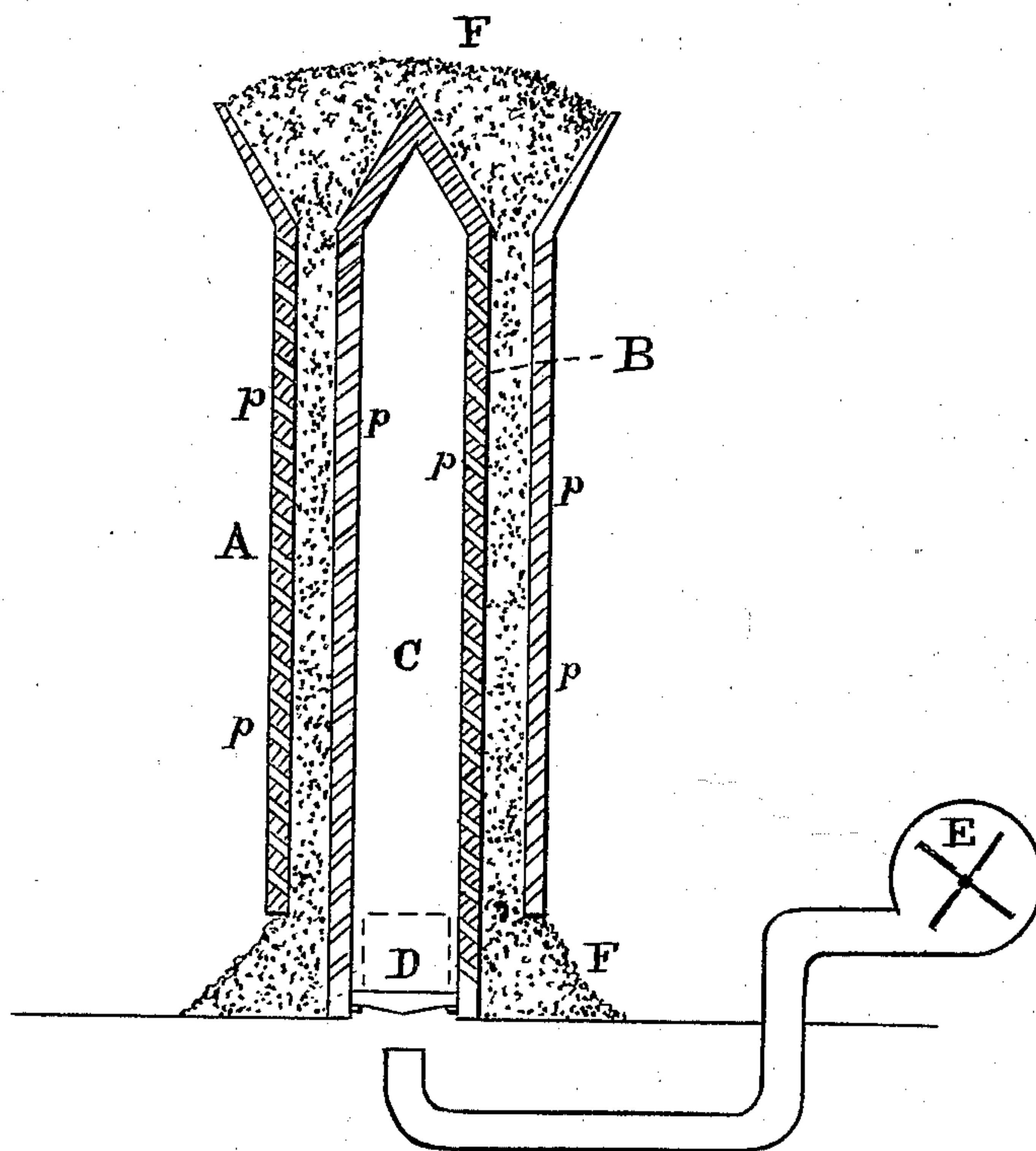


S. S. DAISH.  
SAND AND GRAVEL DRIER.

No. 169,895.

Patented Nov. 16, 1875.



Witnesses :  
*Theodore Mungen*  
*Henry A. Daniels*

Inventor :  
*S. S. Daish*

# UNITED STATES PATENT OFFICE.

SILAS S. DAISH, OF WASHINGTON, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN SAND AND GRAVEL DRIERS.

Specification forming part of Letters Patent No. **169,895**, dated November 16, 1875; application filed October 14, 1875.

*To all whom it may concern:*

Be it known that I, S. S. DAISH, of Washington, District of Columbia, have invented a Sand and Gravel Drier, of which the following is a specification:

The object of my invention is to rapidly dry sand and gravel; and it consists of two perforated cylinders, one inside of the other, the inside cylinder to be perforated at an angle of about forty-five degrees, and inclosed with a conical top, as shown in drawing, the outside cylinder to be perforated at an angle of about forty degrees, as shown in drawings, both cylinders to be set perpendicularly.

The grate-bars will sit in the inside of C of drawings. I also have a blower, which forces the draft under the grate-bars, and the hot air will strike the conical top, and return and pass back down the sides and out of the perforations P into the sand or gravel, thus superheating and applying the hot air directly to the material without letting the material into the fire. The perforations in the outside cylinder will admit of the necessary evaporation.

In the accompanying drawings a vertical section is represented.

A designates the outer casing or cylinder; B, the inside cylinder; C, the hot-air or combustion chamber; D, the grate-bars; E, the blower; F, material to be dried; *p*, perforations in both cylinders.

I claim as new and desire to secure by Letters Patent—

1. The combination of the two perforated cylinders, the furnace, and the blower.

2. The combination, in a sand or gravel drier, of the furnace D and its combustion-chamber, the inner perforated cylinder C, the outer perforated cylinder A, and the sand and gravel chamber between the two latter, substantially as and for the purpose set forth.

SILAS S. DAISH.

Witnesses:

THEODORE MUNGEN,  
H. A. DANIELS.