

No. 680,470.

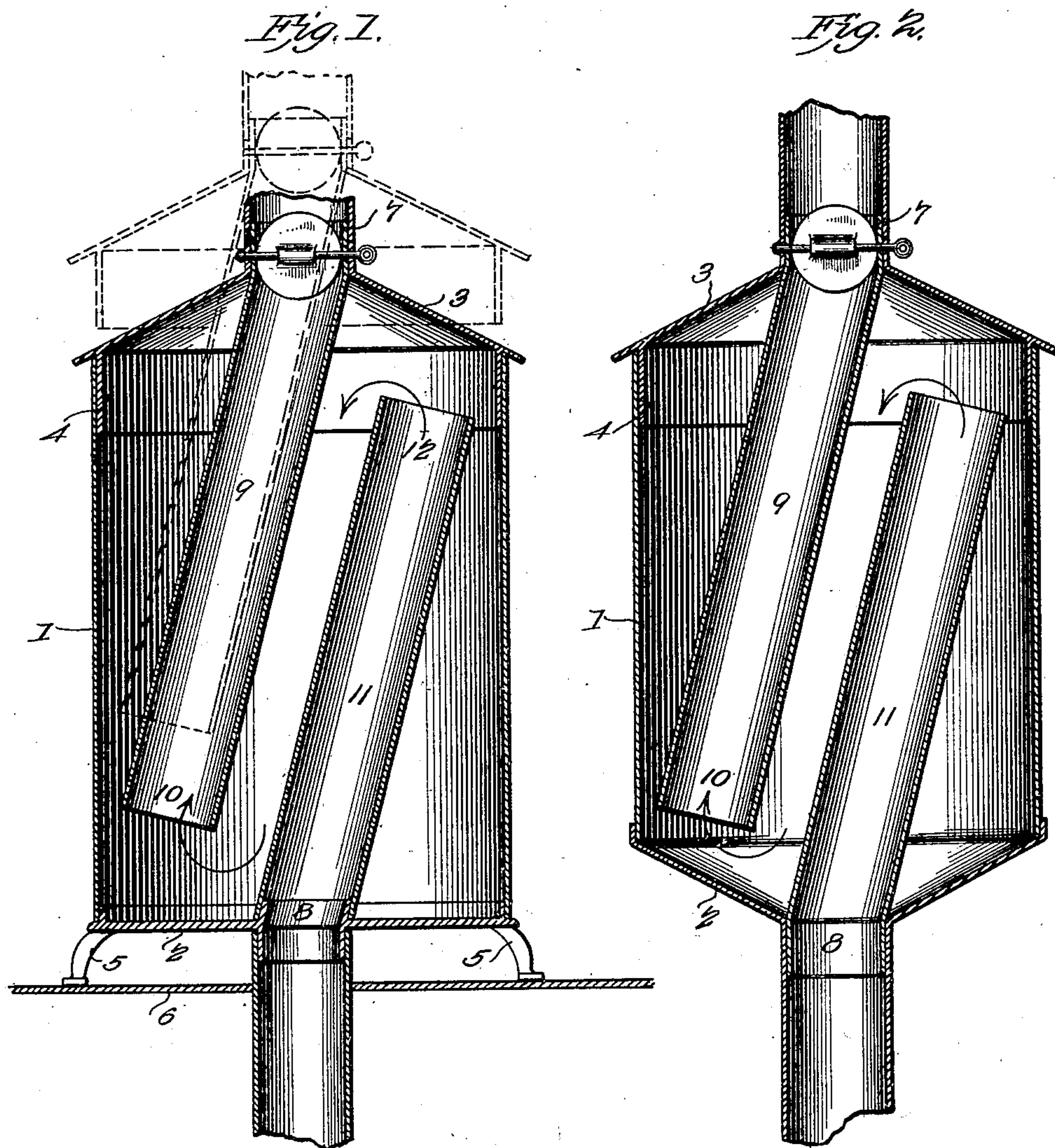
Patented Aug. 13, 1901.

O. C. TRUKENMILLER.

RETORT RADIATOR.

(Application filed May 17, 1901.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

OSCAR C. TRUKENMILLER, OF MANSFIELD, OHIO.

RETORT-RADIATOR.

SPECIFICATION forming part of Letters Patent No. 680,470, dated August 13, 1901.

Application filed May 17, 1901. Serial No. 60,769. (No model.)

To all whom it may concern:

Be it known that I, OSCAR C. TRUKENMILLER, a citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented a new and useful Radiator, of which the following is a specification.

This invention relates to retort-radiators employed for supplying heat to rooms remote from the source of heat-supply; and it consists in the construction, combination, and arrangement of parts, as hereinafter shown and described, and specifically pointed out in the claim.

In the drawings, Figure 1 is a sectional side elevation illustrating one form of the apparatus, and Fig. 2 is a similar view illustrating a modification in the construction.

My improved radiator consists of a preferably cylindrical drum 1, having a closed base end 2 and the upper or opposite end open and provided with a removable closure 3, as shown. The closure 3 is shown removably connected to the drum portion by an annular rim 4, engaging the upper edge of the drum portion 1, so that the cap may be removed from the drum at will.

In the modification shown in Fig. 1 the base 2 is formed of cast metal with supporting-feet 5, which will be the form generally used when the device is to be arranged to rest upon a floor 6, while in the modification shown in Fig. 2 the base is shown conical in shape, which will be the form generally employed when the device is supported entirely by the smoke-flue and disconnected from the floor. While the cast-iron structure for the bottom 2 shown in Fig. 1 may be employed in some forms of the structure, I do not wish to be limited thereto, as the whole drum portion and both ends may be of sheet metal, if preferred. The radiators of this class are generally connected into and form part of the smoke-flues leading from stoves and furnaces and will be provided with flue connections 7 and 8 at each end, with which the ordinary smoke-flues are adapted to engage in the ordinary manner.

The connection 7 is attached centrally into the top 3, while the connection 8 is likewise attached centrally to the bottom 2, as shown.

United to and forming a continuation of

the connection 7 is an extension 9, projecting into the drum 1 diagonally, as shown, and ending near the bottom 2 at 10 at one side of the drum, while a similar extension 11 projects upwardly from the connection 8 and terminates at 12 near the opposite side of the drum. The inside flue-sections therefore stand in angular relations to the drum 1, with the discharge end 12 at the highest practicable point near one side and with the receiving end 10 of the receiving flue-section 9 at the lowest practicable point on the other side, whereby the smoke and other products of combustion are carried to the remotest points of the interior of the drum and insures the permeation of all parts of the interior and insures the largest possible degree of radiation of and thereby effectually secures the greatest possible economy in the use of the heat which is carried off with the smoke and which would otherwise be wasted by being carried into the chimney.

The upper flue-section 9 is connected permanently to the top 3, so that when the top is removed the section will be removed with it, which is a very important feature of my invention, as this simple expedient provides for the complete and easy accessibility of all the parts for cleaning or repairs and without the necessity for forcibly disconnecting or breaking any parts.

The whole radiator may thus be entirely dismembered when required for cleaning or repairing or setting up or taking down at the changes of the seasons as readily as other parts of the smoke-flue connections. This is a very important advantage and adds greatly to the efficiency of the device. Another advantage gained by this diagonal arrangement of the flues within the drum is that I thereby secure the diffusion of the products of combustion into all parts of the drum, while at the same time retaining the outside connections centrally of the drum, which is a very important feature of my invention, as I am thereby enabled to maintain the symmetrical form of the drum and insure its introduction into the line of the flue between the stove or furnace or other source of heat-supply and the chimney without altering the direct line or rendering it necessary to employ offsets or other irregular connections therein. This is

an important consideration and adds greatly to the efficiency and usefulness of the device.

What I claim as new is—

In a radiator, the combination of a drum
5 having one end closed, a flue-section connected centrally through said closed end and projecting diagonally into said drum and terminating near the opposite end at one side; a removable closure for the open end of said
10 drum, a flue-section connected centrally through said removable closure and projecting diagonally into said drum and terminating near the opposite end at one side and diametrically opposite to the inner terminal

of said first-mentioned diagonally-disposed 15 flue-section, whereby the smoke and products of combustion are carried to the remotest parts of said drum, and the outside flue connections maintained centrally of the drum, substantially as shown and described. 20

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

OSCAR C. TRUKENMILLER.

Witnesses:

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