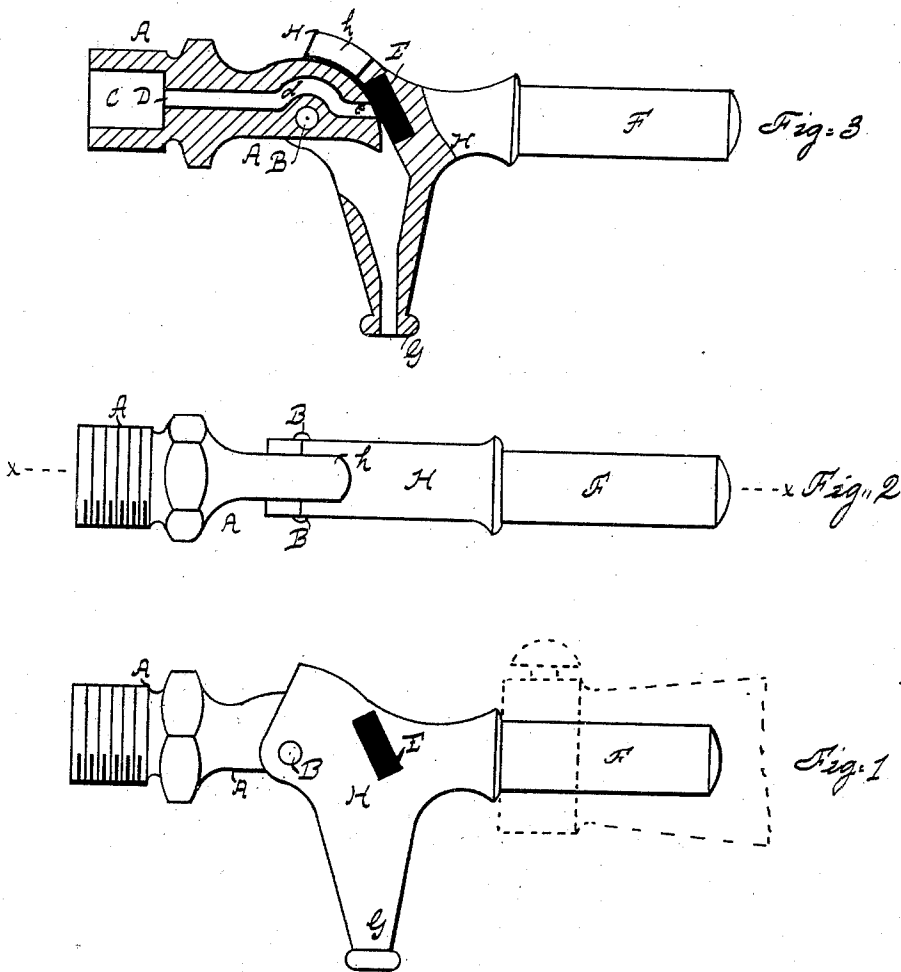


(No Model.)

D. H. ROBERTS.
GAGE COCK.

No. 465,729.

Patented Dec. 22. 1891.



Witnesses

Henry Kothrop
Jesse H. Anderson

Inventor

Langdon H. Roberts

UNITED STATES PATENT OFFICE.

DUGALD H. ROBERTS, OF WALLACEBURG, CANADA, ASSIGNOR OF ONE-HALF TO WILLIAM D. McKAE, OF SAME PLACE.

GAGE-COCK.

SPECIFICATION forming part of Letters Patent No. 465,729, dated December 22, 1891.

Application filed May 22, 1891. Serial No. 393,776. (No model.)

To all whom it may concern:

Be it known that I, DUGALD H. ROBERTS, of Wallaceburg, in the county of Kent and Province of Ontario, have invented a new and useful Improvement in Gage-Cocks, of which the following is a specification.

My invention consists in an improvement in gage-cocks, hereinafter fully described and claimed.

Figure 1 is a side elevation, with the weight partially shown in dotted lines. Fig. 2 is a top plan view, and Fig. 3 is a longitudinal central section, through the gage-cock, except through that part of the cap end which takes the weight.

A represents the boiler end of a gage-cock adapted to screw into a boiler, having an opening C, from which a steam-passage D runs through the boiler end. B represents the pivot on which the cap swings. If the pivot B be placed exactly in the line of the steam-opening D, the pressure of steam will have practically no tendency to raise the cap, and therefore little or no weight on the end F of the cap will be needed; but as the pivot cannot interfere with the passage it is customary to locate the same above the passage, and then use a very heavy weight to hold the cap to its place. For the purpose of lessening the weight, I put the pivot B nearly in the line of passage D and curve the passage around the pivot, as shown at *d*, bringing it out in the main line of said passage, as shown at *e*, thus bringing the line of discharge so nearly in the pivot-line that I am enabled to hold the cap to its place with a very little weight.

H represents the cap, which is pivoted on pivot B, and which is cut out, as shown at *h*, to enable it to be turned up to permit the ac-

cess to the end *e* of passage D for the purposes of cleaning, if the same should become necessary. E represents a piece of packing carried in the cap H, against which the end of the boiler end A seats to close the passage D.

For the purpose of protecting the hand of the engineer when using the cock and of preventing the splashing against the boiler which occurs with an ordinary gage-cock, I form a downwardly-projecting nozzle G on cap H, which directs the stream of steam or water downward when the cap H is raised.

F represents a shank on cap H, upon which is secured a suitable weight, usually of cast-iron.

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

1. A gage-cock having its cap pivoted to the boiler end nearly in the line of the steam-opening and having the steam-passage curved around the pivot, substantially as and for the purposes set forth.

2. A gage-cock consisting of the boiler end A, having the pivot-pin B, and the steam-passage D, curved round the pivot-pin to the main line *e* of the passage, and the weighted cap H, mounted on the pivot-pin, substantially as described.

3. A gage-cock having its cap pivoted to the boiler end by a pivot arranged below the curved portion of the steam-passage, which extends round the pivot at a point above the same for the purpose of reducing the weight required for the cap, substantially as described.

DUGALD H. ROBERTS.

Witnesses:

HENRY B. LOTHROP,
GERTRUDE H. ANDERSON.