JOHN McCONN

SECTIONAL STEAM BOILER

117311

PATENTED JUL 25 1871

Fig. 1

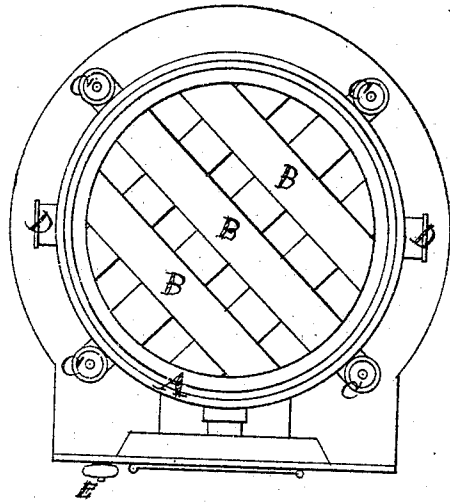
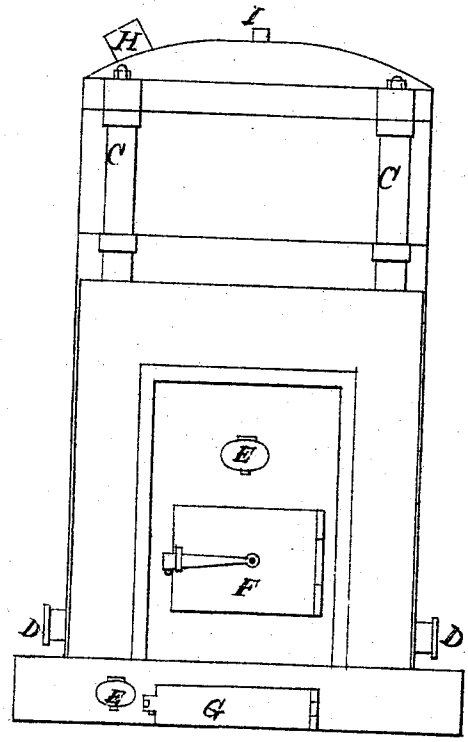


Fig. 2



Witnesses
Thos. Dallas
Geo. R. Moore

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Fig. 3

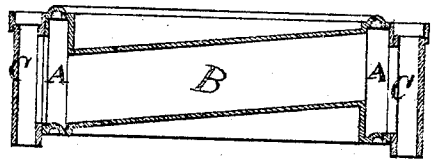


Fig. 4

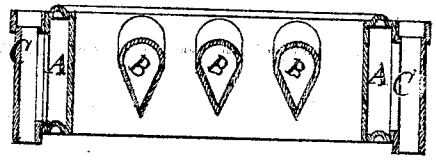


Fig. 6

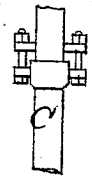
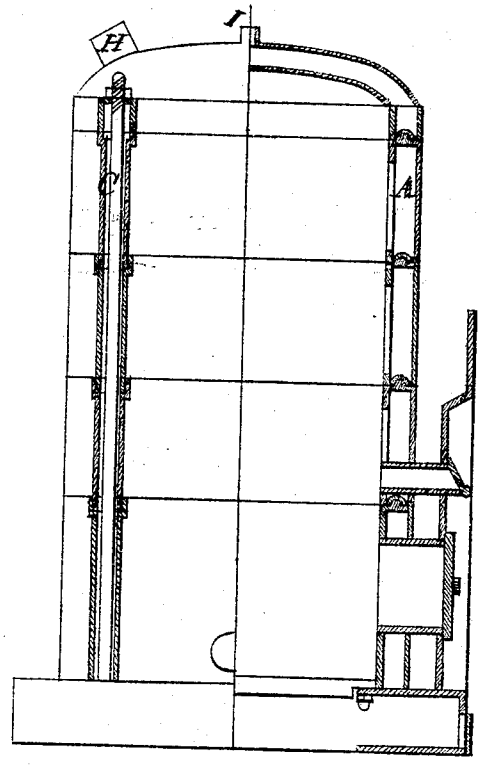


Fig. 5



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN McCONN, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN SECTIONAL STEAM-BOILERS.

Specification forming part of Letters Patent No. 117,311, dated July 25, 1871.

To all whom it may concern:

Be it known that I, JOHN McCONN, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain Improvements in Sectional Steam-Boilers, of which the following is a specification:

My invention relates to that class of sectional steam-boilers in which the sections consist of water-chambers, one above another. The object of my invention is to improve the mode of connecting the sections, and of obtaining a perfect circulation from one section to another in this class of steam-boilers.

I obtain a circulation from one section to another by outside columns, which communicate by side apertures to the main sections, so that the only steam-joints to be made are in these outside columns, and are easily made. The ends of the main sections, being whole, require only a common joint.

Figure 1 is a top view of the boiler with the crown-section removed. Fig. 2 is a front view, including the frame-work in place before the boiler. Fig. 3 is a vertical cross-section of a single section. Fig. 4 is the same taken at right angles with Fig. 3. Fig. 5 is a vertical cross-section of the whole boiler and front, the cross-pipes being omitted. Fig. 6 shows an optional plan for bolting the joints of the columns.

A, end view of the main sections, which are cast hollow, (Fig. 1;) B, cross-pipes; C, outside columns; D, man-hole doors; E, apertures for regulating the draught; F, door to the fire-chamber; G, door to the ash-pit; H, smoke-pipe; I, steam-pipe. A in Fig. 5 shows how the joints are made, with a half-round fitting a hollow groove upon the ends of the main sections. The joints in the columns are made by allowing the sections to lap each other, and long bolts extend up through them all and hold them firmly together; but Fig. 6 shows how flanges upon the columns with short bolts may be used if desired. Fig. 3 shows the cross-pipes inclined, and Fig. 4 shows them wedge-shaped. This shape and inclination of these pipes favor the circulation.

I claim as my invention—

The outside columns C, with communicating-apertures to the main sections, by which the ends of the main sections may be left whole, substantially as and for the purpose herein set forth.

JOHN McCONN.

Witnesses:

TH. DALLAS,

GEO. R. MOORE.