

No. 656,271.

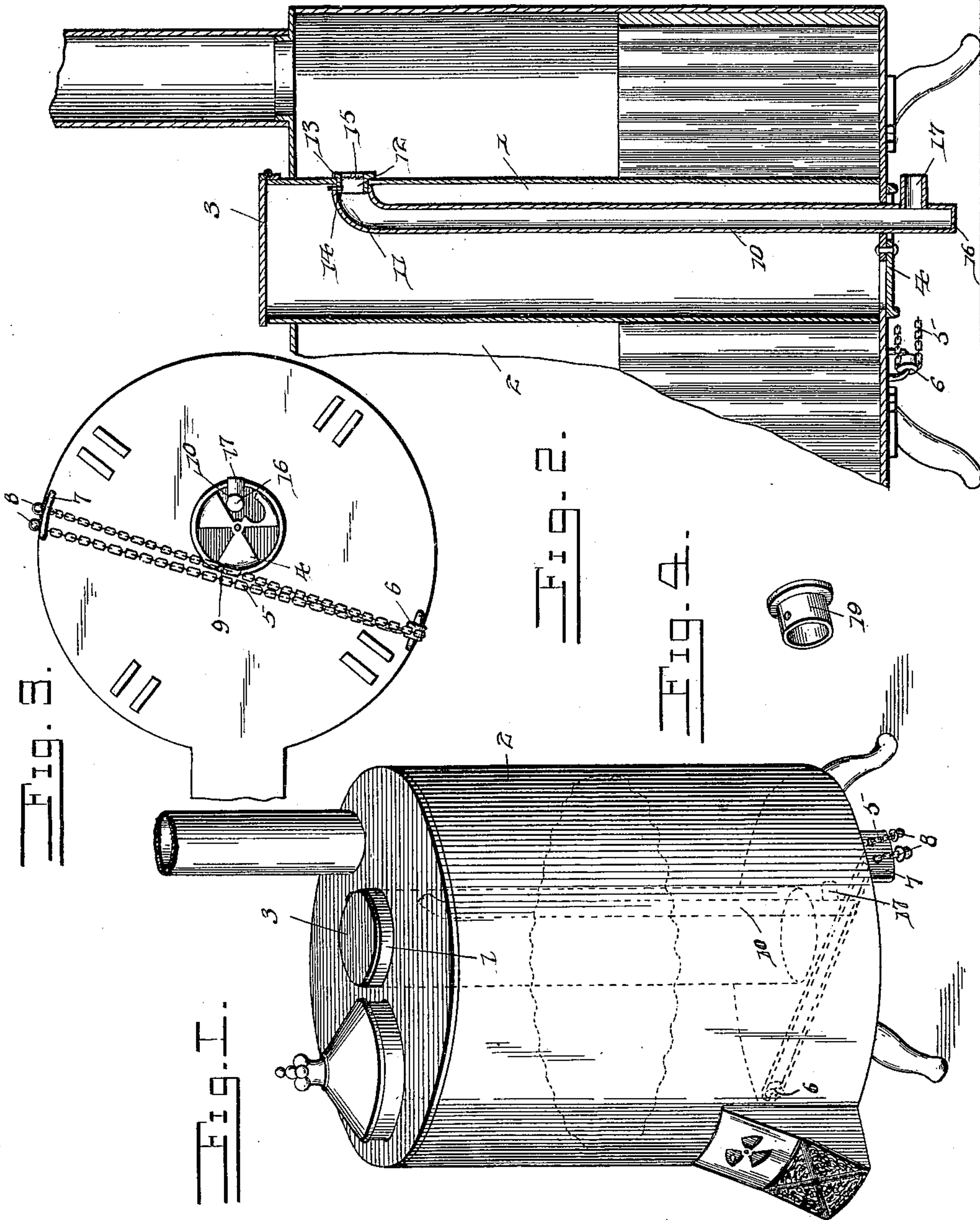
Patented Aug. 21, 1900.

C. H. SEAMAN.
STOVE.

(Application filed Feb. 28, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
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Fig. 6.

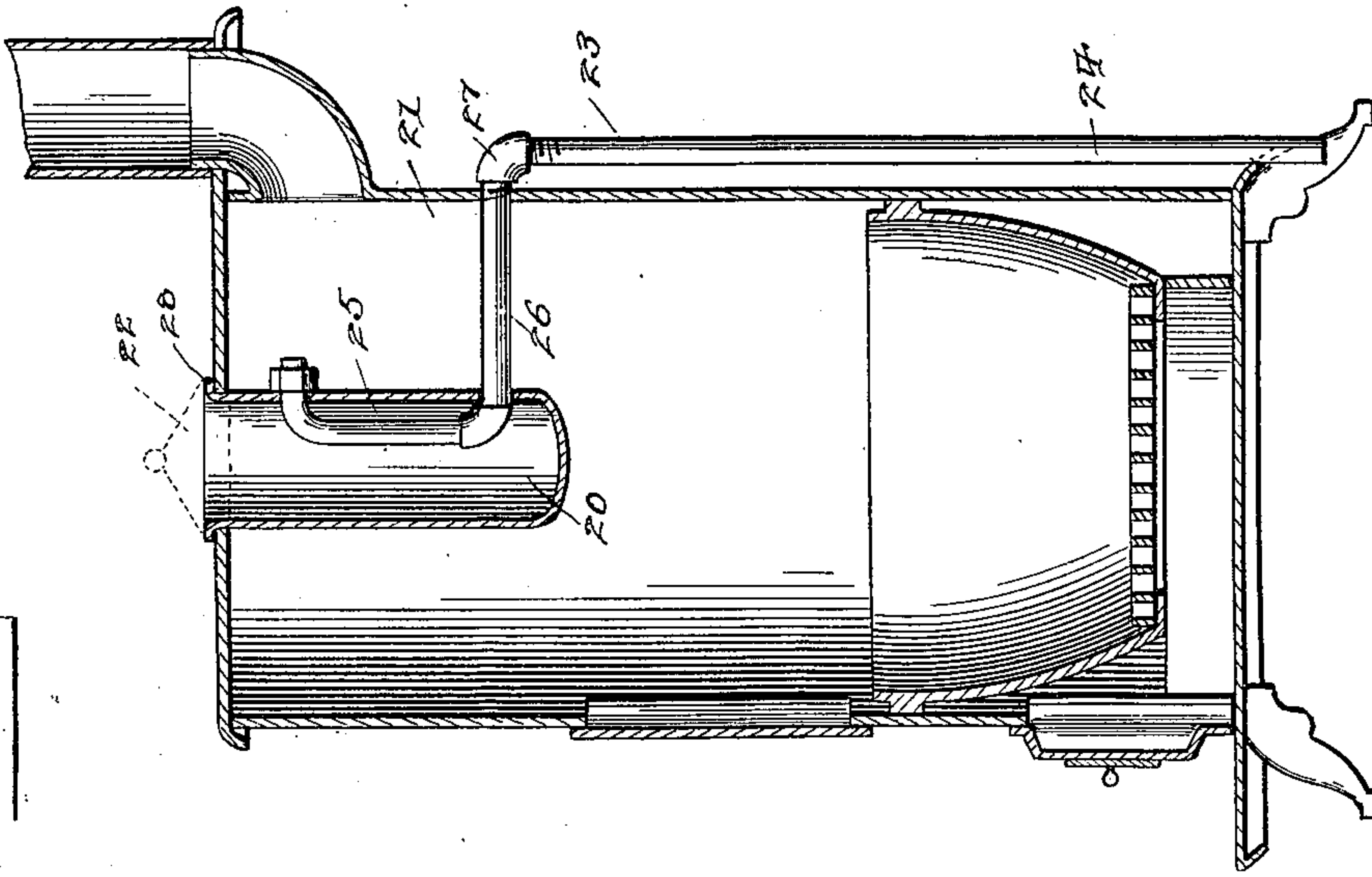
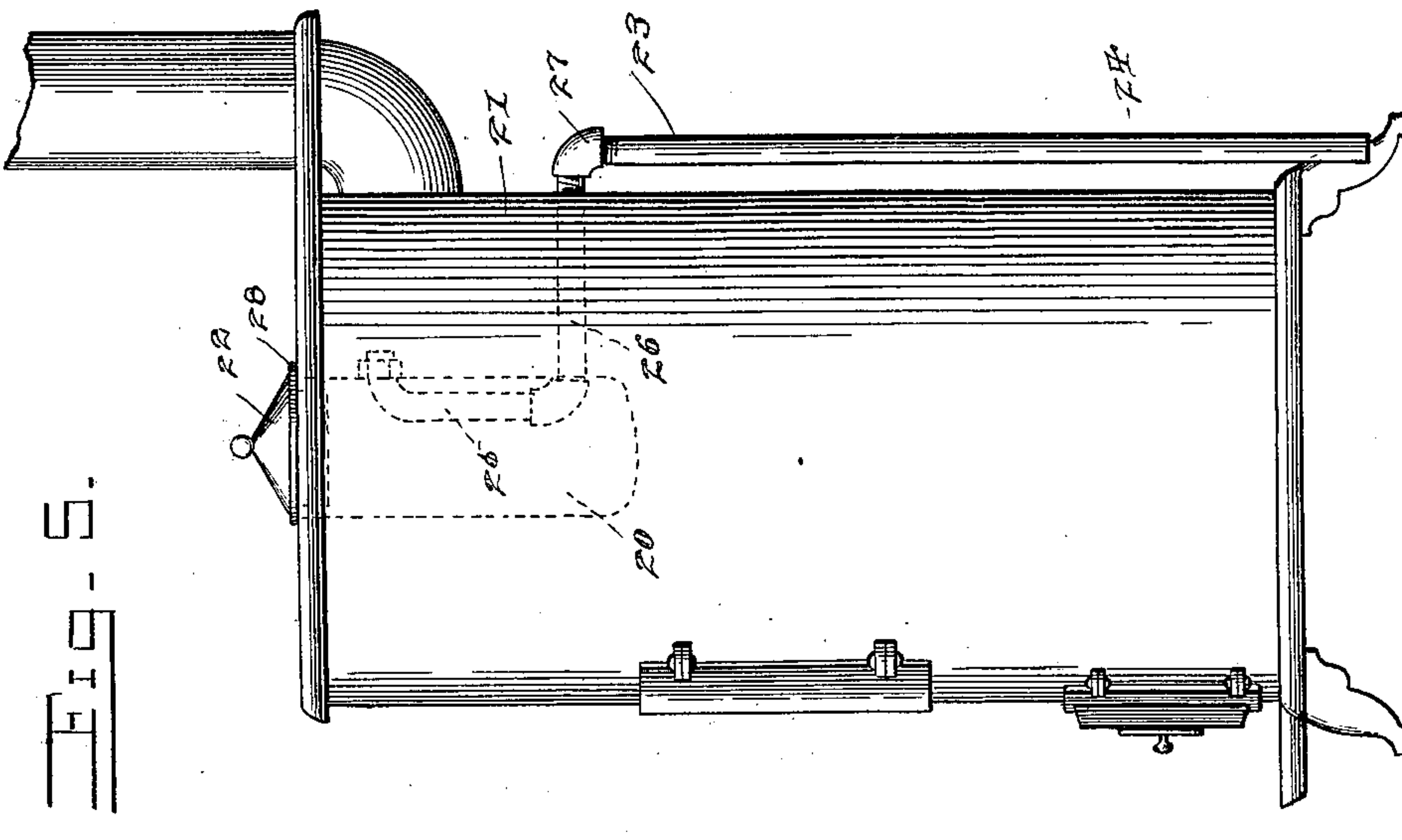


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHARLES H. SEAMAN, OF ST. JOSEPH, MISSOURI.

STOVE.

SPECIFICATION forming part of Letters Patent No. 656,271, dated August 21, 1900.

Application filed February 28, 1900. Serial No. 6,812. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. SEAMAN, a citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented a new and useful Stove, of which the following is a specification.

The invention relates to improvements in stoves.

The object of the present invention is to improve the construction of stoves and to provide a simple, inexpensive, and efficient device, whereby the heating capacity of the same will be increased and the foul air at the bottom of a room drawn off and conveyed to the chimney.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a stove provided with a device constructed in accordance with this invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a reverse plan view. Fig. 4 is a detail perspective view of the cap for closing the aperture of the conductor or pipe when the ventilator-tube is removed. Fig. 5 is a side elevation of a stove provided with a modified form of the invention. Fig. 6 is a vertical sectional view of the same.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a tubular conductor or pipe extending through the casing 2 of the stove from the bottom to the top thereof and adapted to convey cold air from the bottom of the stove upward through the same, whereby such air will become heated before it passes off at the top of the stove, and by this construction the heating capacity of a stove is greatly increased and a circulation of air through a room is produced. The pipe or conductor 1, which is shown cylindrical in the accompanying drawings, may be of any other configuration in cross-section, and it is applicable to various kinds of stoves, either heating or cooking, and when employed in connection with a stove having a grate it will be shaped to conform to the construction and

arrangement of such stove, and may be extended only through the upper portion thereof where it is impracticable to extend it from the top to the bottom. The casing of the stove in the accompanying drawings is shown cylindrical, and the upper end of the pipe or conductor projects above the top of the stove and is provided with a hinged cover 3, adapted to be closed when excessive heating is undesirable.

The stove is provided at the lower end of the pipe or conductor with a damper 4 for regulating the inlet of cold air and for controlling the heating power of the stove, and this damper, which may be of any desired construction, is illustrated in the drawings as a pivoted plate, having openings adapted to register with corresponding openings of the bottom of the stove. The adjustment of the damper is effected by means of a chain 5 or other flexible connection, extending from one side of the stove across the bottom to a pulley 6, located at the opposite side of the stove, as illustrated in Fig. 3 of the drawings. The ends of the chain are supported by a plate or bracket 7, having perforations for the reception of the terminals of the chain, which is provided with suitable grips or handles 8, forming stops and adapted to prevent the ends of the chain from being drawn entirely through the perforations of the bracket or plate. One side or run of the chain is connected with a pin or projection 9 of the centrally-pivoted plate of the damper, and it will be apparent that when either end of the chain is pulled upon the damper will be actuated.

Within the pipe or conductor 1 is arranged a ventilator-tube 10, extending through and depending from the bottom of the stove and provided at its upper end with an arm 11, registering with an opening of the upper portion of the pipe or conductor and detachably secured to the same by means of a removable thimble 12, provided with the flange 13, arranged on the exterior of the pipe or conductor 1. The thimble 12 extends through the opening of the side of the pipe or conductor 1 into the upper end of the ventilator-tube and is secured to the same by a removable pin 14, passing through registering perforations of the upper end of the ventilator-tube and the thimble, as clearly illustrated in Fig.

2 of the accompanying drawings, and adapted to be removed. The thimble is provided with a wire-gauze disk or covering 15, adapted to prevent sparks from falling down the ventilator-tube, which is closed at its lower end, at 16, to form a receptacle for any accumulation passing through the wire-gauze diaphragm or covering 15. The lower end of the ventilator-tube is provided at a point below the stove with an arm or branch 17, forming an entrance and designed to be arranged close to the floor, so that the foul air will be drawn upward through the ventilator-tube and discharged into the upper portion of the stove adjacent to the stovepipe, whereby it will be caused to pass upward through the same to the chimney or flue. The ventilator-tube may be withdrawn from the conductor by detaching the lower arm or branch 17 and unfastening the upper arm 11, after which the aperture of the pipe or conductor 1 may be closed by a cap 19. (Shown in Fig. 4 of the drawings.) The cap is secured to the pipe or conductor 1 by means of the movable pin 14.

When the damper at the lower end of the pipe or conductor is closed, the pipe or conductor forms a drum which may be opened at the top by raising the hinged cover 3. This construction and arrangement form an effective heating device, and the same principle may be applied to stoves, as illustrated in Figs. 5 and 6 of the accompanying drawings, by employing a tube or drum 20, extending downward from the top of the stove 21 and closed at its lower end. The upper end of the tube or drum may be provided with a hinged cover, as shown in Figs. 1 and 2, or a removable cover 22 may be employed. The hot-air tube or drum 20 supports the upper portion of the ventilator-tube 23, which extends downward to a point beneath the stove, its lower end being arranged close to the floor for the purpose heretofore explained. The ventilator-tube 23 consists of a vertical exterior lower portion 24, an upper interior vertical portion 25; and a horizontal connecting portion 26. The interior upper portion 25 is located within the hot-air tube or drum and the horizontal portion 26 extends through one side of the hot-air tube or drum and through the adjacent side of the stove, being connected at its outer end to the upper terminal of the exterior portion 24 by a suitable coupling 27.

The construction illustrated in Figs. 5 and 6 is designed especially for use in connection with stoves manufactured or in use prior to the application of the device to them. The hot-air tube or drum may be readily suspended from the upper portion of a stove through the stove-hole, and it is provided with a supporting-flange 28, resting upon the upper face of the top of the stove, as shown. The ventilating-tube is of a very small diameter, and it is only necessary to perforate the rear wall of the casing of the stove for the

same. In this manner the device may be conveniently applied to any ordinary stove of the character described, and it will greatly increase the heating capacity of the same.

It will be seen that the device is exceedingly simple and inexpensive in construction and is applicable to all kinds of stoves, and that it is capable of increasing the heating capacity and at the same time is adapted to ventilate a room by drawing off the foul air at the bottom thereof.

What is claimed is—

1. The combination of a stove, a hot-air tube or conductor passing upward through the same and having its upper end or exit at the top of the stove, a cover located at the top of the stove and arranged over the upper end of the tube or conductor, and a ventilator-tube arranged for a portion of its length within the hot-air tube or conductor and terminating at its upper end short of the top of the same and communicating thereat with the interior of the stove, the lower portion of the ventilator-tube being extended beyond the hot-air tube or conductor and arranged on the exterior of the stove, substantially as described.

2. The combination with a stove, of a pipe or conductor extending through the stove from the bottom to the top thereof and provided at one side with an aperture, a ventilator-tube arranged within the pipe or conductor with its upper end registering with the said aperture, and a thimble having a diaphragm and detachably secured to the ventilator-tube and connecting the same to the pipe or conductor, said diaphragm being provided with openings, substantially as described.

3. The combination with a stove, of a tube or conductor extending through the same, and a ventilator-tube located within the said tube or conductor and having its upper end communicating with the interior of the stove, said ventilator-tube being closed at its lower end and provided above the same with an arm or branch, substantially as described.

4. The combination with a stove, of a hot-air tube arranged in the stove and extending to the top thereof and provided at its upper end with a cover, and a ventilator-tube located partly within and partly without the stove and extending from the upper portion of the stove to a point beneath the same and having its upper portion arranged within the hot-air tube, said ventilator-tube having its lower portion extended beyond the hot-air tube and terminating near the floor, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES H. SEAMAN.

Witnesses:

CHARLES SEAMAN,
GEO. W. EASTIN.