CLARK & CADY.

Heating Stove.

No. 104,269. Patented June 14, 1870.

Fig. 1

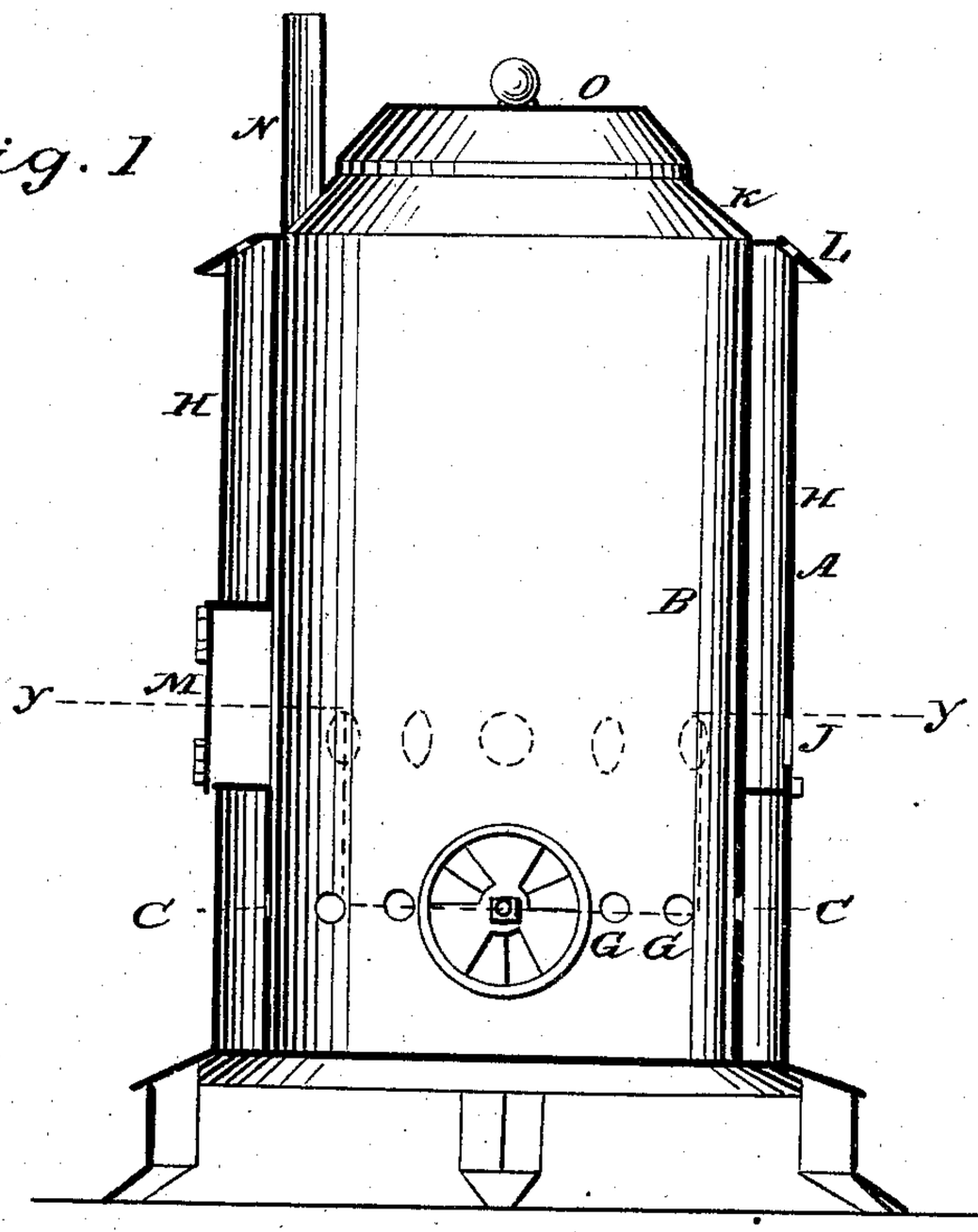
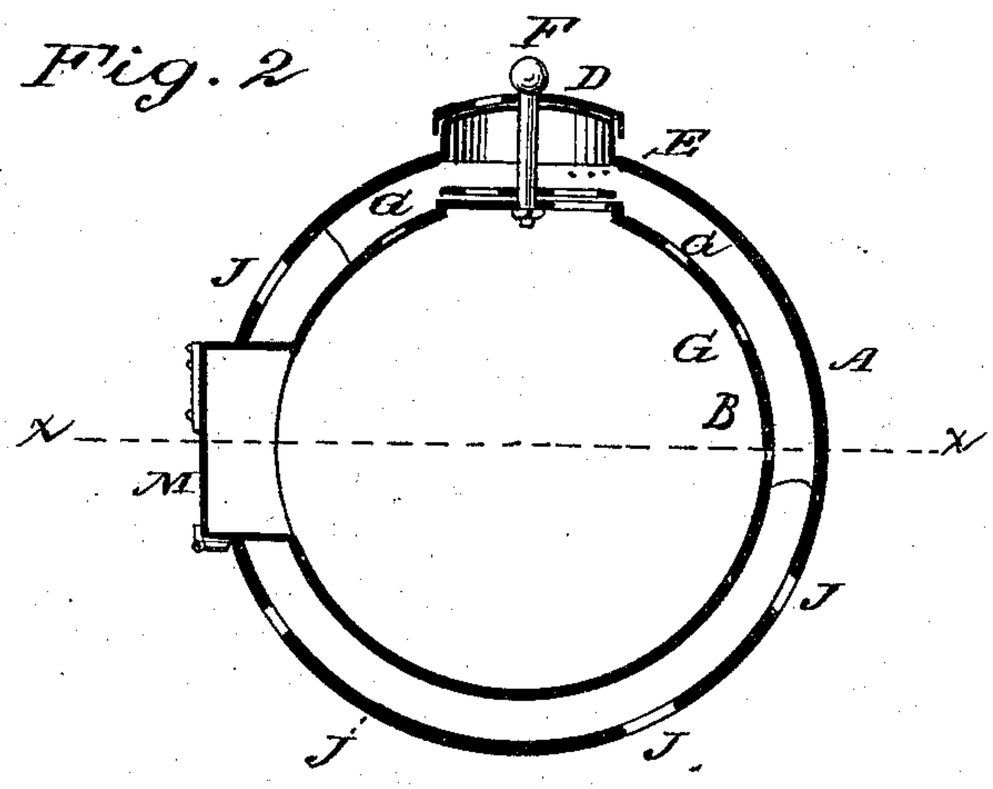


Fig. 2



Witnesses

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DE WITT C. CLARK AND HENRY W. CADY, OF SIOUX CITY, IOWA.

Letters Patent No. 104,269, *dated June* 14, 1870.

COAL-STOVE.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that we, DE WITT C. CLARK and HENRY W. CADY, of Sioux City, in the county of Woodbury and State of Iowa, have invented a new and useful Improvement in Stoves for Heating Purposes; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to a new and useful improvement in heating-stoves, whereby such stoves are rendered more efficient for the purpose intended than stoves of ordinary construction, and

It consists in forming chambers between the outer wall or casing of the stove and the lining, and in a damper in the lining, and a dividing partition, as hereinafter more fully described.

In the accompanying drawing—

Figure 1 represents a vertical section of a stove constructed according to our invention, the section being through the line *x x* of fig. 2.

Figure 2 is a horizontal section through the line *y y* of fig. 1.

Similar letters of reference indicate corresponding parts.

A is the outer wall or casing of the stove.

B is the lining.

C is an air-chamber immediately surrounding the fire-box or furnace of the stove. Air is admitted to this chamber through the damper D.

E is a damper in the lining B, which is operated by means of the rod F. The damper D works on this rod.

By this arrangement a current of air may be carried directly into the stove and in contact with the fuel, which may be of advantage in starting a fire, but ordinarily the air for the support of combustion is admitted from the chamber C through a series of holes in the lining, marked G.

H is an air-chamber around the upper portion of the stove, and is separated from the chamber C by the partition I.

This chamber H receives air from the outside through a series of holes, J, through the cylinder or casing A, just above the partition I. The air which enters this chamber is discharged from apertures, L, through the top K of the stove, which apertures communicate with the chamber.

In this manner, air which has entered the chamber above the fire-box is heated and discharged into the room at the top of the stove. The current which enters the chamber C through the damper for the support of combustion may be cut off, or nearly cut off, after the fire has been well started, so that, by this arrangement, there will be a constant flow of heated air into the room. The air necessary for combustion will be introduced, while the disagreeable current of cold air on the floor toward the stove will be avoided. The latter inconvenience is felt in all cases when heating-stoves receive their air at the bottom, as is usual.

M is the door for the introduction of the fuel.

N is the smoke-pipe.

O is a cover over an aperture in the top of the stove.

These stoves may be made either round or oval, and are adapted for either wood or coal.

By admitting the air upon all sides of the fuel, through the orifices G, a more perfect and economical combustion of the fuel is produced than by the ordinary method.

Having thus described our invention,

We claim as new and desire to secure by Letters Patent—

1. The damper E in the lining B of the stove, arranged to operate substantially as set forth.

2. In combination with the chamber C and H, the partition I, by which the two chambers are separated, arranged substantially as described.

DE WITT C. CLARK.
HENRY W. CADY.

Witnesses:
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