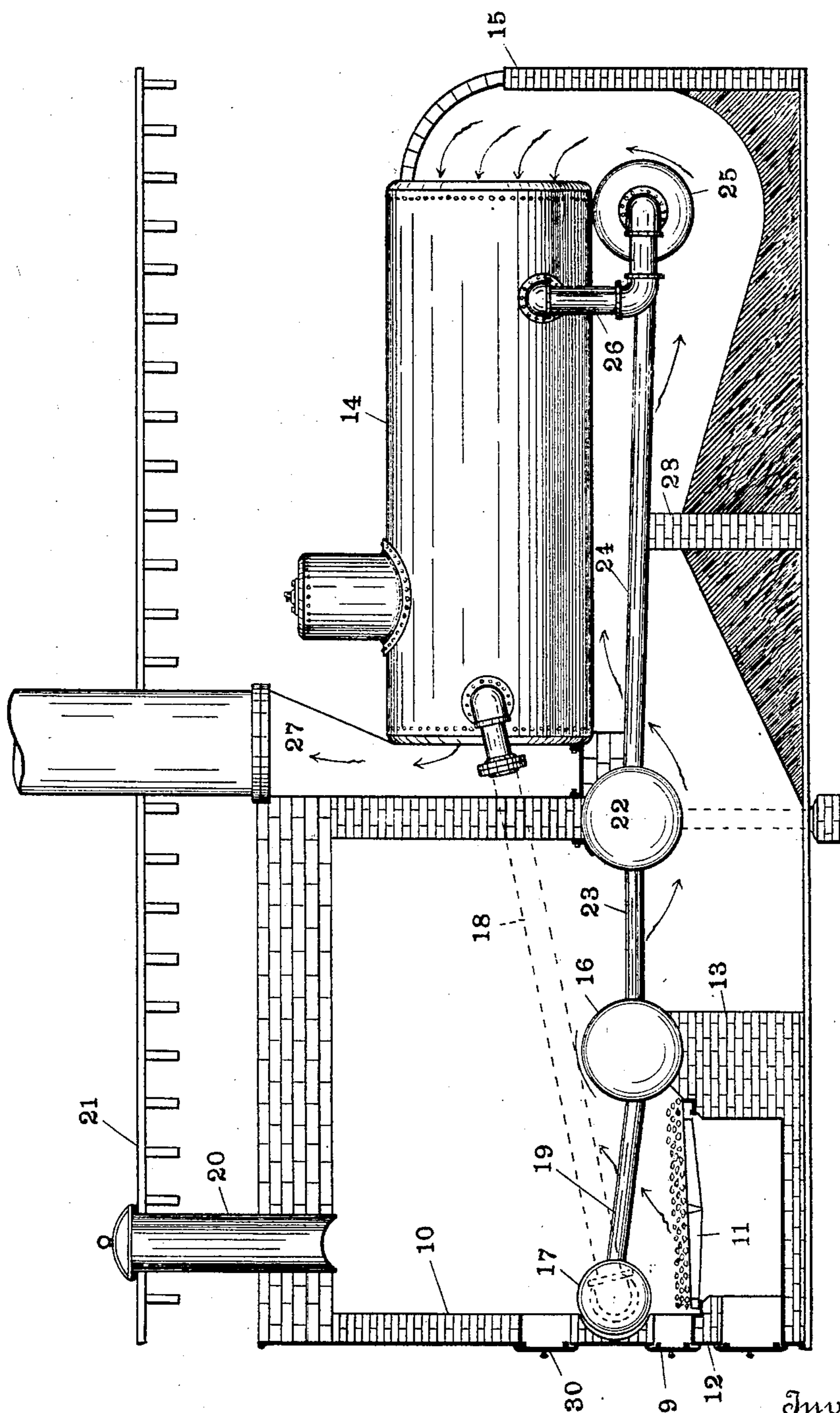


No. 803,650.

PATENTED NOV. 7, 1905.

F. G. WISELOGEL.
REFUSE BURNER.

APPLICATION FILED DEC. 4, 1902.



Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK G. WISELOGEL, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO
SANITARY REDUCTION AND CONSTRUCTION COMPANY, OF BOSTON,
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REFUSE-BURNER.

No. 803,650.

Specification of Letters Patent.

Patented Nov. 7, 1905.

Application filed December 4, 1902. Serial No. 133,916.

To all whom it may concern:

Be it known that I, FREDERICK G. WISELOGEL, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Refuse-Burners, of which the following is a specification.

The object of my invention is to provide means for burning refuse, such as street-cleanings or wet paper or waste of any kind, in such manner that there shall not be offensive odors arising therefrom and in such manner that the heat resulting therefrom may be utilized in the production of steam.

The accompanying drawing, which is a vertical section just inside one side wall, illustrates my invention.

In the drawing, 10 indicates a combustion-chamber in which is mounted a series of grate-bars 11, which extend rearward from the face-plate 12 to the bridge-wall 13. Mounted to the rear of the combustion-chamber 10 is a boiler or steam-generator 14, inclosed in a suitable setting 15.

Resting upon the bridge-wall 13 is a transverse water-drum 16, and arranged above the forward ends of the grate-bars 11 is a water-drum 17, which is fed by a pipe 18 from the boiler 14. Connecting the drums 17 and 16 are water-tubes 19, which lie some distance above the grate-bars 11 and form a receiving-grate for any refuse which may be introduced thereon through a feed-chute 20, passing down through a feed-floor 21, arranged above the entire apparatus.

Back of the water-drum 16 and parallel therewith beneath the rear wall of the chamber 10 is a water-drum 22, which is connected with drum 16 by water-tubes 23. The space immediately beneath drum 22 is open, and extending rearward from drum 22 beneath boiler 14 are water-tubes 24, which at their rear ends connect with a transverse water-drum 25, arranged beneath the rear end of boiler 14. Drum 25 is connected, by means of a pipe 26, with boiler 14.

Leading from that end of boiler 14 farthest from drum 25 is a smoke-stack 27.

Arranged between drums 22 and 25 and parallel therewith is a fire-wall 28, which extends up to tubes 24 at about their middles.

Suitable firing and stoking doors 29 and 30 give access to the forward ends of the grate-

bars 11 and refuse-supporting tubes 19, respectively.

In operation the refuse is introduced through the spout 20 and falls upon the tubes 19 and drums 17 and 16. A coal or other fuel fire is maintained upon grate-bars 11, and the flame, smoke, and hot gases therefrom pass upward between the water-tubes 19 into the mass of refuse thereon, igniting this refuse and thereafter passing over the top of drum 16, thence downward between tubes 23, under drums 22, closely hugging the bottom thereof, and thence up between tubes 24, over bridge-wall 28, down between tubes 24, and from thence, after hugging water-chamber 25, passing upward and forward through the tubes of boiler 14, and thence out through stack 27. By this means a thorough combustion is obtained both of the unconsumed gases which arise from the fuel on grate-bars 11 and also of the combustible portion of the refuse which may be dumped upon the tubes 19.

I claim as my invention—

1. The combination, with a steam-generator, of fuel-receiving grate-bars, a pair of transverse water-drums arranged above said grate-bars one at each end, connection between the forward drum and the generator, tubes connecting said drums above the grate-bars to form a refuse-receiver, a second pair of transverse water-drums located beneath the generator one near each end thereof, water-tubes connecting the forward one of said drums with the adjacent drum at the rear end of the grate-bars, water-tubes connecting said last-mentioned pair of drums beneath the generator, a bridge-wall extending up to said water-tubes at an intermediate point, and an inclosing setting, whereby the gases from the fire on the grate-bars must pass upward between the refuse-receiving water-tubes from thence over the water-drum to the rear, thence downward between the next series of water-tubes, beneath the succeeding water-drum, thence upward between the succeeding series of water-tubes, over the fire-wall, downward between said series of water-tubes, thence beneath the rear water-drum, and from thence through the generator, substantially as and for the purpose set forth.

2. The combination of, fuel-receiving grate-bars, a bridge-wall at the rear of said

grate-bars, three transverse water-drums,
one above the front end of the grate, one at
the rear end of the grate upon the bridge-
wall, and the other behind the second drum,
5 a baffle-wall arranged above the third drum,
and water-tubes connecting said drums and
forming a support for refuse above the fuel-
grate.

In witness whereof I have hereunto set my
hand and seal, at Indianapolis, Indiana, this 10
26th day of November, A. D. 1902.

FREDERICK G. WISELOGEL. [L. S.]

Witnesses:

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