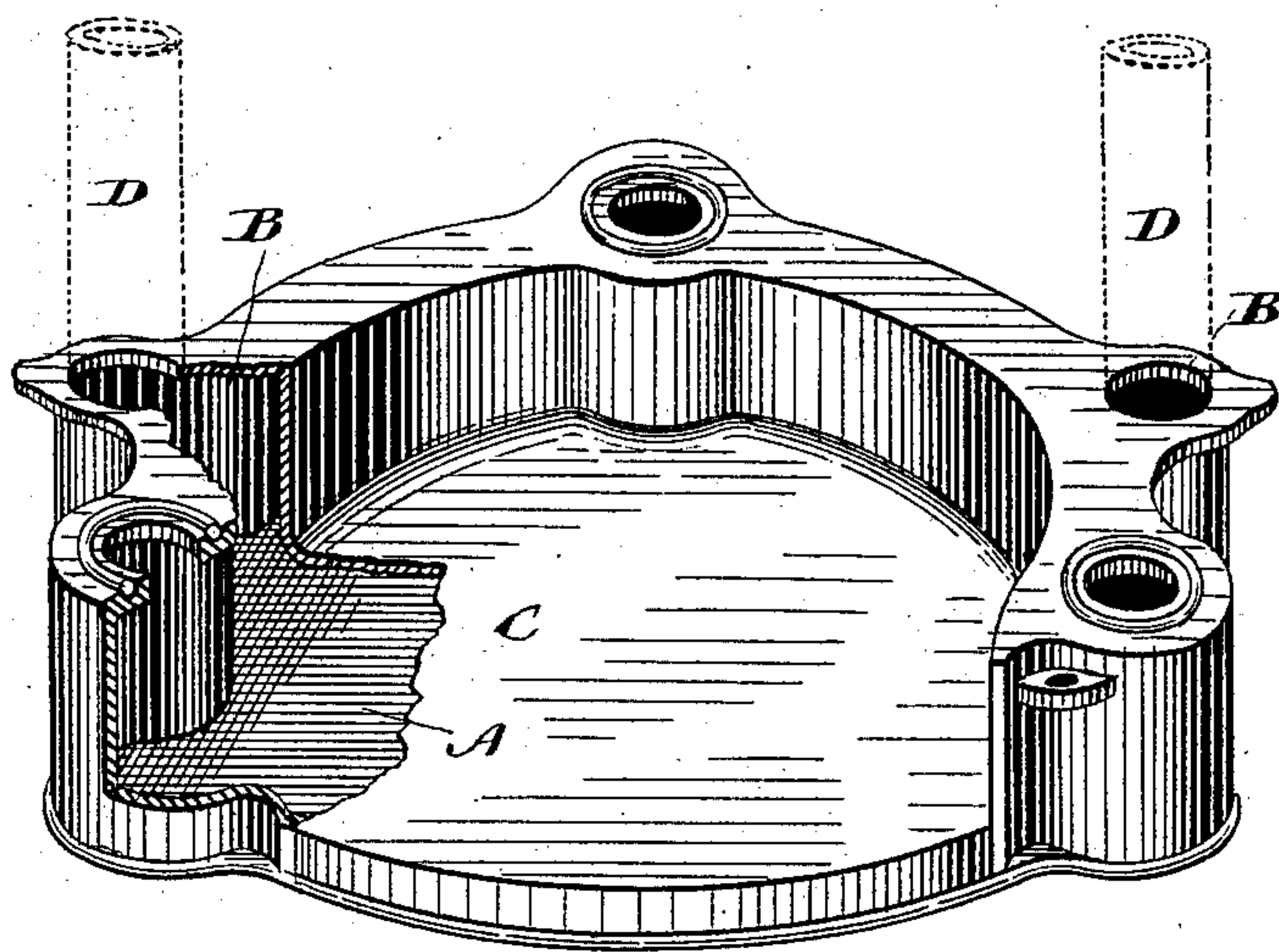


(No Model.)

E. GURNEY.
SECTIONAL BOILER.

No. 389,462.

Patented Sept. 11, 1888.



Witnesses.

J. M. Jackson
Chas H Riches

Inventor.

Edward Gurney
by
Donald C Ridout and Co
attys

UNITED STATES PATENT OFFICE.

EDWARD GURNEY, OF TORONTO, ONTARIO, CANADA.

SECTIONAL BOILER.

SPECIFICATION forming part of Letters Patent No. 389,462, dated September 11, 1888.

Application filed May 21, 1888. Serial No. 274,563. (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 a certain new and useful Improvement in Sectional Hot-Water Boilers, of which the following is a specification.

The invention relates to that class of hot-water boilers in which the water flows through water-legs from one section to another until it reaches the top section, from which it escapes into the pipe leading to the radiators.

The object of the invention is to arrange the lowest section so that the return-water entering the boiler shall pass between the floor and bottom of the ash-pit; and it consists, essentially, in forming the ash-pit section with a hollow bottom and communicating with the hollow sides of the section, and with an extension chamber or chambers formed in the section and extending beyond the main body of the boiler, so that the return pipes may be entered through the crown of the extension-chamber, substantially as hereinafter more particularly explained.

The drawing represents a perspective sectional view of the bottom ash-pit section of the boiler.

A represents the bottom plate of the section, which is curved on a large sweep to connect with and form an integral part of the bottom of the chamber B.

C is the bottom of the ash-pit. A space is

left between the plates A and C, into which the water from the return-pipes D, which enter the chamber B, flows freely over the curved surface of the plate A into the said space. This sheet of water between the bottom of the ash-pit and the floor prevents the floor from being charred or burned by the reflection of the heat from the bottom of the grate. The water conveyed into the said space is much cooler than the water in any other portion of the boiler, as it enters directly from the return-pipe at the lowest temperature and then ascends through the water-legs into the upper sections.

Some of the features of construction herein shown and described are not claimed herein, as they are claimed in my application of even date herewith, Serial No. 274,562.

What I claim as my invention is—

A hollow ash-pit section having a water-space formed in its bottom and communicating directly with all the water-spaces in the boiler, and with an extension chamber or chambers formed in the section and having a hole or holes pierced in its or their crown to receive the return pipe or pipes, substantially as and for the purpose specified.

Toronto, May 4, 1888.

EDWARD GURNEY.

In presence of—

CHARLES C. BALDWIN,
CHAS. H. RICHES.