

S. G. MECKLEM & G. C. BRINKMAN.
GRATE.

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Patented Dec. 10, 1912.

1,046,625.

FIG. 1.

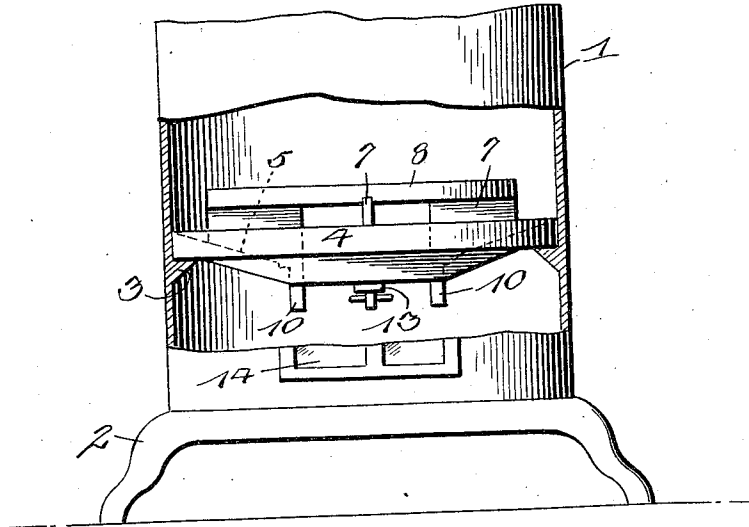


FIG. 2.

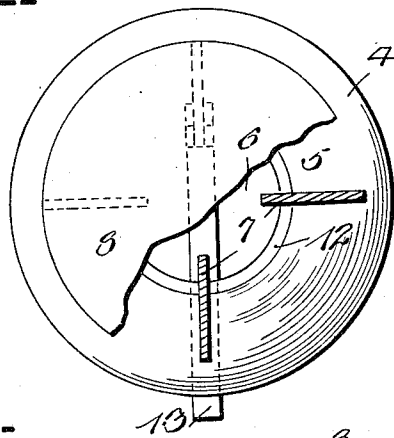
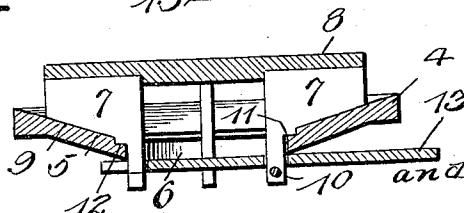


FIG. 3.



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GRATE.

1,046,625.

Specification of Letters Patent.

Patented Dec. 10, 1912.

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To all whom it may concern:

Be it known that we, SAMUEL G. MECKLEM and GEORGE C. BRINKMAN, citizens of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Grates, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to new and useful improvements in grates and more particularly to grates adapted for use in stoves, furnaces and the like, the object of the invention being to provide a device of this character whereby the fire and heat will be thrown to the outside.

Another object of the invention is to provide a device of this character which will possess advantages in points of efficiency and durability, is inexpensive to manufacture and at the same time is simple in construction and operation.

With the above and other objects in view the invention consists in the novel features of construction and the combination and arrangement of parts hereinafter more fully described, pointed out in the claims and shown in the accompanying drawings in which,

Figure 1 is an elevation of our improved grate showing the same applied to a stove. Fig. 2 is a top plan view, parts being broken away and in section. Fig. 3 is a longitudinal sectional view.

Referring more particularly to the drawings, 1 indicates a stove body which is supported upon suitable legs 2 and is provided upon its inner side thereof with the supporting brackets 3 upon which is adapted to rest the circular base plate 4 of the grate. The upper surface of the base plate is formed with a concave inwardly inclined surface as shown at 5 so that the ashes and waste material will slide thereon toward the central opening 6 in the base.

Mounted upon the base plate and spaced therefrom by means of the spacing blocks 7 is a rotary plate 8, said plate being rigidly secured to the upper face of the spacing blocks which are provided upon their lower side with an inclined surface 9 formed coincident with the concave face of the base plate so that they will slide thereon when the plate 8 is rotated. The spacing blocks 7 are provided with the downwardly extending shanks 10 which extend down through

the opening 6 and are provided with the shoulders 11 which are adapted to rest upon the annular flange 12 formed around the opening 6.

Secured to the lower end of the shanks 10 and arranged across the opening 6 is an operating lever 13, one end of which extends out to the outer edge of the base plate 4 and arranged adjacent the door 14 in the stove so that the same may be easily operated to rotate the plate 8 and remove the ashes or other waste material therefrom which will drop down on to the concave surface of the base plate and pass out through the opening 6. It will be noticed that by this construction, the air which passes up through the bottom of the stove or through the door opening 14 will pass out and around the outer side of the plate 8 which will tend to throw the heat toward the outer side of the stove and not in the center as is the usual way with the grates now in use, and in this manner the stove will become more readily heated than by the old way. It will be noticed from the drawings that the plate 8 is of a smaller diameter than the base plate 4 so as to allow the ashes and other waste material to drop down between the edge of the plate 8 and the body of the stove on to the base plate.

From the above it will be readily apparent that when it is desired to empty the ashes or other waste material in the stove the plate 8 is rotated by means of the operating lever 13 so as to throw the ashes or other material on to the concave surface of the base plate 4 where the same will be conveyed to the central opening 6 and emptied into the bottom of the stove or a pan arranged beneath the stove.

While we have shown and described the preferred form of our invention it will be obvious that various changes in the details of construction and in the proportions may be resorted to for successfully carrying our invention into practice without sacrificing any of the novel features or departing from the scope of the appended claims.

What we claim is:—

1. In combination with a stove having brackets arranged in the interior thereof, of a grate comprising a base plate mounted upon said brackets and having a concave surface inclined toward the center thereof, said base plate being provided with a centrally arranged opening, spacing blocks

movably mounted upon the concave surface of the base plate, shanks formed integral with the inner ends of said spacing blocks and extending downwardly through the opening, a plate mounted upon the upper edges of the spacing blocks, said plate being of a smaller diameter than the base plate and an operating lever secured to the lower ends of said shanks whereby the second mentioned plate may be rotated by the manipulation of said lever.

2. In combination with a stove having brackets annularly arranged upon the interior thereof, of a grate comprising a base plate mounted upon said brackets and having a concave surface inclined toward the center thereof, said base plate being provided with a centrally arranged opening, an annular flange arranged around said opening, spacing blocks movably mounted on the

concave surface of the base, shanks formed integral with the inner ends of said spacing blocks and extending downwardly through the opening, shoulders formed upon said shanks and adapted to rest upon the annular flange of the base plate, a plate mounted upon the upper edges of the spacing blocks, said plate being of a smaller diameter than the base plate, and an operating lever secured to the lower ends of said shanks whereby the second mentioned plate may be rotated by the manipulation of said lever.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

SAMUEL G. MECKLEM.
GEORGE C. BRINKMAN.

Witnesses:

WM. H. DENNY,
C. STOME.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."