

No. 622,762.

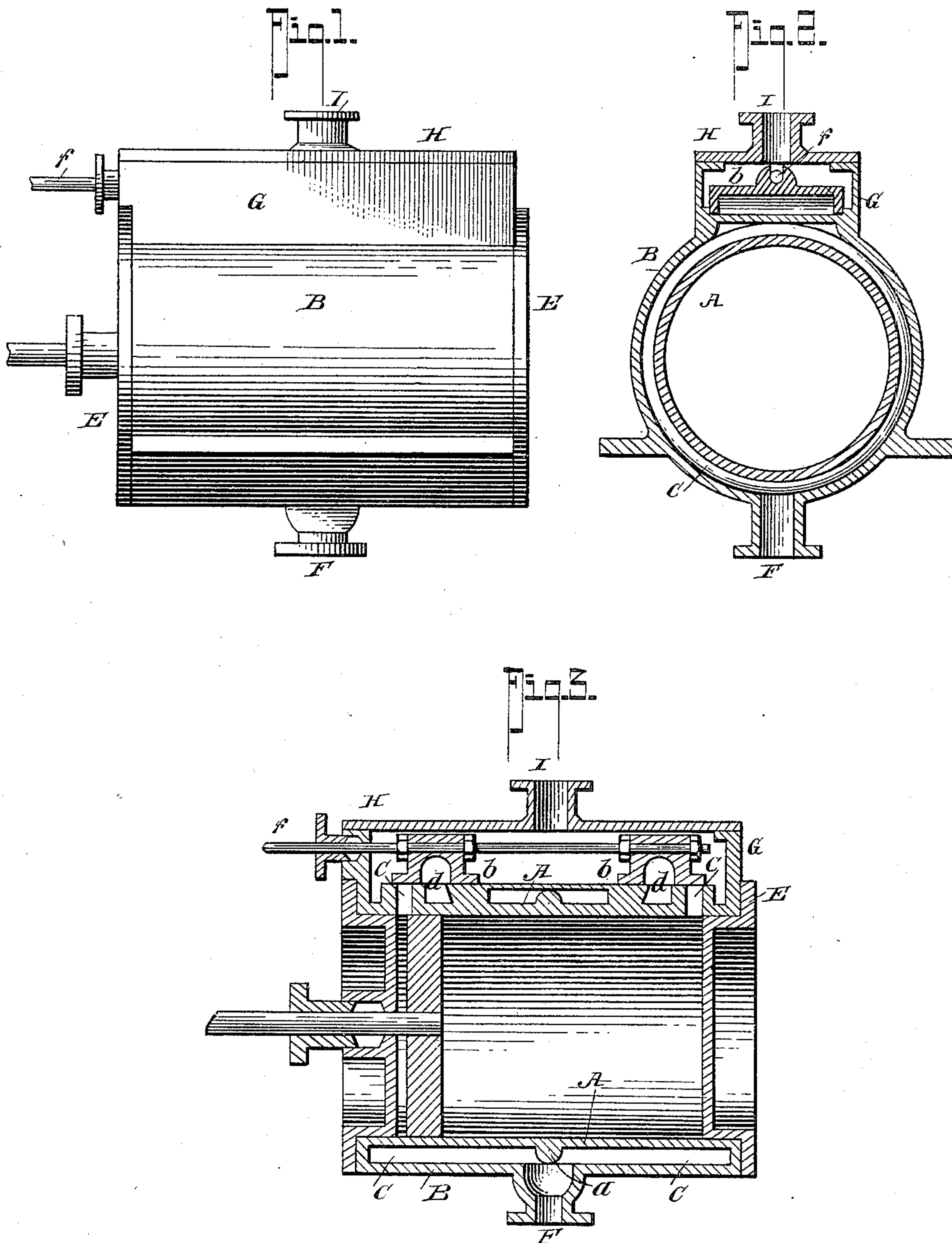
Patented Apr. 11, 1899.

J. R. DISHNER & A. M. LINDSEY.

STEAM ENGINE.

(Application filed May 14, 1898.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES R. DISHNER AND ARCHIBALD M. LINDSEY, OF IDA, TEXAS.

STEAM-ENGINE.

SPECIFICATION forming part of Letters Patent No. 622,762, dated April 11, 1899.

Application filed May 14, 1898. Serial No. 680,687. (No model.)

To all whom it may concern:

Be it known that we, JAMES R. DISHNER and ARCHIBALD M. LINDSEY, citizens of the United States, residing at Ida, in the county of Grayson and State of Texas, have invented certain new and useful Improvements in Steam-Engines; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in slide-valve engines with steam-jacketed cylinders; and the object is to provide one that shall be simple, durable, and adapted for general use, also one that shall be more economical in the use of steam.

To this end the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings the same reference-letters indicate corresponding parts of the invention.

Figure 1 is a side elevation of our improved steam-engine. Fig. 2 is a vertical section, and Fig. 3 a longitudinal section, of the same.

A represents the steam-cylinder, which is surrounded by a thinner outer shell or casing B, both being connected at each end, also joined and divided near the center by annular ring *a*, forming the annular spaces C C. The cylinder-heads E E project some distance in either end of cylinder, terminating on a line with outer edge of steam-ports *c c*, which ports we are enabled to make extremely short

by employing two valves *b b*, both being actuated by rod *f*.

d d are exhaust-ports, each opening directly into annular spaces C C. Steam when exhausted through these ports passes around the steam-cylinder A to the exhaust-outlet F, thus always keeping the outer side of steam-cylinder hot, and thereby preventing condensation of the live steam within. The steam-chest G extends the whole length of cylinder and is provided with cover H, to which is attached a flanged connection I for steam-pipe.

Having thus described our invention, what we claim as new and useful, and desire to secure by Letters Patent, is—

In a steam-engine of the class described, the combination of a steam-cylinder, an outer casing or shell surrounding the cylinder to provide an annular space and connected at both ends with the cylinder, and provided with a centrally-arranged exhaust-port F, an annular rib *a*, arranged in the said space and dividing the same into two separate compartments or receptacles for the passage of exhaust-steam, a steam-chest formed integral with the outer shell or casing and provided with steam-ports *c* and having exhaust-ports *d*, communicating with the said compartments or receptacles, the alternately-operating slide-valves located at the ends of the steam-chest, and a rod connecting the slide-valves, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES R. DISHNER.
ARCHIBALD M. LINDSEY.

Witnesses:

S. W. PORTER,
Z. P. DEDERICK, Jr.