

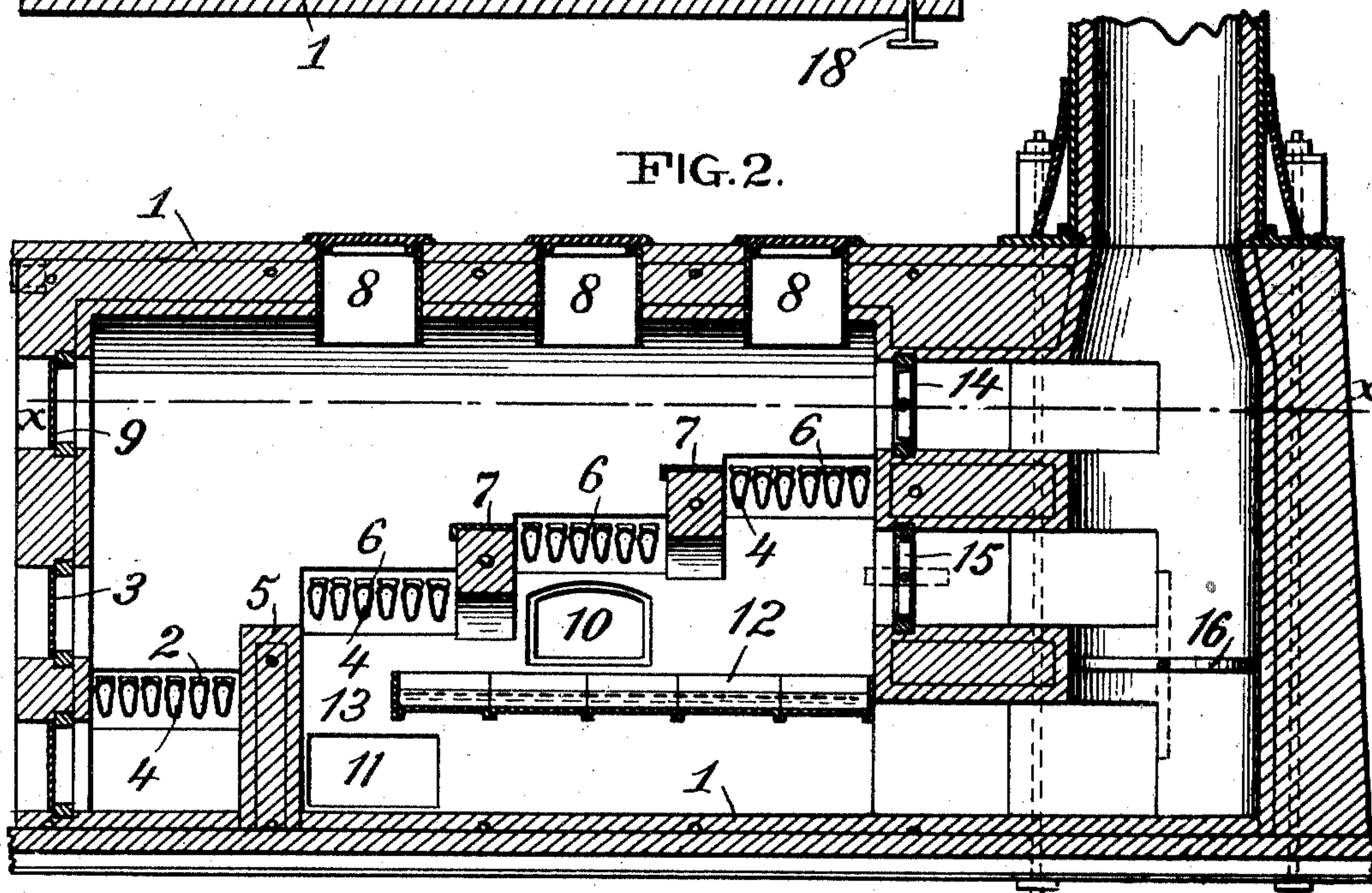
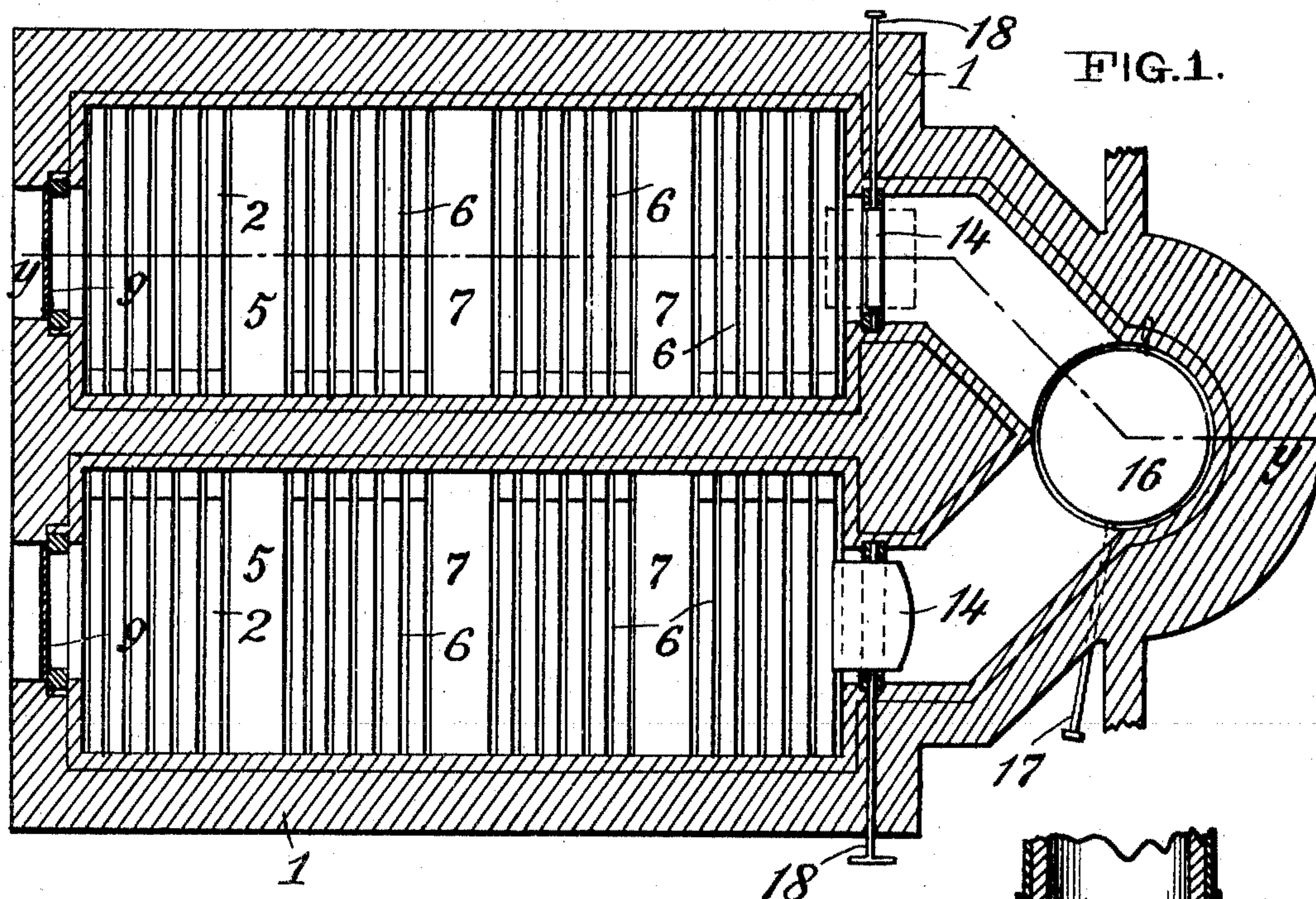
No. 766,848.

PATENTED AUG. 9, 1904.

F. P. SMITH.
CREMATORY.

APPLICATION FILED AUG. 5, 1902.

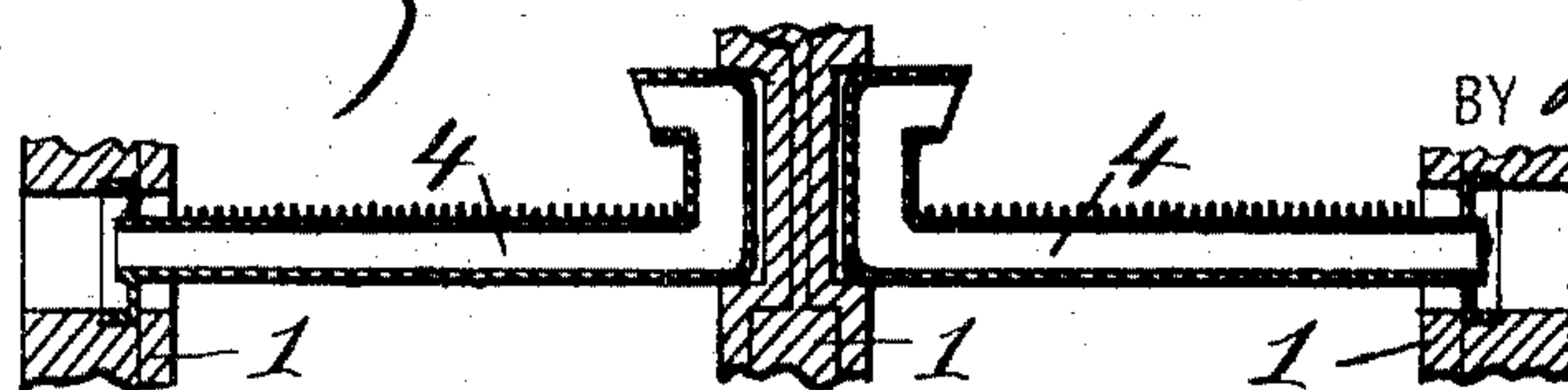
NO MODEL.



WITNESSES:
John D. Wall
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FIG. 3.

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UNITED STATES PATENT OFFICE.

FRED P. SMITH, OF NEW YORK, N. Y., ASSIGNOR TO THE MUNICIPAL ENGINEERING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF DELAWARE.

CREMATORY.

SPECIFICATION forming part of Letters Patent No. 766,848, dated August 9, 1904.

Application filed August 5, 1902. Serial No. 118,453. (No model.)

To all whom it may concern:

Be it known that I, FRED P. SMITH, a citizen of the United States, and a resident of the city, county, and State of New York, have
5 invented a new and useful Improvement in Crematories, of which the following is a full description.

In another application executed on same date with this, I have described and claimed a
10 furnace for consuming garbage or other refuse material, and in this application I have shown in the drawings a furnace similar to that therein described.

The present invention consists in so combining and arranging the furnace with another
15 or others, all having a chimney in common, that one of them may have its fire kindled upon the fire-grate and impart the heat therefrom to consume the matter therein, while by
20 suitably arranging the dampers the heat may be drawn therefrom into another in which the fire is not kindled, but charged with matter for consumption and forced through said matter in its course to the chimney. They may be
25 also used together to make the ignited furnace operate as a drier and evaporator to draw off the gases and noxious fumes from the matter in the non-ignited furnace and pass them off into the chimney, and thus prepare it for
30 quick and ready consumption when the fire is applied thereto from the adjoining furnace or from the fire of its own grate.

The drawings accompanying this application illustrate the invention, of which—

35 Figure 1 is a sectional plan of two crematories, taken on line *x x*, Fig. 2, each having outlets into a common chimney; Fig. 2, a longitudinal section of one of the crematories, and Fig. 3 shows in section a preferred form
40 of hollow grate-bars employed for the fire and garbage grates in each.

A description of one of the crematories will do for both.

45 1 1 are the walls of the crematory, provided with a fire-grate 2 and fuel-door 3. In connection with these crematories I prefer to use the hollow grate-bars 4, constructed, as shown in Fig. 3, with their discharge ends turned up

to distribute the air passing through them over and above the grates, and thereby supply oxygen for combustion. Behind the fire-grate is the bridge-wall 5 and succeeding these
5 a series of garbage or refuse grates 6 6 6, separated by the arched walls 7 7. On these grates is placed the garbage or refuse matter to be
55 cremated. Above the grates are the openings 8 8, closed by suitable doors. Through these openings the garbage is dumped or thrown upon the grates, and a door 9 is provided in the front to stir or bank the material on the
60 grates.

10 11 are clean-out doors. Other doors for this purpose may be placed where desired. Below the refuse-grates is an evaporating-pan 12, which extends forward from the rear wall
65 of the crematory, leaving a passage-way 13 for the draft in its course to the chimney. This evaporating-pan catches the drippings from the moist or wet material on the grates above, which passes through the spaces be-
70 tween the grate-bars. In the rear of the crematory I have placed the dampers 14 and 15, which lead to the chimney, and in the chimney sufficiently elevated to permit draft communication below it I have placed the dam-
75 per 16.

In Fig. 1 the crematories are shown side by side. The damper 14 in one of them is shown closed and in the other open. They are opened and closed by means of the rods 18 and 18.
80

The crematories coact to produce the best results by a proper management of the dampers. Suppose both of them to be supplied with material and one of them to be ignited and the fire operating to consume the material therein. The operator would first prob-
85 ably open the upper damper 14 and close the others, allowing the draft to pass over the garbage into the chimney while the moisture from the material is dripping into the pan and
90 its vapors are passing off into the chimney. When he wishes to draw the flame through the material, he opens the damper 15 and closes 14, at the same time spreads or banks the material on the grates to suit the condi-
95 tions. During this time the vapors and fumes

in the non-ignited furnace are passing into the chimney. At the proper time he closes the dampers 14 and 15 in the ignited furnace and the damper 16 in the chimney and opens
 5 one in the non-ignited furnace. The flame and heat from the fire in the ignited furnace now passes down through the material on the grates, around the evaporating-pan, and through the passage-way leading to the chimney; but as
 10 the damper in the chimney is closed it passes below this damper and enters the non-ignited furnace, thence passing up through the material therein and out into the chimney. Any number of furnaces may be thus arranged
 15 with a common chimney to all, and while the material on the one ignited is receiving the heat direct from its fire the other takes the heat which has performed its work in the first. At the proper time when the material
 20 is consumed in the ignited furnace a new supply of material is introduced therein and a fire kindled in the other, which performs its work in connection with its companion furnace in the same way. The non-ignited fur-
 25 nace now becomes the ignited furnace.

The crematories emit no offensive odors. They are drawn off and consumed.

What I claim, and desire to secure by Letters Patent, is—

30 1. The combination and arrangement of two or more crematories having a chimney in common, each provided with a fire-grate and one or more grates for refuse matter, dampers arranged in the rear of the furnace above
 35 and below the grates with means for opening and closing the same and a damper in the chimney located in position when closed to allow the draft from the furnace to pass below it from one furnace to the other and enter
 40 the chimney through the dampers in the latter.

2. In a crematory, two or more furnaces for

cremating refuse matter each provided with a fire-grate and one or more grates for refuse matter, and each having a chimney in com-
 45 mon, said furnace provided with a damper or dampers leading to the chimney and means for opening and closing the same, in combination with a passage-way below the grates leading to the chimney, a damper located in the chimney on a level below the grate or
 50 grates in the furnace and means for opening and closing the chimney-damper, whereby the heat from one of the crematories ignited may be drawn below the chimney-damper into another crematory and pass to the chimney
 55 through the dampers in the latter.

3. In a crematory two or more furnaces for cremating refuse matter each provided with a fire-grate and one or more grates for refuse matter, and each having a chimney in com-
 60 mon, said furnaces provided with two dampers leading to the chimney, with means for opening and closing the same one of them above and the other below the grates, in combination with a passage-way below the dam-
 65 pers to the chimney, a damper in the chimney on a level between the dampers and the passage-way provided with means for opening and closing whereby the heat from one of the crematories ignited may be directed to pass
 70 below the chimney-damper into another crematory or be directed to the chimney to thereby consume its own material and draw off the moisture and odors from the others.

In testimony whereof I, the said FRED P. SMITH, have signed my name to this specification, in the presence of two subscribing witnesses, this 5th day of May, 1902.

FRED P. SMITH.

Witnesses:

JOHN H. DUVALL,
 M. TURNER.