

(No Model.)

F. MÜLLER.

FIRE GRATE.

No. 329,843.

Patented Nov. 3, 1885.

Fig. 1.

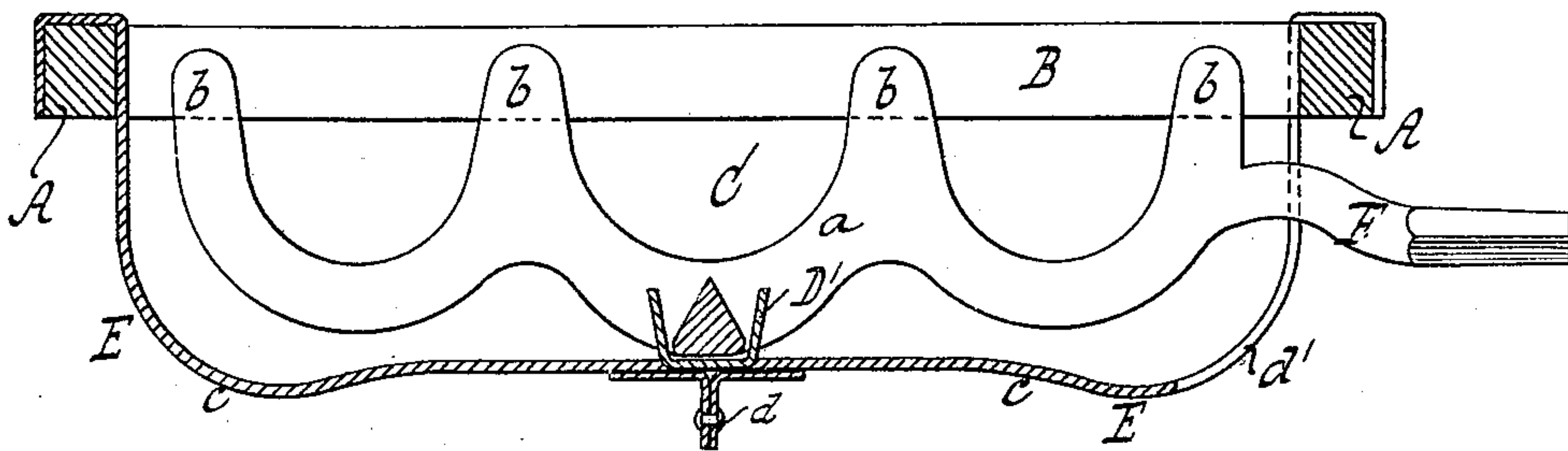
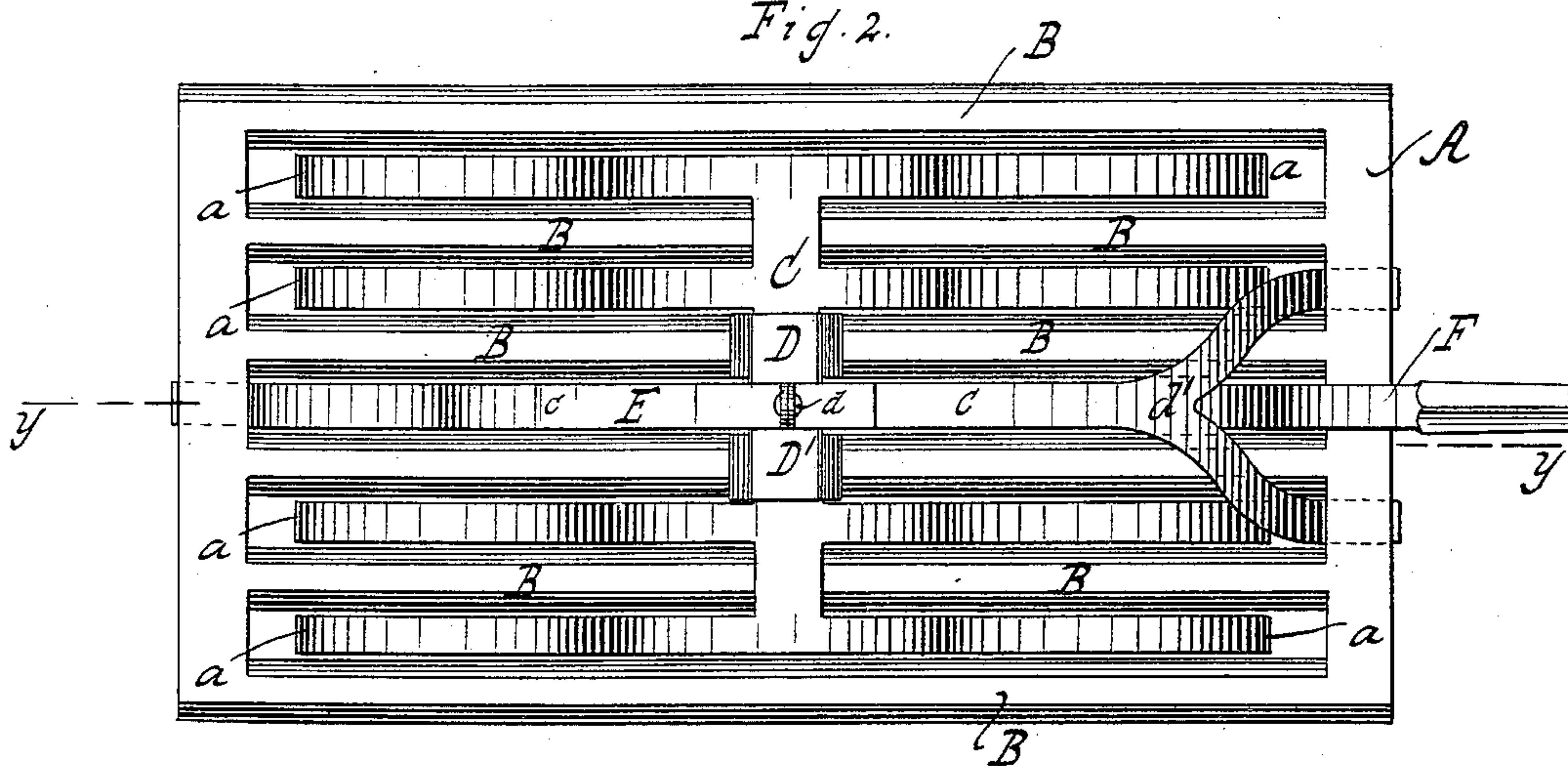


Fig. 2.



WITNESSES:

William Miller
A. Faber du Faur Jr.

INVENTOR

Friedrich Müller

BY

Vandantoro & Hauff
his ATTORNEYS

UNITED STATES PATENT OFFICE.

FRIEDRICH MÜLLER, OF NEW YORK, N. Y.

FIRE-GRATE.

SPECIFICATION forming part of Letters Patent No. 329,843, dated November 3, 1885.

Application filed January 29, 1885. Serial No. 154,333. (No model.)

To all whom it may concern:

Be it known that I, FRIEDRICH MÜLLER, a citizen of the German Empire, residing at New York, in the county and State of New York, have invented new and useful Improvements in Fire-Grates, of which the following is a specification.

This invention has for its object to provide a novel shaker for grates; and it consists in the combination of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a longitudinal vertical section of my improved grate in the plane *y y*, Fig. 2. Fig. 2 is a bottom view of the same.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the bed-plate of the grate, which is secured in the brick-work of the furnace, and, as shown in the drawings, the grate-bars B are cast integral therewith; but I do not wish to confine myself to this construction, as the grate-bars B may be cast separately and secured in the usual manner.

C is the shaker, which consists of a series of bars, *a a*, &c., which are centrally connected and have projections *b b*, &c., which extend up between the grate-bars B to within a short distance from the upper surface of the same. The shaker C is best cast in one piece, the bars having the undulating appearance shown in the drawings, and is provided with journals intermediate its ends, which are supported in boxes D D', which are secured to a hanger, E, the ends of which clamp around the grate-bed A, or in the ordinary form they are secured to the grate or to the dead-plates; and said hanger

E is made in two sections, *c c*, which are secured together at *d* by rivets or bolts, and one of these sections is provided with a forked end, *d'*, to allow the passage of the arm F, which projects from the shaker out beyond the furnace-front, its end being suitably formed to receive a handle, by means of which an oscillating motion can be imparted to the shaker through the medium of the central journals and their supports, whereby the projections *b b*, &c., on the bars *a a*, &c., are caused to pass up between the grate-bars B and into the fuel on the grate, which causes the ashes to fall down through the grate. Owing to the large number of projections *b b*, &c., and the even distribution of the same, the fuel is evenly and thoroughly cleared, whereby a good distribution of air among the fuel is insured.

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

The combination, substantially as heretofore described, with the grate A, of the shaker C, which consists of a series of connected bars, *a a*, &c., each provided with projections *b b*, &c., which extend up between the grate-bars, the hanger E, the ends of which are secured to the grate, the box or boxes D D', secured to said hanger, and the arm F, which is adapted to receive a handle for actuating the shaker.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

FRIEDRICH MÜLLER. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.