

No. 654,488.

Patented July 24, 1900.

B. PETERSON.
FLUE CLEANER.

(Application filed Sept. 21, 1899.)

(No Model.)

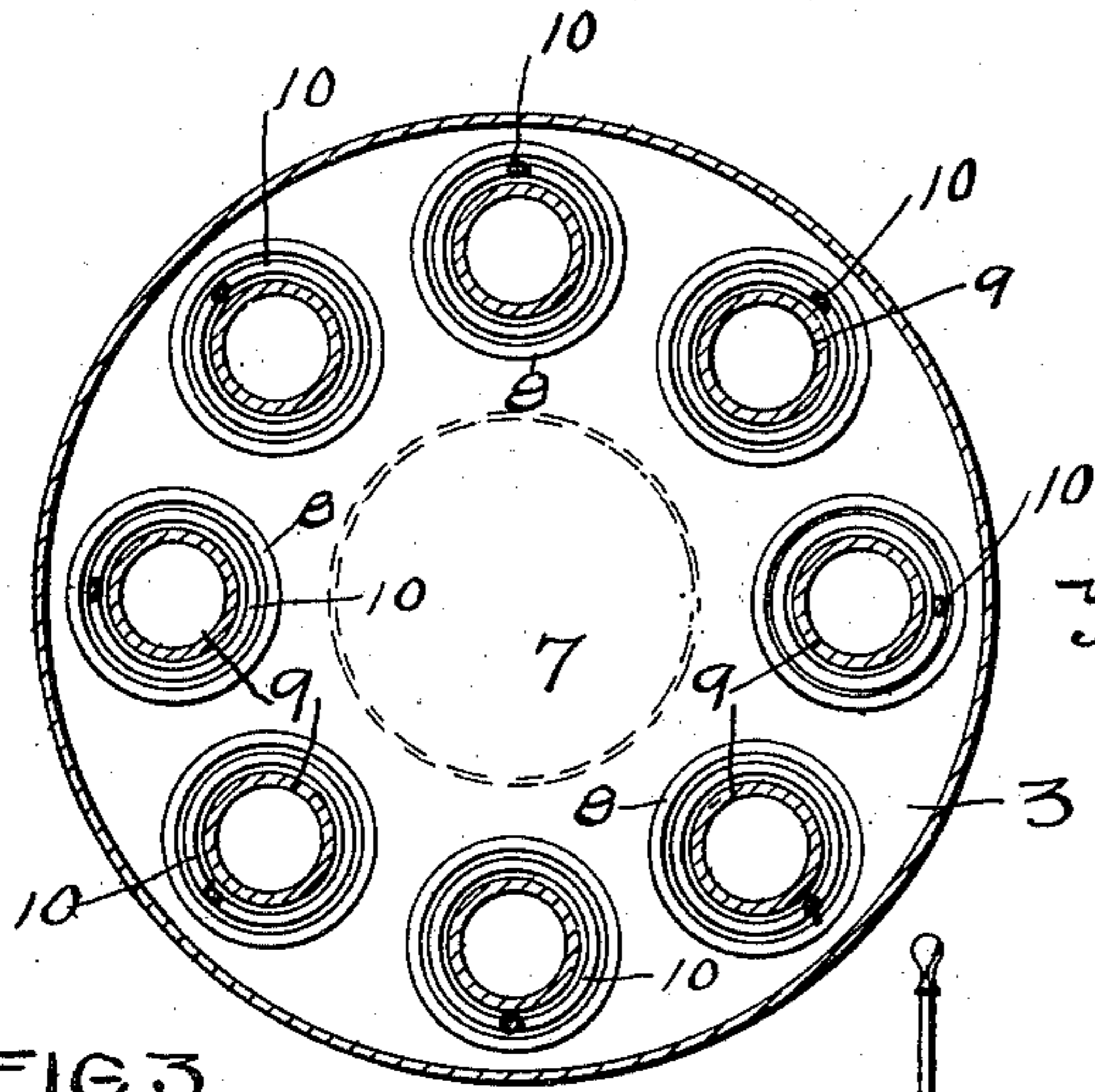


FIG. 3

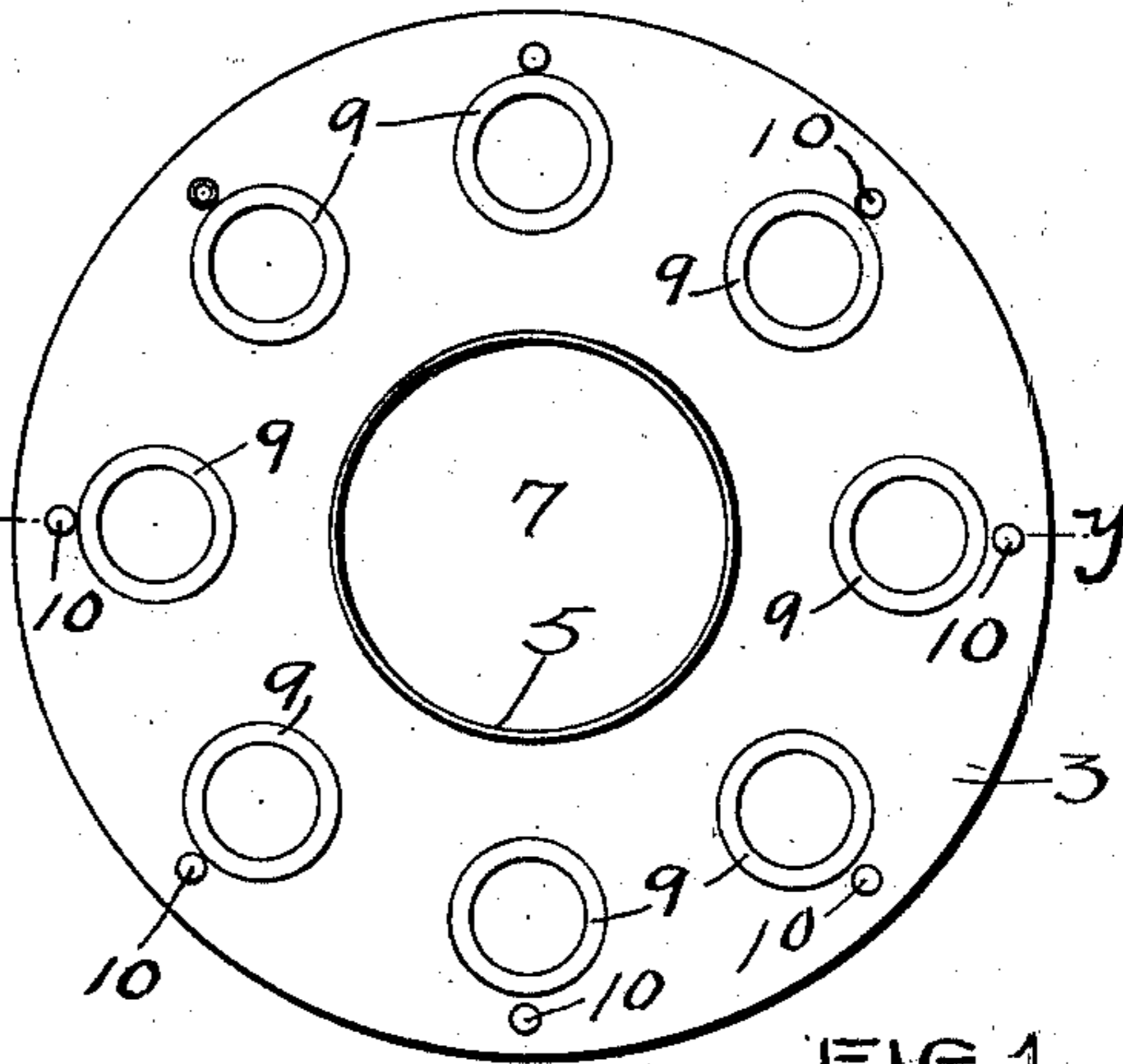


FIG. 1

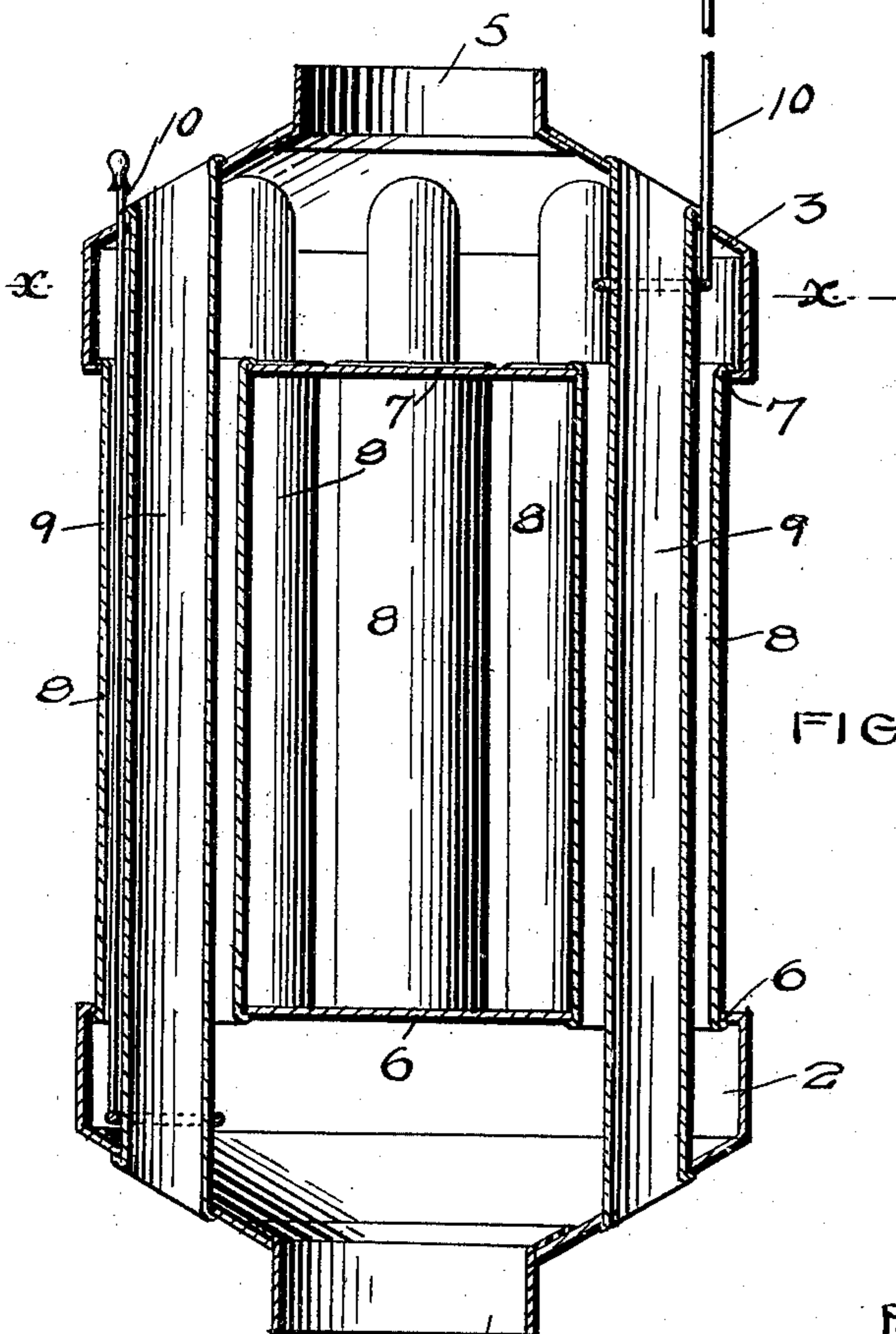


FIG. 2

WITNESSES
Richard Paul
E. Strube

INVENTOR
BENGT PETERSON
BY *Paul & Hawley*
HIS ATTORNEYS

UNITED STATES PATENT OFFICE.

BENGT PETERSON, OF DASSEL, MINNESOTA.

FLUE-CLEANER.

SPECIFICATION forming part of Letters Patent No. 654,488, dated July 24, 1900.

Application filed September 21, 1899. Serial No. 731,170. (No model.)

To all whom it may concern:

Be it known that I, BENGT PETERSON, of Dassel, Meeker county, Minnesota, have invented certain new and useful Improvements in Flue-Cleaners, of which the following is a specification.

The invention relates to devices used in connection with heating-drums; and the object of the invention is to provide means whereby the flues may be rapidly and effectually cleaned of the accumulated soot and dust.

The invention consists generally in various constructions and combinations, all as hereinafter described, and particularly pointed out in the claim.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of a heating-drum embodying my invention. Fig. 2 is a vertical sectional view on the line *y y* of Fig. 1. Fig. 3 is a horizontal section on the line *x x* of Fig. 2.

In the drawings, 2 and 3 represent, respectively, the opposite heads of a drum, having inlet and outlet openings 4 and 5, to which the heads are preferably inclined or converge, and the inner ends of said heads are closed by partitions or walls 6 and 7. A series of holes are provided in said walls 6 and 7, arranged in a circle around the outer edge of the heads, and said holes are connected by a series of flues 8, communicating with the interior of the heads 2 and 3 and through which the smoke and products of combustion pass from one head to the other. Within said smoke-flues 8 I prefer to arrange a series of smaller flues 9, whose ends extend through the heads 2 and 3 and are secured to the outside inclined walls of the same, causing said flues to communicate at each end with the open air. The drum is designed particularly to be inserted between two sections of stove-pipe, and as the smoke and products of combustion enter the end of the drum—say through the opening 4—they will pass slowly up through the flues 8, heating the air-flues 9, through which a current of cool air is constantly passing to be heated and discharged

from the upper end of said hot-air flues into the room. The flues 8 and 9 being arranged concentrically, with but a short space between them, it follows that the soot will gather upon the walls of said flues and after a time seriously interfere with the heating of the same and in consequence decrease the heating capacity of the drum. I therefore provide a series of rods 10, one for each hot-air flue, adapted to slide up and down in holes in the top of the drumhead and in the space between said flues and having their inner ends bent at a right angle to the main portion of the rods and looped around the flues 9, the loops being sufficiently loose to permit the rods to slide freely up and down within the space between said flues and scrape the walls of the same clear of all accumulated soot and dirt, which falling upon the inclined lower end of the drum will slide down into the smoke-pipe and thence to the fire. Instead of forming a loop at the bottom of the rod I may provide a ring upon each flue, connecting the same with the vertically-moving rod.

With the aid of the cleaning device, as above set forth, the hot-air flues of the heating-drum may be kept thoroughly clean from soot and other foreign material without the necessity of taking the drum apart, and in this way the highest degree of efficiency of a heating-drum may be obtained at all times.

In various ways the details of the device may be modified. Hence I do not wish to be confined to the particular construction herein described.

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

A heating-drum, comprising heads 2 and 3 having, respectively, smoke inlet and outlet openings 4 and 5, the walls forming the outer ends of said heads being inclined toward their respective openings, a series of smoke-flues 8 connecting said heads, a series of air-flues 9 having open ends extending through said heads and provided one within each of said smoke-flues and concentric therewith and spaced from the walls of the same forming a

series of annular smoke-passages between
said heads, and a series of rods 10 provided
one within each of said smoke-passages, the
outer ends of said rods projecting through
5 said heads and their inner ends being looped
loosely around their respective air-flues,
whereby when the rods are moved up and
down the soot will be cleared from the walls
of said smoke-passages and discharged over

the inclined walls of said heads through the 10
opening therein, substantially as described.

In witness whereof I have hereunto set my
hand this 16th day of September, A. D. 1899.

BENGT PETERSON.

In presence of—

LOUIS PALMERSTON,
JOSEPH ANCHISON.