

C. A. Boyert.
Heating Stove.

N^o 8,441.

Patented Oct. 21, 1851.

Fig. 5.

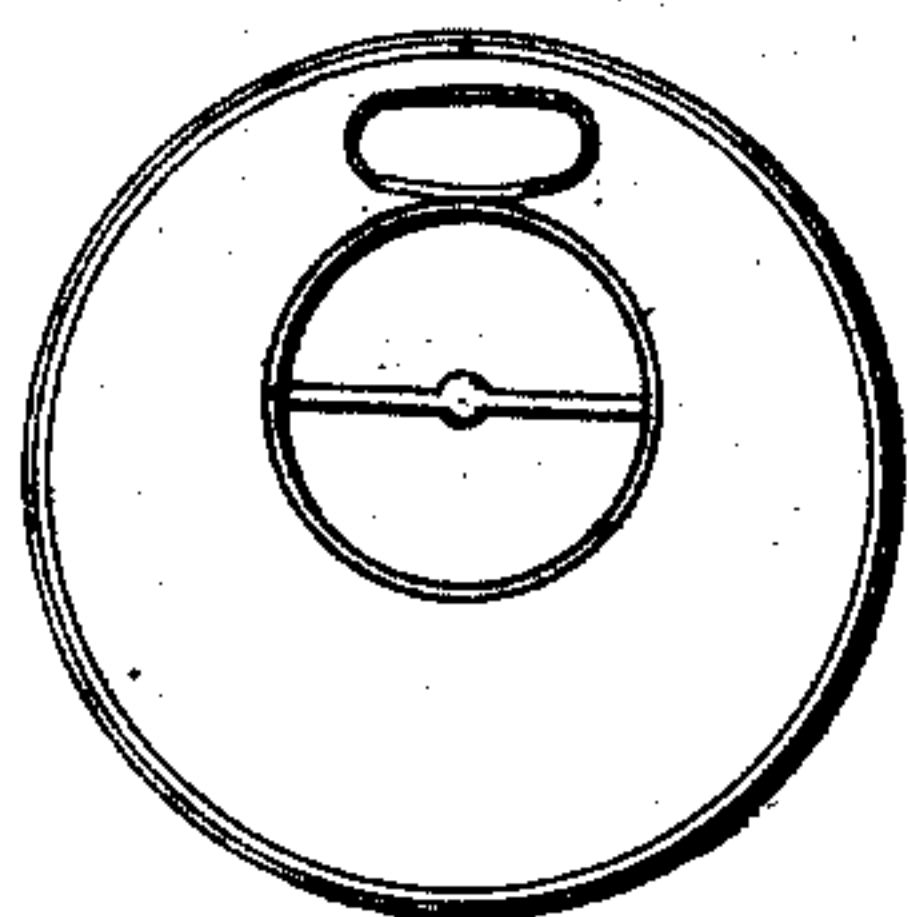


Fig. 3.

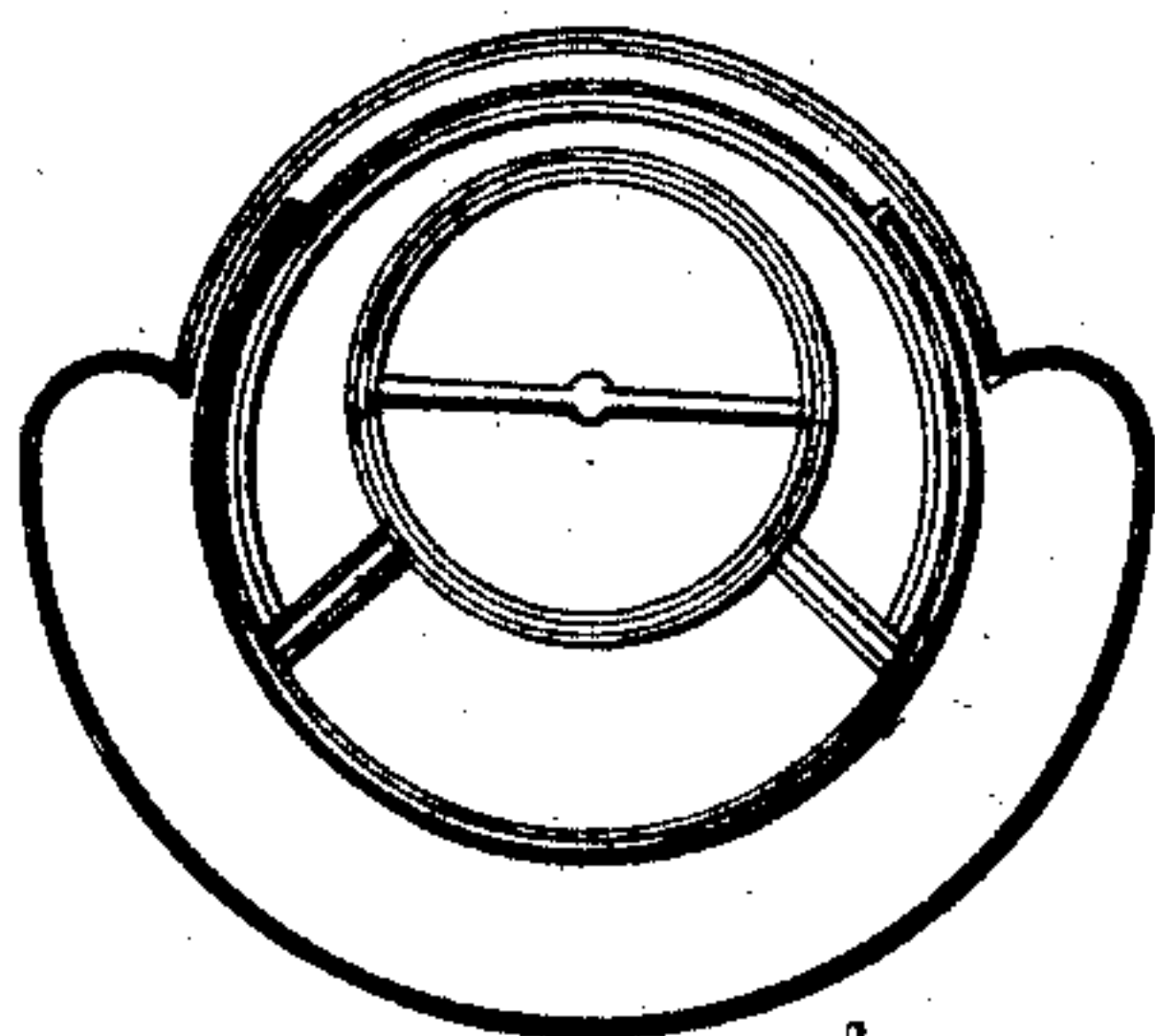


Fig. 4.

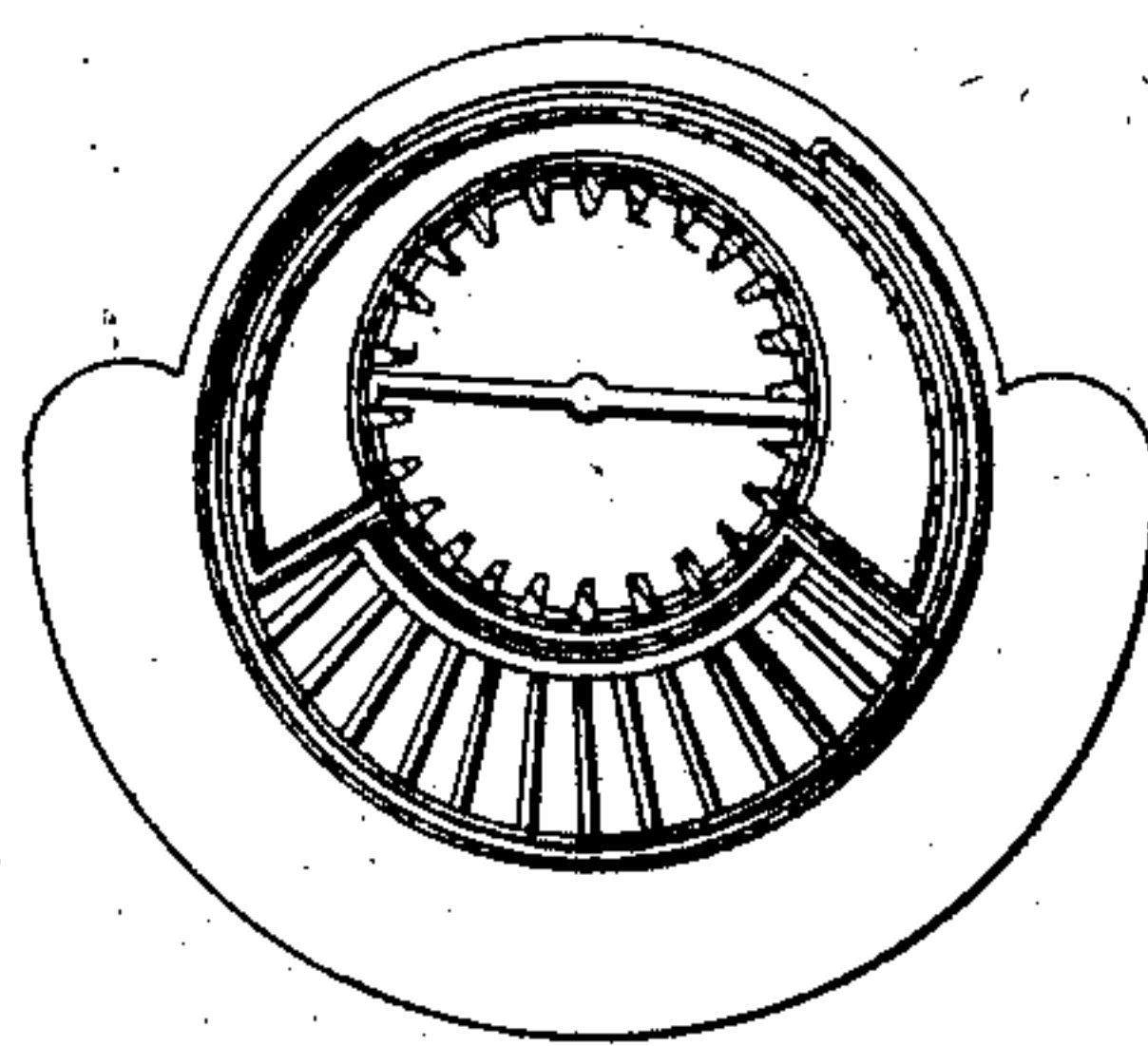


Fig. 6.

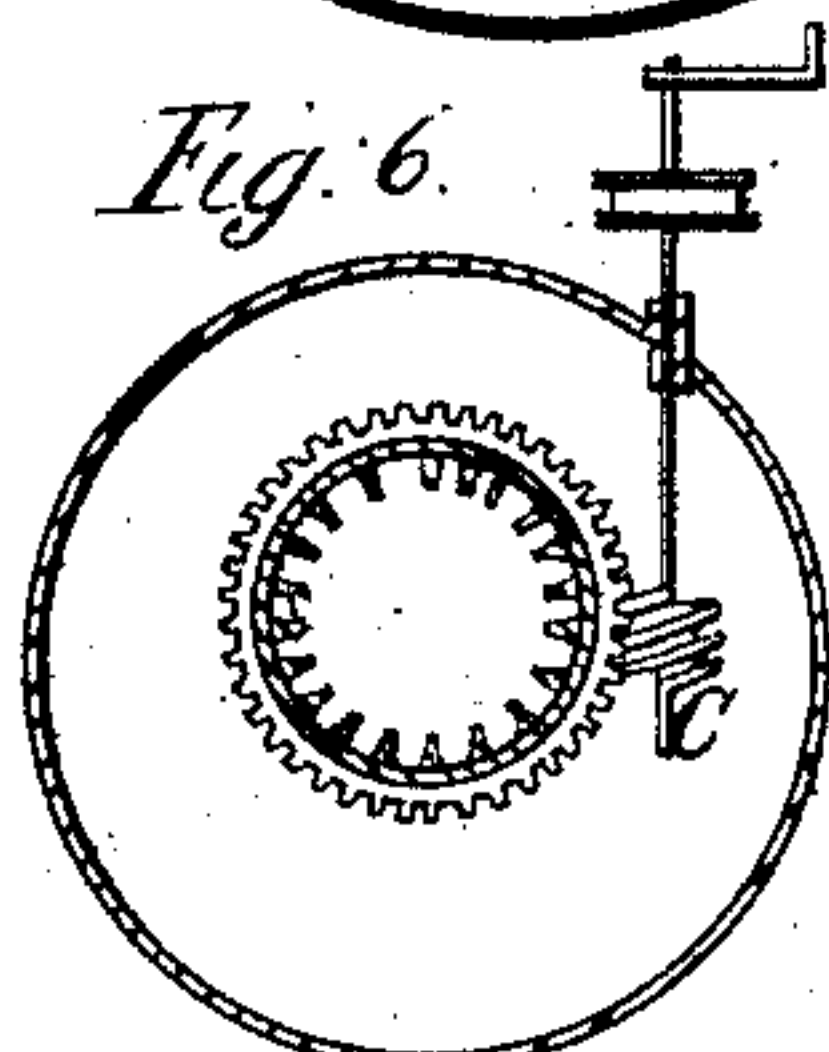


Fig. 2.

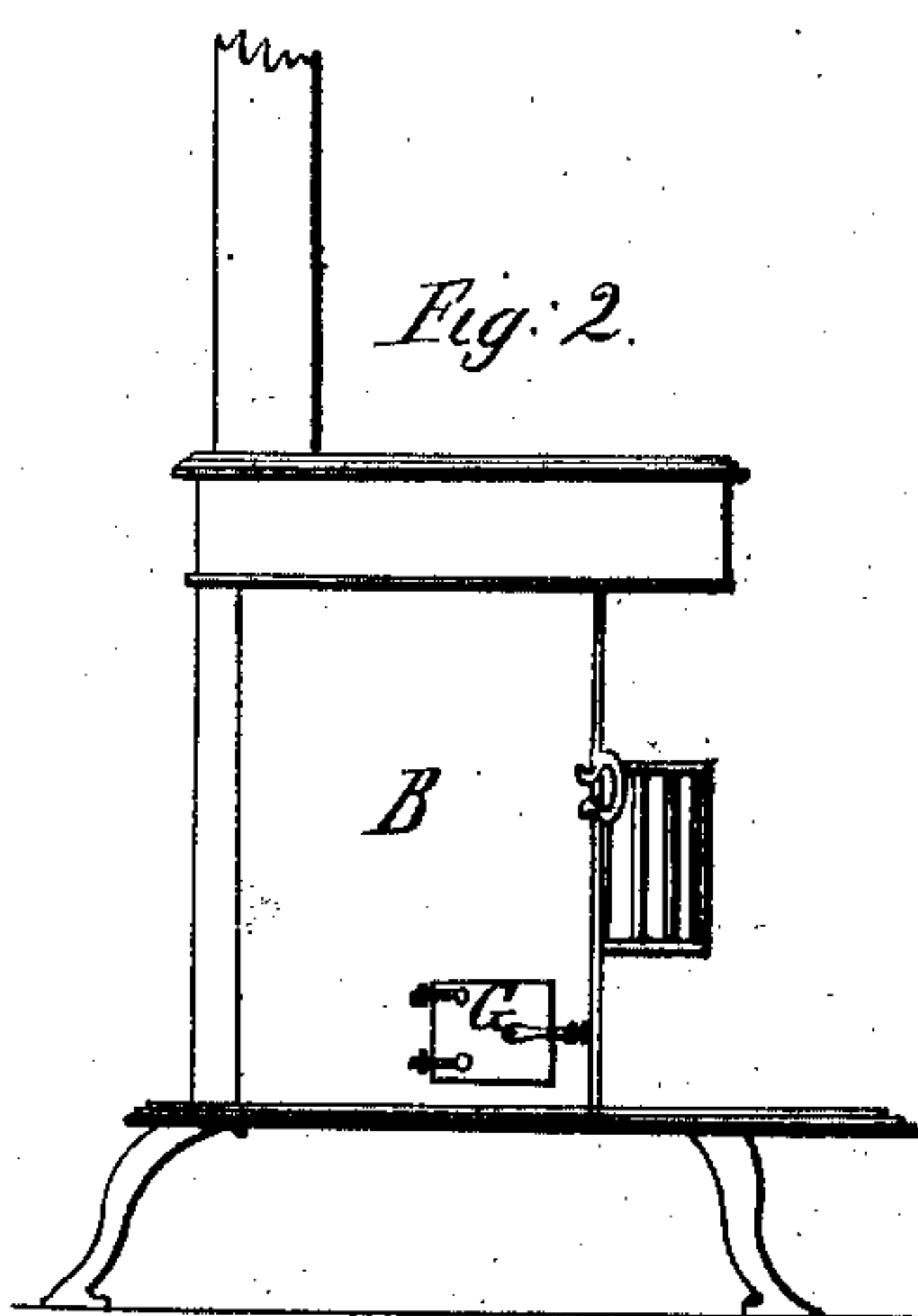


Fig. 7.

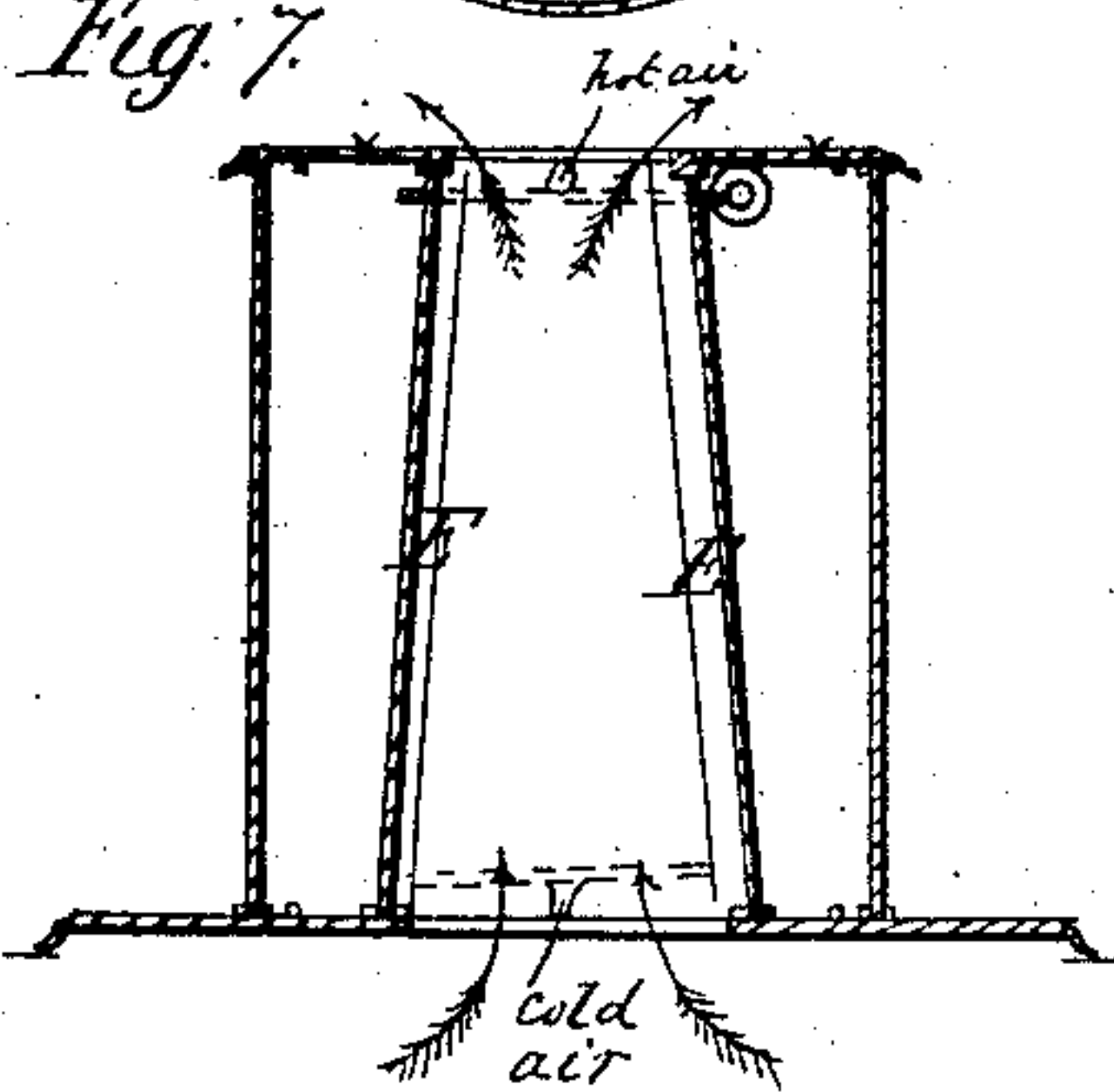


Fig. 1.

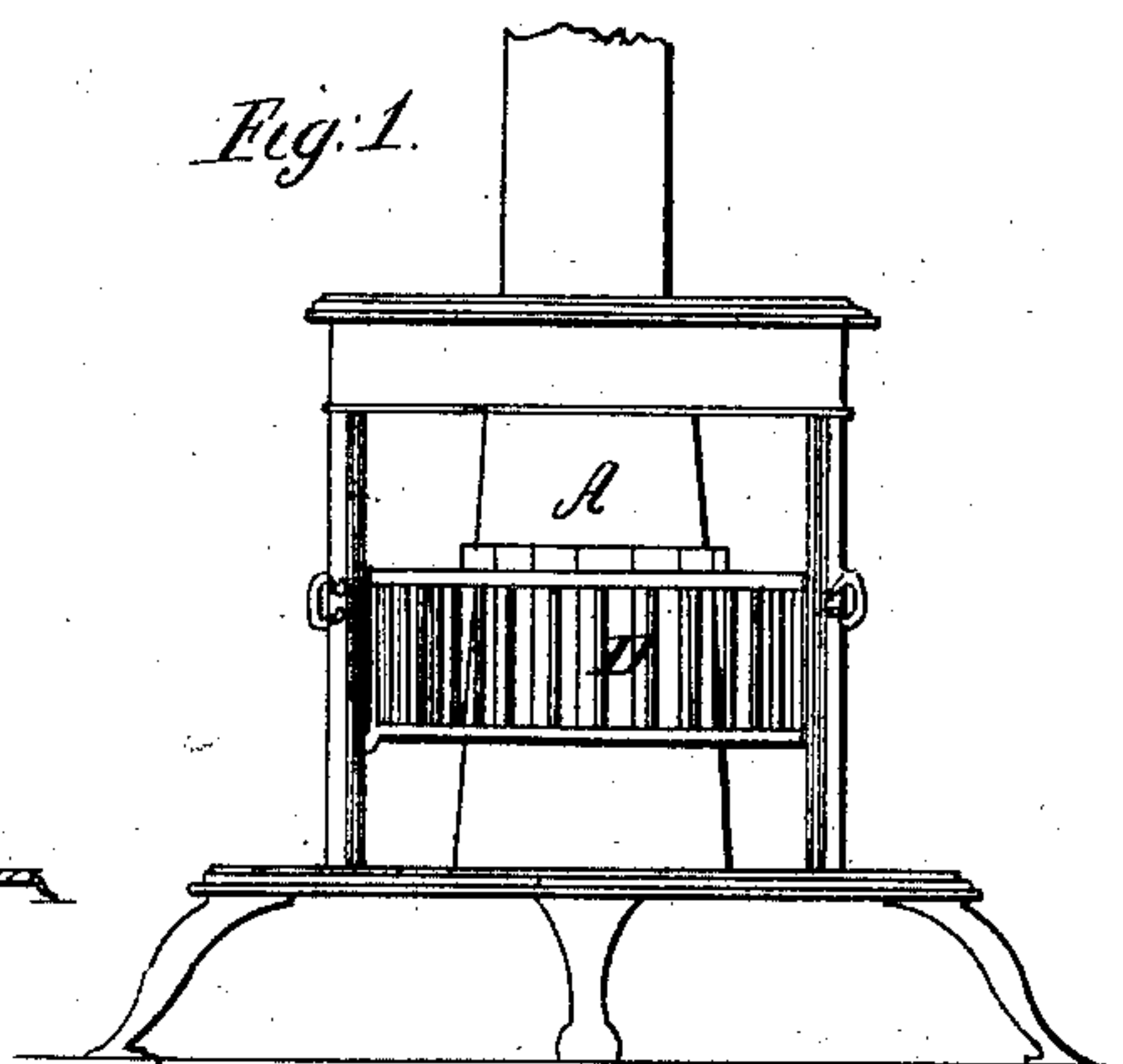


Fig. 9.

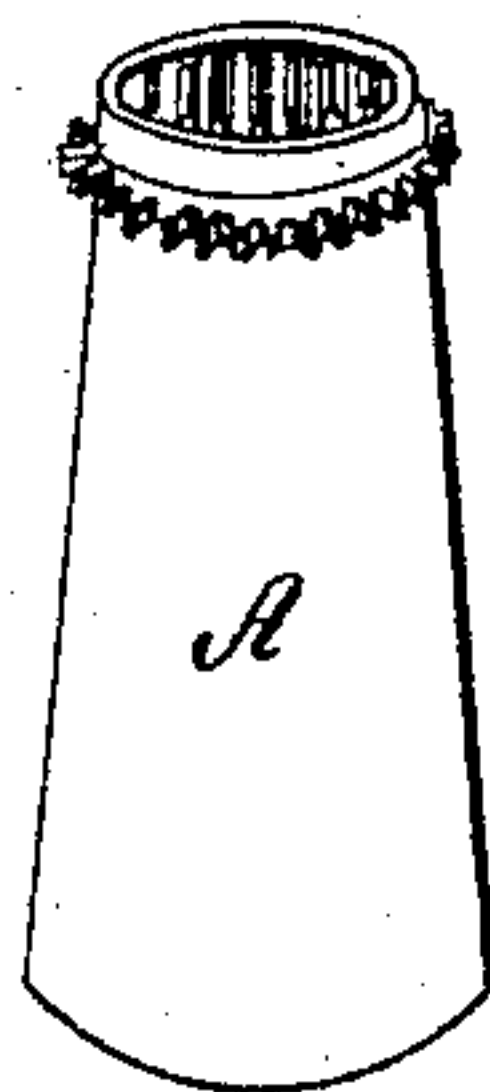
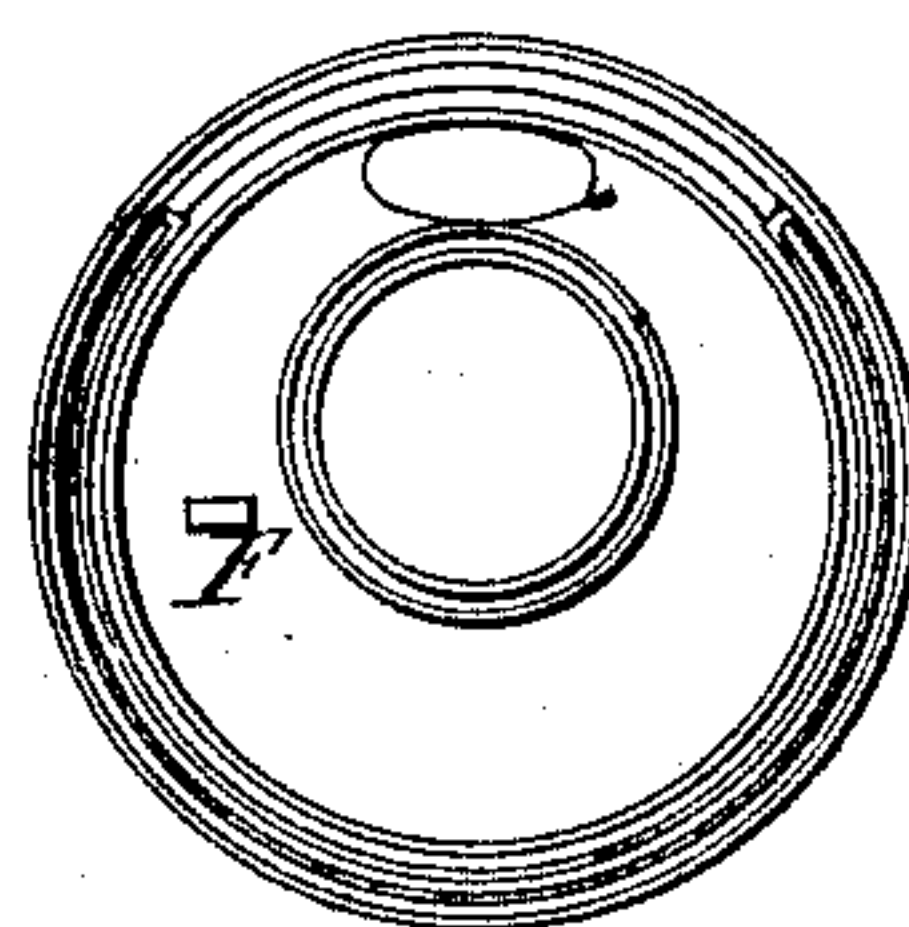


Fig. 8.



UNITED STATES PATENT OFFICE.

CHAS. A. BOGERT, OF WEST DRESDEN, NEW YORK.

AIR-HEATING STOVE.

Specification of Letters Patent No. 8,441, dated October 21, 1851.

To all whom it may concern:

Be it known that I, CHARLES A. BOGERT, of West Dresden, Yates county, New York, have invented a new and useful Improvement in the Construction of Stoves; and I hereby declare that the following is a full and exact description.

To enable others to make and use my invention I proceed to describe its construction and operation, reference being had to the annexed drawings which make part of this specification.

Figure 1 elevation of the front; Fig. 2, the side; Fig. 3, bottom plate; Fig. 4, the same with a section across of the cylinder (A) and the inclosing plates of the stove with the grate; Fig. 5, the top plate. In the large opening seen in it an ornamental register may be placed. The smaller one is for the smoke pipe; Fig. 6, section across the stove showing the position of the cylinder. The cog wheel around it at the top and the endless screw by which the cylinder is turned; Fig. 7, vertical section; Fig. 8, bottom side of the top plate. The projection seen at F, is the eye or loop into which the shaft of C enters; Fig. 9, the cylinder in perspective. The inner surface of it is covered with vertical strips or projections to increase the radiating surface.

This stove may be constructed of any shape.

The object to be accomplished by it is to generate hot air, in addition to its ordinary radiation of heat.

The cylinder, A, is made of cast iron, soap stone, fire brick or any suitable material. When of cast iron, the grate has a soap stone or brick back to protect it. At the top of it is a cog wheel, or a flange with teeth or ratchets. This sits in a wide deep groove in the bottom plate (Fig. 3) which groove may be filled with sand or other material that will exclude the smoke and at the same time leave the cylinder loose. The top plate sits upon this with a loose groove, or there

may be a channel around the top edge of the cylinder with sand in it, and a flange on the underside of the top plate fit into it. The inside may be grooved or channeled or constructed in any way that will offer a large surface for radiation.

The cylinder is intended to revolve and for this purpose there is an endless screw, (C, Fig. 6, which meshes into the teeth of the cog wheel), the shaft of which extends out at the rear or side of the stove with a crank and a pulley. The pulley is for a cord and weight and the motion may be regulated by a pendulum or other suitable contrivance.

By the arrangement of the clock weight, (or the crank) the cylinder is slowly and continually changed in the side next the fire, so that the cylinder is saved from burning and is kept heated more equally on all sides, and it thus absorbs more caloric from the fire than it otherwise would—and by this means furnishes a large supply of hot air for the same room or any other.

In the outer groove (Fig. 3) the doors are set. These are made in the segment of a circle and can both be drawn together in front, and so close the stove tight; or if to be used as a blower the small doors, G, are opened. Another plan of arranging the cylinder is to suspend it upon a pivot, in which case the edge may be in a bed of loose sand to shut in the smoke as before. This cylinder may be made in other shapes as elliptical, or polygonal, but in such case it could not be revolved regularly and it could only be turned by taking the stove partially apart.

What I claim as my invention and desire to secure by Letters Patent is:

The combination of a revolving cylinder or cylinders with a fire grate to form a heating apparatus as above described.

CHARLES A. BOGERT.

Witnesses:

OWEN G. WARREN,
HENRY H. ANDERSON.