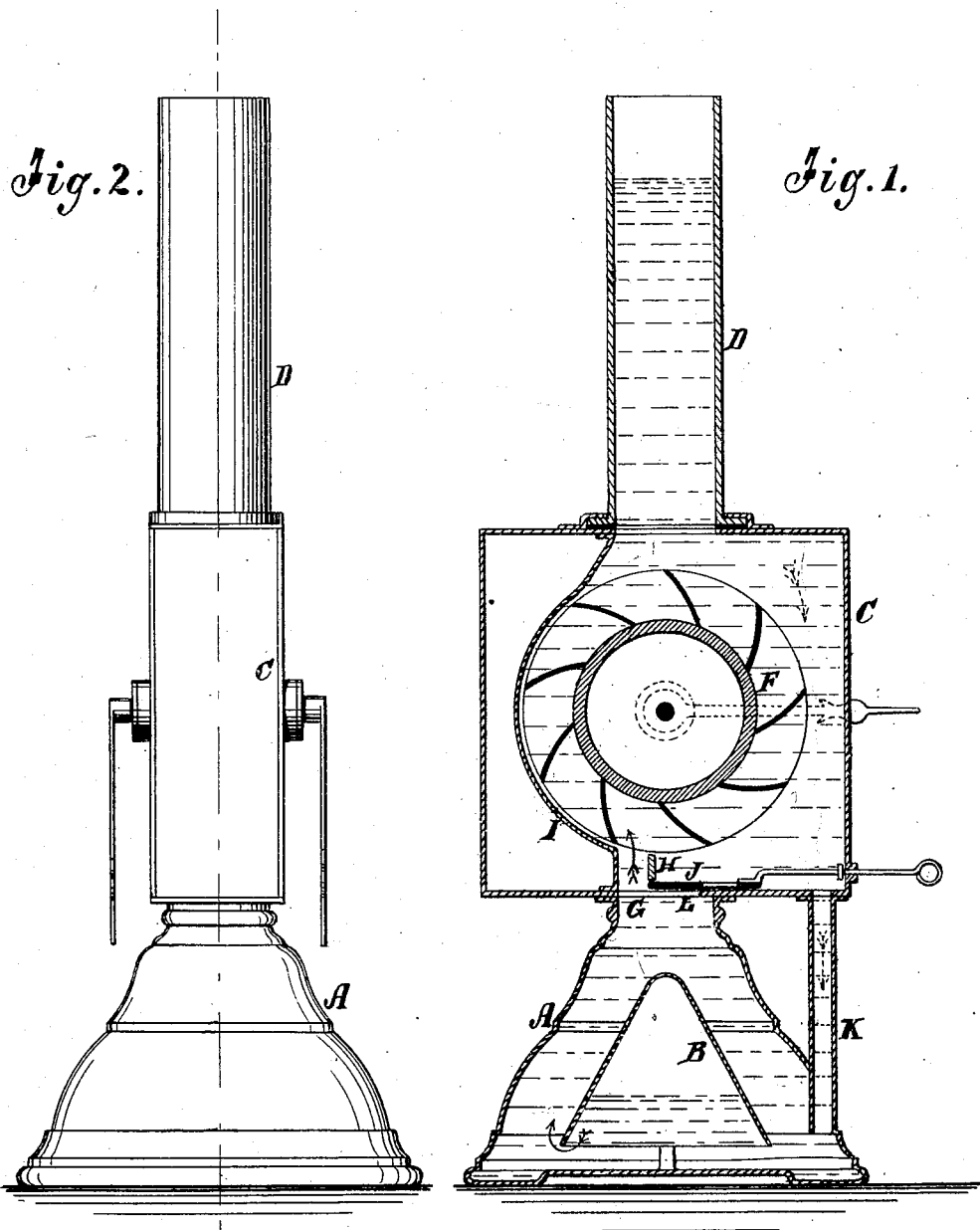


A. BEEKMAN.
Steam Engines.

No. 144,883.

Patented Nov. 25, 1873.



Witnesses.

A. Bernerendorf.
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UNITED STATES PATENT OFFICE.

ABRAM BEEKMAN, OF NEW YORK, N. Y.

IMPROVEMENT IN STEAM-ENGINES.

Specification forming part of Letters Patent No. **144,883**, dated November 25, 1873; application filed October 4, 1873.

To all whom it may concern:

Be it known that I, ABRAM BEEKMAN, of the city, county, and State of New York, have invented a new and Improved Steam-Engine, of which the following is a specification:

The invention will first be fully described, and then pointed out in the claims.

Figure 1 is a sectional elevation of my improved steam-engine, and Fig. 2 is a side elevation.

A is the boiler, to be set on a stove, or heated in any approved way. B is a hollow cone inside the boiler to lessen the volume of water on the bottom by filling with steam and expelling the water. C and D constitute an elevated water-tank, extending above the top as high as may be required for the power to be obtained, and preferably open to the atmosphere at the top, but it may be closed. The part C constitutes a wheel-case, in which there is a wheel, F, to which the steam is delivered to the boiler through the passage G, between bridge H and scroll I. Said passage is to be one side of the vertical center of the wheel, to give the steam that direction at starting by the lesser weight of the water on that side, due to the lesser height of the water-column. L is another passage from the boiler to the other side of the wheel, into which the steam is directed by the valve J. When it is desired to stop the wheel said valve closes passage G, when it opens L, and vice versa. K is a pas-

sage from C to A, through which the water flows back into the boiler. The steam rises against the wheel, and impels it with a force governed by the height of the water-column and the amount of steam generated. In the upper part of the water-chamber C and D the steam condenses and flows back into the boiler.

The arrangement is very simple and cheap, and it is believed will be efficient for the production of power to the extent of two or three horses, or more.

Its principal advantages are, first, the mode of conducting the water back to the boiler, so as not to need feed apparatus and a constant supply of water; and, second, rotary motion without the intervention of converting apparatus.

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

1. The single slide-valve J, arranged between parts A C of boiler and under the wheel F, as described, to be operated in the manner and for the purpose set forth.

2. The cone B, arranged beneath the water of a boiler, as and for the purpose specified.

ABRAM BEEKMAN.

Witnesses:

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