

M. MAHLEN.
HEATING DRUM.

APPLICATION FILED DEC. 21, 1908. RENEWED MAY 2, 1910.

977,666.

Patented Dec. 6, 1910.

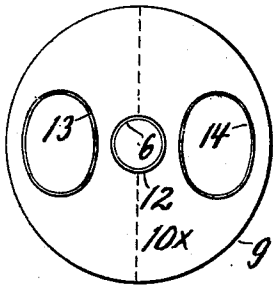


FIG. 2.

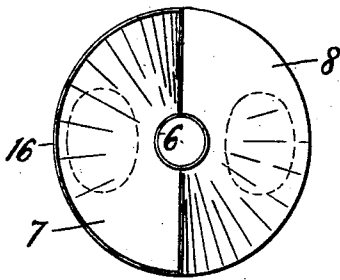


FIG. 3.

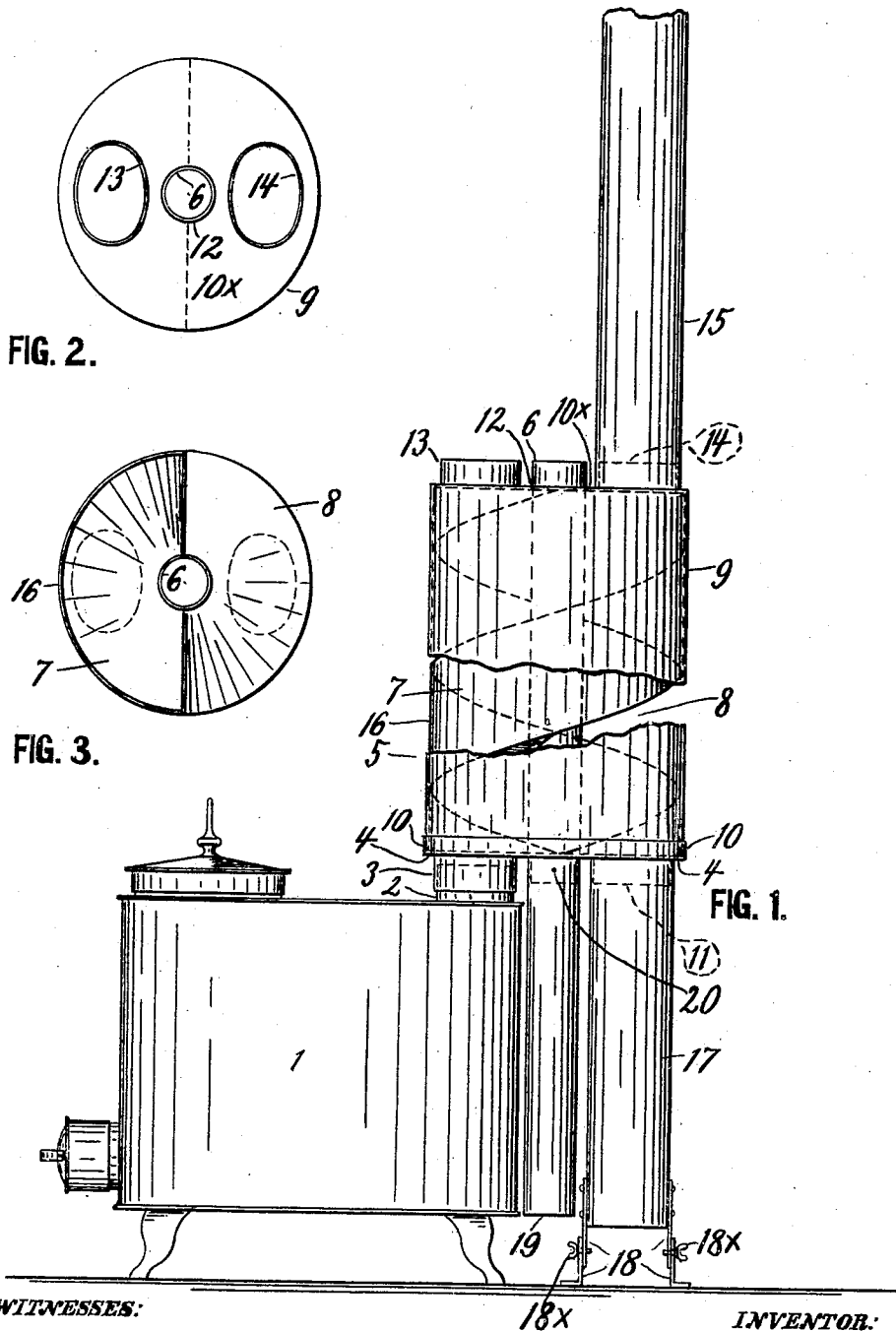


FIG. 1.

WITNESSES:

D. E. Carlsen.
M. M. Carlsen

INVENTOR:

Martin Mahlen.
BY HIS ATTORNEY:
A. M. Carlsen.

UNITED STATES PATENT OFFICE.

MARTIN MAHLEN, OF SAUK CENTER, MINNESOTA.

HEATING-DRUM.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MARTIN MAHLEN, a citizen of the United States, residing at Sauk Center, in the county of Stearns and State of Minnesota, have invented a new and useful Heating-Drum, of which the following is a specification.

My invention relates to improvements in heating drums and the object is to provide a device of said kind, which shall be easy to clean the soot out of and efficient in its action.

In the drawing: Figure 1 is a side elevation of a stove, a stove pipe and my improved device applied to same, the casing of the drum being partly broken away. Fig. 2 is a top view of the drum alone. Fig. 3 is a top view of the drum with the top plate removed.

Referring to the drawing by reference numerals, 1 designates a stove with the usual short flue or stovepipe holding collar 2.

My device may be placed any desired distance above the stove according to the length of the pipe 3 secured to the bottom 4 of drum 5, which will now be described.

The drum proper consists of a central, vertical cylindrical core, preferably a flue 6, and two spiral flues 7 and 8 surrounding the central flue, a casing or jacket 9 adapted to normally stand with its lower end 10 detachably secured in the bottom 4, which holds the casing securely in place while the top plate 10* is fixed permanently on the drum. The drum is preferably of cylindrical form and the central flue projects slightly below the bottom 4. The pipe 3 of said bottom is located to one side of the flue 6 and on the opposite side in diametrical line with pipe 3 and flue 6, is another short pipe or collar 11 secured to the bottom 4.

When the casing 9 is in normal position the flue 6 projects above its top plate through a hole 12 therein, and said top plate is provided with the diametrically opposite collars 13 and 14 placed in corresponding position to the pipes 3 and 11 as will presently be explained.

The smoke and heat that leaves the stove through pipe 3 is led directly into what may be best termed a spiral flue 8 and proceeds upward spirally around the central flue 6 and then out of the drum through pipes 14-15 which connect with a chimney (not shown).

It will be understood that when the casing is lifted off and removed the above described spiral 8 will be open (as best shown in Fig. 1) but I also have another spiral, 7, in the drum, which differs from the first one in that it is inclosed by a wall or covering 16 to keep the air passing through the flue free from the smoke in flue 8. Said flue 7 has its lower terminal in communication with the collar 11 and a downwardly extending pipe 17 reaching nearly to the floor and being supported by the legs 18, having thumb screws 18* making them vertically adjustable in height. The upper end of said spiral flue 7 extends to a pipe 13 which may extend as high up in the room as desired.

It will now be easily understood that during the spiral progress of the smoke and heat through the spiral flue 8 a great deal of heat is absorbed by the flue 7 and the outside walls of the inclosed spiral 7. The cold air which exists near the floor is drawn up through pipe 17 and into the spiral 7 where it becomes heated and passes out into the room at 13. The flue 6 likewise draws up cold air through the pipe 19 and after heating it discharges it into the room, said pipe 19 being attached at 20 to the flue 6.

By removing the casing the open spiral flue 8 is exposed and the soot and dirt is easily accessible for removal.

Having thus described my invention, what I claim is:

A heat radiating drum for stove pipes, the same comprising a cylindrical shell with a vertical, central cylindrical core, two spiral flues encircling the core and being adapted, one of them for conveying the smoke and hot air from the stove to the chimney, and the other for heating cold air in the room, its lower end having a pipe extension reaching almost to the floor and its upper end being extended into the air above the shell, said drum being detachable from its bottom plate, and said spiral flue for heating air being a spiral shell fixed to the vertical central core, but the spiral flue for the smoke being open at its outer side when the shell of the drum is removed, for the purpose set forth.

In testimony whereof I affix my signature, in presence of two witnesses.

MARTIN MAHLEN.

Witnesses:

S. C. BINN,
C. M. SPRAGUE.