E. C. COLE.

STOVE.

APPLICATION FILED NOV. 3, 1908.

934,887. Patented Sept. 21, 1909.

Fig. 1.

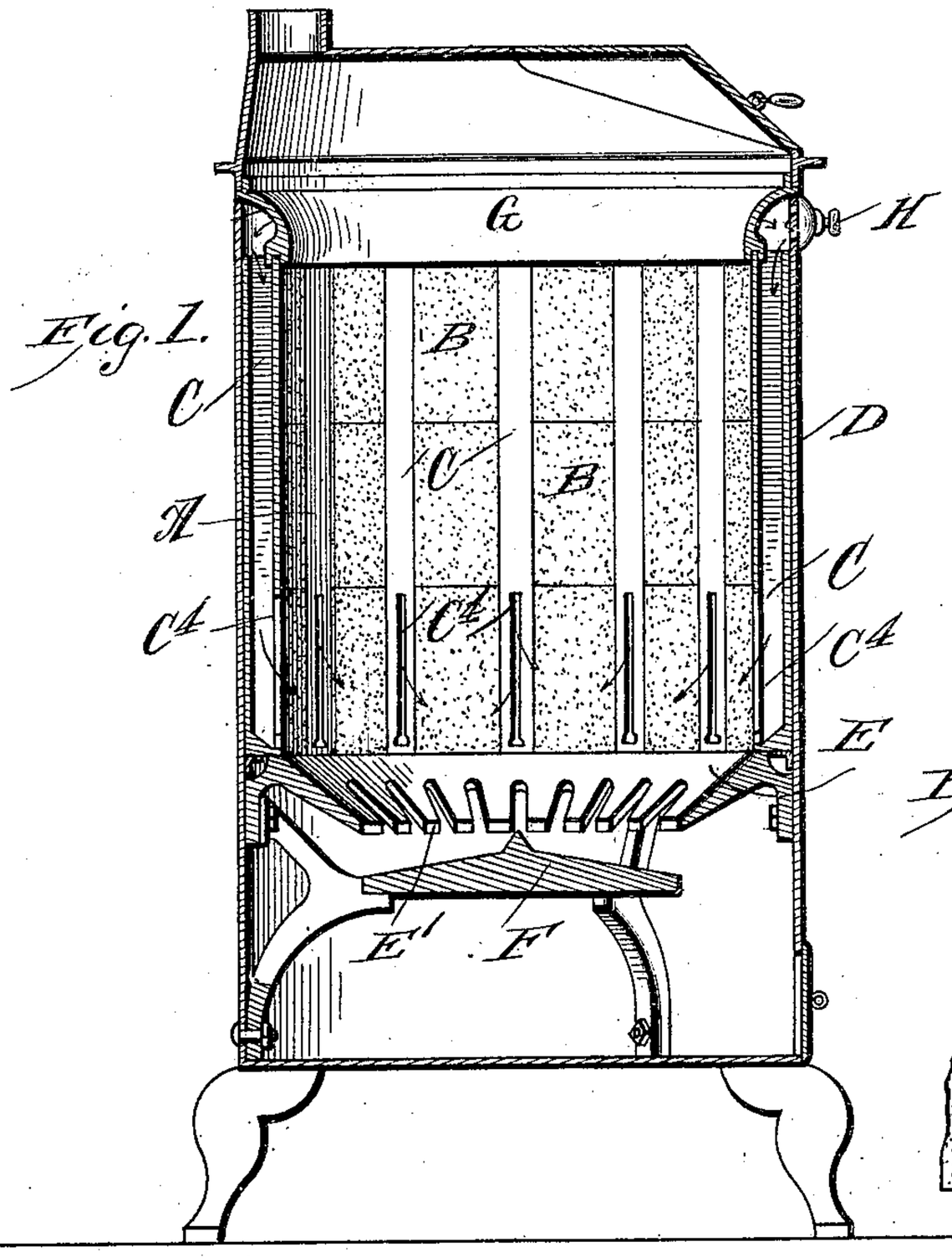


Fig. 5.

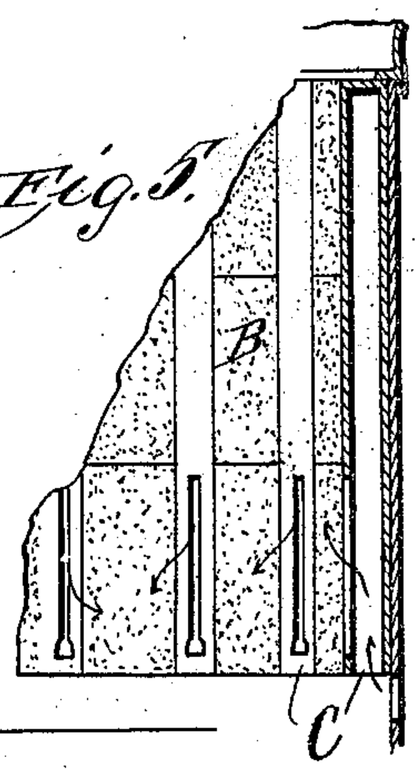


Fig. 3.

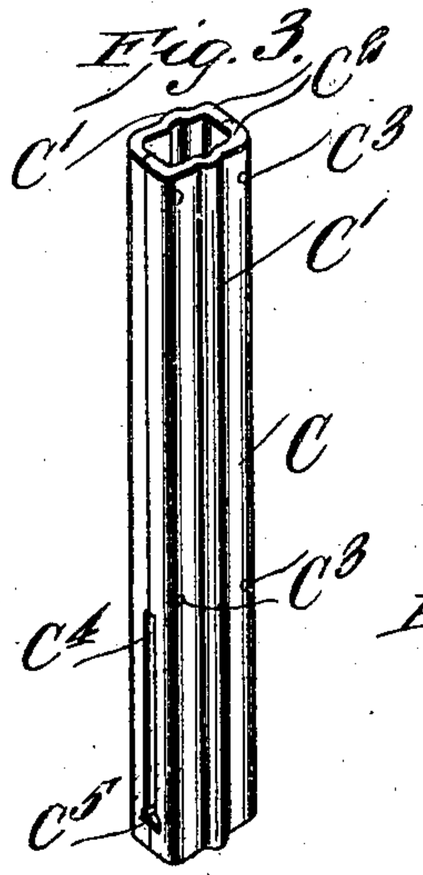


Fig. 4.

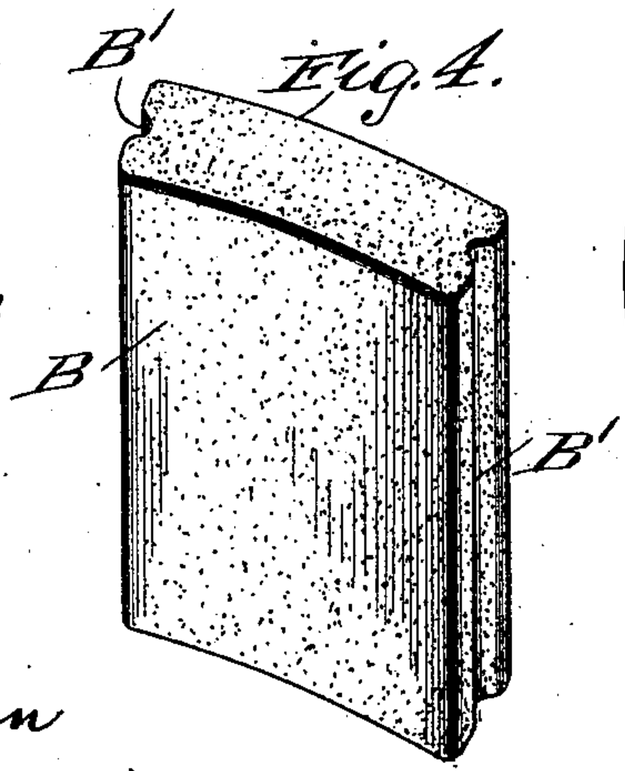
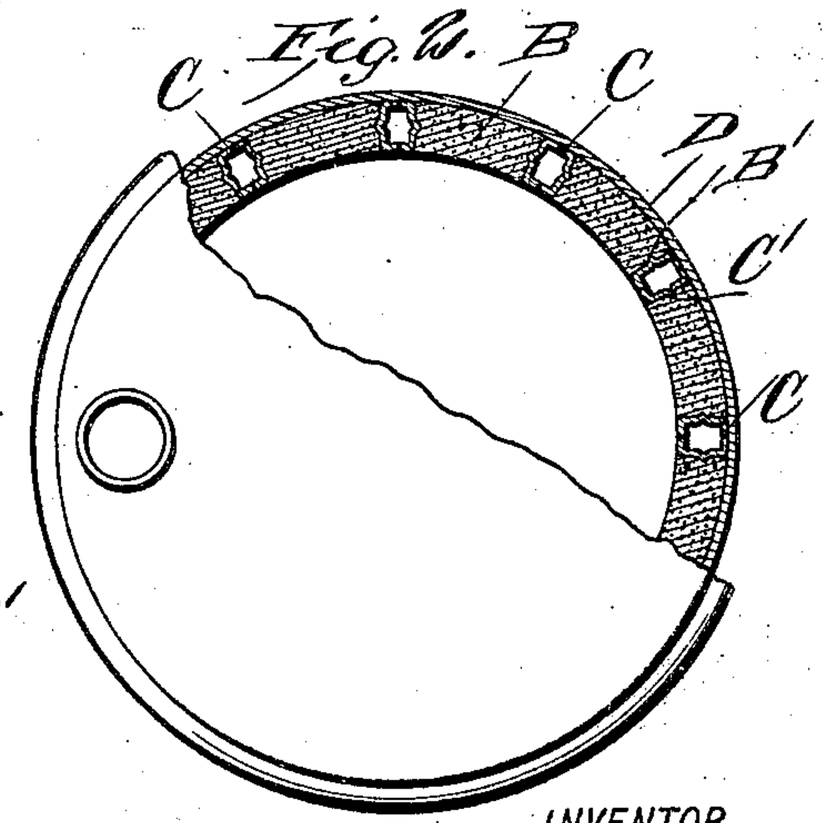


Fig. 2.



WITNESSES

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STOVE.

934,887. Specification of Letters Patent. Patented Sept. 21, 1909.

Application filed November 3, 1908. Serial No. 460,837.

To all whom it may concern:

Be it known that I, ERNEST C. COLE, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have made certain new and useful Improvements in Stoves, of which the following is a specification.

This invention is an improvement in stoves, and consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawing—Figure 1 is a vertical longitudinal section showing my invention embodied in an ordinary circular heating stove having a top draft. Fig. 2 is a top plan view partly in section, of the stove shown in Fig. 1. Fig. 3 is a detail perspective view of one of the cast iron columns. Fig. 4 is a detail perspective view of one of the fire bricks, and Fig. 5 illustrates in a sectional view the invention embodied in a stove having a bottom draft.

By my invention I provide a wall for a combustion chamber A, comprising alternating uprights of fire brick B, and cast iron columns C. The fire bricks B are provided in their opposite side edges with upright grooves B′, and the hollow cast iron columns C are provided at their opposite edges with upright beads C′, which enter the grooves B′ of the fire brick and hold the parts in the desired position within the stove body D, which latter may be of suitable sheet metal such as sheet steel. The columns B and C rest upon a fire pot support in the form of a base E, toothed at E′, and overlying the grate F, which latter may be of any suitable construction. The cast iron columns C are composed of two similar side sections C^2, fitted together and secured by rivets C^3, and in their inner faces at their lower ends the columns C are provided with upright slots C^4 for the discharge of air into the fire pot, and these draft slots C^4 are enlarged at their lower ends at C^5 to facilitate the cleaning out of fine ashes or dust that may accumulate in the hollow draft columns.

In the construction shown in Fig. 1, the draft columns communicate at their upper ends with the cast draft ring G having an inlet opening controlled by a screw cap or other suitable damper H, so the draft may be regulated or shut off as desired when the top draft is employed. In the construction shown in Fig. 1, the air entering the draft ring G will pass down through the hollow columns and discharge through the draft slots C^4 into the fire pot. In the construction shown in Fig. 5, the upper ends of the draft columns are closed and air enters the lower ends thereof and discharges directly through the draft slots to the fire pot. By the described construction the cast iron draft columns cause an unequal heating of the fuel around the edges of the fire pot and prevent the melting and fusing of a continuous mass of clinkers to a brick lining at the fire pot as is the case in an ordinarily constructed all brick lined pot which cannot be removed without destroying part of the brick.

While the draft may be admitted into the lower end of the hollow columns, as shown in Fig. 5, it is preferred to admit it at the top and to control it at H in the manner before described.

By preference the cast iron draft columns are narrower than the fire brick columns with which they alternate as best shown in Figs. 1 and 2 of the drawing.

While I have shown the fire box as circular in cross section, it is manifest it may be made in square or rectangular form for cook stoves, the construction of the fire brick columns and the draft columns remaining substantially the same.

I claim—

The combination substantially as herein described of a plurality of series of fire bricks arranged one series above the other, and a series of spaced apart perpendicular draft columns between the fire bricks and extending across the joint between said plurality of series of such bricks, and provided with air openings, the said draft columns operating to hold the fire bricks in place, substantially as set forth.

ERNEST C. COLE.

Witnesses:
ALICE COMSTOCK,
E. G. GOODCHILD.