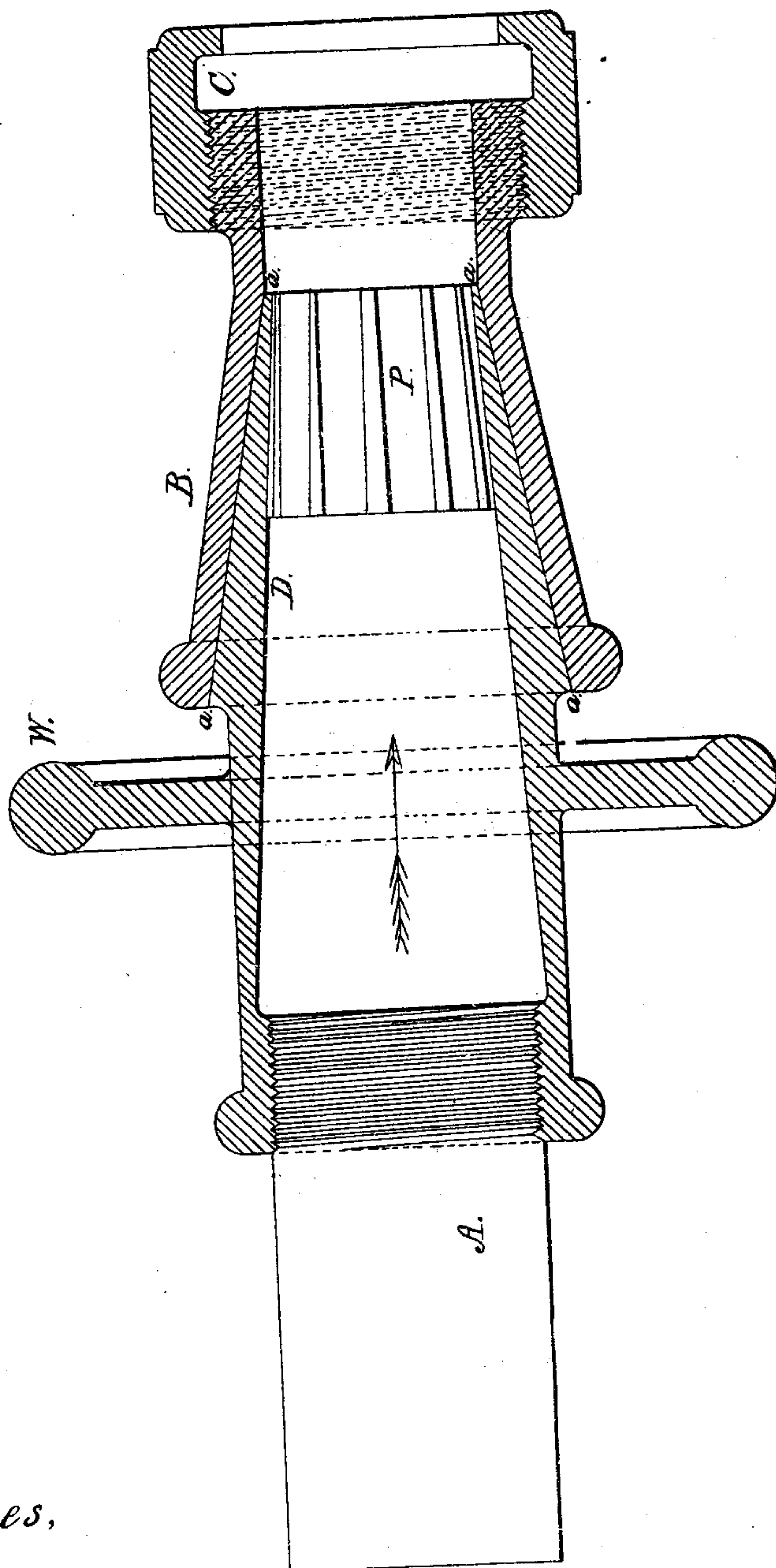


G. W. Baird.
Distilling Water.
No 93,852. Patented Aug. 17, 1869.



Witnesses,
Geo. B. Whiting
Fred. G. McKean

Inventor,
G. W. Baird

United States Patent Office.

G. W. BAIRD, OF THE ENGINEER CORPS, UNITED STATES NAVY.

Letters Patent No. 93,852, dated August 17, 1869.

IMPROVED APPARATUS FOR AERATING AND COOLING DISTILLED WATER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, G. W. BAIRD, of the engineer corps of the Navy of the United States, have invented a new and improved Machine for Aerating and Cooling Distilled Water and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The nature of my invention consists in a bell-mouthed nozzle, B, fitted neatly to the hollow frustum of a cone, D, through which the vapor passes at a velocity sufficiently high to create, in the spaces *a*, *a*, *a*, and *a*, a partial vacuum, into which the external air rushes, and is carried, with the vapor, into the distiller.

In case the quantity of vapor passing through the aerator is so small as not to cause sufficient velocity to form a partial vacuum in the air-port *a*, *a*, *a*, and *a*, I then supply the fluted plug P at the point shown in the drawing, the flutes of which are of any convenient size to accomplish the velocity and quantity.

The aerator is attached to and forms part of the pipe connecting the boiler to the condenser.

To put the aerator in operation, it is necessary to first start a volume of steam through the aerator, and after the steam has attained sufficient velocity, the hand-wheel W is turned in the direction necessary to move the conical frustum D back on the pipe A, thus leaving the air-port *a*, *a*, *a*, and *a* open, into which the air rushes, and is carried, with the steam, into the condenser, but comes in contact with the steam before the steam reaches the condensing-surfaces.

What I claim as my invention, and wish to secure by Letters Patent, is—

1. The apparatus herein described for mixing air with condensable vapors, consisting of the pipe A, in combination with the nozzle B, and the device to adjust the same, as substantially set forth, and for the purpose specified.

2. The fluted plug P or disk, in combination with the nozzle D and bell-mouthed pipe B, as described.

G. W. BAIRD.

Witnesses:

P. E. WILSON,
J. MARION FOWLER.