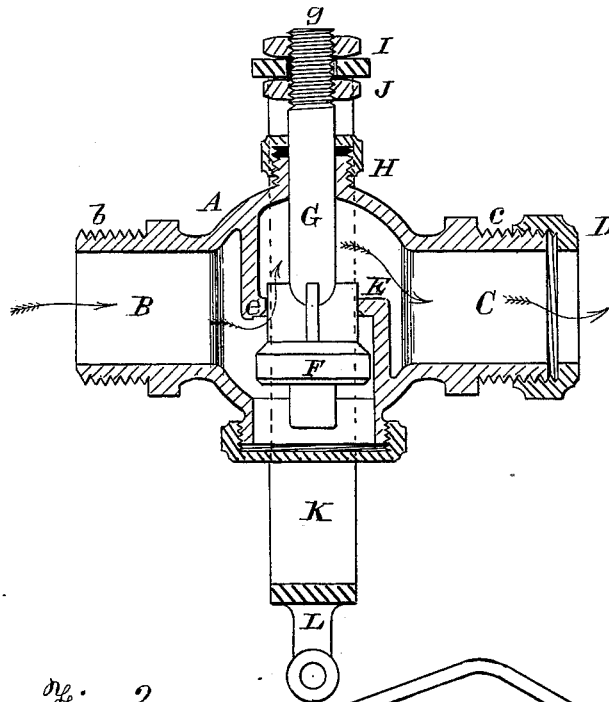


B. B. HARROP.  
Blow-Off Cock.

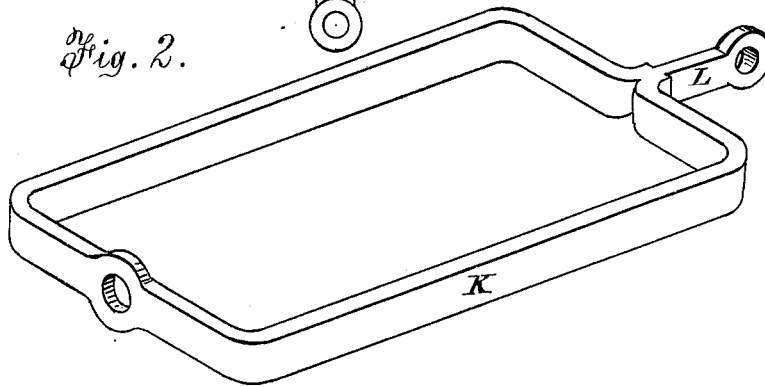
No. 218,264.

Patented Aug. 5, 1879.

*Fig. 1.*



*Fig. 2.*



*Attest*  
Walter Knight  
Ben Hill

*Inventor*  
Benjamin B. Harrop  
By Knight Bros.  
Atty.

# UNITED STATES PATENT OFFICE.

BENJAMIN B. HARROP, OF HARRISBURG, TEXAS.

## IMPROVEMENT IN BLOW-OFF COCKS.

Specification forming part of Letters Patent No. **218,264**, dated August 5, 1879; application filed May 22, 1879.

*To all whom it may concern:*

Be it known that I, BENJAMIN B. HARROP, of Harrisburg, Harris county, Texas, have invented a new and useful Improvement in Blow-Off Cocks, of which the following is a specification.

My invention relates to an improved form of blow-off cocks for locomotive and other steam-boilers in which a conical valve is employed, that is kept closed by the pressure of the confined fluid, and is opened by a suitable lever, which is external to the globe or casing of the cock. In my improvement the operating-lever is connected, by means of a suitable yoke or stirrup, with that end of the valve-stem which is external to the casing.

In the accompanying drawings, Figure 1 is an axial section of a cock embodying my invention, the valve being shown open. Fig. 2 is a perspective view of the stirrup.

A represents the globe, shell, or casing; B, its inlet, provided with screw-neck *b*, for attachment to the boiler or cylinder.

C is the outlet, whose screw-neck *c* receives the nut D, for attachment of the discharge-pipe.

A diaphragm, E, is pierced with customary conical seat *e* for valve F, whose stem G passes out through a stuffing-box, H, in the case, and has a screw-threaded extremity, *g*, to receive nuts I J, which fasten it to a yoke or stirrup, K, whose other end terminates in a perforated shank, L, to enable the coupling to it of a customary crank or lever.

I claim as new and of my invention—

A blow-off cock consisting of the shell A B C D E H, valve F G, nuts I J, and the operative yoke or stirrup K, substantially as set forth.

In testimony of which invention I hereunto set my hand.

BENJAMIN BERNARD HARROP.

Attest:

BEN A. HILL,  
JAMES ALEXANDER.