

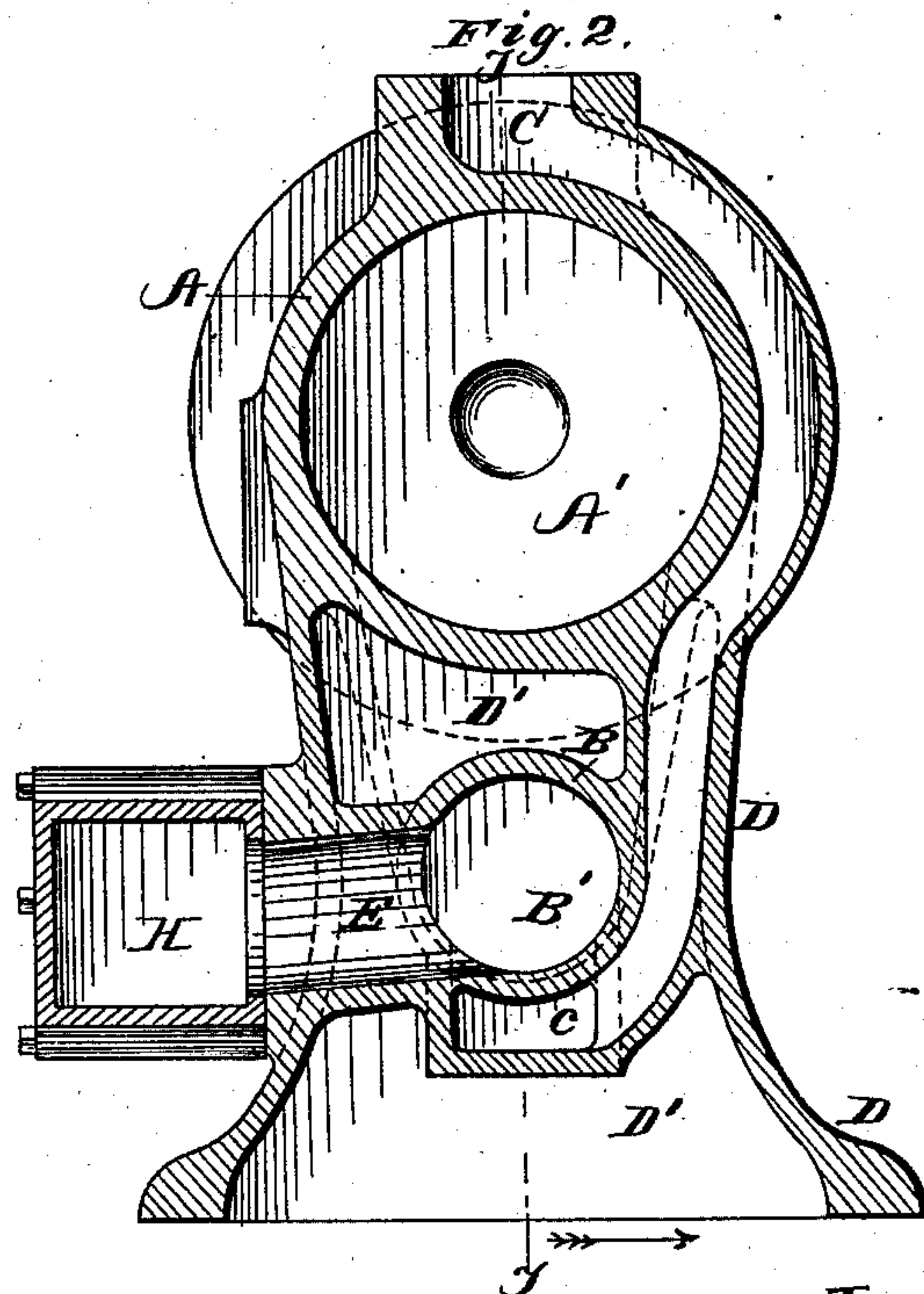
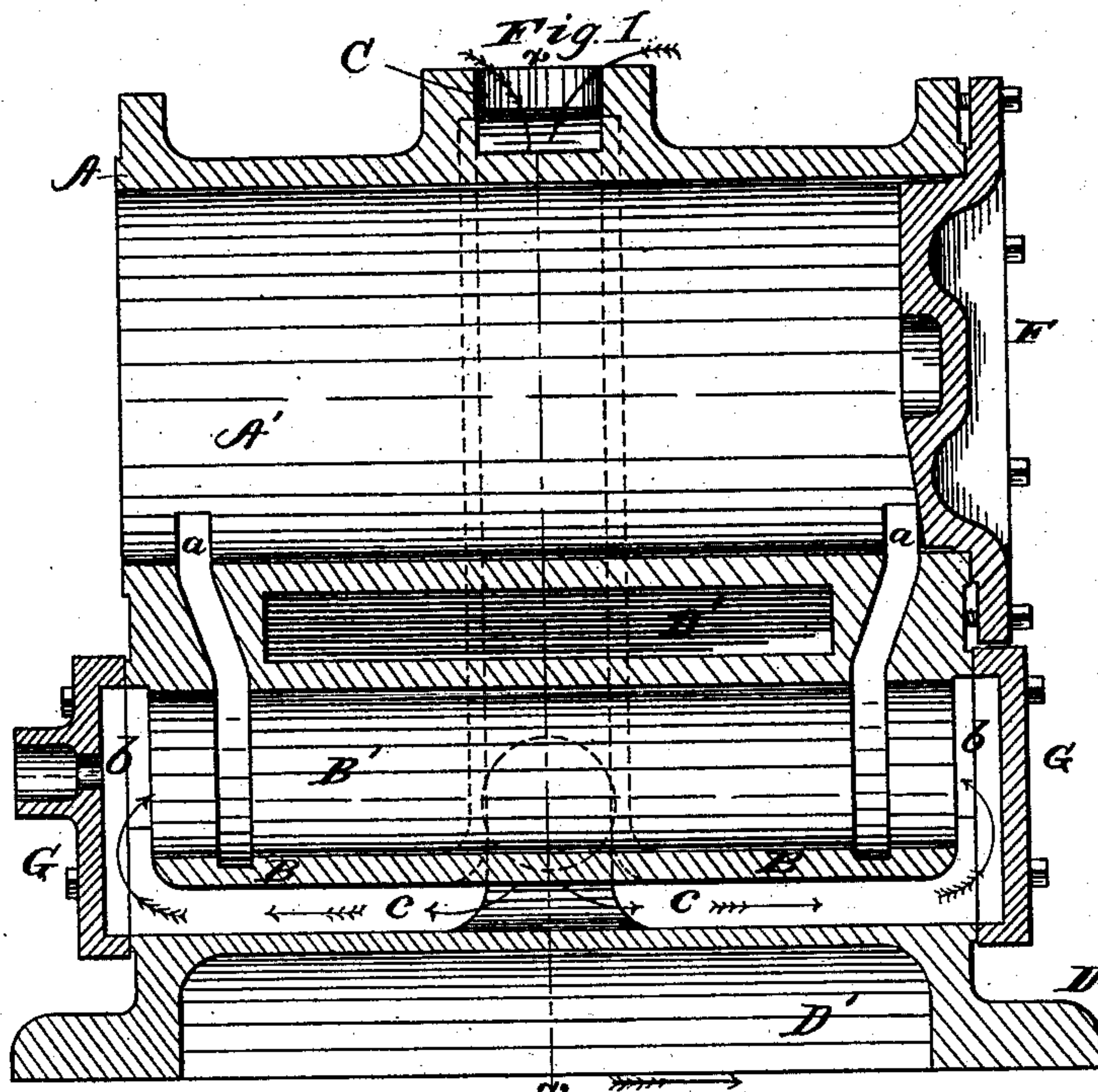
(No Model.)

J. W. PLIMPTON.

STEAM ENGINE.

No. 258,866.

Patented May 30, 1882.



Witnesses.
W. R. Edlin
Robt H. Porter.

Inventor
James W. Plimpton.
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Att's

UNITED STATES PATENT OFFICE.

JAMES W. PLIMPTON, OF OIL CITY, PENNSYLVANIA, ASSIGNOR TO MICHAEL GEARY, OF SAME PLACE.

STEAM-ENGINE.

SPECIFICATION forming part of Letters Patent No. 258,866, dated May 30, 1882.

Application filed April 1, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. PLIMPTON, a citizen of the United States, and a resident of Oil City, in the county of Venango and State of Pennsylvania, have invented new and useful Improvements in Steam-Engines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters or figures of reference marked thereon.

This invention relates to the construction of steam-engine cylinders; and it consists in the arrangement of the various chambers, ports, and other parts, in the manner hereinafter described, and formed within one piece of metal.

The invention does not consist in forming all the essential parts in one piece of metal, for this has been practiced for a great many years, and has long been well known in the art, but the invention consists in the relative position given said parts in such a piece of metal.

My device is shown in the accompanying drawings as follows:

Figure 1 is a vertical longitudinal section on the line *yy* in Fig. 2, looking to the right. Fig. 2 is a vertical transverse section on the line *xx* in Fig. 1.

The parts are as follows: A is the cylinder-body; A', the piston-chamber. B is the steam-chest; B', the valve-chamber. C is the live-steam entrance or supply passage, which runs from the top of the cylinder down one side of it, and at the bottom branches into longitudinal passages *cc*, which run to the ends of the steam-chest, where are chambers *bb*, with which they communicate. D is the pedestal or base of the cylinder. D' is a cavity or hollow space cored out of the base for the purpose of saving metal. E is the exhaust-passage. All the

above parts are formed in one piece of casting. The caps F and G and the heater-chamber H are separate pieces bolted to the aforesaid casting.

The steam-chest as shown is intended to receive a piston-valve which takes steam at the ends and exhausts in the middle. *aa* are the ports of the cylinder. They are located in the usual manner and communicate with the valve-chamber. They are formed in the casting as it is made by cores. They thoroughly drain the piston-chamber of any condensation which may occur, and the exhaust port or passage E is so placed as to in turn drain the valve-chamber, and thereby perfect drainage of the whole device is fully provided for.

What I claim as new is—

A casting for a steam-engine having a cylinder, A, with piston-chamber A', a pedestal, D, for supporting the same, a steam-chest, B, with valve-chamber B', lying below and parallel with said cylinder and within said pedestal, and connected to said piston-chamber by ports *aa*, and being sufficiently shorter than said cylinder to leave spaces *bb* at its ends, an exhaust-passage, E, leading from said valve-chamber directly through the walls of the pedestal, and, finally, a supply-passage, C, which passes from above the cylinder to below the steam-chest, and there branching into passages *cc*, leading to the spaces *bb*, all of which parts are produced in said casting at the operation of casting.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of January, 1882.

JAMES W. PLIMPTON.

Witnesses:

JNO. K. HALLOCK,
W. R. EDELEN.