

(No Model.)

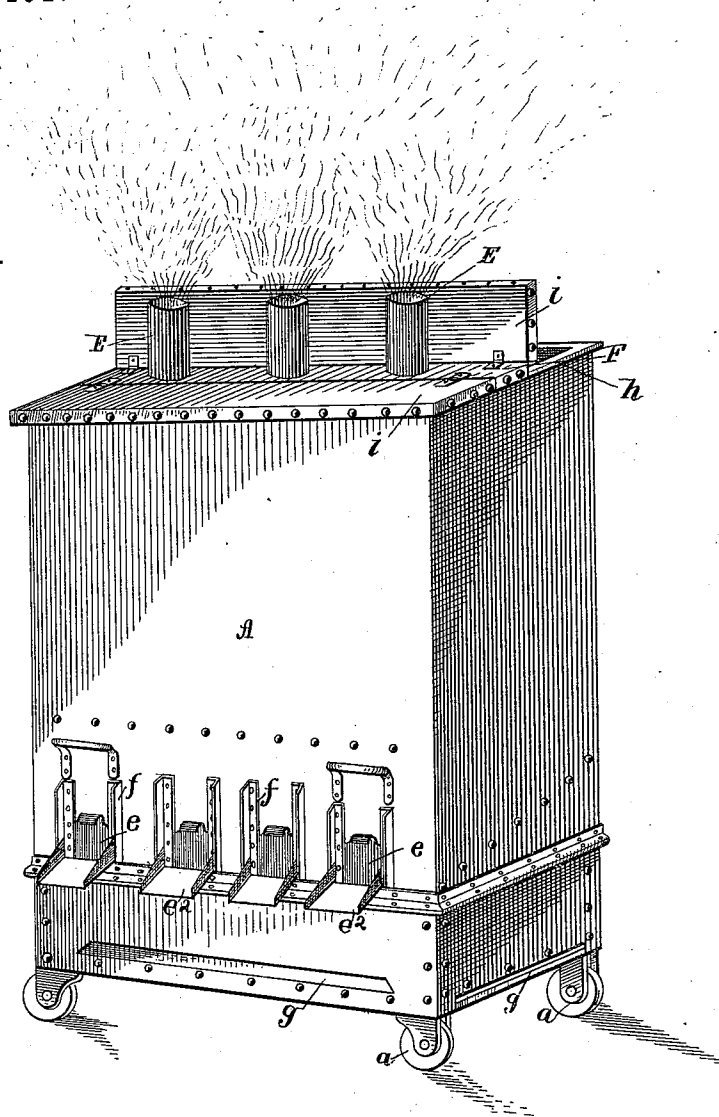
2 Sheets—Sheet 1.

A. STENGER.
PORTABLE GRAVEL HEATER.

No. 550,461.

Patented Nov. 26, 1895.

FIG. 1.



WITNESSES
Geo. McKay Jr.
M. V. Bigford.

INVENTOR
Andrew Stenger
By *Knights*
Attys.

(No Model.)

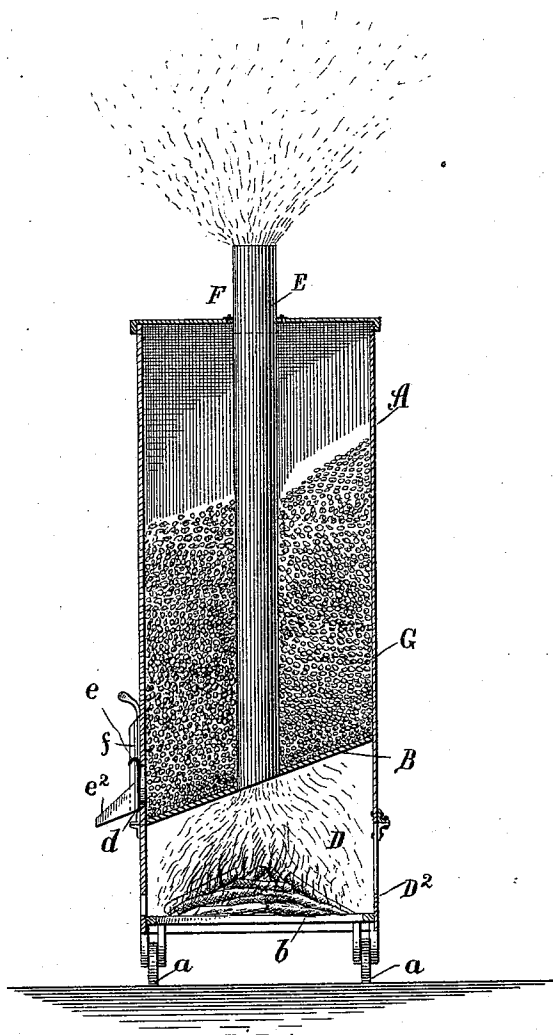
2 Sheets—Sheet 2.

A. STENGER.
PORTABLE GRAVEL HEATER.

No. 550,461.

Patented Nov. 26, 1895.

Fig. 2.



WITNESSES
Geo. W. Taylor Jr.
M. V. Bidgood

INVENTOR
Andrew Stenger
By *[Signature]*
Attorney

UNITED STATES PATENT OFFICE.

ANDREW STENGER, OF BROOKLYN, NEW YORK.

PORTABLE GRAVEL-HEATER.

SPECIFICATION forming part of Letters Patent No. 550,461, dated November 26, 1895.

Application filed October 29, 1894. Serial No. 527,284. (No model.)

To all whom it may concern:

Be it known that I, ANDREW STENGER, a citizen of the United States, residing at Brooklyn, county of Kings, State of New York, have invented certain new and useful Improvements in Portable Grit, Sand, and Gravel Heating Machines, of which the following is a specification.

The object of my invention is to provide a machine for drying gravel for use more particularly in laying roadways or filling in the spaces between Belgian or other paving blocks.

The invention consists in the novel details of improvement and the combinations of parts that will be more fully hereinafter set forth, and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a perspective view of my improved gravel-heating machine, and Fig. 2 is a vertical cross-section thereof.

In the accompanying drawings, the letter A indicates a suitable casing or receptacle, preferably made of sheet metal, and which may be mounted on rollers *a* to permit it to be transported. The casing or receptacle A is provided with a shelf or partition B, which is preferably inclined toward the front of the casing, and beneath said shelf or partition is a combustion-chamber D, (which heats the products in a very short time,) having grate-bars *b*.

E are smoke pipes or flues that open through the partition B into the chamber D and pass up through the casing A to carry off the smoke and heated products of combustion from the fire in the chamber D.

The side or front of the casing A is provided with one or more openings *d* in line with the lower edge of the partition or shelf B, so that the gravel can slide through said openings. Said openings are provided with doors or covers *e*, that preferably fit in guides *f*, so that they may be raised to permit the gravel to slide out of the casing.

g are draft-openings to admit air to the combustion-chamber D.

*e*² are chutes to carry the gravel from the openings *d*.

The casing A is provided on top with a cover F, preferably having a stationary portion *h* and hinged portions *i*, to permit the gravel to be placed in the casing, the stationary portion acting to hold the flue or pipe E.

D² is a door at the back of the combustion-chamber D to permit fuel to be placed in said chamber.

In operation the gravel to be heated and dried is shoveled into the casing through the top and the cover partially closed. A fire being built in the combustion-chamber D heats the partition B and the gravel G thereon and the heat and heated products of combustion pass up through the flues E, heating the gravel that surrounds them. By this means the moisture that accompanied the gravel is dried out, and as the gravel at the lower part of the machine is dried it may be removed through the openings *d*, while new gravel is placed on the top, thus keeping up a continuous operation of drying and heating the gravel without interruption. By this means it is not necessary to completely dry the entire quantity of gravel before any of it can be used, but it can be dried and removed gradually. By this means time and labor are saved, as it is not necessary to shovel the dried gravel from the machine, because it will pass by gravity out of the openings *d*.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

A portable sand and gravel drier comprising a casing, having a suitable cover, divided by the single inclined partition and extending from front to back, into a drying chamber, and a combustion chamber beneath the drying chamber; said combustion chamber having a smoke outlet formed by a pipe secured at its lower end in the inclined partition and extending centrally upward through the drying chamber, and said drying chamber having a lateral opening for outlet of dried material, on a level with the lower edge of the inclined partition, substantially as and for the purpose set forth.

ANDREW STENGER.

Witnesses:

J. GREEN,
C. M. OTT.