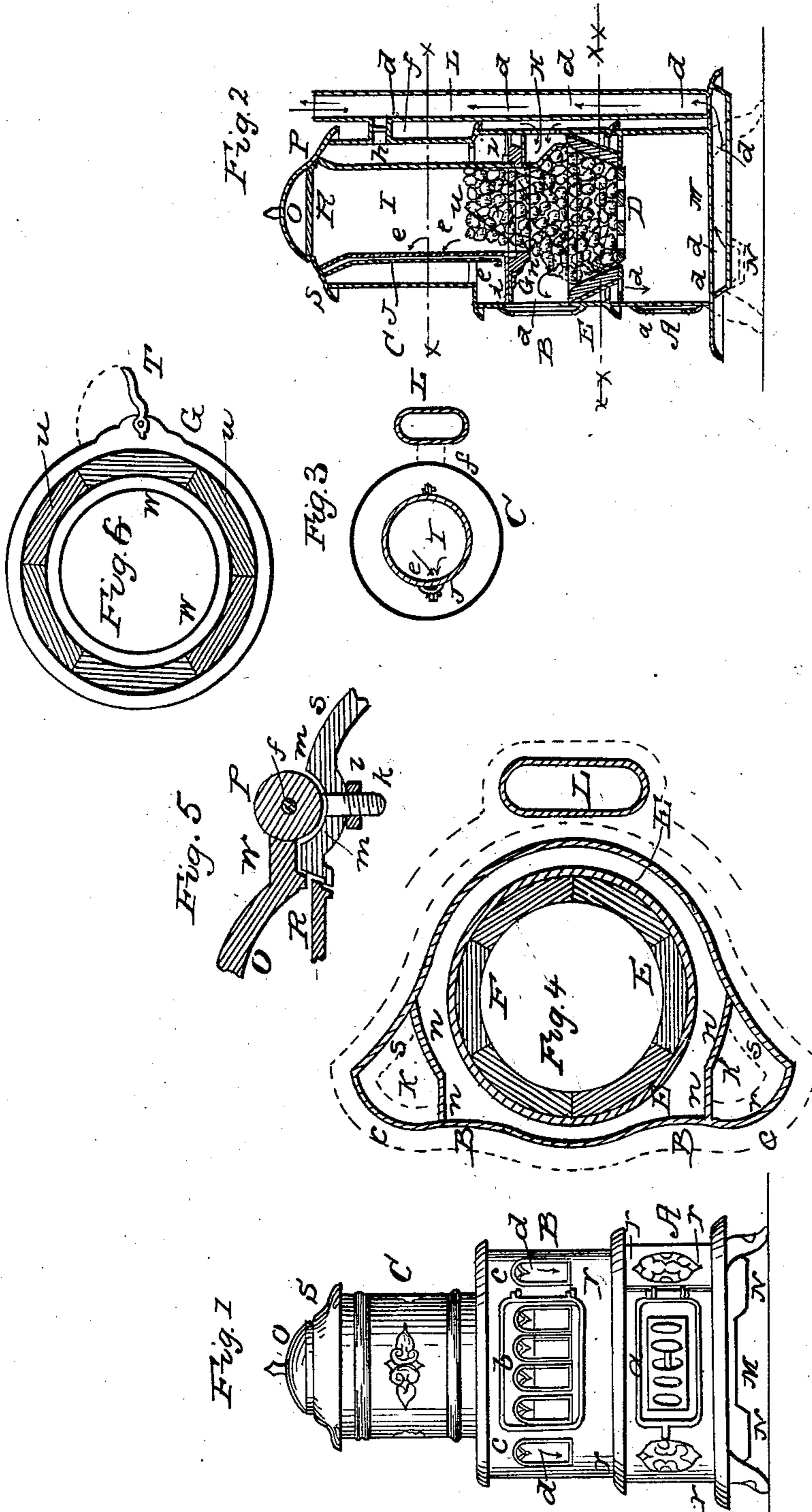


W. B. TREADWELL.

Base Burner.

No. 93,248.

Patented Aug. 3. 1869.



Witnesses
Frank A. Treadwell.
George H. Taylor.

Inventor
Wm B Treadwell

United States Patent Office.

WILLIAM B. TREADWELL, OF ALBANY, NEW YORK.

Letters Patent No. 93,248, dated August 3, 1869.

IMPROVEMENT IN BASE-BURNERS.

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

To whom it may concern:

Be it known that I, WILLIAM B. TREADWELL, of the city and county of Albany, and State of New York, have invented a new and useful Improvement in Stoves for Heating-Purposes; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, the same letters always marking the same part of the stove.

My improved stove is organized and constructed with a view of giving an enlarged radiating and illuminating-surface in its front, having in its lateral front revertible flues, so located as to add largely to both its illuminating and radiating-surface, as represented by the elevation given by fig. 1 of the drawings.

Although constructed as a revertible-flue stove, it can be converted to a direct-draught stove, at pleasure, by means of the damper *h*, fig. 2.

This stove is organized and constructed as a base-burning or magazine revertible-flue stove, in which the products of combustion may pass up around the magazine, or they may descend into the base of the stove, through the revertible flues *K K*, Figure 4, and thence out, through the back pipe *L*, to the chimney.

The appearance and structure of the stove are fully represented by the accompanying drawings.

Figure 1 is a representation of a front elevation of the stove, showing the various sections, as indicated by the letters at the right side of the figure, thus:

- O, the cover;
- S, the top plate;
- C, the magazine-section;
- B, the fire-chamber, or combustion-section;
- A, the ash-pit section; and
- N M N, the hot-air or base-flue section.

The illuminating-openings are seen in front, at *c b c*; the arrows *d* in the openings at the side front, indicating the direction of the draught in the revertible flues; and the operation of the gases around the feed-cylinder is indicated by arrows *e*.

Figure 2 is a vertical section of the stove, showing the internal organization and structure of the same; showing the magazine *I*, with its dissipating-tube *J*; the chamber between the magazine and the outer casing of the stove; the combustion-chamber *B*; the ventilation-chamber *H*; the fire-grate *D*; the ash-pit and flues in the base of the stove *M* and *N*, and the exit-pipe *L*.

Figure 3 is a horizontal section of the stove, taken at the red line *x-x*, in fig. 2, showing the outer casing of the stove *C*; the structure of the magazine, with its dissipating-tube *J*, and the chamber of the magazine *I*.

Figure 4 is a representation of a horizontal section

of the stove, taken on the red line *x-x*, fig. 2, showing the form of the front of the stove, with its fire-pot *E*, *F*, &c., its revertible-flue passages *K K*, revertible-flue plates *n n n*, and the escape-pipe, or exit-pipe *L*.

Figure 5—

O is the top cover;

W is a shank, which projects a little from the outer edge of said cover;

P is a ball formed upon the end of said shank;

S is the top of the stove; and

m m is a concave, or socket into which the ball *P* is made to fit.

The centre of the ball and socket is cleft, to receive a bolt, *k*.

A nut, *l*, upon the end of the bolt *k*, with a rivet, *j*, holds the parts firmly, and thus forms a ball-and-socket hinge, movable horizontally or vertically, at pleasure.

Figure 6 represents, in detail, the portable mouth to the feed-cylinder, or magazine, composed of an iron ring and fire-brick, *G* constituting the outer ring, or holder of the fire-brick, and *u u* representing the fire-brick.

I have an improved mode of attaching my portable mouth to the magazine.

The back part of the same rests upon a projection attached to the back of the stove, over which it can be made to rise and fall in front, similar to the swinging of the same up and down by means of a hinge.

It is attached to the magazine in front by means of a female key-plate, with an opening in the same, attached to the portable mouth.

The male portion of the key is attached to the front plate of the stove, so that the same passing through the opening in the female plate, by means of a lever, swinging around under the key-plate, locks the portable mouth, and holds firmly to the magazine.

By this arrangement, the fire-proof mouth is made portable, and can be attached or detached at pleasure.

For the purpose of aiding in the consumption of the gases, an air-chamber is formed in the back of the stove, at *H*, fig. 2, by means of which air, more or less heated, is admitted into the fire or combustion-chamber, through the perforated plate, separating the same from the air-chamber *H*.

Having thus fully described my said improvement, I will proceed to state what I claim as my invention, and desire to secure by Letters Patent.

1. I claim the construction and arrangement of the front of my combustion-chamber and revertible flues, in such a manner, relatively, as to increase the radiation and illuminating-surface of the front of the stove, in the manner set forth and described.

2. I claim my portable mouth to my magazine, in combination with the enlarged mica door, or opening

in front, for the purpose of permitting the portable mouth to be removed or adjusted through said door.

3. I claim my improved feed-cylinder, constructed with the dissipating-flue J, substantially in the manner and for the purpose above described.

4. I claim the universal ball-and-socket joint, constructed in the manner and for the purpose above described.

5. I claim the relative shape and position of the fire-

chamber, feed-cylinder, portable mouth, and revertible flues, substantially as described.

6. I claim the air-chamber H, in combination with my combustion-chamber and revertible flues, substantially as described.

WILLIAM B. TREADWELL.

Witnesses:

W. H. POTTER,
ANDREW YUILL.