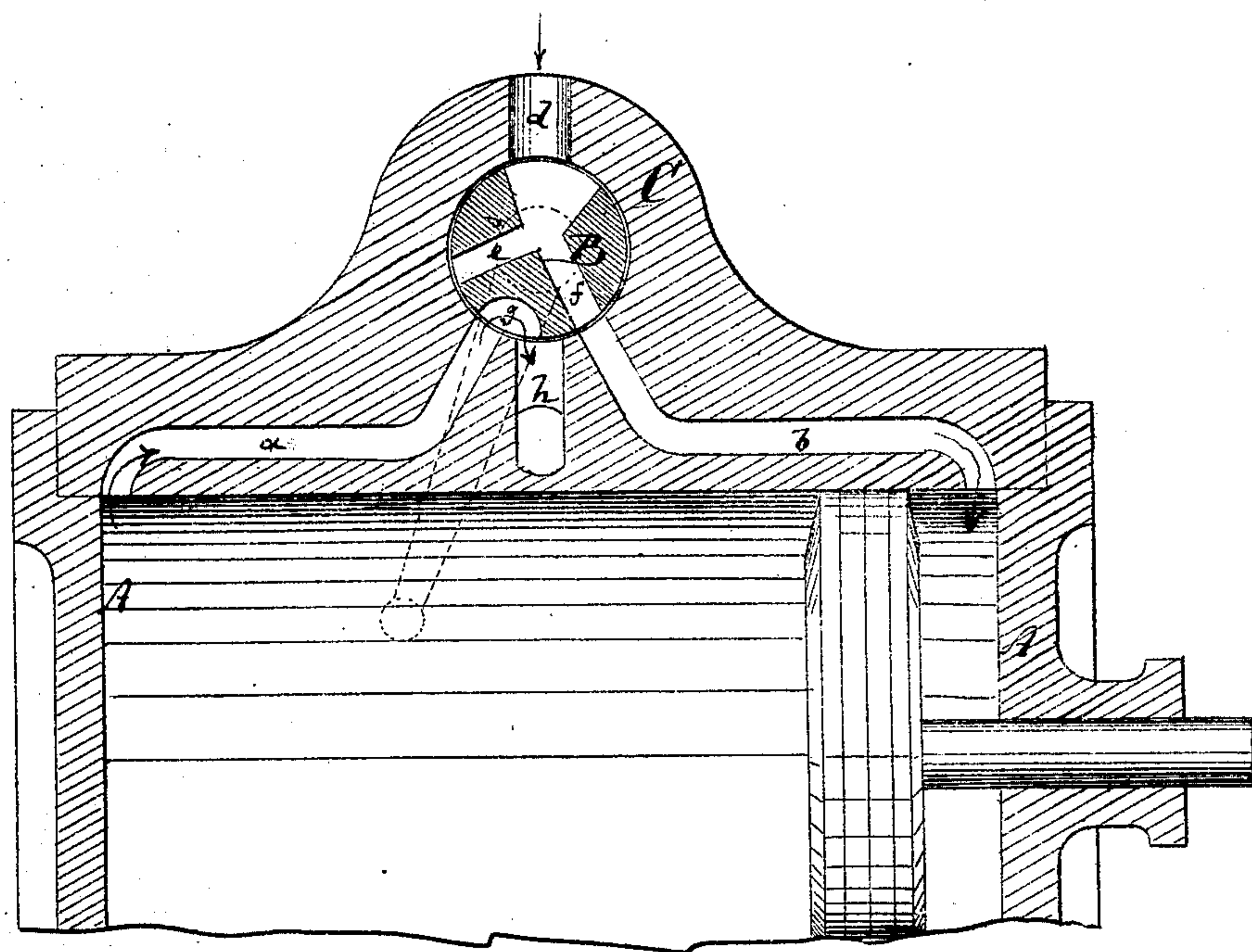


D. SNOWHILL & J. D. BOWN.

Improvement in Rotary Valves.

No. 121,677.

Patented Dec. 5, 1871.



Witnesses:
Gustave Dieterich
James McCreedy

Inventor:
D. Snowhill
J. D. Bown
PER *Wm. L. Munn*
Attorneys.

UNITED STATES PATENT OFFICE.

DANIEL SNOWHILL AND JOHN D. BOWN, OF SPOTTSWOOD, NEW JERSEY.

IMPROVEMENT IN ROTARY VALVES.

Specification forming part of Letters Patent No. 121,677, dated December 5, 1871.

To all whom it may concern:

Be it known that we, DANIEL SNOWHILL and JOHN D. BOWN, of Spottswood, in the county of Middlesex and State of New Jersey, have invented a new and Improved Rock-Valve for Steam-Chests; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming a part of this specification.

The drawing represents a vertical transverse section of our improved rock-valve in a cylindrical steam-chest.

This invention relates to a new form of valve within a steam-chest, and has for its object to reduce friction and simplify the operation of the valve. The invention consists in the use of an oscillating, cylindrical, or slightly-conical valve, containing cross-slots for conveying the steam from the top of a chest to the ports, and a cavity for the exhaust. In this manner a simple valve is produced, and the steam-chest, as such, actually dispensed with, the steam passing from the pipe directly to and through the valve. This, it is evident, is the simplest means of removing the steam-pressure from the top of the valve—that is, having no steam upon it.

In the drawing, A represents a steam-cylinder of suitable kind, having the steam-ports *a* and *b* that lead to a cylindrical or somewhat conical steam-chest or receptacle, C, for the valve B. This valve is of cylindrical or slightly-conical

shape, and fits the chamber C so as to fill it entirely. The chamber C connects at its crown with the steam-pipe *d*. The valve is slotted at *e* and *f*, the slots extending clear across, as shown. They serve, respectively, to supply the ports *a b* alternately with steam from the pipe *d*. A cavity, *g*, in the lower side of the valve connects the ports alternately with the exhaust-pipe *h*.

By a suitable link-motion the valve is rocked in order to open the ports in proper succession. This operation will be easily understood and need not be further described.

We are aware that the Davis valve resembles ours in appearance to some extent; but he has and requires an extra steam-chest, which we dispense with; being hollow at the center it has the same pressure as a slide-valve, which is an objection removed by ours; and our valve and chest being in one piece are more easily made and more durable.

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

The cylinder C having the steam-chest cast therewith, and provided with steam-passages *d a b h*, in combination with valve B having ports *e f g*, all constructed and arranged substantially as and for the purpose specified.

DANIEL SNOWHILL.
JOHN D. BOWN.

Witnesses:

JOHN L. APPLEBY,
MERRELL MUNDY.

(152)