

(No Model.)

H. GOEHRING.
COMBINED PRESSURE AND VACUUM VALVE.

No. 587,094.

Patented July 27, 1897.

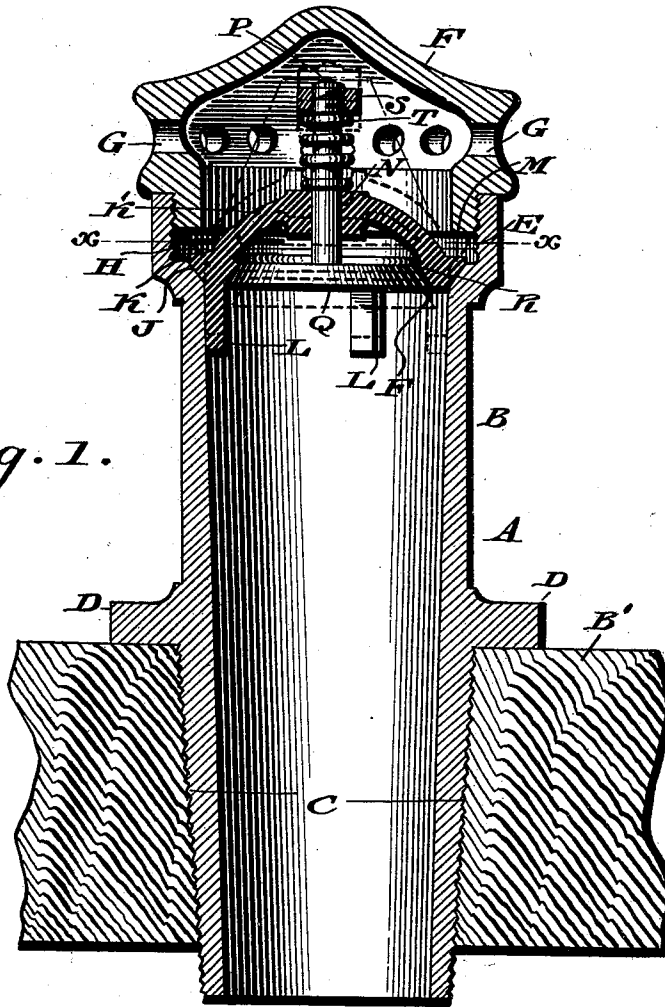
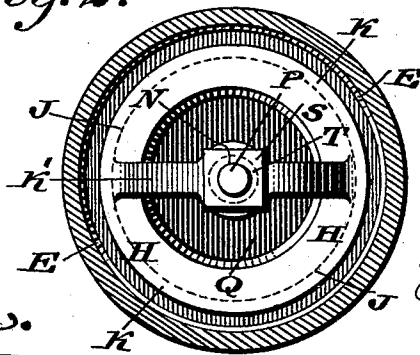


Fig. 1.

Fig. 2.



WITNESSES

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COMBINED PRESSURE AND VACUUM VALVE.

SPECIFICATION forming part of Letters Patent No. 587,094, dated July 27, 1897.

Application filed March 11, 1897. Serial No. 627,031. (No model.)

To all whom it may concern:

Be it known that I, HENRY GOEHRING, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in a Combined Pressure and Vacuum Valve, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of an improved construction of combined pressure and vacuum valve, the novel features of which will be hereinafter fully set forth, and pointed out in the claim.

Figure 1 represents a vertical longitudinal section of a combined pressure and vacuum valve embodying my invention. Fig. 2 represents a transverse section on line *xx*, Fig. 1.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a valve, the same consisting of a suitable shell or body B, the lower portion of which is provided with screw-threads C, and the flange D, adapted to enter and engage, respectively, a cask, barrel, &c., B'.

The upper portion of the body B is provided with internal screw-threads E, which are adapted to be engaged by the threaded portion of a cap F, which latter is provided with a series of ports G. The lower wall or edge H of the cap F serves as an abutment or stop for the top surface M of the pressure-valve K, located thereunder, said valve having an annular body portion which is adapted to rest on the valve-seat J, said body portion being bridged by the web K' and having depending therefrom the wings or guides L, which may be three or more in number, according to requirements.

N designates an opening through the web K', through which the stem P of the vacuum-valve Q passes, said valve seating upwardly in the present instance in opposite directions to the pressure-valve and being adapted to contact with a suitable valve-seat R, located in said pressure-valve.

S designates a nut or projection mounted upon the vacuum-valve stem P and adapted to have one end of a spring T bearing thereupon, the other end of said spring abutting against the web K', whereby the normal tendency of said spring T is to always hold the vacuum-valve Q against its seat R.

The operation is as follows: The valve is secured in a cask in the manner indicated in Fig. 1, and when for any reason the pressure within the cask or body B of the valve increases to a dangerous degree the valve K will be raised by reason of the pressure upon the under side of the valve Q, and said pressure will be allowed to escape through the ports G, the edge H of the cap F serving to retain the valve K in position and prevent it from displacement under all conditions and to also assist in limiting the upward movement thereof. Said valve, after the pressure has been reduced, returns to its former position and is again seated. When for any reason there is a vacuum occasioned within the cask, as soon as the pressure of the atmosphere upon the valve Q becomes sufficiently great to overcome the tension of the spring T the valve Q will be unseated or moved downwardly, and air will pass into the cask until the pressure within and without the latter or its valve is in substantial equilibrium.

It will be observed that by the employment of the web K' and the stem P with the nut or projection thereon and the spring interposed between said nut and web I am enabled to economize space and to simplify the invention, thereby greatly reducing the cost of production.

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

In a combined pressure and vacuum valve, a body having a seat therein, a pressure-valve supported on said seat, a cap supported on said body, said cap serving as a closure therefor and adapted to limit the movement and prevent displacement of said pressure-valve, a web extending across the latter and having an opening therein, a vacuum-valve adapted to seat upon said pressure-valve in an opposite direction to the movement of the latter, a stem attached to said vacuum-valve and passing through said opening, a nut or projection on said stem and a spring interposed between said projection and web and adapted to hold said vacuum-valve normally upon its seat.

HENRY GOEHRING.

Witnesses:

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