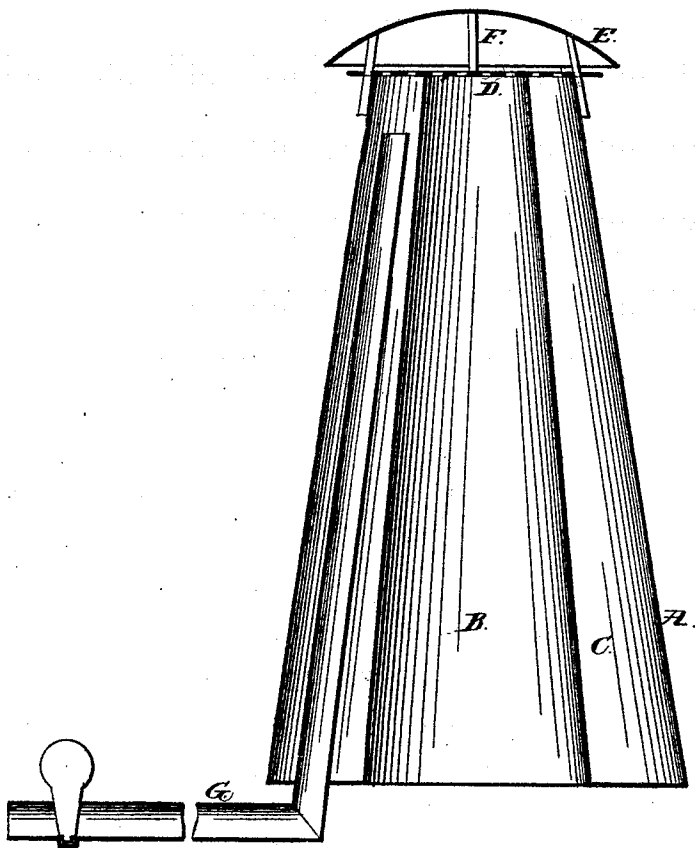


D. G. POWER.
SMOKE-CONSUMER.

No. 183,021.

Patented Oct. 10, 1876.



Witnesses:

W. B. Smith
A. Schullenberg

Inventor:

David G. Power

UNITED STATES PATENT OFFICE.

DAVID G. POWER, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN SMOKE-CONSUMERS.

Specification forming part of Letters Patent No. **183,021**, dated October 10, 1876; application filed September 23, 1875.

To all whom it may concern:

Be it known that I, DAVID G. POWER, of Milwaukee, in the county of Milwaukee, in the State of Wisconsin, have invented certain Improvements in Smoke-Consumers, of which the following is a specification:

The object of my invention is to convey air and steam to the escaping gases from a coal-fire, and thus cause the same to be consumed, and prevent the production of smoke.

The invention consists in a cone which sets on the grate-bars, the outside of which is a water-chamber, and the inside a passage for air, and on the top of the cone is a perforated plate, through which the air and steam pass, and a solid cap over the same, which the air and steam strike against, and flow out round the edges of this cone, rising above the coal, and a pipe running from the bottom of same to a receptacle for water, so that as fast as the water is evaporated the pipe supplies a quantity to take its place, and in this way air and steam are supplied to the top of the burning coal, and supply oxygen necessary to consume the gases from same.

Figure 1 is a vertical sectional view of my invention.

A is the outside of the cone; B, the air-passage in the center of same; C, the water-space and steam-generator; D, the perforated

plate over the top of the cone; E, the solid cap over the perforated plate, and the cone elevated enough for a space for the air and steam to flow out under the sides of same; F, pins on the top of the cone, to hold the plate D and cap E; G, the pipe, through which water is fed to the water-space. The top of the cone is open, so that the air and steam can flow freely through the perforated plate.

Operation: The cone is set on the grate, so that air can pass through the grate-bars into the air-chamber, and the coal surrounding the cone is set on fire, and as the fire burns it heats the cone and generates steam, which, rising and passing out through the perforations in the plate, and mixing with the air which passes through the air-passage in the cone, and passing out under the cap E, furnishes oxygen, and burns the gases rising from the coal.

I claim as my invention—

The cone A B, forming water-space C, in combination with pipe G, perforated plate D, and cap E, substantially as and for the purpose specified.

DAVID G. POWER.

Witnesses:

J. B. SMITH,
S. W. NATHAN.