

E. E. GOLD.
HEATER.

No. 172,014

Patented Jan. 11, 1876.

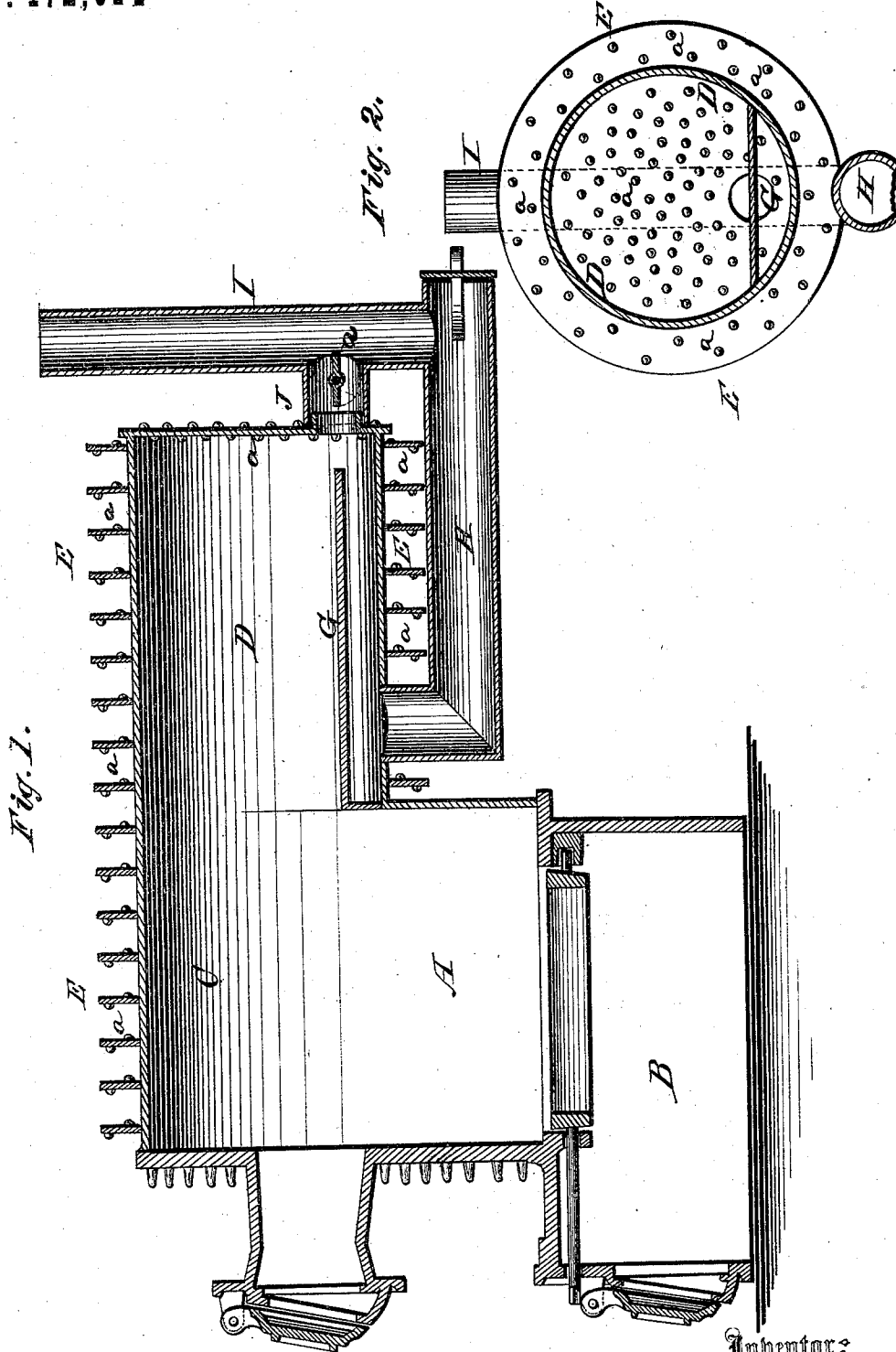


Fig. 1.

Fig. 2.

Witnesses:
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Per: *C. H. Watson* & *C. Attorneys.*

UNITED STATES PATENT OFFICE.

EDWARD E. GOLD, OF NEW YORK, N. Y.

IMPROVEMENT IN HEATERS.

Specification forming part of Letters Patent No. **172,014**, dated January 11, 1876; application filed December 27, 1875.

To all whom it may concern:

Be it known that I, EDWARD E. GOLD, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Heaters; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to that class of heaters in which a horizontal drum or cylinder extends rearward from the arch over the fire-chamber for the passage of the products of combustion; and the nature of my invention consists in the peculiar construction of the combustion-chamber and draft-flues.

In the annexed drawing, Figure 1 is a longitudinal section, and Fig. 2 is a transverse section, of a device embodying my invention.

A is the fire-pot, with ash-pit B underneath, and above the fire-pot is the arch C. From the arch extends the horizontal drum D toward the rear, this drum and arch being made of wrought-iron, and provided with cast-iron flanges E E the entire length. These flanges are, on both sides, provided with projecting pins *a a*, and they are bolted or otherwise fastened onto the cylinder or drum at suitable distances apart, thereby giving a

very large radiating-surface to conduct the heat from the wrought-iron drum, so that no portion thereof can become overheated. In the bottom of the drum D is a flue, G, extending the entire length thereof, and communicating at its front end with a pipe, H, running backward to the smoke-pipe I. The pipe I communicates by a short pipe, J, with the rear end of the drum D above the flue G, and in this short pipe is a damper, *a*, as shown. The damper *a* is opened for direct draft and closed for indirect draft. When closed, the smoke passes to the rear end of the drum and into the flue G, then forward through the same, and through the pipe H to the smoke-pipe. By this indirect draft all the heat is utilized for heating surfaces.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of the drum or cylinder D, flue G, indirect-draft pipe H, smoke-pipe I, and direct-draft pipe J, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

EDWARD E. GOLD.

Witnesses:

JOHN KANE,
HENRY W. BADGER.