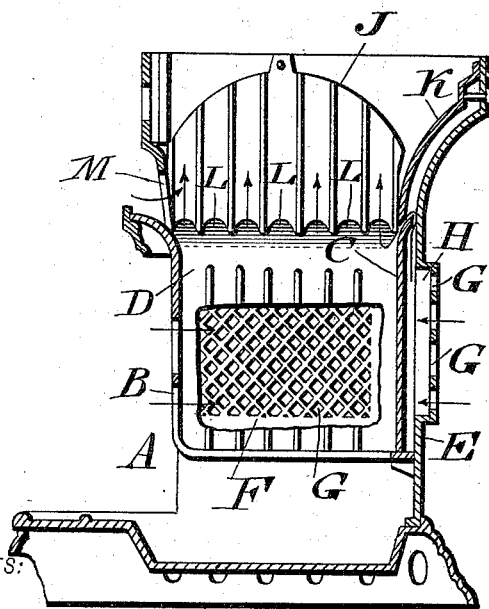
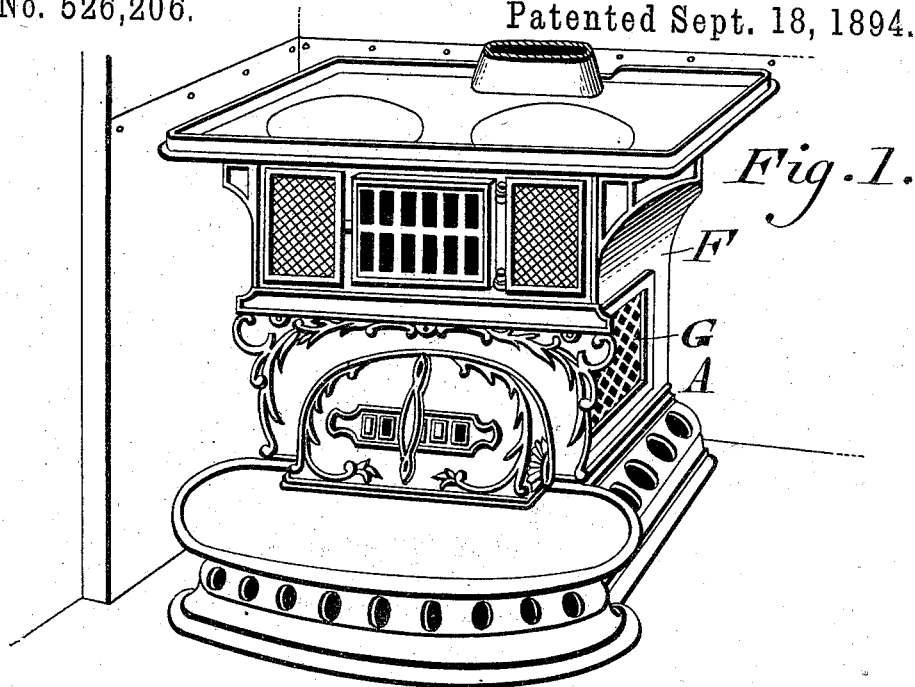


(No Model.)

J. SPEAR.  
CABOOSE OR OTHER STOVE.

No. 526,206.

Patented Sept. 18, 1894.



WITNESSES:

P. H. Ingle,  
L. Douville.

INVENTOR  
James Spear.  
BY *John A. Dyer*  
ATTORNEY.

# UNITED STATES PATENT OFFICE.

JAMES SPEAR, OF PHILADELPHIA, PENNSYLVANIA.

## CABOOSE OR OTHER STOVE.

SPECIFICATION forming part of Letters Patent No. 526,206, dated September 18, 1894.

Application filed March 2, 1893. Serial No. 464,357. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES SPEAR, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Caboose or other Stoves, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists in providing a caboose car heating and cooking stove or other stove, with open-work or register plates on the sides and back thereof and with detachable linings as hereinafter described, said openings supplying cold air to the cast-iron fire linings, and preventing them from expanding so much as to burst the outside plates or body of the stove. At the same time said register openings admit air between the fire linings, which enters the fire chamber between the upper and lower linings, thus aiding in burning the gases or smoke, especially those from bituminous coal, and thereby performing the double function of preserving the linings and stove, and burning such gases or smoke.

Figure 1 represents a perspective view of a caboose stove embodying my invention. Fig. 2 represents a perspective view thereof, the top plate having been removed.

Similar letters of reference indicate corresponding parts in the two figures.

Referring to the drawings: A designates the body of a stove; B, designates the grate; C, back lining, and D the side linings thereof.

In the back plate E and side plates F of the body A are register openings G, which form communication between the atmosphere and the spaces H between the linings C and D, and said plates E, the said spaces H being open at top.

J and K designate the upper linings of the body which are curved or flared upwardly and outwardly, the same being above the linings C and D, and having openings on their lower edges forming the passages L between the upper ends of the spaces H, and the interior of body A. The said linings J and K are secured at their upper ends to the casing of the stove, so as to be free from contact with or support on the lower linings. It will be seen that cold air enters the register openings G and passes into the spaces H,

from the top of which it escapes through the openings L into the fire chamber, where it aids in burning the smoke, especially when bituminous coal is used.

The interior of the body of the stove may also be open to the atmosphere at the upper lining as at M at the front of the stove, whereby air is conducted to the upward current passing through the fuel into the fire chamber.

The upper linings J and K which extend downward below the tops of the linings C and D serve to shield the back and side plates from contact of fuel, when the body is overcharged with fuel, thus preventing the cracking or burning out of said plates, and thereby effecting a great saving of expense.

In Fig. 2, the grate B is broken away to show the side plate F and openings G therein.

I am aware that it has been proposed heretofore to construct a fire pot and combustion chamber of two cone-shaped chambers, having their larger ends in juxtaposition, thereby forming a restricted outlet for the products of combustion, the lower draft opening being also limited, since the lower portion of the fire pot is continuous. The above features however form no part of my invention, and to them I make no claim.

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

A stove having an angularly shaped grate open at its front and bottom, whereby air is introduced directly into the mass of burning fuel, at its front and bottom portion, as well as above said fuel, the back plates E and the side plates F, with register openings therein, lower back and side linings forming spaces between the latter and said plates, upper back and side linings which are flared upwardly and outwardly and have openings between their lower ends and the tops of the said lower linings, communicating with said spaces, said upper linings being secured at their upper ends to the back and side plates of the stove, said parts being combined substantially as described.

JAMES SPEAR.

Witnesses:

JOHN A. WIEDERSHEIM,  
R. H. GRAESER.