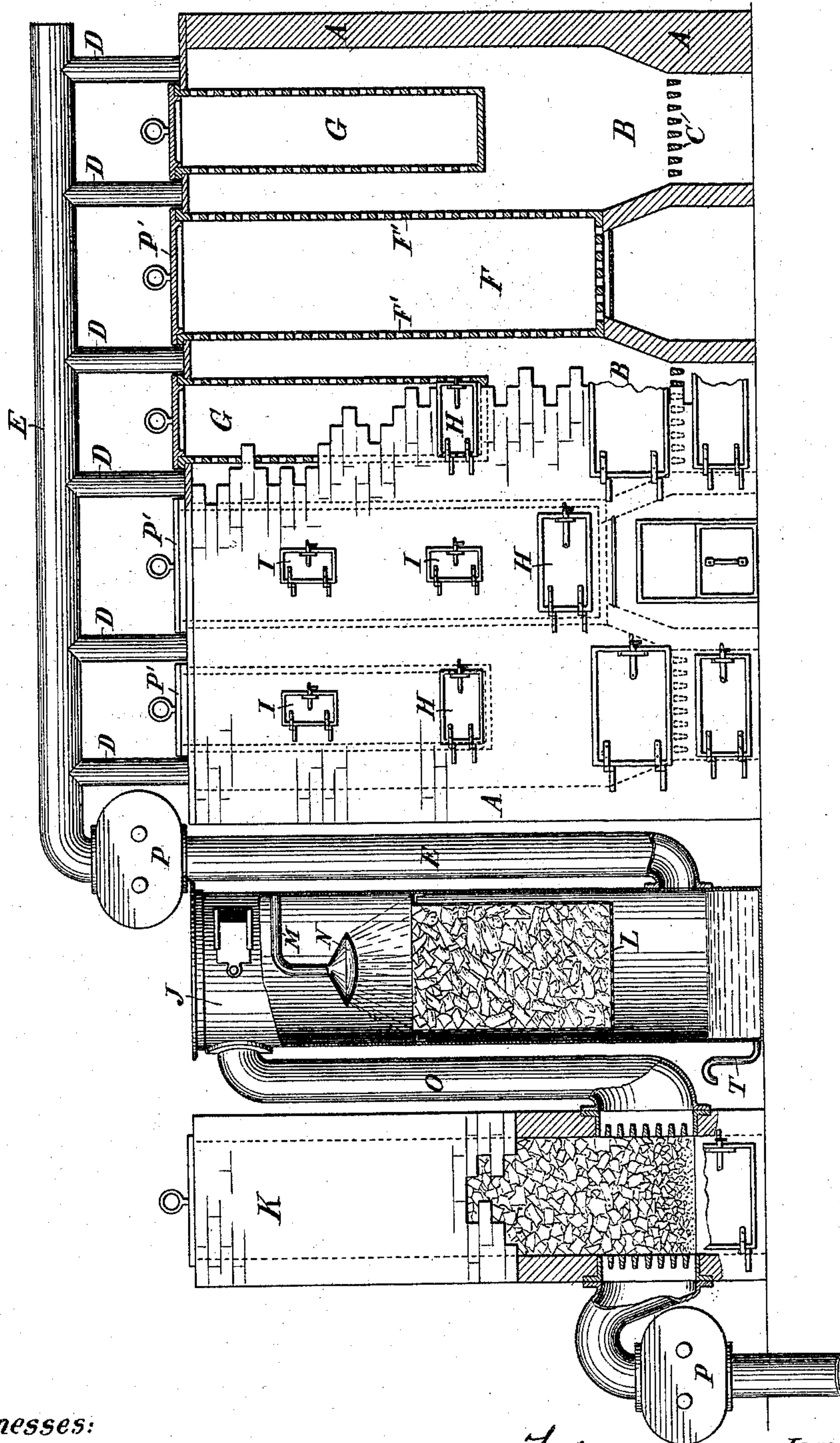


(No Model.)

J. C. KESSLER.  
GARBAGE CREMATORY.

No. 488,169.

Patented Dec. 13, 1892.



Witnesses:

*Paul A. Smith*  
*Amos Schwartz*

*John C. Kessler* Inventor:  
By  
*Sylvester & Schunk* Attorneys.



# UNITED STATES PATENT OFFICE.

JOHN C. KESSLER, OF MILWAUKEE, WISCONSIN.

## GARBAGE-CREMATORY.

SPECIFICATION forming part of Letters Patent No. 488,169, dated December 13, 1892.

Application filed March 4, 1892. Serial No. 423,696. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN C. KESSLER, of the city of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented  
5 new and useful Improvements in Garbage-Crematories; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawing, and to the let-  
10 ters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in garbage-crematories; and it pertains to the peculiar combination and arrangement of a  
15 series of combustion-chambers, a series of garbage-receptacles located between and above said combustion-chambers, a gas-retort for condensing the moisture arising from the burning garbage, a secondary furnace for  
20 burning the non-condensable gases and vapors which escape from said retort, a series of draft flues or ducts communicating from the several combustion-chambers to said gas-retort and secondary combustion-chamber, and one  
25 or more fans or blowers for increasing the draft of said furnace and controlling the noxious gases and vapors arising from the burning garbage.

The construction of my invention is explained by reference to the accompanying drawing, which represents a longitudinal vertical section of the furnace.

Like parts are represented by the same reference-letters.

35 Within the inclosing wall A of the furnace is formed a series of combustion-chambers B B, each of which is provided with a separate fuel-supporting grate C and smoke-flues D communicating therefrom with the main  
40 flue E above and at the rear end of the furnace.

Between the several combustion-chambers B are a series of garbage-receptacles F, the sides of which are perforated or formed of a series of grate-bars F', which permit of the  
45 free circulation of the hot air through them as well as of the actual contact of the flame with the garbage contained therein. Located centrally in said combustion-chambers above the fuel-supporting grates is a series of  
50 smaller garbage-receptacles G G, which serve to deflect the flame and hot air as it rises in

the combustion-chamber toward the right and left against the larger garbage-receptacles F, while they also increase the working capacity of the furnace. The several garbage-receptacles F and G are provided with doors H,  
55 through which the garbage as it is dried or burned is removed. Said receptacles are also provided with apertures I, through which the progress of the drying or burning of the gar-  
60 bage may be observed.

J is a gas retort or condenser, the function of which is to condense the vapors of water arising from the burning garbage, which would  
65 otherwise enter the secondary combustion-chamber and retard the combustion of the fuel therein. The condenser J is provided with a perforated basket or receptacle L for the reception of charcoal or other disinfectant, which serves to neutralize and absorb the  
70 poisonous gases and vapors as they enter said condenser.

M is a water-duct, through which water is conducted to said condenser when it is discharged from said duct through a sprinkler N  
75 within said condenser, and is thereby thrown in a shower of spray upon the contents of the basket L. As the water descends in said receptacle it commingles with the gases and vapors as they enter the condenser, whereby  
80 the vapors of water are condensed, while the gases and non-condensable vapors unaffected by the water in the condenser are conducted out through the duct O to the combustion-chamber K. To promote the draft of the fur-  
85 nace and to facilitate the control of the gases, one or more fans or blowers P are provided in the smoke flues or ducts.

T is an outlet water-duct, through which the water and condensed vapor escape from  
90 the condenser J. The several garbage-receptacles are provided with covers P', which may be removed at any time for refilling the furnace. Owing to the action of the fans or blowers, which exhaust the air and gases from the  
95 furnace, a partial vacuum is formed therein, which causes an inward current of air, whereby the doors of the furnace may be opened for refilling the furnace and the filling and emptying of the furnace may go on without  
100 cessation and without the escape of the noxious odors or gases.



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

1. In a garbage crematory, the combination,  
5 with a series of combustion-chambers and fuel-supporting grates, of a series of vertically-arranged garbage-receptacles located between and above said combustion-chambers, exhaust-flues communicating from each of said  
10 combustion-chambers with a secondary furnace or combustion-chamber, and one or more exhaust fans or blowers located in said exhaust-flue between said combustion-chamber and the discharge-flue, substantially as and  
15 for the purpose specified.

2. In a garbage-crematory, the combination of a series of combustion-chambers, a series of vertically-arranged garbage-receptacles located between said combustion-chambers, a  
20 series of deflecting-receptacles located centrally above said combustion-chamber, all of said receptacles being formed of a series of vertically-arranged grate-bars or perforated plates, an exhaust-flue communicating from  
25 the respective combustion-chambers through a fan or blower with a condensing-receiver,

a condensing-receiver, a secondary combustion-chamber, and an intermediate flue communicating from said condensing-receiver to said secondary combustion-chamber, substantially as and for the purpose specified. 30

3. The combination, in a garbage-crematory, of a furnace provided with a series of combustion-chambers, a series of vertically-arranged receptacles having perforated or open  
35 gratework sides, a condensing-receiver provided with inlet water-ducts, a coal-receptacle for an absorbent located in said condensing-receiver, a flue communicating from said furnace through a fan or blower to said condens-  
40 ing-receiver, a secondary combustion-chamber, and flues communicating from said condensing-chamber to said secondary combustion-chamber and from said secondary combustion-chamber to the exterior air, all sub-  
45 stantially as and for the purpose specified.

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

JOHN C. KESSLER.

Witnesses:

GEORGE SYLVESTER,  
FRED SCHEIBER.