

M.R. BARR'S IMPROVEMENTS IN STOVE GRATES.

PATENTED JUN 27 1871

116396

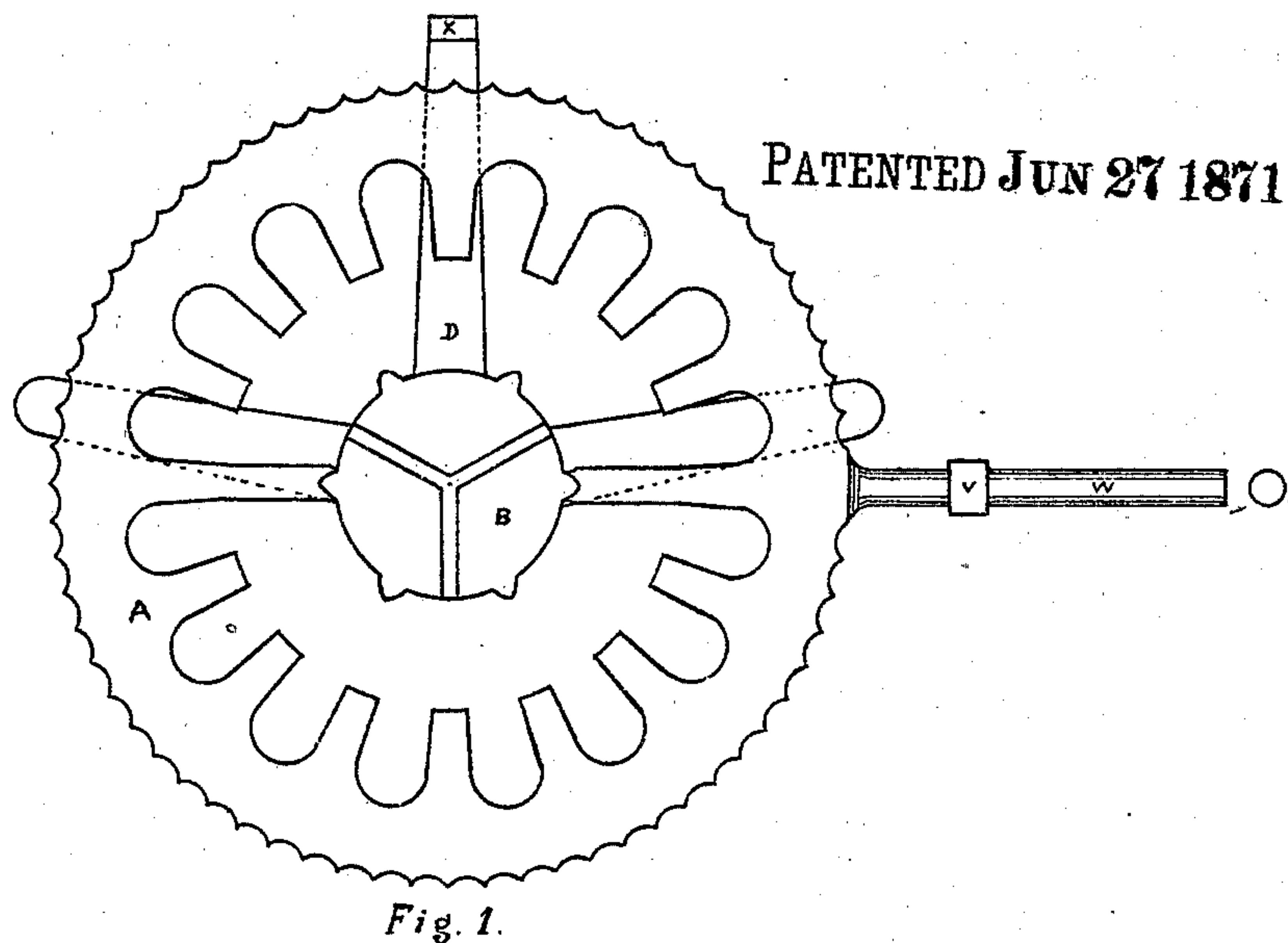


Fig. 1.

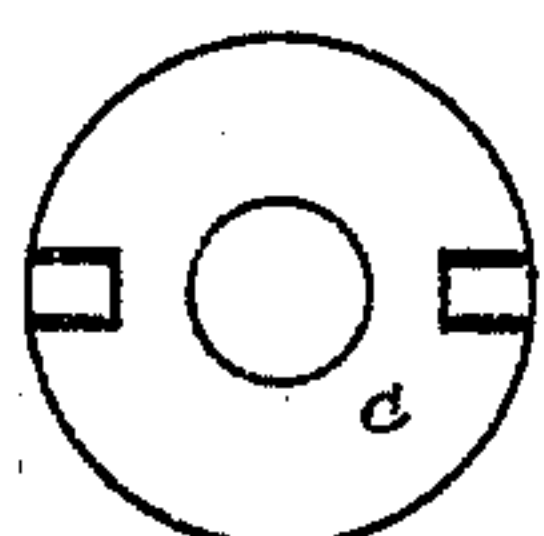


Fig. 5.

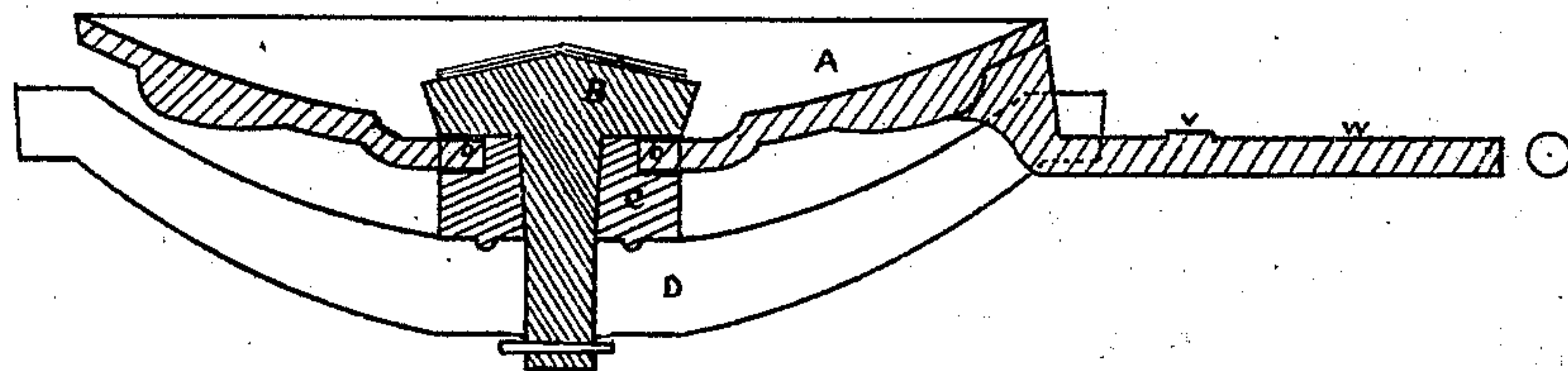


Fig. 2.

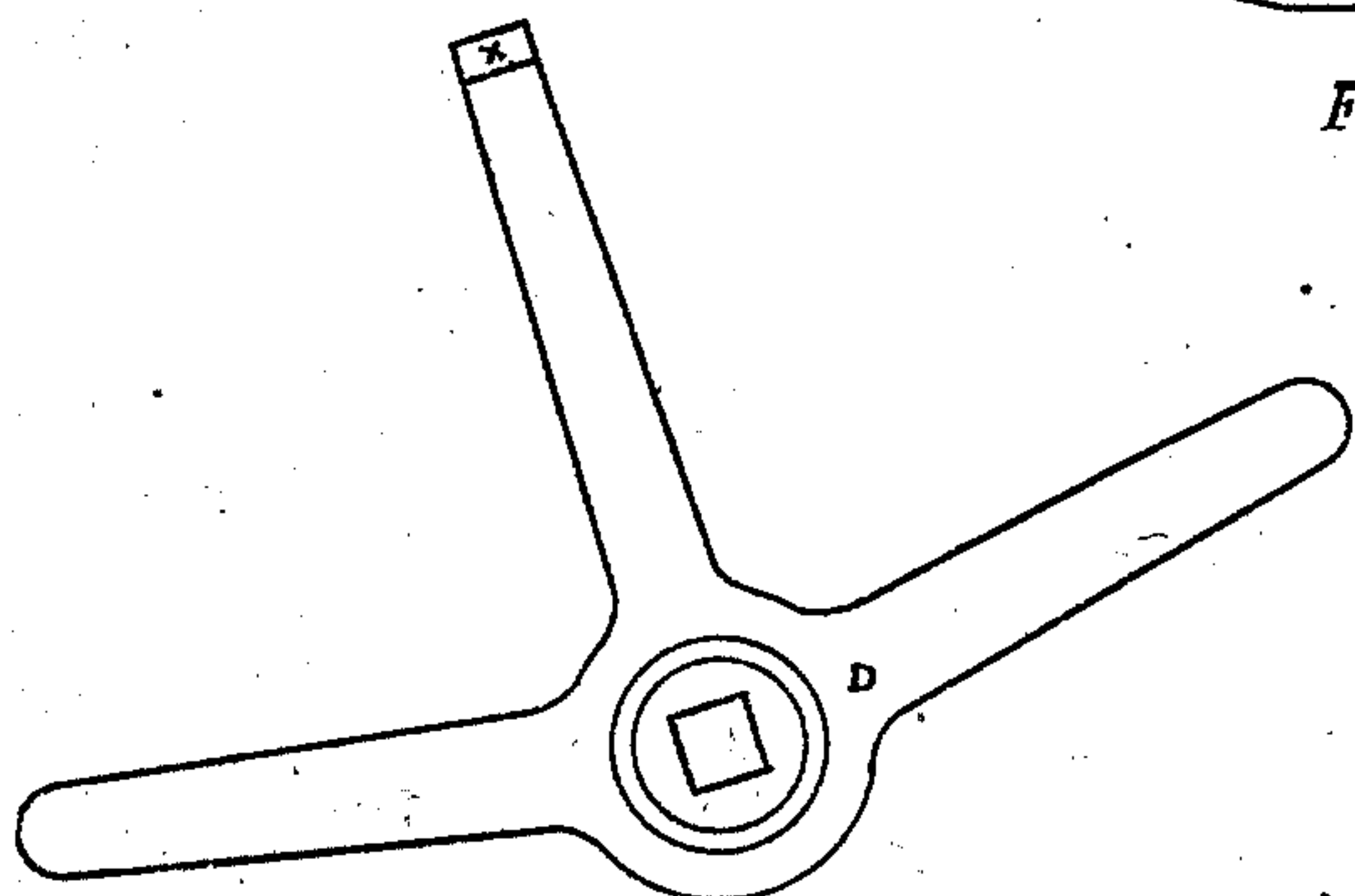


Fig. 6.

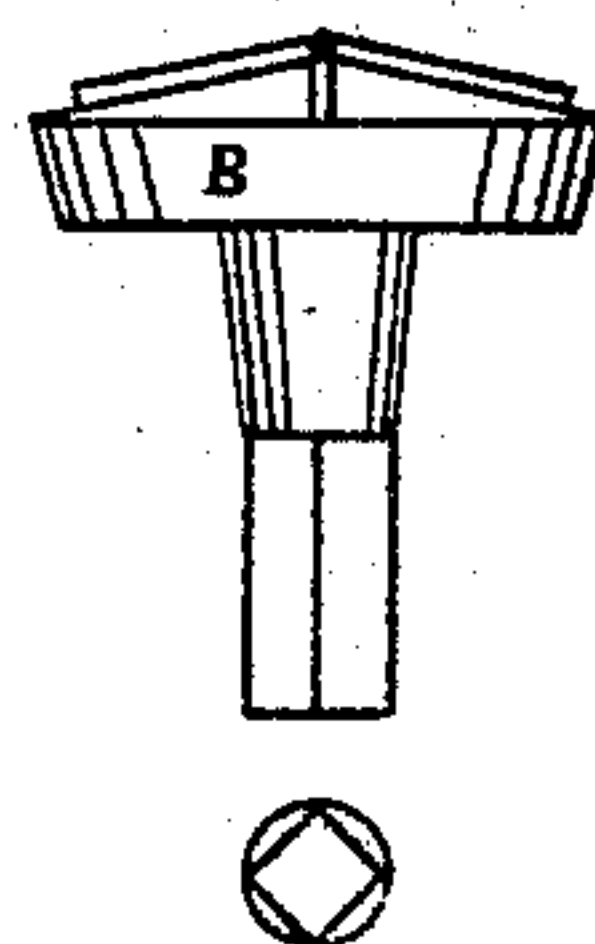


Fig. 4.

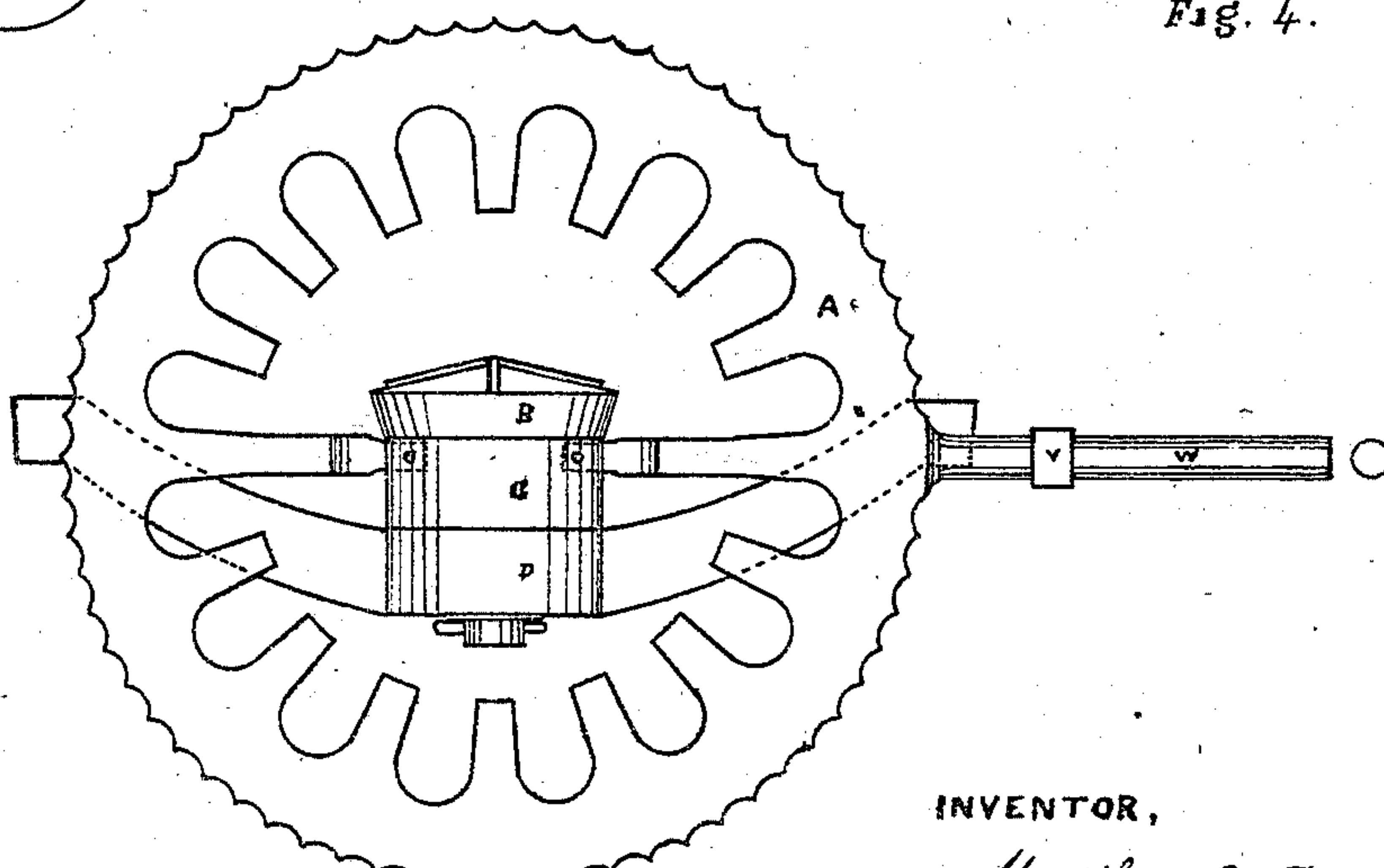


Fig. 3.

WITNESSES,

H. T. Black
Gore H. Johnson

INVENTOR,

Matthew R. Barr

UNITED STATES PATENT OFFICE.

MATTHEW R. BARR, OF ERIE, PENNSYLVANIA.

IMPROVEMENT IN STOVE-GRATES.

Specification forming part of Letters Patent No. 116,396, dated June 27, 1871.

To all whom it may concern:

Be it known that I, MATTHEW R. BARR, of the city and county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Grates for Stoves; and I do hereby declare the following to be a full and exact description of the same, reference being had to the annexed drawing making a part of this specification, in which—

Figure 1 is a top view of a circular grate, with center piece and support or hanger. Fig. 2 is a vertical section of the same. Fig. 3 is a front view of the same when tilted or dumped. Fig. 4 is a view of the stationary center. Fig. 5 is a top and sectional view of the movable ring or center to which the grate is hung. Fig. 6 is a top view of the support or tripodal hanger.

A is the grate-ring or principal part of the grate, with a shank, W, to extend through the outer casing of the stove, by means of which the grate is alternated and tilted. B is a stationary center piece for crushing the slate and indestructible matter in the fuel when the grate-ring A is in motion. C is a movable ring or collar, with cavities or sockets to receive the trunnions O, and moves horizontally with the grate-ring A. D is the tripodal support or grate-hanger, the supporting points of which rest in seats provided for them back of a line drawn through the center, so as to clear the grate-ring when tilted, while the center or rear-extending arm *x* catches a lip or stop to prevent the hanger tripping or moving from its position. V is a flattened portion of the shank, to prevent the grate tilting, except when it is moved to a certain point for that purpose.

The first part of my invention relates to the support or hanger D, being detached from the stove, and so constructed as to be easily put in place or removed, the principal arms having their bearings or supports back of the center so as to

allow room for the grate-ring to be turned to a vertical position; and the back or rear arm *x* is for the purpose of keeping the hanger level while the grate is in that position, as well as at all other times. The second part of my invention relates to hanging the grate-ring, by means of pivots or trunnions O, to a movable center ring, C, so as to admit of the alternating and tilting or dumping of the grate-ring A, while the stationary center B retains its position, as shown in Fig. 3, thus combining a movable and stationary center with an alternating and tilting grate.

By means of this device and combination the grate may be shaken and dumped without opening any portion of the stove.

I disclaim the so-called "Mill grate" or stationary center piece and alternating ring, as heretofore made; but

What I do claim, and desire to secure by Letters Patent, is—

1. The grate-support or hanger D, having the resting-arms deflected from the chord or center line, and a steady-arm, *x*, to hold it in position.
2. A grate having a stationary center, so constructed as to be alternated and tilted independently of the center and support.
3. The trunnions O and movable ring or pieces, in combination with a stationary center piece.
4. The grate A, center piece B, ring C, support D, and steady-arm *x*, arranged and combined as and for the purposes set forth.
5. The arm or shank *x* and trunnions O, in combination with a movable ring grate having a stationary center, substantially as and for the purposes set forth.

MATTHEW R. BARR.

Witnesses:

W. T. BLACK,
GROVE H. JOHNSON.