(No Model.) 2 Sheets—Sheet 1.

F. CAREL & W. F. DAVIDSON.

GRATE.

No. 474,292. Patented May 3, 1892.

Fig. 1.

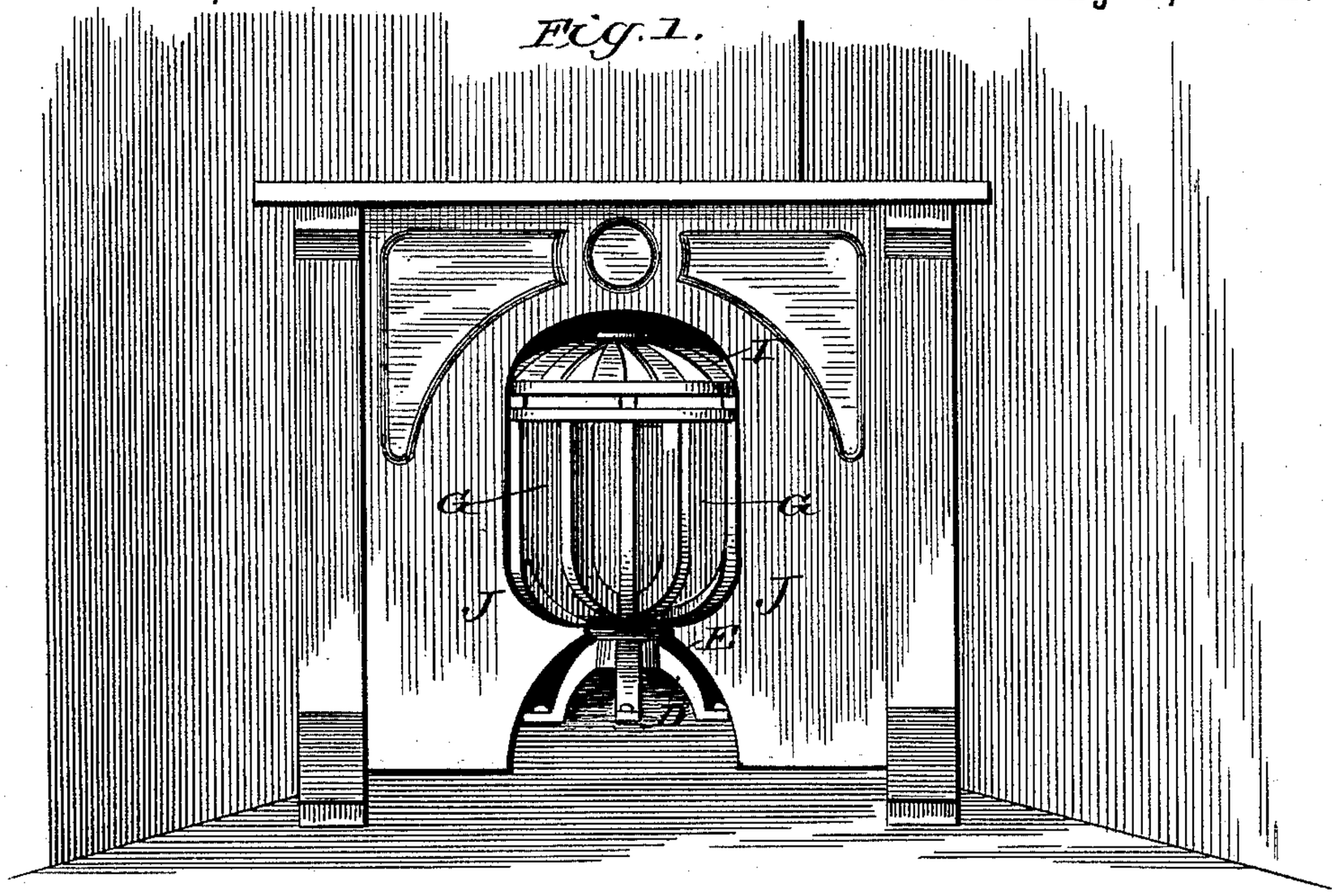
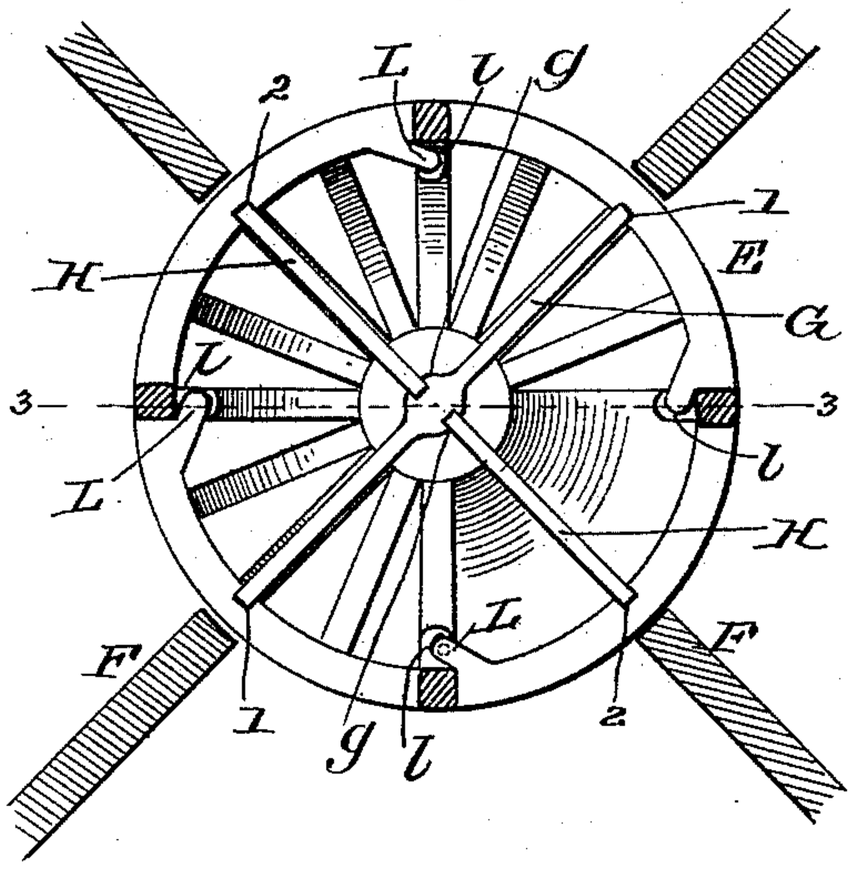


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

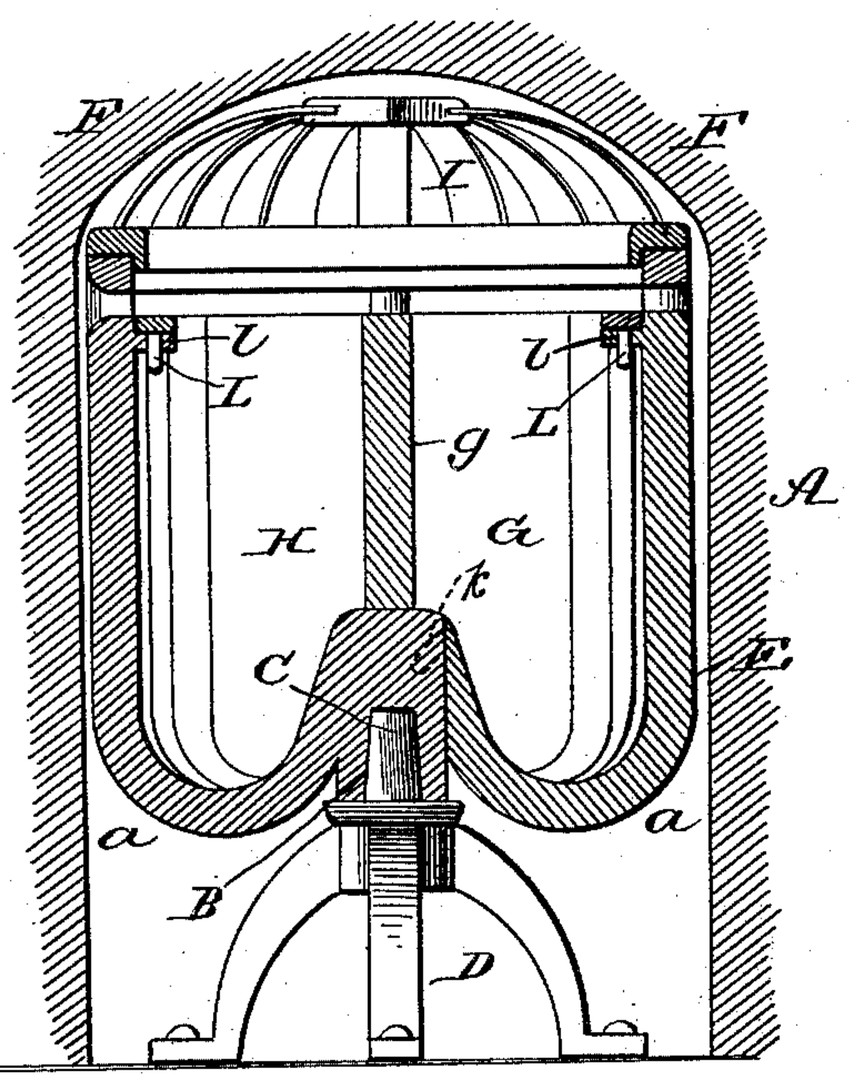


Fig. 4

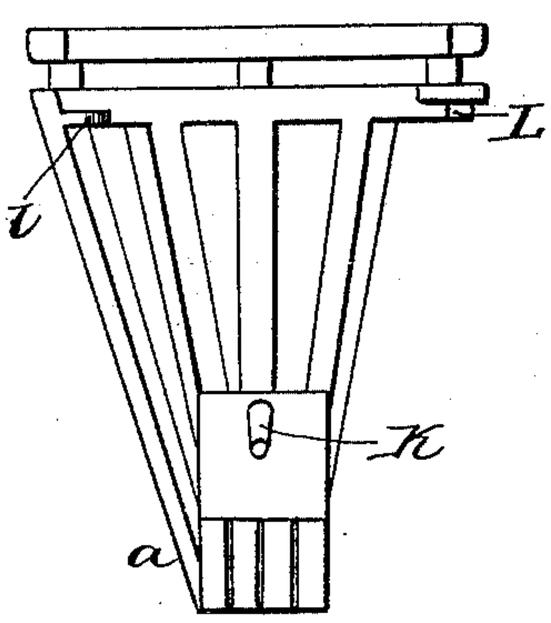


Fig. 5.

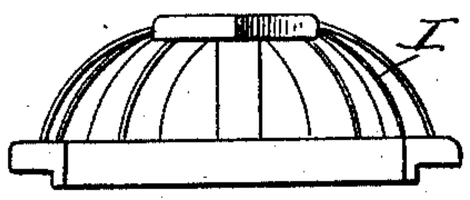
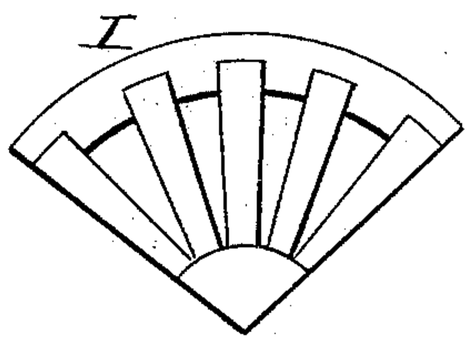


Fig. 6.



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UNITED STATES PATENT OFFICE.

FREDERICK CAREL AND WAYLAND F. DAVIDSON, OF CHARLESTON, WEST VIRGINIA.

GRATE.

SPECIFICATION forming part of Letters Patent No. 474,292, dated May 3, 1892.

Application filed April 9, 1891. Serial No. 388,330. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK CAREL and WAYLAND F. DAVIDSON, of Charleston, in the county of Kanawha and State of West Virginia, have invented a new and useful Improvement in Grates, of which the following is a specification.

This invention is an improvement in grates; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a face view of our improvement. Fig. 2 is a horizontal section. Fig. 3 is a vertical section, and Figs. 4, 5, and 6 are detail views.

The grate proper A is made in the form of a basket having side grate-bars, and is supported to move on a vertical axis.

In the construction shown and preferred the grate is formed with its bottom dropped or curved downward at its outer edge at *a*, so that the fire can be arranged low and provision be made at the same time for pivoting the grate at its center.

By preference the grate is provided with a socket B, which fits on a journal C on a base D, which may be readily moved into and out of the fireplace.

In the accompanying drawings we show in Fig. 2 portions of four rooms, in the adjacent corners of which is formed a fireplace E, having openings into each of the rooms and provided with partition-walls F, which extend down close to the top of the grate.

The grate is provided with a partition G, which divides it into two compartments or halves, and with partitions H H, which subdivide such compartments into quarters. The partition G fits at its ends in grooves 1 in the inner sides of the grate and the partitions H fit at their outer edges in grooves 2 in the inner sides of the grate, and at their inner edges in grooves *g*, provided in the partition G. The partitions G and H, when the grate is properly placed in the fireplace, register with the partitions F, so that a quarter-compartment is provided to open into each of the four rooms. By building a fire in any one of the compartments it may be arranged to open into and heat any one or more of the four rooms or to successively heat all four of the rooms by properly turning the grate. Thus if a fire be burning in one of the compartments opening into one room and occasion should suddenly arise for a fire in one of the other rooms the grate may be quickly turned to bring the compartment with the fire to open into the said room. It is manifest that where desired fires may be lighted in two, three, or all four of the compartments. It is also manifest that the improvement may be used in connection with two rooms only, in which case the partitions H H may be omitted. The cover I may be in sections corresponding to the compartments of the grate.

It will be understood that the grate may have a portion of its side imperforate, and when used in connection with several rooms the imperforate portion may be arranged to open into the rooms it is not desired to heat. This construction is shown in Fig. 2 and is especially desirable when the grate is used to heat a single room, when the grate may be turned with its imperforate side to the front when it is desired to leave the fire unattended—as, for instance, at night. By means of this imperforate side we avoid the danger of sparks, coals, or the like getting out onto the floor.

It will be noticed that the grate is portable and can be conveniently moved, and, if desired, it can be set out in the open air or in any outhouse and used for heating or cooking, as may be desired. While the grate may be cast in a single piece, it is preferred to make it in sections or quarters, one of the sections being cast with the socket-piece, and the several sections being fitted together, as shown, by means of the lower tenons K fitting in the sockets *k* of the socket-piece and the upper tenons L fitting in the sockets *l* in the adjacent sections, as will be readily understood from Figs. 2, 3, and 4. We also provide fire boards or plates J, which conform to and fit sufficiently close to the grate to shut off the view between two adjoining rooms.

Having thus described our invention, what we claim as new is—

1. A revoluble grate formed in longitudinal sections, one of which is provided with the pivotal or socket piece and has therein sock-

ets *k*, the other sections having lower tenons K, fitted in the sockets *k*, and the several sections being provided with upper tenons L, fitted in the sockets *l* of the adjacent sections, substantially as set forth.

2. The combination of the fireplace arranged to open into two or more rooms, the revoluble grate fitted in said fireplace and provided with a partition dividing it into compartments, and the fire boards or plates J, conformed on their inner edges to and fitted to the grate, substantially as and for the purposes set forth.

3. The improved revoluble grate herein described, provided with grooves 1 and 2 and made in longitudinal sections, one of which has a socket-piece and is provided with sockets *k*, the other sections being provided with tenons K to fit sockets *k*, and the several sections being provided with tenons L and sockets *l*, the partition G, fitted at its ends in grooves 1 and provided centrally with grooves *g*, and the partitions H, fitted in grooves 2 and *g*, all substantially as and for the purposes set forth.

FREDERICK CAREL.
WAYLAND F. DAVIDSON.

Witnesses:
P. B. TURPIN,
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