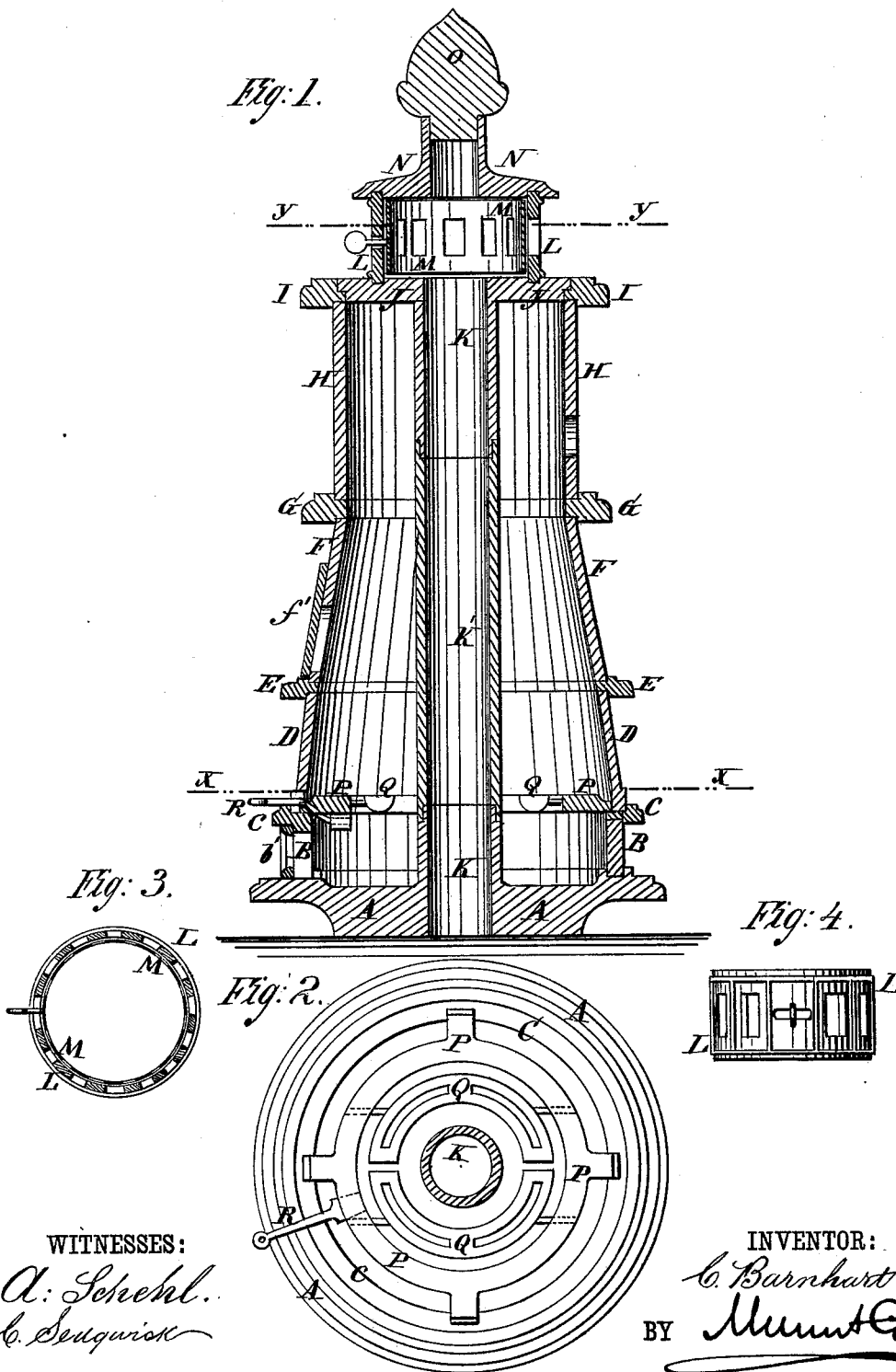


C. BARNHART.
Heating-Stove.

No. 214,350.

Patented April 15, 1879.



WITNESSES:

A. Schehl.
C. Sengquist

INVENTOR:

C. Barnhart
BY *Mumford*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CORNELIUS BARNHART, OF WALKER VALLEY, NEW YORK.

IMPROVEMENT IN HEATING-STOVES.

Specification forming part of Letters Patent No. **214,350**, dated April 15, 1879; application filed October 31, 1878.

To all whom it may concern:

Be it known that I, CORNELIUS BARNHART, of Walker Valley, in the county of Ulster and State of New York, have invented a new and useful Improvement in Heating-Stoves, of which the following is a specification.

Figure 1 is a vertical section of a stove illustrating my invention. Fig. 2 is a horizontal section of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a horizontal section of the same, taken through the line *y y*, Fig. 1. Fig. 4 is a side view of the register.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved heating-stove, which shall be simple in construction, easily manipulated, and effective in use, which shall be so constructed that it may be used for heating other rooms than the one in which it stands, and which will allow the parts most liable to be burned out to be easily removed and replaced with new ones.

The invention will first be described in connection with the drawings, and then pointed out in the claim.

A represents the bottom of the stove, which is provided with feet in the usual way. B is the first section, which forms the ash-chamber, and which is provided with a door, *b'*, to admit air to support combustion, and through which the ashes are removed.

The section B is made cylindrical in form. Its lower edge rests in a groove in the bottom A, and its upper edge rests in a rabbet in the lower side of the ring C. In the upper side of the ring C is formed a rabbet to receive the lower edge of the section D, which forms the fire-pot. The fire-pot D is formed in one piece, and is flared downward or made larger in its lower than in its upper part, so that there may be no place for coal, cinders, and ashes to lodge upon, to check combustion and impede the distribution of heat. The upper edge of the fire-pot or section D rests in a rabbet in the ring E, in the upper side of which is formed a rabbet to receive the lower edge of the section F.

The section F is designed to be cast in four equal parts or pieces, which are made exactly alike, so that they can all be cast from the same pattern, and each of which is provided

with a door, *f'*, through which fuel may be put in, or a poker inserted for stirring the fire and dumping the grate. The upper edge of the section F rests in a rabbet in the lower side of the ring G, in the upper side of which is formed a rabbet to receive the lower edge of the upper section, H. The upper edge of the section H rests in a rabbet in the lower side of the ring I, in the upper side of which is formed a rabbet to receive the rabbeted edge of the top J.

The various sections of the stove are fastened together by lugs and bolts in the usual way, but which are not shown in the drawings.

With a hole in the center of the top J is connected the upper end of an air-pipe, K K', which passes down through the center of the fire-chamber and ash-pit, and its lower end is connected with a hole in the center of the bottom A, so that cold air may enter the lower end of the said pipe K K', be heated as it passes up through it, and escape hot from its upper end.

With this construction the cold air will enter the pipe K K' without being loaded with dust and fine ashes, as it is liable to be when the said pipe K K' does not pass through the bottom A of the stove, but terminates above the said bottom.

The air-pipe K K' is made in sections, so that the part K' of the said pipe that passes through the fire-chamber and is most exposed to the fire may be readily detached when burned out, and replaced with a new one without its being necessary to renew the entire pipe.

In a groove in the upper side of the top J is placed the lower edge of a cylinder, L, which has a circle of openings formed through it. The cylinder L is provided with a cylindrical damper, M, which has corresponding openings formed through it, so that by adjusting the said damper M the openings in the cylinder L may be fully opened or partly or fully closed to allow all, or some, or none of the heated air to escape into the room in which the stove stands, as may be desired.

The upper edge of the register-cylinder L rests in a groove in the lower side of a cap, N, having a hole formed through it, which may be closed with an ornamental plug, or may be connected with a pipe to conduct the

heated air or a part of it into another room to warm the said room when desired.

P is a ring, which is provided with lugs upon its outer edge to rest upon the inner part of the ring C, and to the inner edge of which are pivoted the two semicircular parts Q. The inner edges of the parts Q are concaved to fit around the air-pipe K.

The grate is shaken by a handle, R, which is passed into a hole in the ring P through a slot or notch in the lower part of the section B, and is dumped by means of a poker passed in through one of the doors in the section F of the stove.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A heating-stove consisting of grooved base A and rabbeted top J, provided with central tubes, the sections B D F H, the rabbeted rings C E G I, the side apertured cylinder L, and the air-pipe K', all constructed and put together as shown and described.

CORNELIUS BARNHART.

Witnesses:

EGBERT CROOKSTON,
ABRAHAM EVANS.