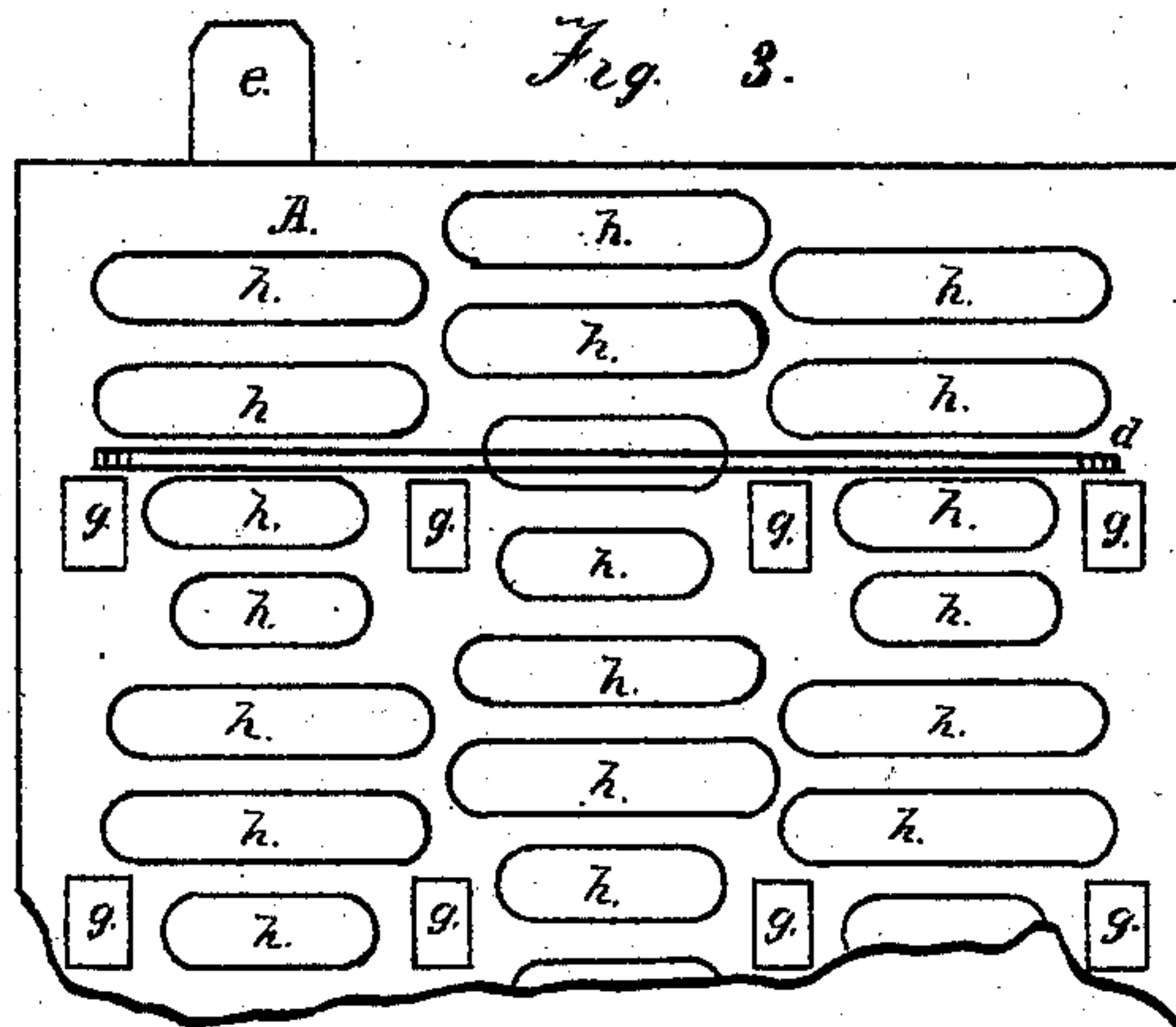
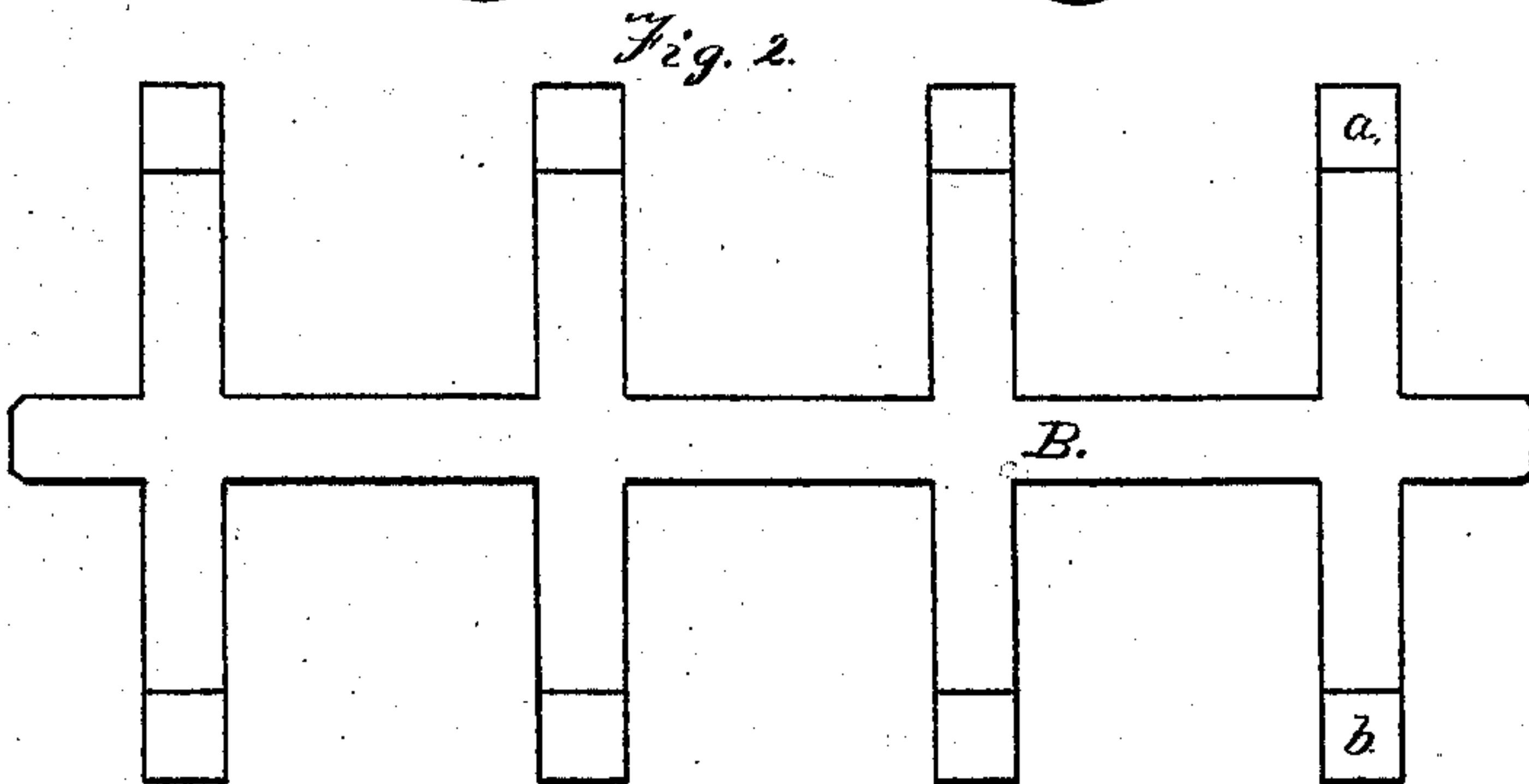
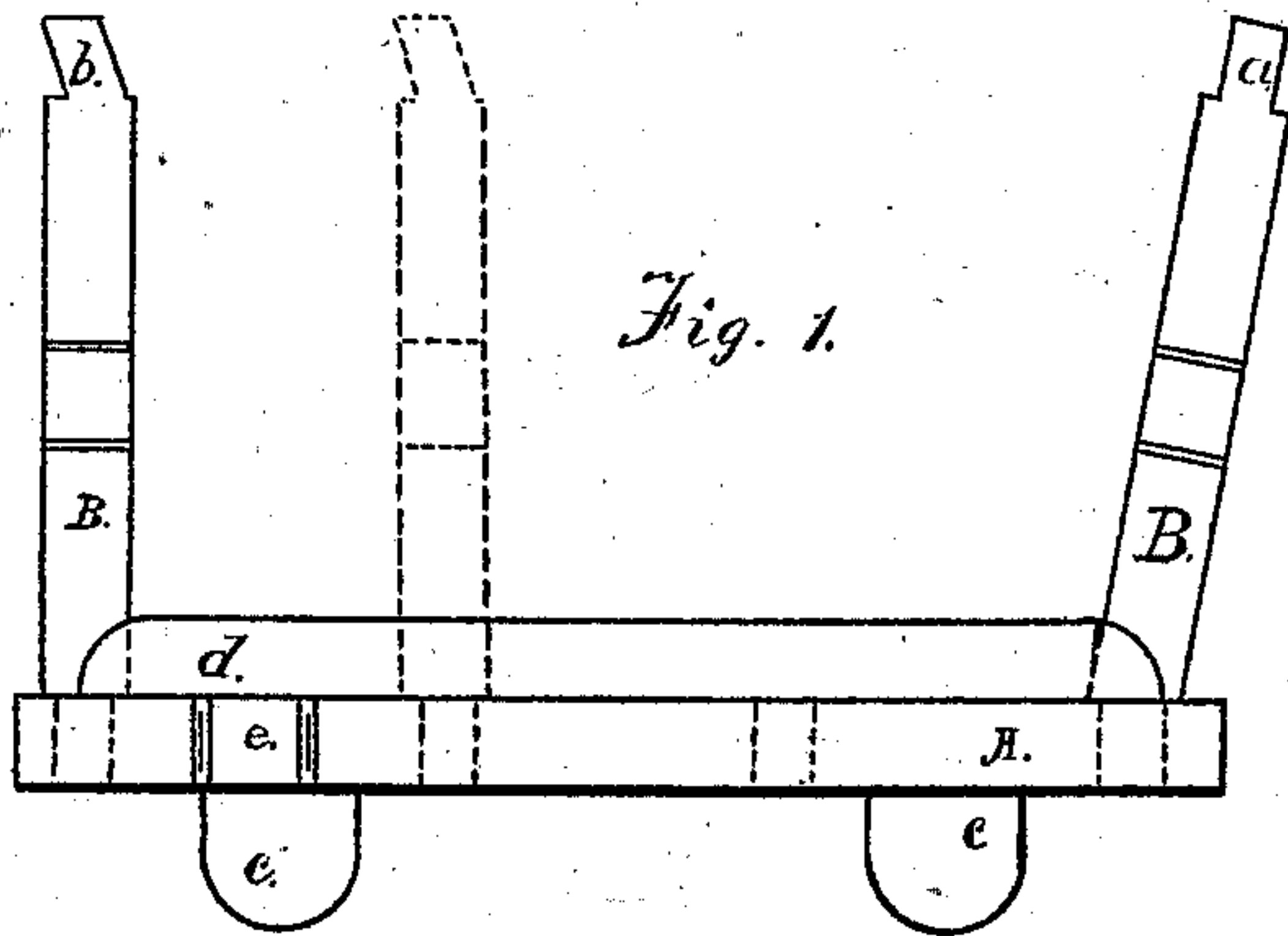


T. SEARL.
Stove-Grates.

No. 149,530.

Patented April 7, 1874.



Witnesses
A. H. Norris }
Edw. W. Downes }

Inventor.
S. Seare
By James L. Noone
associate atty.

UNITED STATES PATENT OFFICE.

THEODORE SEARL, OF WITOKA, MINNESOTA.

IMPROVEMENT IN STOVE-GRATES.

Specification forming part of Letters Patent No. **149,530**, dated April 7, 1874; application filed March 3, 1874.

To all whom it may concern:

Be it known that I, THEODORE SEARL, of Witoka, in the county of Winona and State of Minnesota, have invented certain new and useful Improvements in Fire-Rack; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

This invention relates to fire racks for stoves; and consists of a portable grate and fire-rack combined, which is intended for use in the ordinary wood-stove. It is constructed to hold more or less wood, as is desired—as in cold or warm weather—and is constructed to admit a free draft, without obstruction from ashes.

The invention will be better understood by reference to the drawing and the following specification.

In the drawing, Figure 1 is an end elevation of the grate or bottom, with the rack-bars in proper position. Fig. 2 is a side view of the rack-bars. Fig. 3 is a top view of a portion of the grate or bottom, showing the mortises in which the rack-bars are placed to hold them in position.

A is the grate or bottom of the stove-rack. B is the rack-bars, which have tenons on each end of each bar, and all held together by means of the center cross-bar, which forms a part of the same casting. The tenons *a* on one end of all the grate-bars are straight, and the tenons *b* on the opposite ends of all of them stand at an angle, and the tenons are all made of

one size, and to fit the mortises *g* in the bottom A; and should they be placed in the mortises one end up, they will stand straight up; and should they be inverted and inserted in the mortises *g*, they would stand at angle corresponding to the angle of the tenon *b*, as shown in Fig. 1. The grate or bottom A is provided with several rows of mortises, *g*, into which the rack-bars will fit, and consequently the fire-space may be reduced, at pleasure, as shown by dotted lines in Fig. 1. The grate A is provided with legs *c*, for supports to keep the grate up from the stove-bottom, to admit the escape of the ashes, and also with studs *e* on each end to support it, in case the stove-bottom is sunken; these will rest on the rise at each end of the fire-box and support the rack. The strips *d* are provided to hold the wood free from the grate, and also assist in making a free draft of air. *h* represents the openings through the grate for draft and for the escape of the ashes.

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

1. The grate or bottom A, provided with legs *c*, studs *e*, ribs *d*, and three or more rows of mortises, *g*, in combination with the rack-bars B, provided with straight tenons *a* and angling tenons *b*, substantially as and for the purpose hereinbefore set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 31st day of January, 1874.

THEODORE SEARL.

Witnesses:

ALEXANDER SEARL,
WM. B. PHELPS.