G. F. FOOTE.

Safety Ship and Car Heating Stove.

No. 45,237. Patented Nov. 29, 1864.

Fig. 5

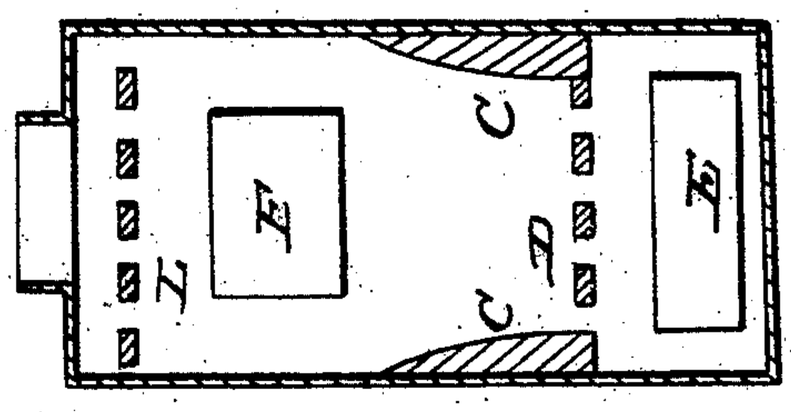

Fig. 4

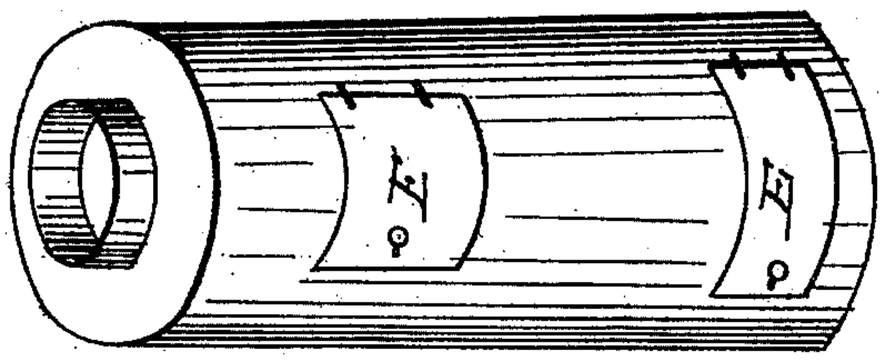

Fig. 3

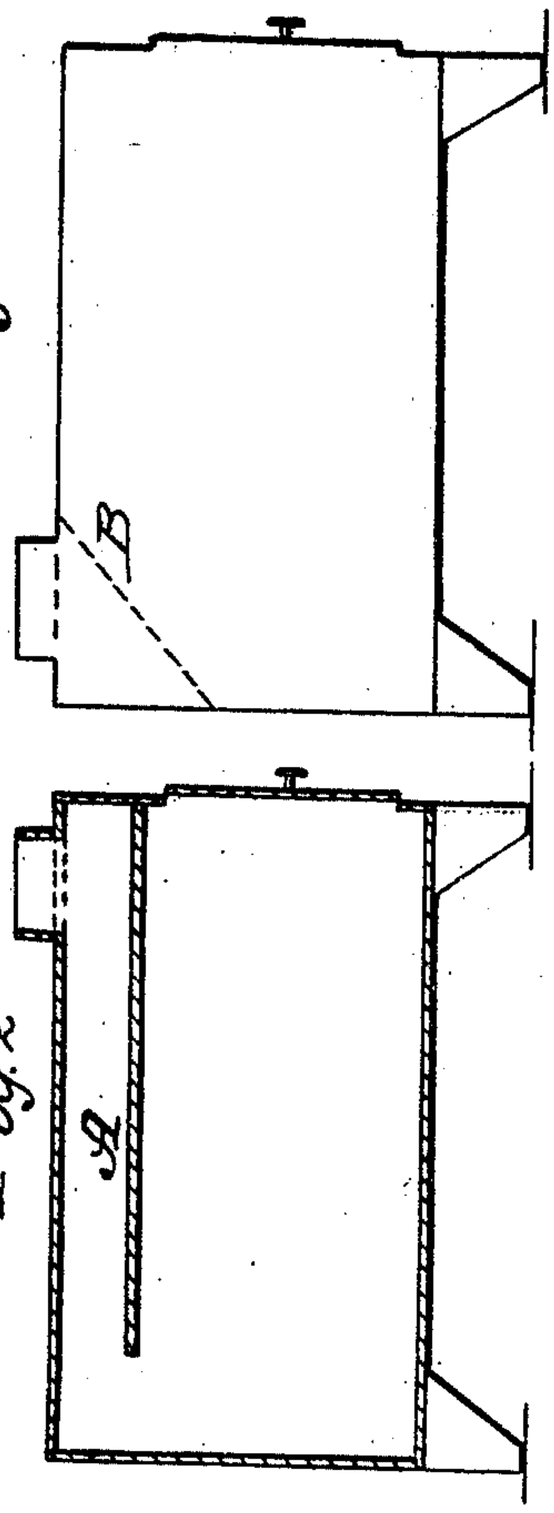

Fig. 2

Fig. 1

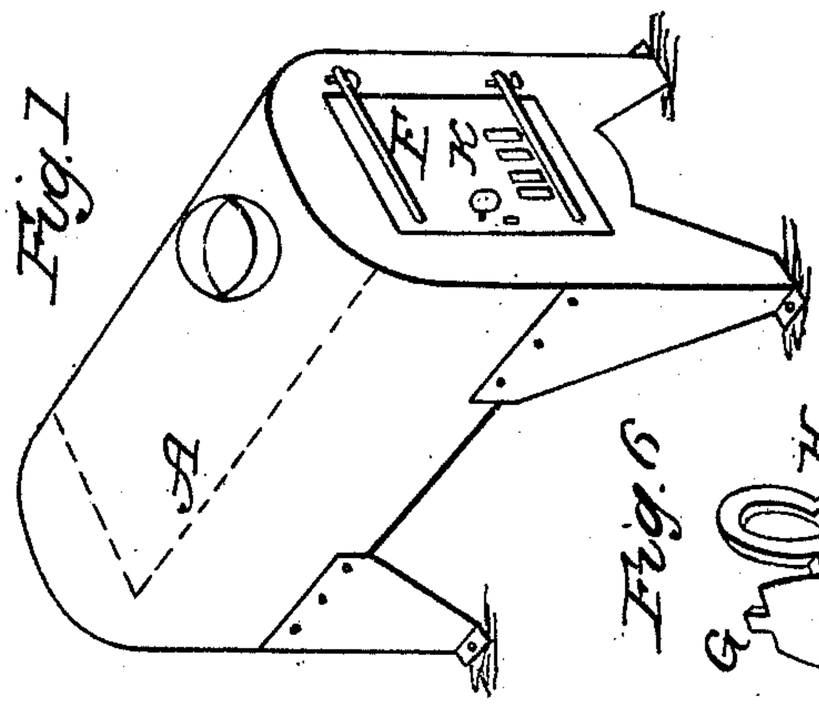

Fig. 6

WITNESSES

Frank H. Foote

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UNITED STATES PATENT OFFICE.

GEORGE F. FOOTE, OF CINCINNATI, OHIO.

SAFETY SHIP AND CAR HEATING STOVE.

Specification forming part of Letters Patent No. 45,237, dated November 29, 1864.

To all whom it may concern:

Be it known that I, GEORGE F. FOOTE, of the city of Cincinnati, in the county of Hamilton, in the State of Ohio, have invented a new and useful improvement on the common stove, making it a safety-stove for railway-cars and marine vessels; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure I is a perspective view. Figs. II and III are longitudinal elevations of the stove for burning wood; while Fig. IV is a perspective view, and Fig. V is a longitudinal elevation, of a stove for burning coal; and Fig. VI is a perspective view of the catch and handle, and Fig. VII a sectional view of the catch and jamb against which the door shuts.

It is not infrequent that the persons and lives of passengers are endangered and even sacrificed upon cars or vessels by the scattering of fire from the stoves in common use in a collision or accident. In the use of my improved stove it is designed to prevent this danger by constructing the external portion of the stove wholly of wrought-iron, with the ordinary opening, sufficiently guarded to prevent the escape of ignited fuel.

The stove for burning wood should be made of heavy sheet-iron, (about No. 14,) well riveted, cylindrical or octaginal in form, about two feet and a half long by eighteen inches in diameter, the legs made of the same, six to eight inches long, riveted to the body of the stove, the lower end bent at right angles to form a foot, with a hole to receive a bolt for fastening the whole strongly to the floor.

A, Figs. I and II, is a horizontal plate, of heavy sheet-iron or cast-iron placed transversely about four inches from the top, reaching from the front to within about six or eight inches of the back end of the stove, firmly fastened to the end and sides. This plate prevents the escape of burning coals or brands through the opening for the smoke-funnel should the stove be inverted or broken from its fastenings. In case it is desirable to have the smoke escape at the back end of the stove, a grate or perforated plate may be placed across the opening B, Fig. III.

The stove burning coal, Figs. IV and V, is also made of heavy sheet-iron in the cylindrical form, with a fire-box and grate, C and D, immovably fixed, with an ash-pan at E and door at F. Placed below or in front of the opening, for the passage of smoke, is a grate or perforated plate, L, with openings sufficiently large for the egress of smoke and small enough to prevent the escape of burning coals.

The door F, Figs. I, IV, and V, made of heavy sheet-iron, should be well stiffened by riveting on its edges straps of hoop-iron, and the jambs against which it shuts should be stiffened with the same. This door is fastened, when shut, by a catch, I, Figs. VI and VII. This catch should be about three-fourths of a circle, with a point, G, which passes through the notch in the jamb, Fig. VII, so that when turned by the handle H it is fastened in every position except when the point is again brought opposite this notch. The openings K, to admit air for combustion, may be two inches long by three-eighths of an inch wide, three or four in number, and covered by an ordinary slide-damper, or they may be of the ordinary size, with a perforated plate or grate behind, securely fastened to the inside of the stove, with holes or interstices too small to permit the escape of ignited fuel.

I am well aware that stoves in this general form have been made of sheet-iron with cast-iron ends and cast doors, and that cast-iron stoves with what is called a "seventh plate" have been in common use, and I make no claim to such invention; but

What I do claim as my invention, and wish to secure by Letters Patent, is—

1. A safety car and ship heating stove made of wrought or sheet iron, arranged with a horizontal plate, A, or a perforated plate or grating, B, when the above is combined with the draft-openings K, substantially as and for the purposes set forth.

2. In combination with a stove constructed and arranged as specified in the foregoing clause, the safety door-fastening F, as described.

GEO. F. FOOTE.

Witnesses:

FRANK H. FOOTE,

WM. F. BEACH.