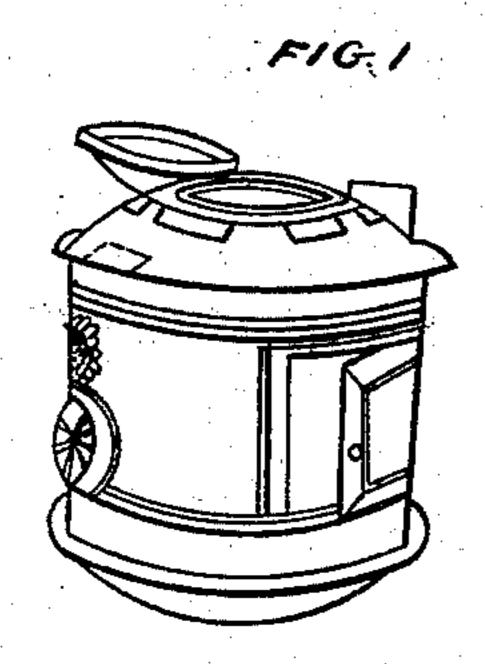
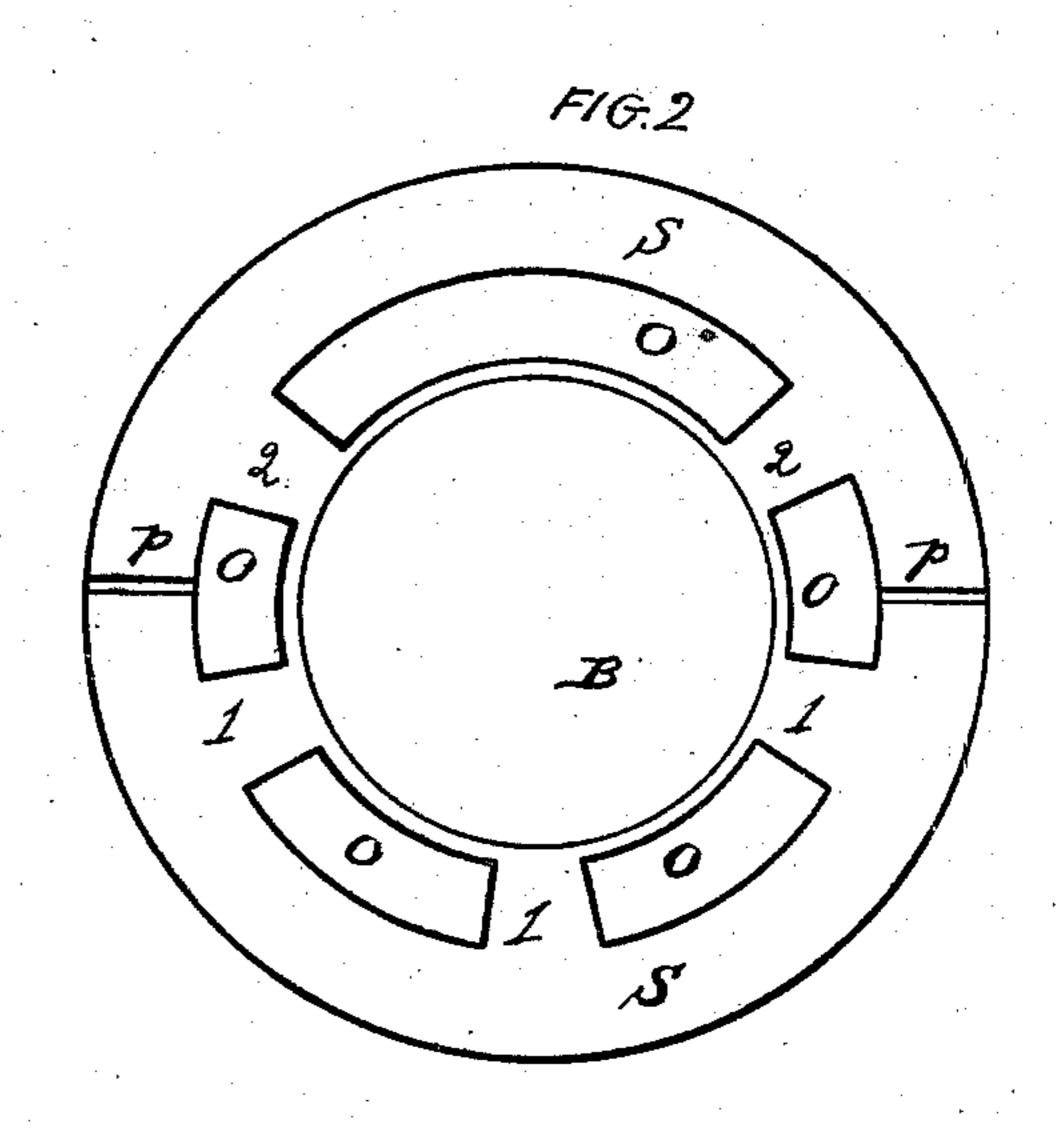
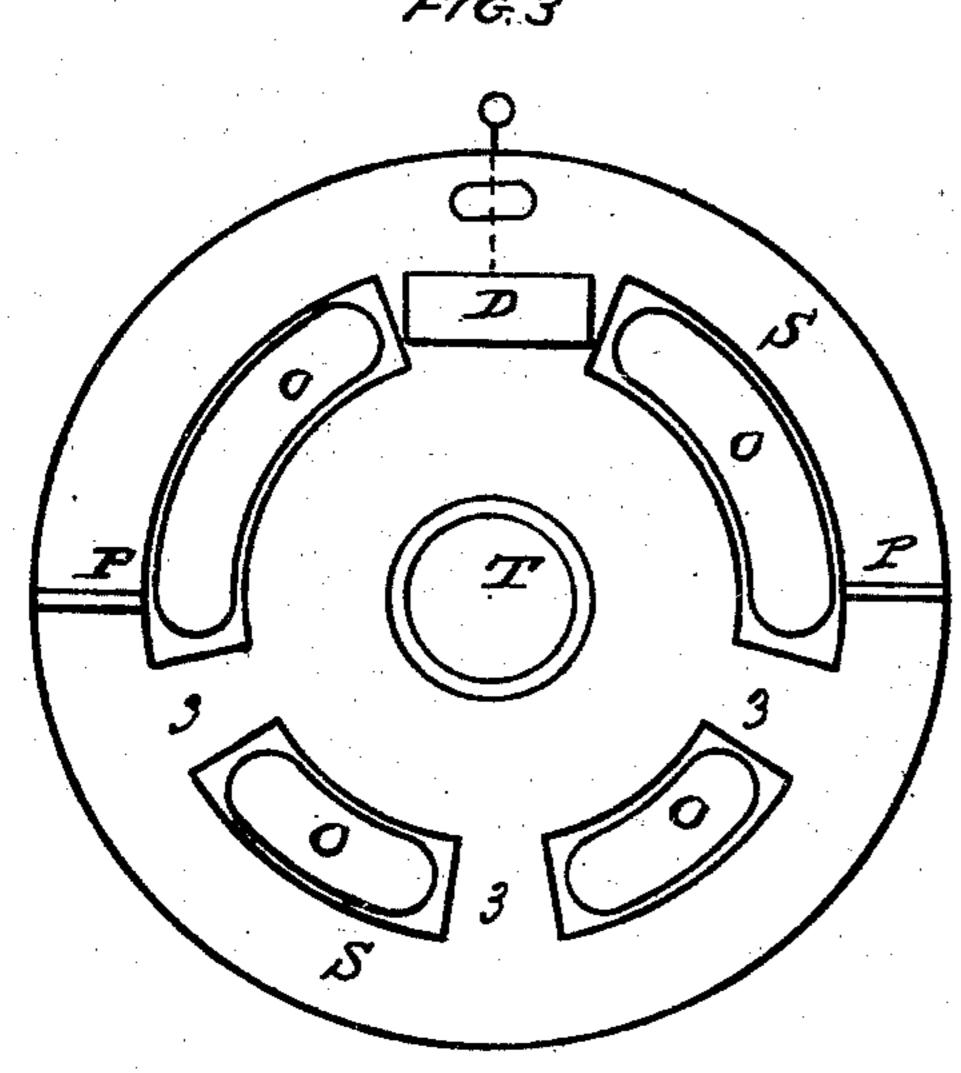
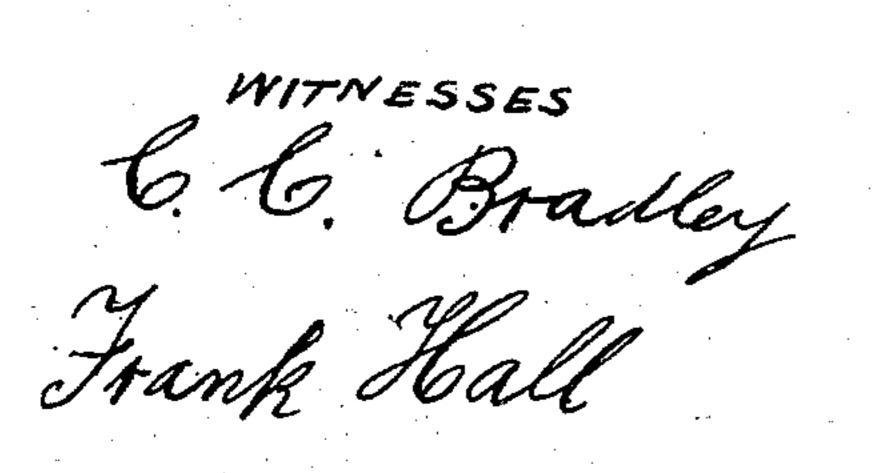
No. 54,924.

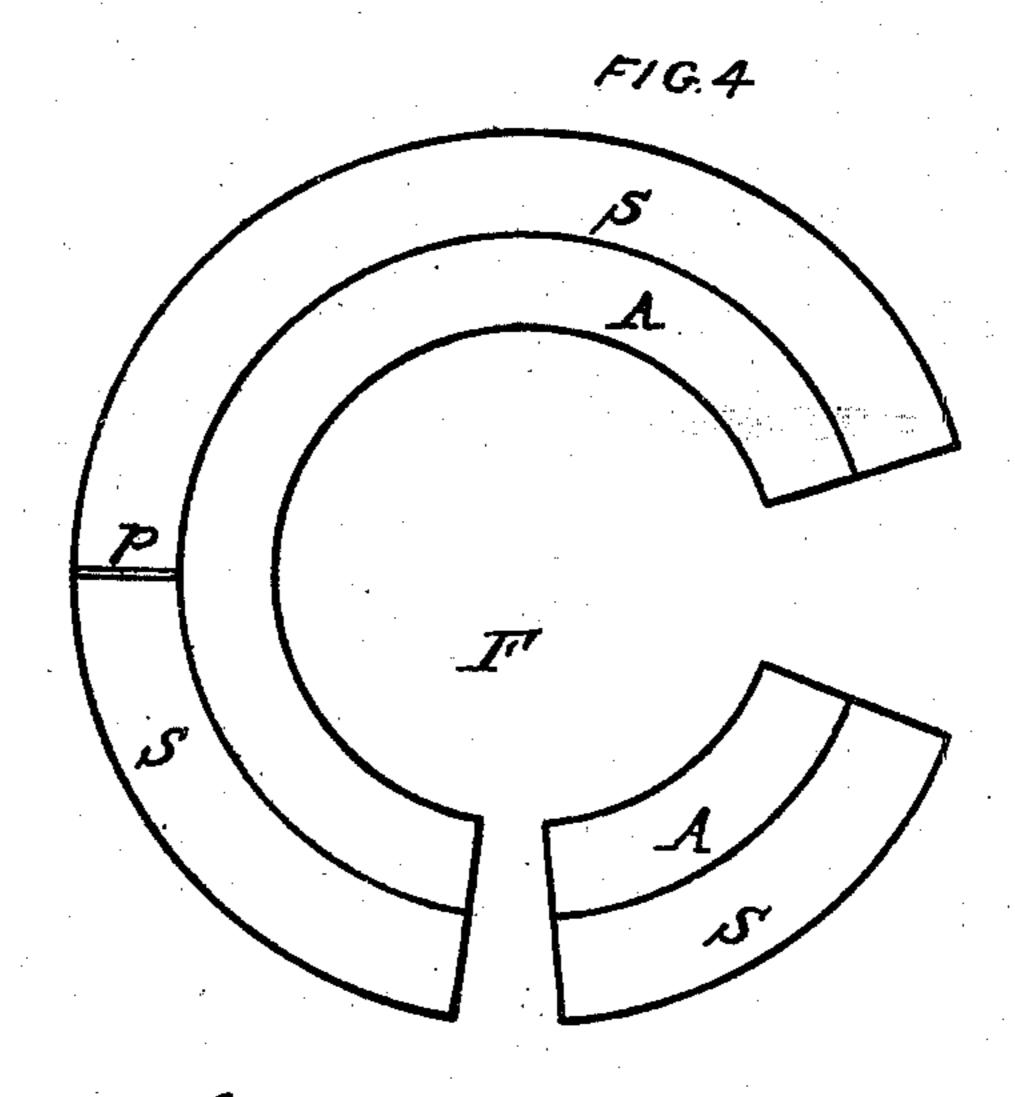
Patented May 22, 1866.











Honard Lakin Norman Hall

## United States Patent Office.

LEONARD LAKIN AND NORMAN HALL, OF BRODHEAD, WISCONSIN.

## IMPROVEMENT IN HEATING-STOVES.

· Specification forming part of Letters Patent No. 54,924, dated May 22, 1866.

To all whom it may concern:

Be it known that we, LEONARD LAKIN and NORMAN HALL, of Brodhead, in the county of Green, in the State of Wisconsin, have invented a new and Improved Mode of Constructing Stoves; and we do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings and the letters and figures of reference marked thereon.

The nature of our invention consists in constructing a stove with a fire-chamber in any of the known forms, and surrounding the same with a smoke-chamber, and leaving an open space for the circulation of air between said fire and smoke chambers, and with flues to conduct the heat and smoke from the fire-chamber at the top thereof across the said open space into the surrounding smoke-chamber, and other flues at the bottom thereof to transmit the smoke through a hollow stove-bottom back to said smoke-chamber, thereby obtaining three heating or radiating surfaces in said stove so constructed.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

We construct our stove with a hollow bottom, through which the smoke passes under the fire-chamber. We make said fire-chamber in any of the known forms, as seen at F in the accompanying drawings; also, a smoke-chamber, as seen at S, Fig. 4, which surrounds not only the fire-chamber but also a suitable open space between the chambers for a circulation or draft of air, entering cold at the bottom of the stove and emerging heated at the top thereof, through the open spaces in the top plate of the stove, as seen at OOOO, Fig. 3.

In the hollow bottom B, Fig. 2, we construct the flues 1 1 1, which receive the smoke from the chamber S, across the open space A, into said bottom B; also construct the flues 2 2, which convey the smoke to the chamber S again.

We make the top of our stove as seen at T, Fig. 3, so as to cover both chambers, with openings therein, oooo, over the space A, as seen in Figs. 3 and 4; also with the flues 3 3 3, which transfer smoke and heat from the fire-chamber F over the space A into smoke-chamber S, in which smoke-chamber are two partitions, P P, running vertically and separating said chamber into two sections, as seen at P P, Figs. 2 and 3, and at P, Fig. 4. The main or direct flue is made in the usual place, as seen at D, but crosses the space A, as do all the other flues.

When the damper, as seen at D, is closed the smoke passes through the flues 3 3 3, the chamber S, flues 1 1 1, the hollow bottom B, the flues 2 2, into chamber S again, behind the partitions P P, and thence out at the stove-pipe, which is also in the same chamber. The stove-door and the draft-hole pass through the chamber S and the space A into fire-chamber F, as seen in Fig. 4.

The cover in the top of this stove we make in any of the known forms, though not referred to in the drawings.

We do not claim the invention of hollow bottoms nor smoke-chambers.

What we claim, and desire to secure by Letters Patent, is—

The construction of a stove with a fire-chamber surrounded by a smoke-chamber, and an open space between said fire and smoke chambers, and the conveyance of heat and smoke from the one chamber to the other, by means of the flues, in such manner as to secure three heating or radiating surfaces and a draft of air between said fire and smoke chambers, substantially as herein set forth.

LEONARD LAKIN. NORMAN HALL.

Witnesses:
C. C. BRADLEY,
FRANK HALL.