

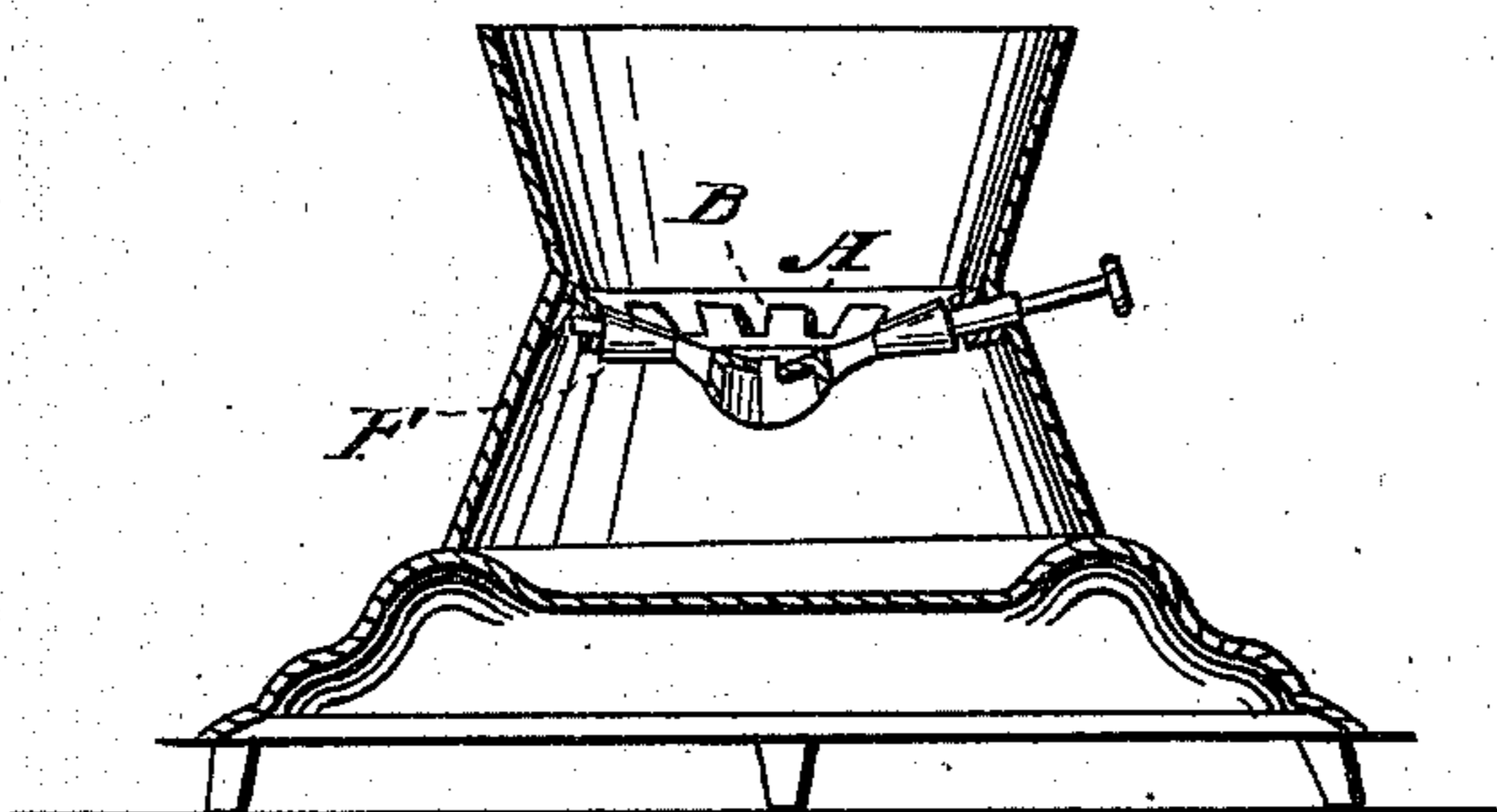
P. DEMPSEY.

Stove Grate.

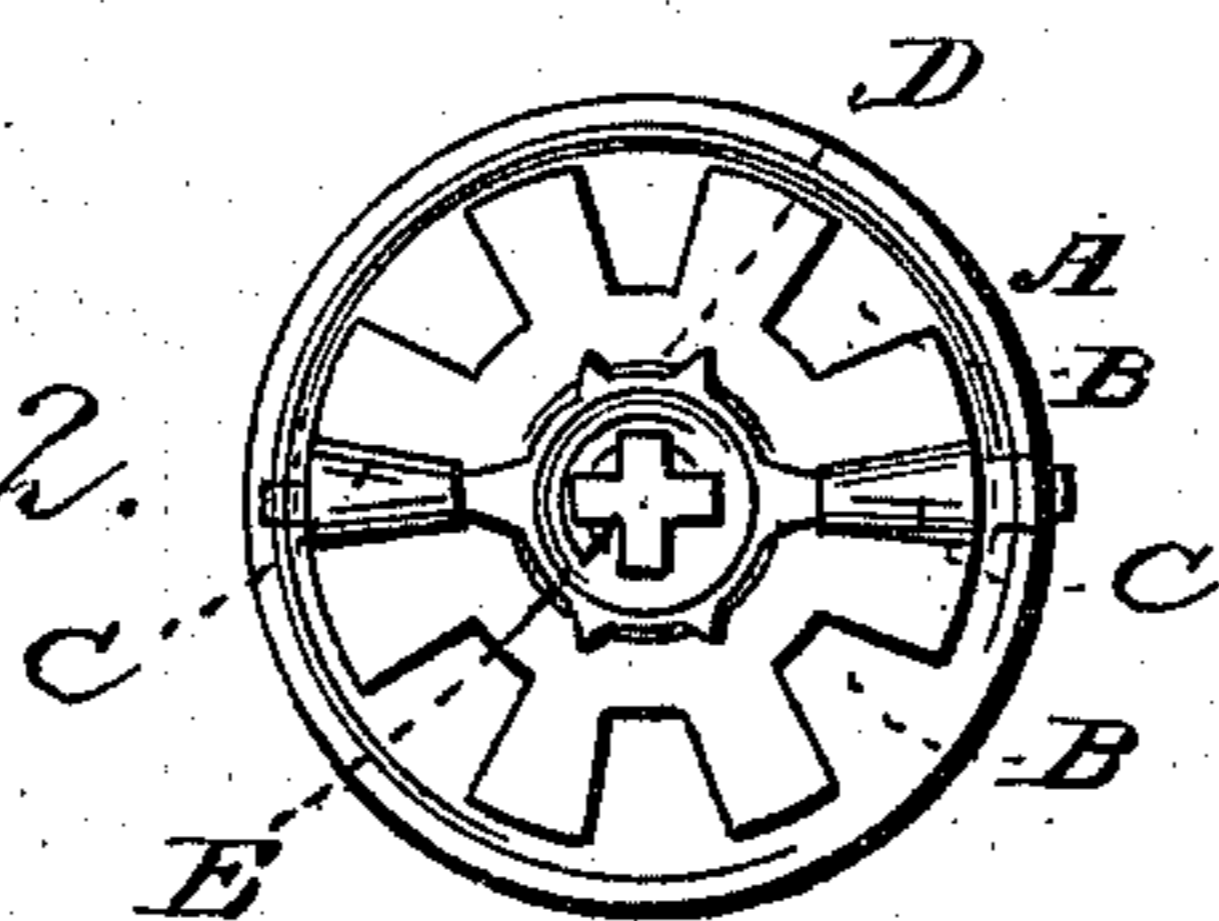
No. 103,307.

Patented May 24, 1870.

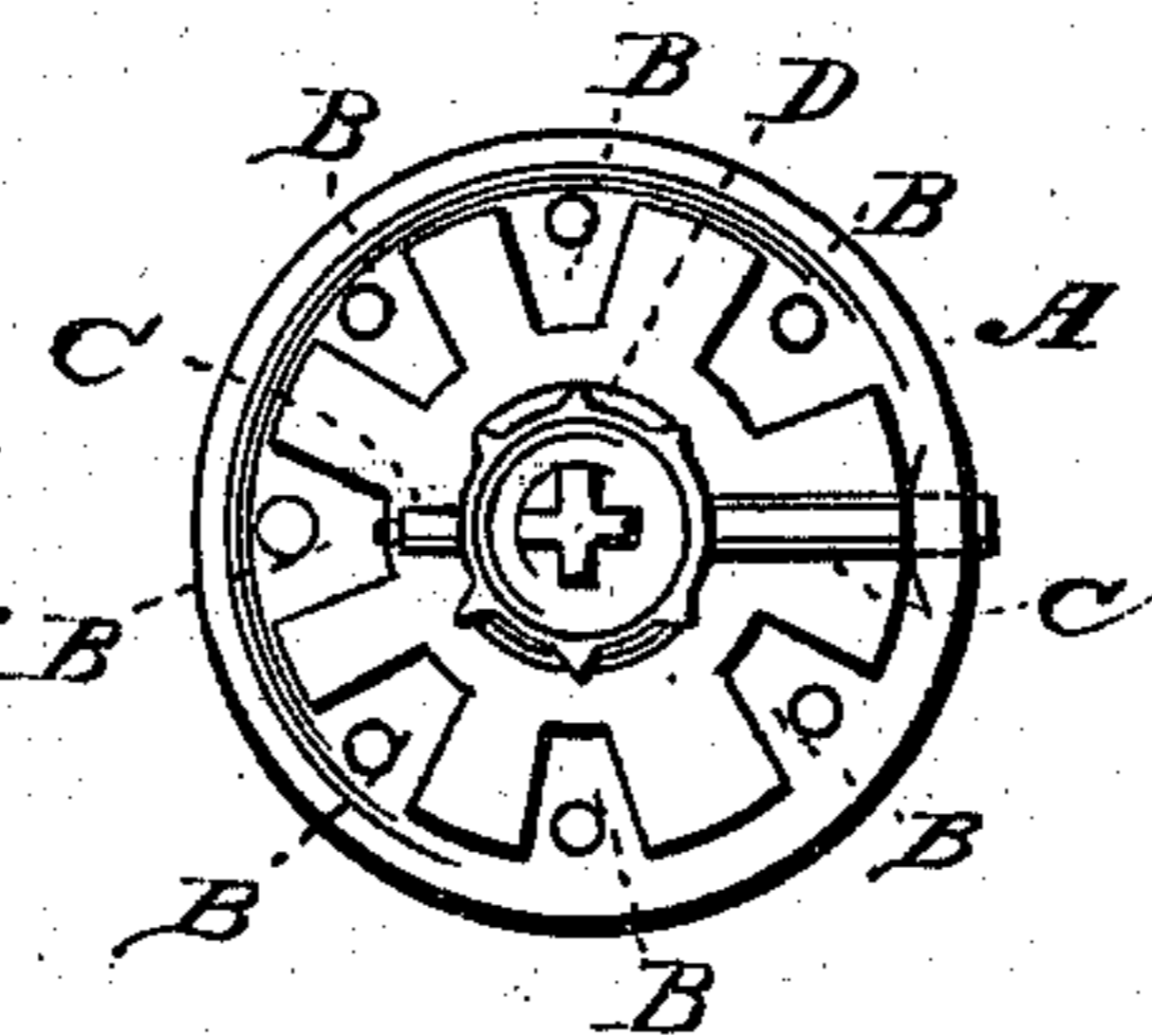
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:

Inventor:

A. W. Almquist  
Jno. H. Brooks

P. Dempsey  
per *[Signature]*

# United States Patent Office.

PRICE DEMPSEY, OF ERIE, PENNSYLVANIA.

*Letters Patent No. 103,307, dated May 24, 1870.*

## STOVE-GRATE.

The Schedule referred to in these Letters Patent and making part of the same

*To all whom it may concern:*

Be it known that I, PRICE DEMPSEY, of Erie, in the county of Erie and State of Pennsylvania, have invented a new and useful Improvement in Stove-Grates; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification.

This invention relates to improvements in stove-grates, and has for its object to provide an arrangement of that class of grates which revolve horizontally, whereby the ash and cinder may be more readily discharged.

It is also designed to provide a simple and cheap construction.

The invention comprises the combination, with a circular rim having radial projections toward the center, but stopping short of it, leaving a large central space, of a grate, oscillating in a vertical plane, mounted on a shaft, supported at the circular part, and having a socket in one end for the insertion of a handle for imparting oscillating motion to both parts of the grate, as hereinafter specified.

Figure 1 represents a sectional elevation of my improved grate.

Figure 2 represents a plan view of the same; and

Figure 3 represents a plan view of a modified arrangement of the grate.

Similar letters of reference indicate corresponding parts.

A represents a cast-metal grate, provided with radial grate-bar projections B, pointing toward the center, but stopping short of it, leaving a central space in which I suspend on arms C a hollow conical center, D, preferably with a concave top, having a vertical opening to admit the air throughout it from the hollow space below.

The arms C are so arranged in bearings on the part A, that they may be used to impart oscillating motion to the said part A in a horizontal plane, or to the central part D in a vertical plane, whereby the agita-

tion of the fire will be more intense, and being in places opposed to each other, will have a more thorough effect than any present arrangement.

The rim of the part A rests on projections F, on the inside of the shell of the stove.

In the plan represented in fig. 2, the shaft or arms are enlarged from the connection with the center outward, corresponding with the increase of the space due to the radial lines of the projections B each side of them.

In fig. 3, I have represented one of the rear arms as supported in a projection, B, and the other arm without the enlargement.

I have also represented perforations in the projections B, which are mere differences of construction, either of which I propose to make use of, as I prefer.

The construction or form of the cone of the central grate is such that, when oscillated in a vertical plane, the fire is supported by one side of the cone, while a large opening is made on the other side of the central grate, and between said central grate and outer rim or radial points, through which opening impurities in the coal or slag in the fire may be removed without dumping the entire grate.

Having thus described my invention,

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

1. The combination, with the circular grate arranged for oscillation horizontally, and provided with the openings at the center, of the center D, arranged to turn with the part A, and to oscillate in a vertical plane, substantially as specified.

2. The construction or form of the cone of the central grate, so that, when oscillated in a vertical plane, the fire is supported by one side of the cone, while a large opening is made on the other side of the central grate, and between said central grate and outer rim or radial parts, substantially as specified.

PRICE DEMPSEY.

Witnesses:

WM. C. HULBERT,  
P. J. BARR.