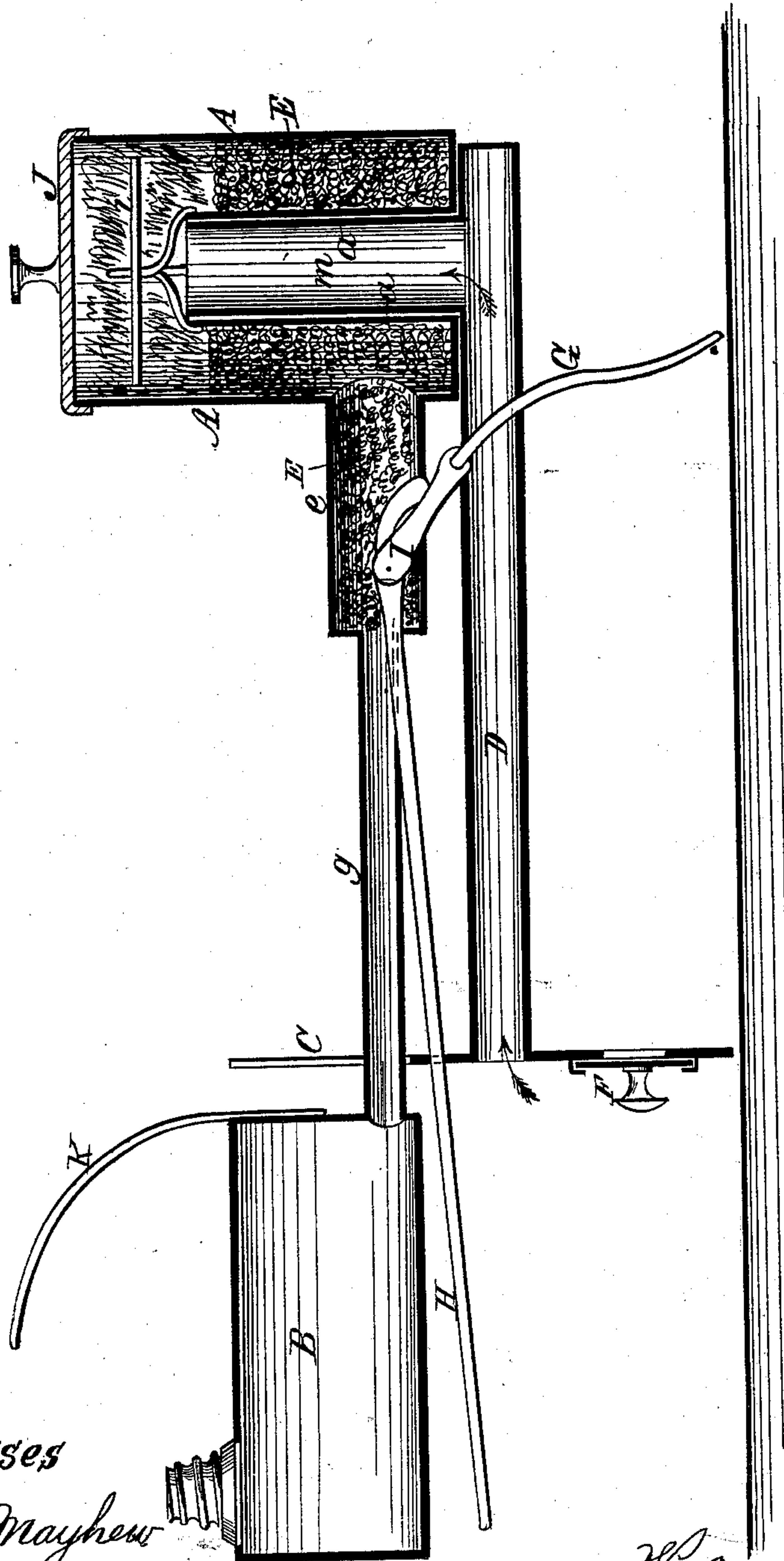


V. G. TANSEY.

Fire Kindler.

No. 80,429.

Patented July 28, 1868.



Witnesses

O. F. Mayhew  
Wm. A. Weeks

Inventor  
V. G. Tansey

# United States Patent Office.

VERLIN G. TANSEY, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO HIMSELF  
AND JAMES W. SIMPSON, OF SAME PLACE.

*Letters Patent No. 80,429, dated July 28, 1868.*

## IMPROVEMENT IN FIRE-KINDLERS.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, VERLIN G. TANSEY, of Indianapolis, in the county of Marion, and State of Indiana, have invented a new and improved Fire-Kindler; and I do hereby declare that the following is a full, clear, and exact description thereof, that will enable skilled artisans to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making part of this specification.

The object of this invention is to provide a cheap, convenient, and efficient means of kindling coal or other fires on grates, and it consists in attaching a burner of peculiar construction, that is supplied with oil from a suitable fountain, to a plate that closes the opening, and excludes the air from the front and bottom of the grate, and in supplying air to the burner in such manner as that the draught of air created by the flue causes the flame to burn with greater intensity, and hence to ignite the coals speedily.

The drawing represents a vertical longitudinal section of the apparatus.

The burner consists of a hollow cast-iron cylinder, A, open at the top, and furnished with an open central tube, *a*, fixed to the bottom. An enlarged tube, *e*, is attached to the side of the burner, near the bottom, and from the end of this a smaller tube, *g*, leads to the fountain B, in which to place the oil that feeds the burner. A deflecting-plate, *i*, somewhat less in diameter than the cylinder A, leaving sufficient space around it for the flame, is supported over the top of the central tube *a*, as shown.

A plate, C, to which all the other parts are attached, is made to close the opening to the front of the grate and ash-pit. From the plate C a horizontal air-duct, D, extends back under the grate, and to the rear end of the duct D a short vertical tube, *m*, is fixed, constituting a part of the duct. The central tube *a* of the burner fits upon the tube *m*, thus forming the connection between the burner and air-duct D.

The enlarged tube *e*, and the lower part of the burner surrounding the central tube *a*, are filled with cotton, E, which serves as the wick of the burner. The oil is fed from the fountain B, to the cotton, E, through the tube *g*. The burner and fountain being arranged in such relation to each other that, when the apparatus is standing level, the oil does not rise above the top of the cotton, the burner is lighted and placed under the grate, care being taken to set the plate C so as to close the front opening as tightly as practicable. Air is supplied to the burner through the ducts D and *m*, and is concentrated with the flame by the deflecting-plate *i*. The whole force of the draught, being through the duct D, causes the flame to burn with great intensity, which speedily ignites the fuel on the grate. If the draught is too strong, its force may be diminished by sliding a damper, F, in plate C, to admit air under the grate.

G are supports to the rear end of the apparatus. These are hung, by a rod, to the duct D, and have a rod, H, attached to an arm, I, running through the front plate C, by which the supports may be set in a more or less vertical position, and by which the burner may be levelled after being placed under the grate.

A cap, J, covers the top of the burner when not in use, and to extinguish the flame and prevent evaporation.

It will be seen that the fountain B is situated outside of the plate C, so that it will not be affected by the heat from the burner, and also that additional protection may be afforded by a reflector, K, if necessary.

The advantage of this device for kindling fires over the use of wood kindlings or shavings is that it is always conveniently at hand when wanted, and from the manner in which the hot blast of the flame is applied directly to the coals or other fuel, without requiring other kindling-material, insuring its speedy ignition, thereby saving time and vexatious delays and disappointment.

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

The burner A, enlarged tube *e*, filled with the packing E, and furnished with the deflecting-plate *i*, and supplied with oil from the fountain B by the tube *g*, substantially as shown, in combination with the air-ducts D *m*, through which air is supplied to the burner, when the draught-opening is closed by the plate C, all arranged and operating substantially as set forth.

VERLIN G. TANSEY.

Witnesses:

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