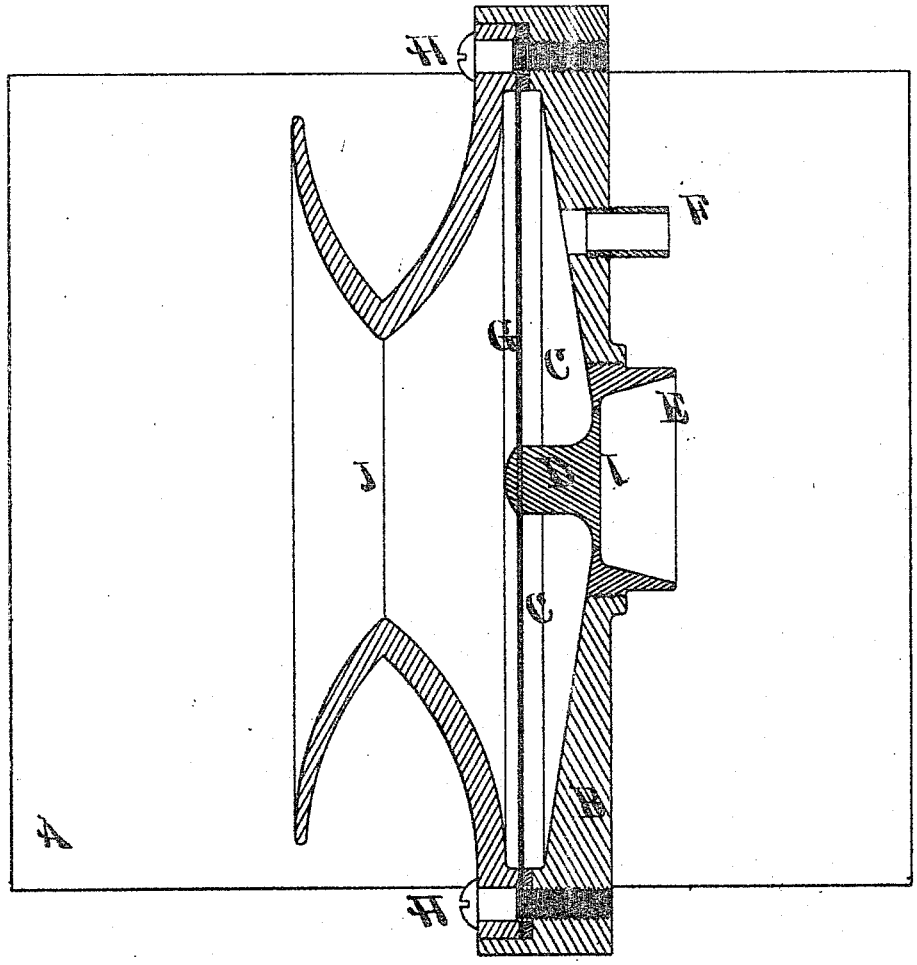
T. SHAW.
Steam-Trumpet.

No. 212,157. Patented Feb. 11, 1879.



WITNESSES:
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THOMAS SHAW, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN STEAM-TRUMPETS.

Specification forming part of Letters Patent No. **212,157**, dated February 11, 1879; application filed May 1, 1878.

To all whom it may concern:

Be it known that I, THOMAS SHAW, of the city and county of Philadelphia, Pennsylvania, have invented a new and improved Steam Trumpet; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

My invention consists in the combination of an elastic diaphragm with a piston or plunger-head, and in the combination of chambers and passage-ways, all for the purpose hereinafter described.

The object of the invention is to give loud trumpet-sounds with the aid of steam or gas under pressure.

In order to enable others to use and practice my invention, I will proceed to describe its construction and operation.

On reference to the accompanying drawing, which forms part of the specification, the sketch represents a horizontal section across center of device, of which A is wood block, forming base for support of cast-iron disk B, to which it is united by ordinary screws. The disk B is made concave on the inside, forming chamber C. G is a thin diaphragm, of steel, bolted firmly between disk B and mouth-piece J by screws H. D is a plunger, riveted firmly to diaphragm G, and terminates in a piston-head, I, that fits freely into aperture or cylinder-bore of ring E, which ring is screwed into disk B. F is a steam-pipe, to admit steam or gas into any part of chamber C.

The operation is in this wise: On steam being admitted under moderate pressure into chamber C, the pressure is exerted on all the area of diaphragm G, and springs the same beyond the distance penetrated by piston I into cylinder-ring E, which permits the sudden escape of the confined steam, which causes a sudden impulse to be given to diaphragm G in the direction of released pressure, when piston I again enters bore of ring E, partially cutting off the steam, which causes a sudden increase of pressure, a springing of the diaphragm G, as hereinbefore described, which operation can be repeated indefinitely and with great rapidity, inducing waves of sound or pulsations to be emitted from the mouth-piece J from vibrating diaphragm G in a loud manner.

What I claim, and desire to secure by Letters Patent, is—

The vibrating diaphragm G, with piston I, in combination with cylinder-bored ring E and chamber C, operating in the manner set forth.

THOMAS SHAW.

Witnesses:
ELIAS J. SHAW,
WM. GARWOOD.