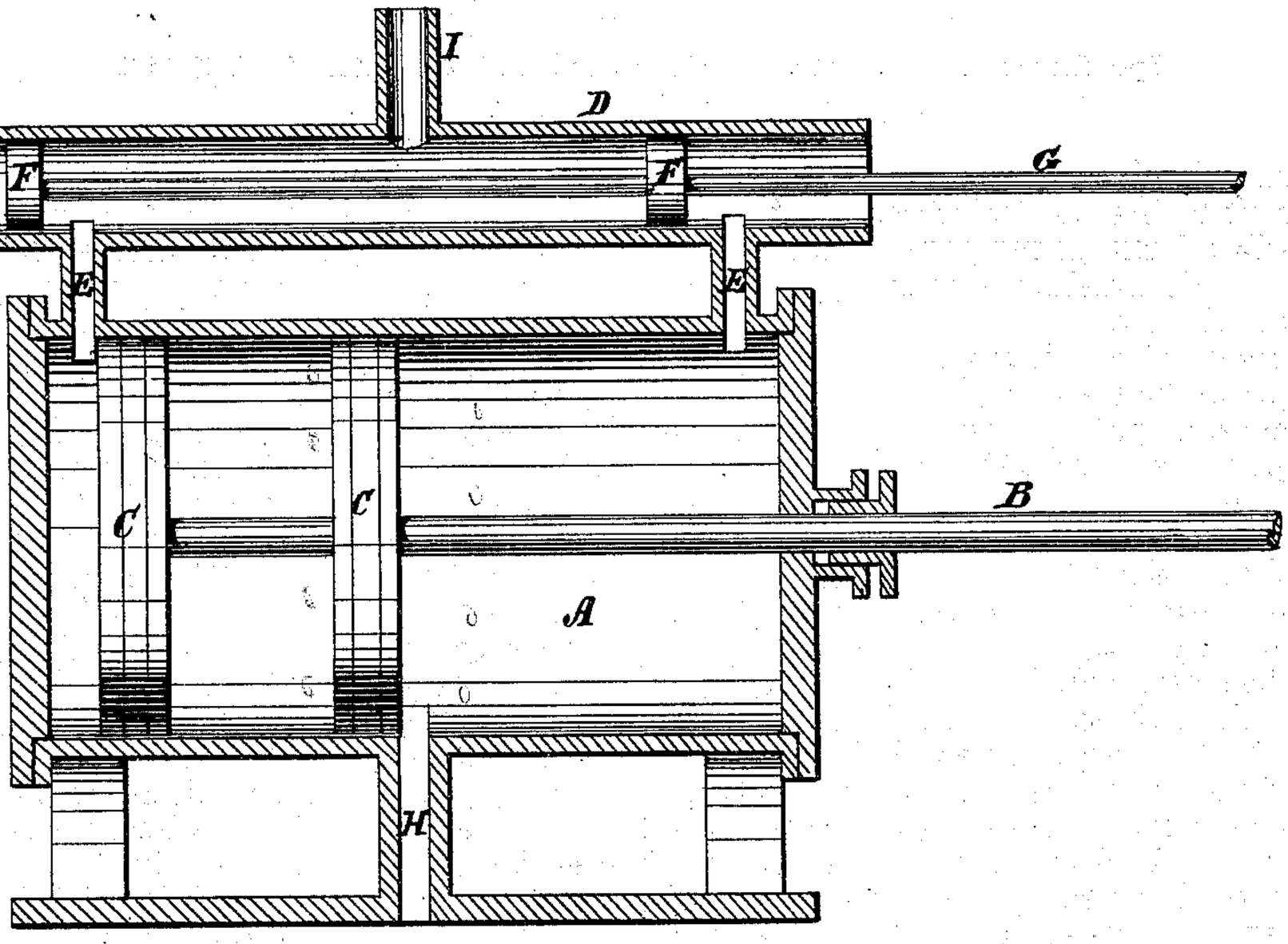
JOHN SHEPHERD & C. A. CLARK.

Improvement in Reciprocating Steam Engines.

No. 124,980. Patented March 26, 1872.



Witnesses:

A Bennekendorf.
Geo. St. Mabee

Inventor:

J. Shepherd
C. A. Clark

Per Munn & Co.
Attorneys.

124,980

UNITED STATES PATENT OFFICE.

JOHN SHEPHERD AND CARLOS A. CLARK, OF BLOOMFIELD, IOWA.

IMPROVEMENT IN RECIPROCATING STEAM-ENGINES.

Specification forming part of Letters Patent No. 124,980, dated March 26, 1872.

Specification describing a new and useful Improvement in Steam Reciprocating Engines, invented by JOHN SHEPHERD and CARLOS A. CLARK, of Bloomfield, in the county of Davis and State of Iowa.

The object of this invention is to simplify and improve the steam-engine; and it consists in the construction, arrangement, and combination of parts hereinafter described.

The accompanying drawing represents a vertical longitudinal section of an engine constructed according to our invention.

Similar letters of reference indicate corresponding parts.

A is the steam-cylinder. B is the piston-rod working through a stuffing-box in the cylinder-head in the ordinary manner. C C are pistons on the rod B. D is the steam-chest. E E are the steam-ports. The steam-chest is an open cylinder, and F F are piston-valves working therein over the steam-ports on the valve-rod G. H is the exhaust-port. I is the steam-pipe.

It will be seen that the water of condensation, as well as the steam, is discharged twice at every stroke or revolution of the engine. By this arrangement there is no place for waste steam, and the piston cannot be retarded by the water of condensation, as the latter finds its way to the exhaust-port by its own gravity. This makes a very material difference in the effective power of the engine, while steam is economized.

If desired the steam-chest and cut-off valves or pistons and the induction-ports might be applied to engines in common use.

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

The pistons C C on the rod B, the cylinder A provided with the central exhaust-port H, the induction ports E E, open-ended cylinder or steam-chest D provided with pipe I, and the pistons F F on rod G, all relatively arranged and constructed, as herein shown and described, to operate as specified.

JOHN SHEPHERD.
CARLOS A. CLARK.

Witnesses:
F. W. MOORE,
B. MILLIM.