

(No Model.)

2 Sheets—Sheet 1.

E. GURNEY.

WATER HEATER.

No. 389,458.

Patented Sept. 11, 1888.

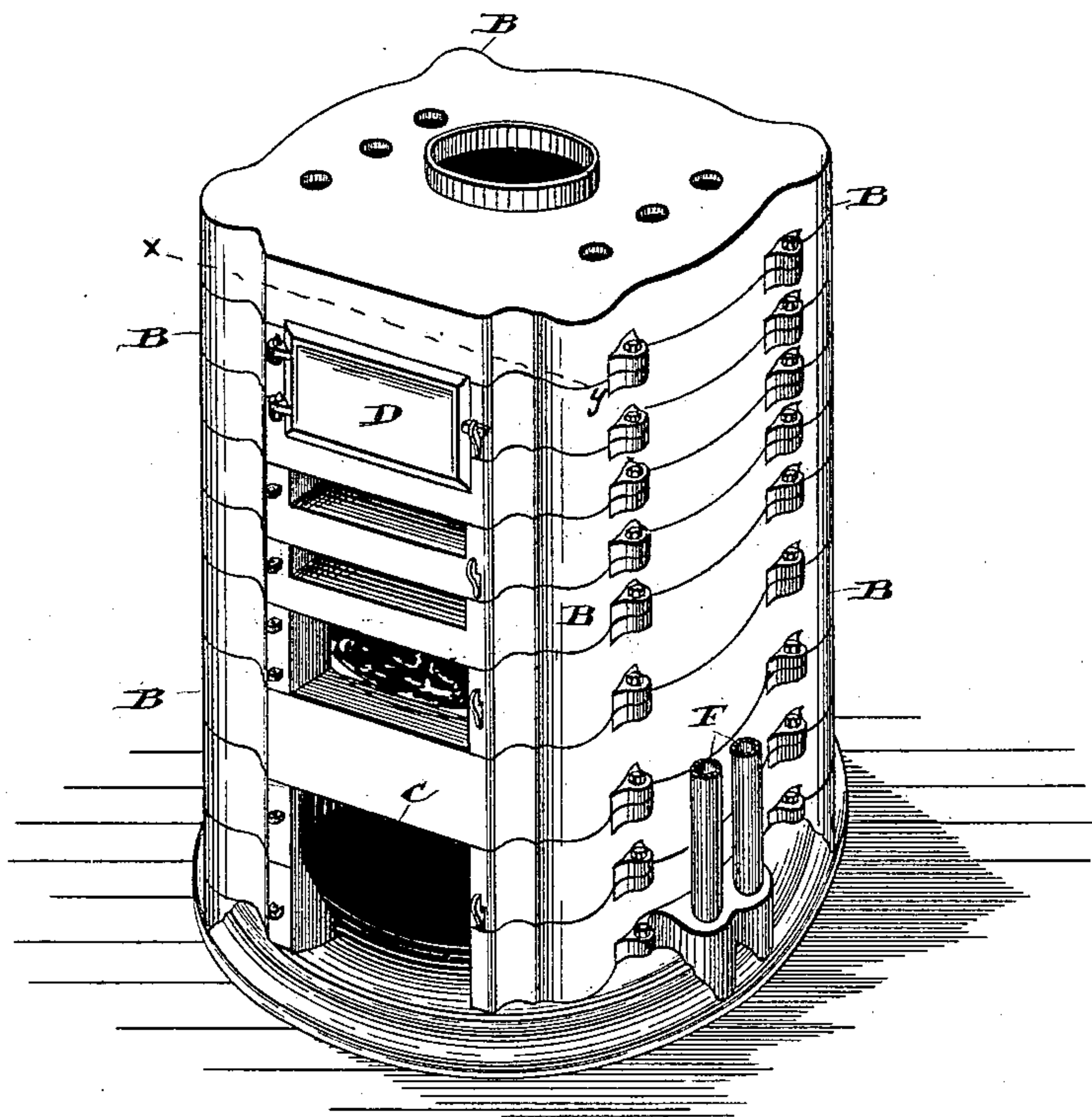


Fig. 1.

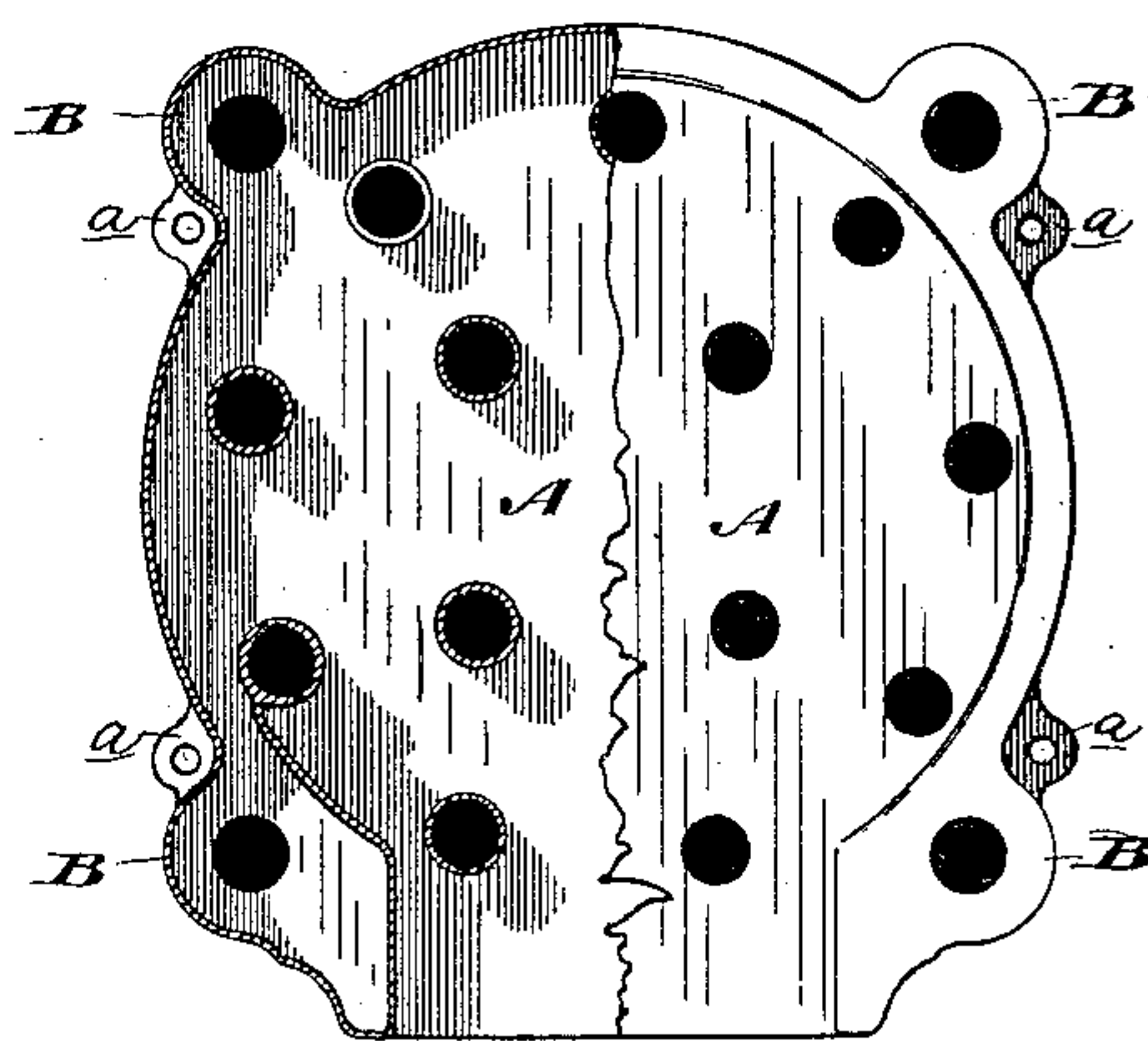


Fig. 2.

Witnesses.
F. B. Farnsworth
J. E. May

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by Donald C. Ridout & Co.
Attorneys

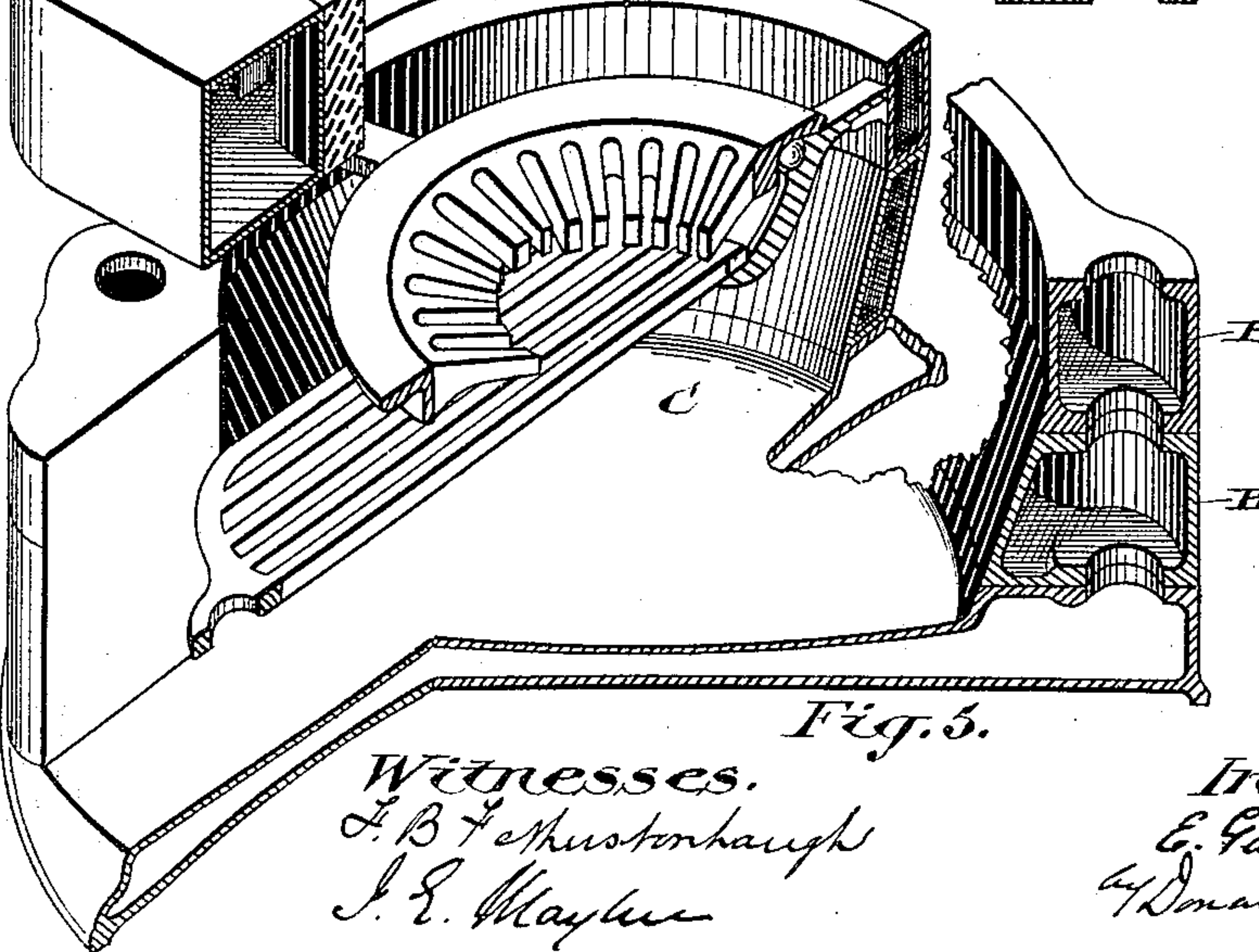
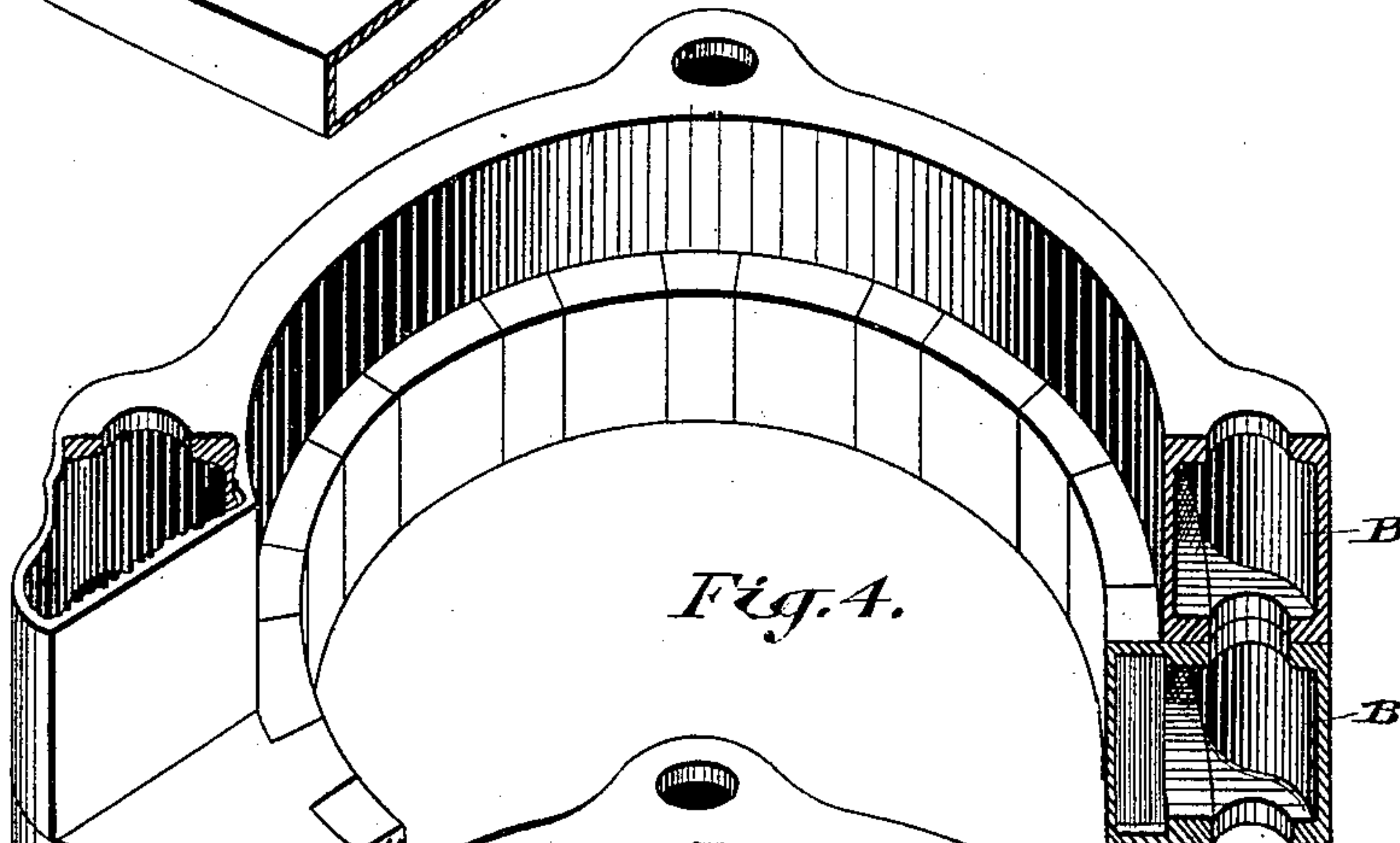
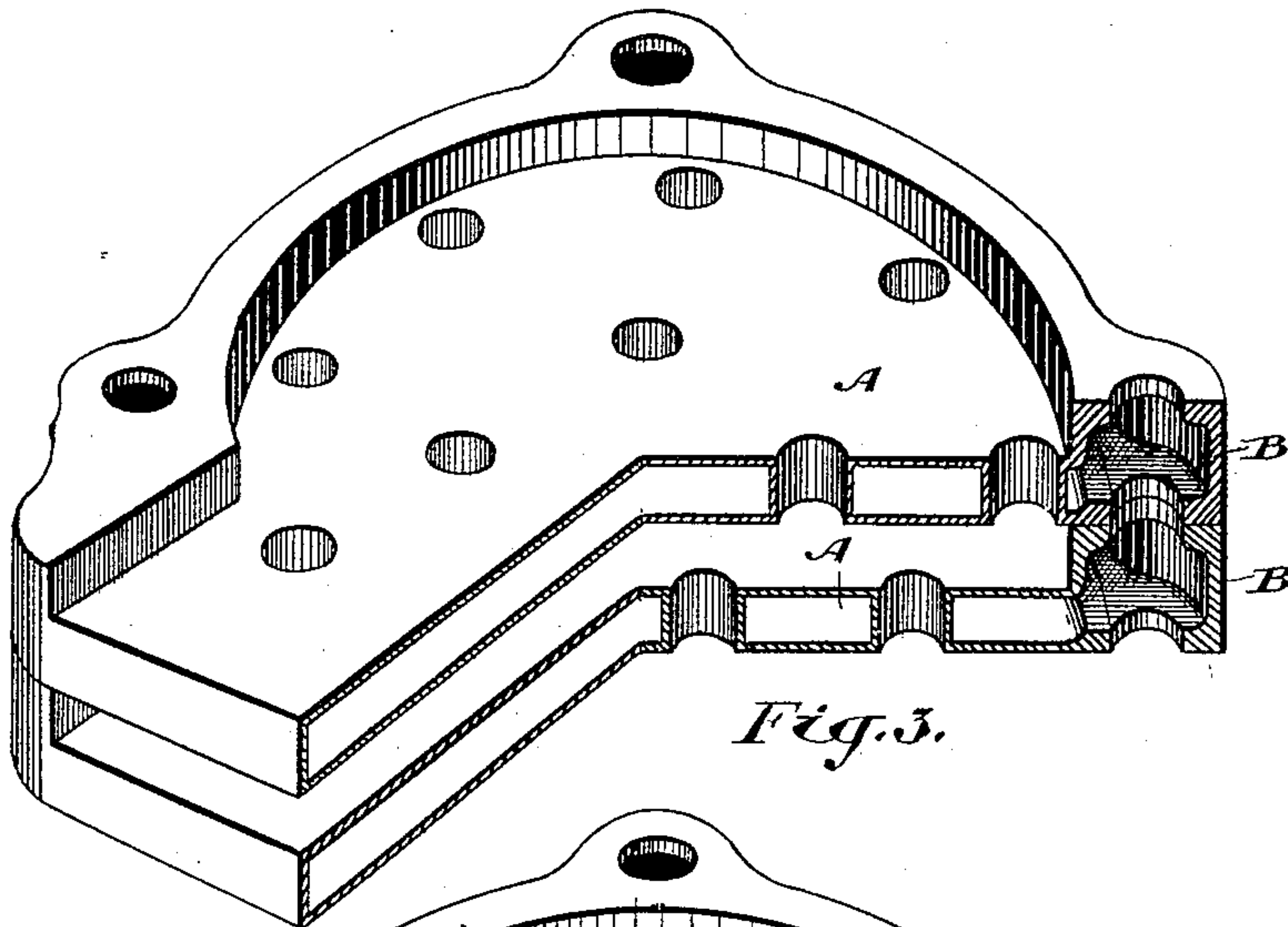
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Witnesses.
J. B. F. Hustonhaugh
J. E. Mayne

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UNITED STATES PATENT OFFICE.

EDWARD GURNEY, OF TORONTO, ONTARIO, CANADA.

WATER-HEATER.

SPECIFICATION forming part of Letters Patent No. 389,458, dated September 11, 1888.

Application filed October 28, 1887. Serial No. 253,652. (No model.)

To all whom it may concern:

Be it known that I, EDWARD GURNEY, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, manufacturer, have invented certain new and useful Improvements in Water-Heaters, of which the following is a specification.

This invention relates to certain new and useful improvements in sectional hot-water heaters; and the invention consists in the peculiar combination and the construction, arrangement, and adaptation of parts, all as more fully hereinafter described and claimed.

Figure 1 is a perspective outside view of my improved heater. Fig. 2 is a sectional plan through *x y* in Fig. 1. Figs. 3, 4, and 5 are enlarged sectional perspective views showing the formation and construction of the several lower sections of the heater.

A represents the water-spaces, which are all connected together in each section, and all the water-spaces in the various sections are connected together by the vertical legs B, which are themselves connected to and form part of the water-spaces A. It will be noticed that the water-spaces extend around the side and bottom of the ash-pit C and around all the openings formed for the doors D, thus materially increasing the heating-surface of the heater.

The return-water pipes F enter the water-space A surrounding and forming the bottom of the ash-pit C. By thus introducing the return-water into the water space at the coolest point in the heater a better circulation is maintained,

as the back-pressure which is sometimes produced by the water being overheated at the point where the return-water formerly entered the heater is entirely avoided, as the water surrounding the ash-pit can never become too hot, although the heat from the ash-pit fully contributes its share toward the warming of the water within the heater.

It will be noticed that the ears or lugs *a* on the sections are arranged in the bends by the vertical legs B, out of the way, where they are not liable to be broken.

What I claim as my invention is—

1. A hot-water heater composed of hollow sections formed with heating-spaces between the water-spaces of the sections, and communicating with water-spaces formed around the doors of the heater and with water-spaces formed in the sections surrounding the ash-pit, and the several sections connected together by the vertical legs B, connected to and forming part of the water-spaces, substantially as and for the purpose specified.

2. A hot-water heater composed of detachable sections formed with vertical legs B, and with lugs *a* arranged in the bends formed by the legs B, substantially as shown and described, and for the purpose specified.

Toronto, September 28, 1887.

EDWARD GURNEY.

In presence of—

CHARLES C. BALDWIN,
CHARLES H. RICHES.