

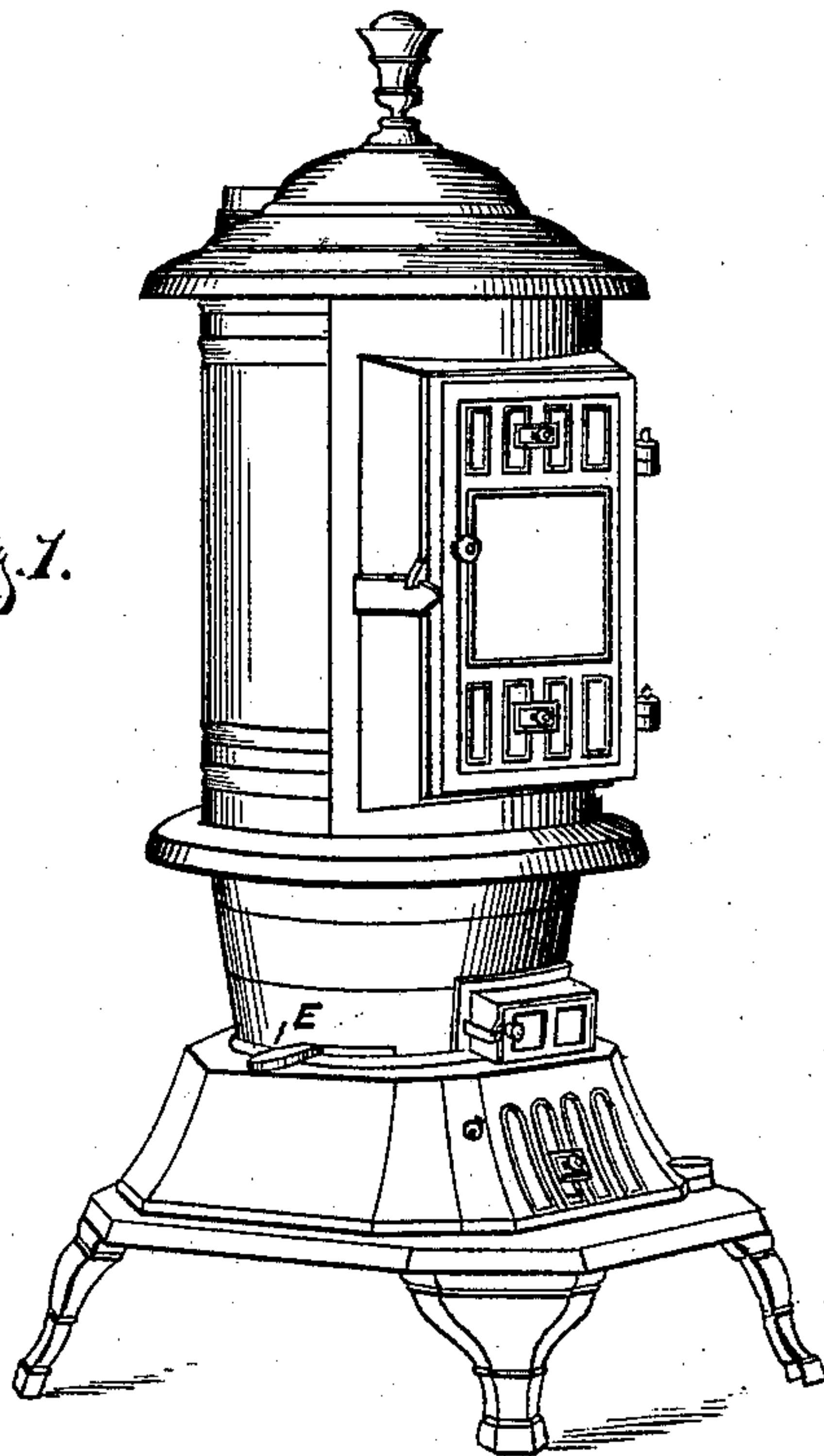
(No Model.)

S. S. WEBBER.  
GRATE FOR STOVES.

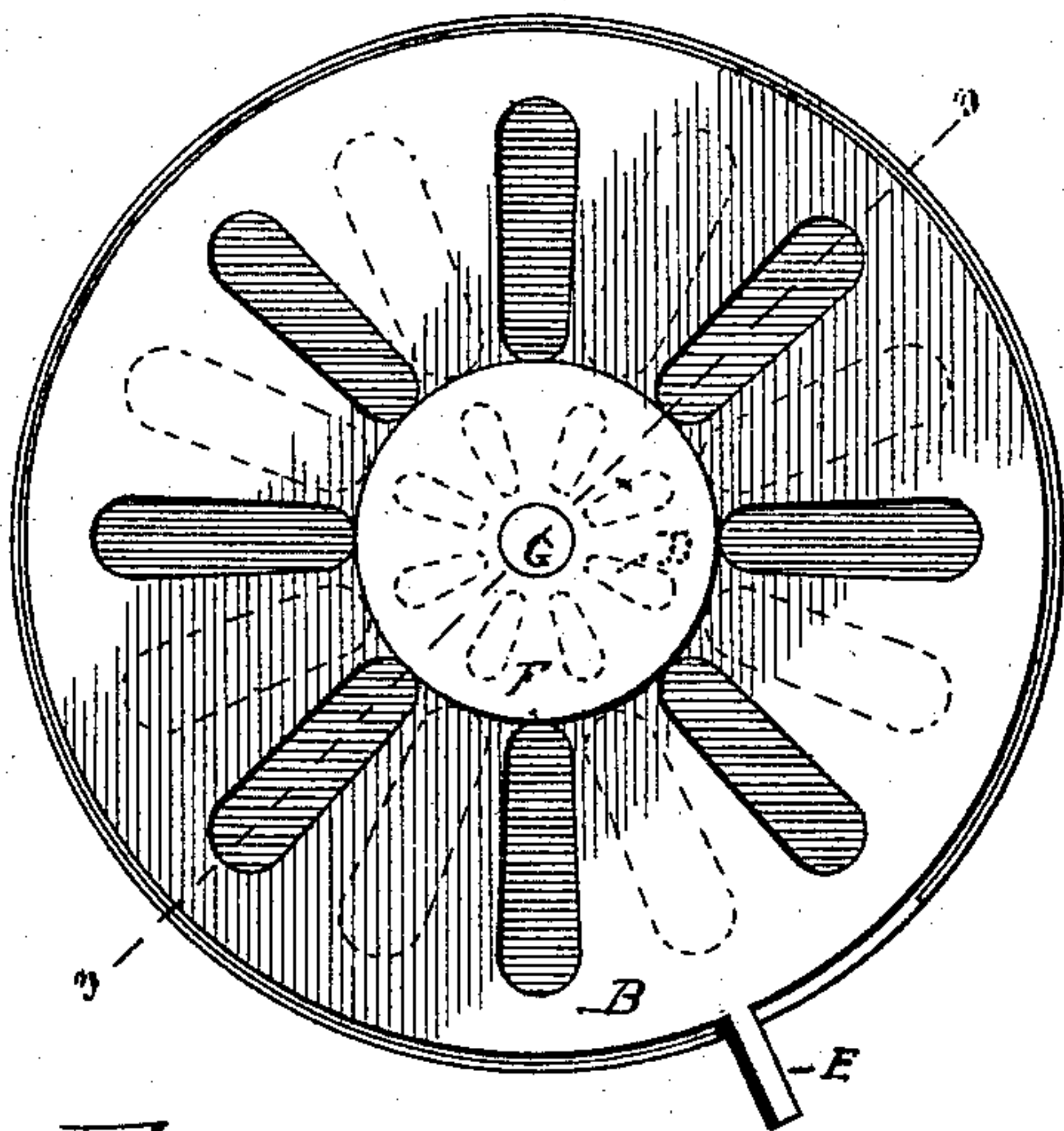
No. 368,986.

Patented Aug. 30, 1887.

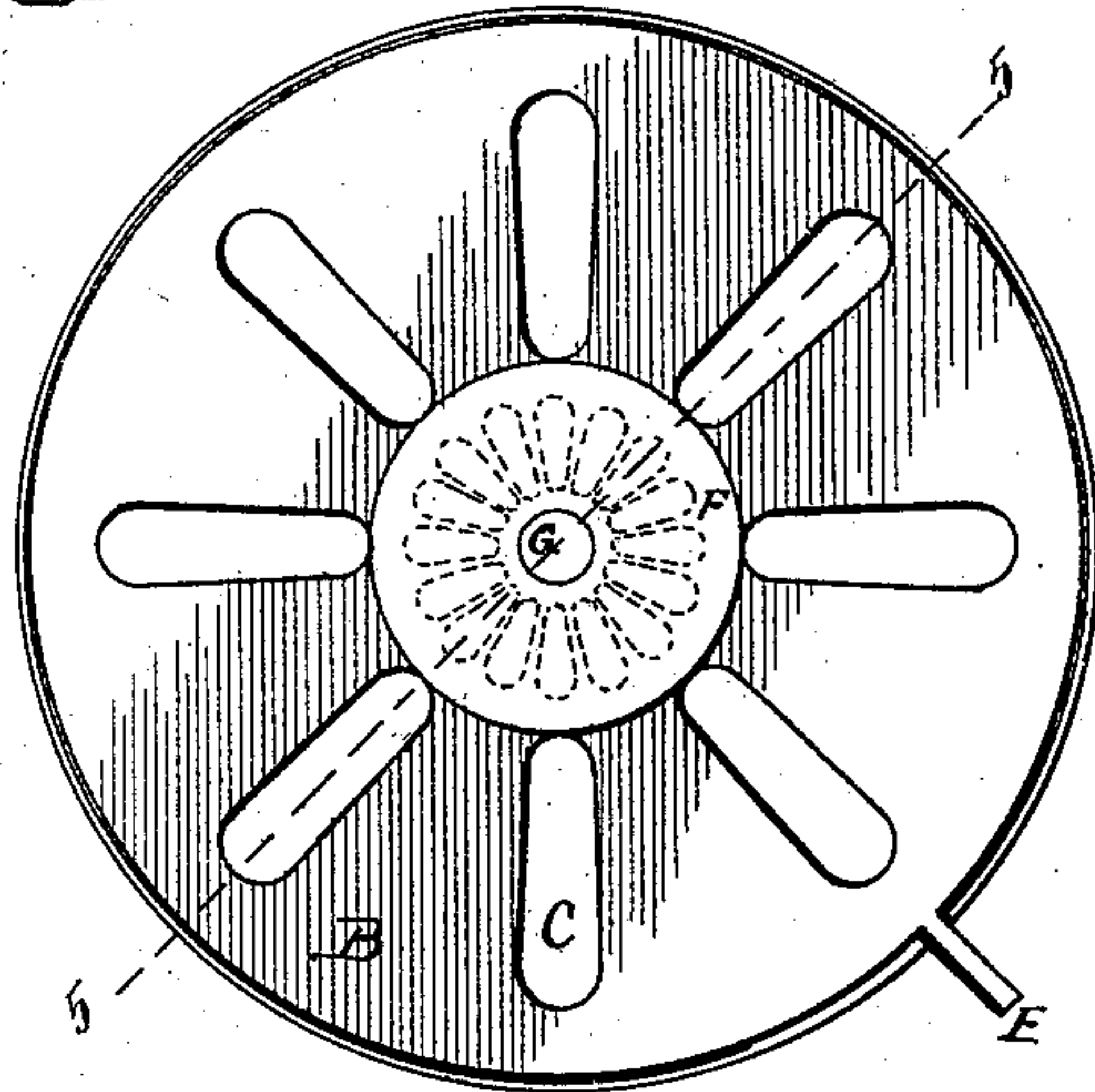
*Fig. 1.*



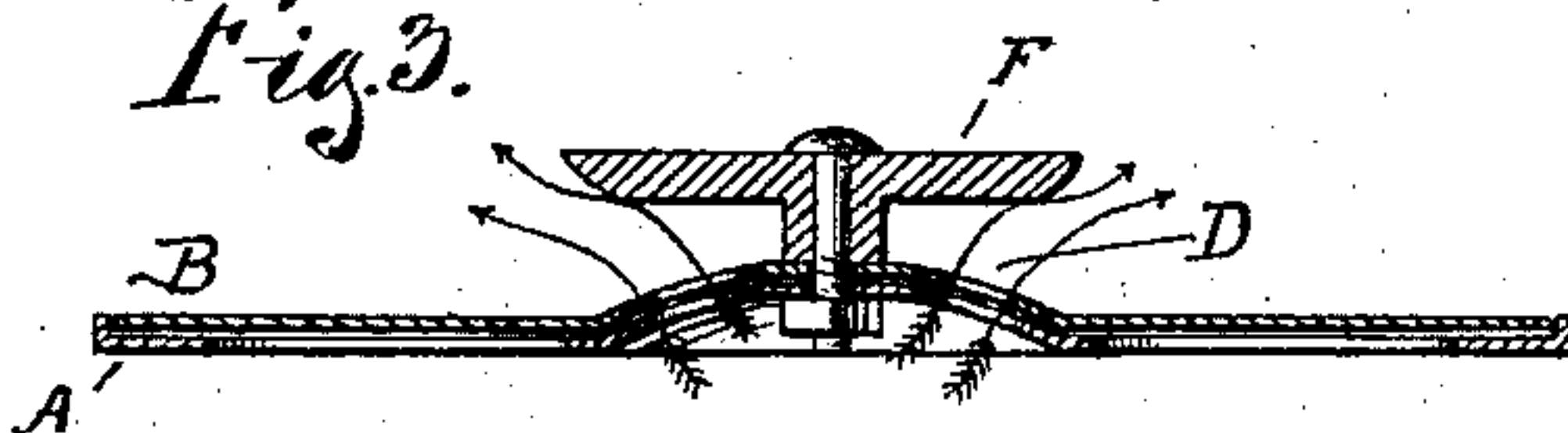
*Fig. 2.*



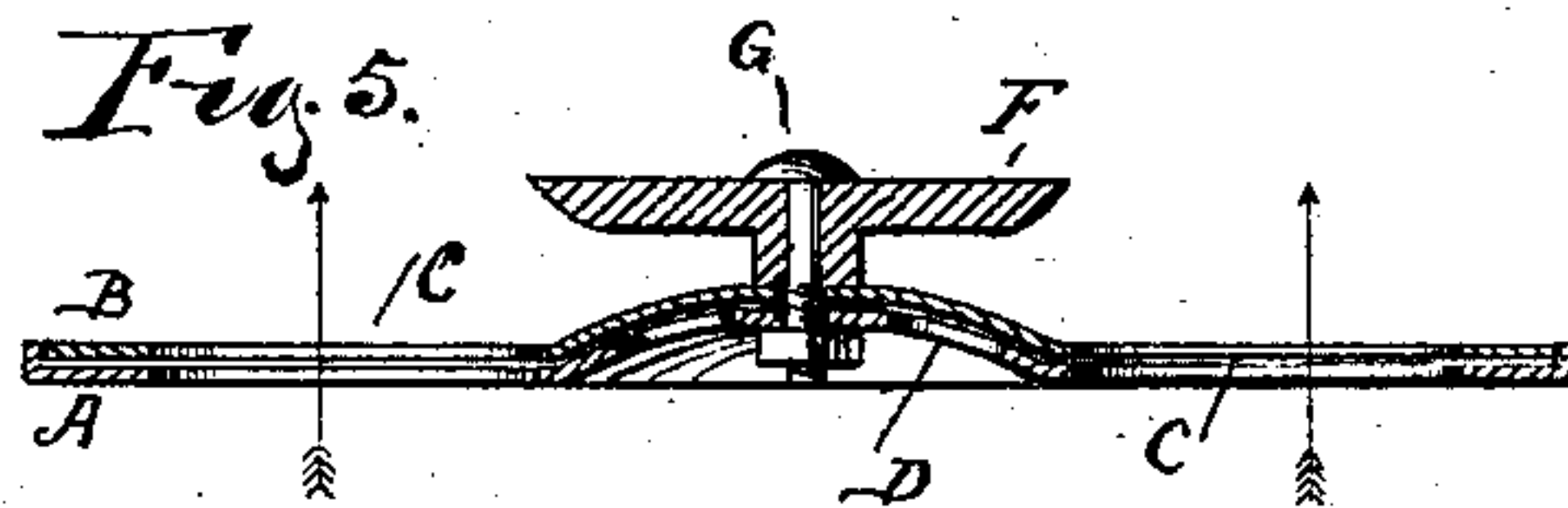
*Fig. 4.*



*Fig. 3.*



*Fig. 5.*



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## GRATE FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 368,986, dated August 30, 1887.

Application filed February 28, 1887. Serial No. 229,151. (No model.)

*To all whom it may concern:*

Be it known that I, STEBBINS S. WEBBER, a citizen of the United States, residing in La Porte, in the county of La Porte and State of Indiana, have invented a new and useful Improvement in Grates for Stoves, of which the following is a specification.

This invention relates to an improved construction of grates for wood and soft-coal stoves.

The object of the invention is to provide for a central draft and for an outside or surrounding draft, either one of which may be alternately used, the grate being so contrived that the closing of the outside surrounding or circumferential draft will open the central draft, and vice versa; and it consists, further, in furnishing the grate above the central draft with a deflecting-plate for turning the currents from the central draft outward to cause the heated gases and flame to impinge against the sides of the stove in their passage to the chimney-flue, thus producing a gain in the heating effect of the stove.

In the accompanying drawings, which form a part of this specification and in which similar letters of reference indicate like parts, Figure 1 is a perspective view of a stove of the kind in which my grate is employed. Fig. 2 is a plan view of the grate when made in circular form, showing the same in position to cause the central draft. Fig. 3 is a section of Fig. 2 on the line 3 3. Fig. 4 is a plan view of the same grate in the position in which the central draft is closed and the outside draft open, and Fig. 5 is a section on the line 5 5 of Fig. 4.

In the said drawings, A represents the stationary part of the grate, which is suitably secured to the stove.

B is the movable part of the grate, pivoted to the stationary part so as to oscillate thereon.

I prefer to raise the central portion of the two parts A and B into a dome form, as indicated in Figs. 3 and 5; but this is not strictly necessary to embody the general features of my invention. Both plates A and B are perforated with a series of openings, C D, so placed relatively to each other upon the plates that when the openings C, constituting the outer series, coincide with each other, as at Fig. 4, the inner series, D, do not coincide with each other, and when the inner series, D, coincide or register with each other the outer series do not. In short, when the outer

part of the grate is open for the draft, the inner part is closed, and vice versa.

A handle, E, projecting from the movable part of the grate, serves to operate the same from the outside of the stove either to change the character of the draft or to shake the grate, as required.

Above the center of the grate I place, in order to obtain the best results, a deflector, F, which, when the central draft is open, as at Figs. 2 and 3, causes the currents of air to be deflected, as indicated by the arrows in said Fig. 3, turning the heated currents so as to cause them to strike the sides of the stove all around, whereby the heat is thrown outward. A convenient method of securing this deflecting-plate is by means of the single central bolt, G, which may serve also as the pivotal connection between the plates A and B.

I prefer the circular form of grate shown, and that it should have the circular motion; but some of the advantages of my invention may be secured by making the grate rectangular in form, in which case the inner and outer series of perforations may be opened and closed by means of a rectilinear motion, in which case the moving plate would need to be slotted in order to pass the support of the central deflecting-plate, if the latter is employed.

There may be any number of draft-openings required in the grate; but I prefer to have more than one in each series.

I claim—

1. The two part grate, one part movable upon the other, each provided with two series of draft-openings, so placed relatively to each other that the opening of the outside series closes the inside series and the opening of the inside series closes the outside series, substantially as specified.

2. In combination with the two-part grate having an outside draft and a central draft so constructed that when the outer draft is opened the inner draft is closed, substantially as specified, the central deflecting-plate for deflecting the central draft to cause the currents to impinge against the sides of the stove, substantially as and for the purpose set forth.

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Witnesses:

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