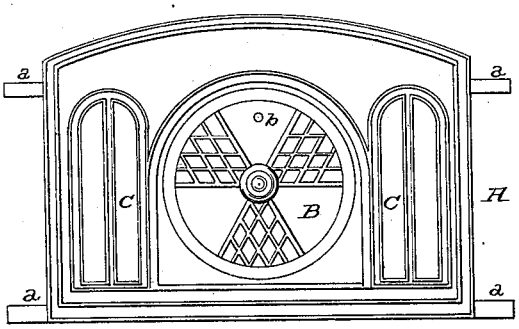


Fig. 2

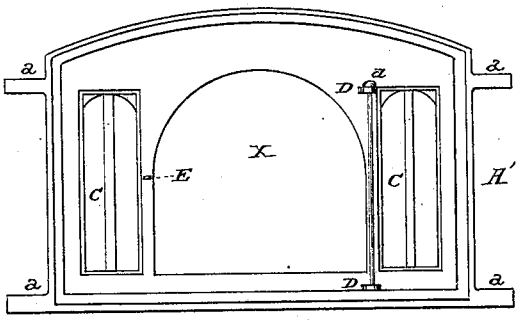


Fig. 4.

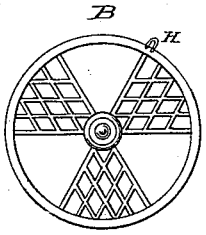


Fig. 3

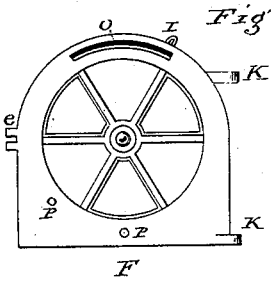


Fig. 5.

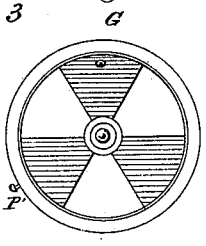
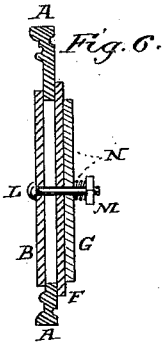


Fig. 6.



W. B. Wiley

Jacob Stauffer

WITNESSES:

Daniel B. Shirk

INVENTOR

UNITED STATES PATENT OFFICE.

DAVID B. SHIRK, OF BRUNERSVILLE, PENNSYLVANIA.

IMPROVEMENT IN CELLAR-GRATINGS.

Specification forming part of Letters Patent No. **202,381**, dated April 16, 1878; application filed January 25, 1878.

To all whom it may concern:

Be it known that I, DAVID B. SHIRK, of Brunersville, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Cellar-Gratings, of which the following is a specification:

The nature of my invention consists in the use of circular valves or disks held upon a central pin or bolt, so that they may be operated to open or close the ventilation from the outside or the inside or on both sides of the wall-plate of a cellar-grate.

The accompanying drawing, with the letters of reference marked thereon and a brief explanation, will enable those skilled in the art to make and use the same, and in which—

Figure 1 shows the external appearance of the cellar-grate with its ornamental valve and side lights, in combination with the wall-plate. Fig. 2 shows one view of the inner side of said wall-plate, with an arched open space for a door to be hinged to it. Fig. 3 shows the fixed or central disk F; Fig. 4, the movable outer valve or disk B; Fig. 5, the movable inner valve or disk G. Fig. 6 shows the combination of F, B, and G by a central bolt, L, with the wall-plate A.

For school-houses, &c., it is desirable to be able to ventilate from the outside. Ornamental grates are much in use, and in dwelling-houses one of the grates, at least, is often wanted with a door combined with the valves for delivering coal or the like into the cellar, and yet to match externally, being cast in pairs from patterns substantially alike, simply by casting the part or door F, as shown, with, and so as to fill the space *x* of, the wall-plate, (shown in Fig. 2,) and without the staple E, hinge-lugs D, and catch *e*, and hinge-lugs K, as when said arched space *x* is left open and the door F cast separately with the appliances for hinging and fastening the door. Otherwise both grates are the same. This modification reduces the cost in getting up when the hinged door is not required. This door F or central portion of the wall-plate A has six radiating arms, forming six open cells within a circle. Three of these cells have a flange for holding glass, the alternate cells being open.

There is shown a circular beveled slot, *o*, and loop I, and check-pins P, perforated lugs K, and slotted catch *e* on said detached part or door. A long rod or pintle, *d*, passing through the lugs hinges the door to the wall-plate, the lower lug K of the door resting upon the lower lug in the wall-plate, to support the door when used.

The circular valve B, with three of its sections provided with open-work, is provided with an oblique loop, H, on the inner side, which enters through the slot *o* in the central plate F or A, and oscillates, say, sixty degrees on its central bolt or pivot L. The loop H, when brought under the loop I, will admit of a pin or bolt to lock them together. This valve has a conic projection on the outside to turn it.

The inner valve G has three of its segments open, the alternate ones closed.

Whether the central part of the wall-plate has the arched section cast with it, or said section is cast separately with its lugs for a hinged door, the valves B and G and their arrangement are the same, and combined in like manner by a headed bolt, L, through the center of each. I use a coiled spring, N, with a nut or washer, M, so as to prevent clogging the valves by rust, and to remove them for cleaning.

By this arrangement of the two movable valves—one on the outside and the other on the inside of a stationary disk, with its circle divided into six cells, three of these being provided with glass, the alternate three wholly open—it will be seen that light can be admitted and the cold air or wind shut out by the glass; or, again, light and air can be admitted; then again, both light and air can be excluded, thus combining the divers uses in a simple and highly ornamental cellar-grate, and, as a new article to the trade, desirable.

I am aware that hinged doors or swinging frames on grates are in use; but I am not aware of any cellar-grates ventilated by the use of circular disks or valves, whether swing-

ing with a door or not, as herein set forth. Therefore,

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, with the wall-plate A *a*, of a cellar-grate, the movable circular valves B and G, with their appliances, when combined centrally by a headed bolt, L, with an intermediate plate, F or A, having six radiating arms in an open circle, the whole arranged and operating as and for the purpose specified.

DAVID B. SHIRK.

Witnesses:
W. B. WILEY,
JACOB STAUFFER.