W. N. BEST.

REGULATING COCK.

APPLICATION FILED SEPT. 23, 1908.

948,036. Patented Feb. 1, 1910.

Fig. 3

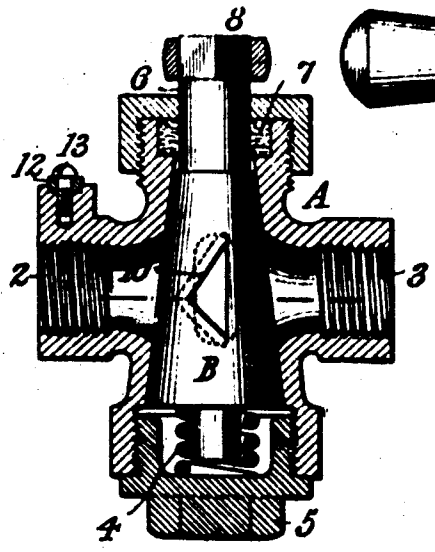


Fig. 1

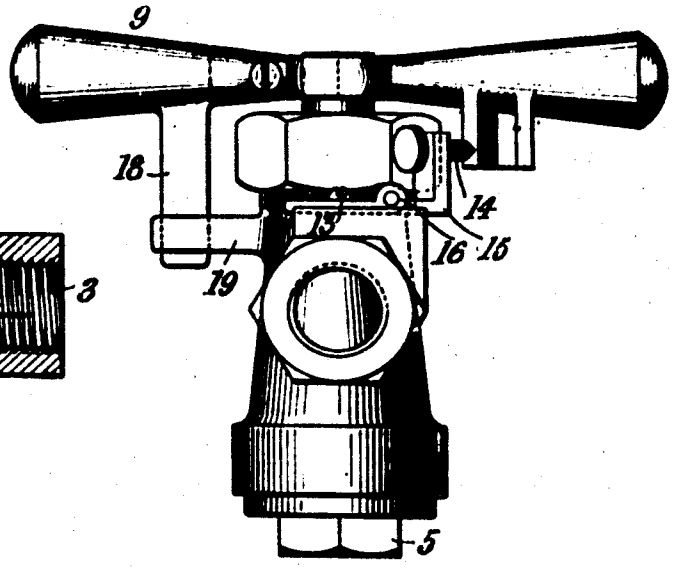


Fig. 4

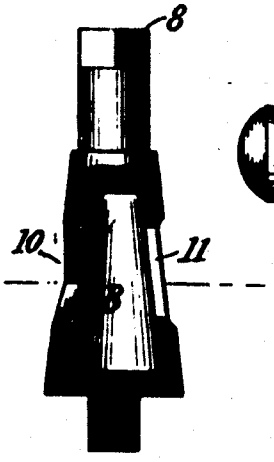


Fig. 2

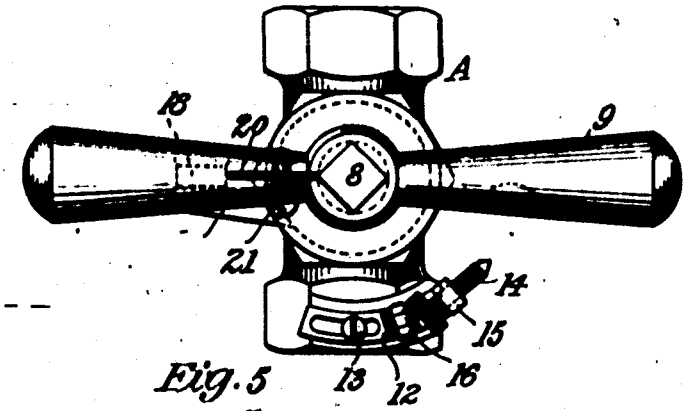


Fig. 5

Witnesses

Raphael Netter

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Inventor

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By his Attorney

F. B. Mumford

# UNITED STATES PATENT OFFICE.

WILLIAM NEWTON BEST, OF NEW YORK, N. Y.

## REGULATING-COCK.

948,036. Specification of Letters Patent. Patented Feb. 1, 1910.

Application filed September 23, 1905. Serial No. 279,757.

*To all whom it may concern:*

Be it known that I, WILLIAM NEWTON BEST, a citizen of the United States, residing at and whose post-office address is No. 136 Washington avenue, borough of Brooklyn, Kings county, city and State of New York, have invented a new and useful Regulating-Cock, of which the following is a specification.

My invention relates to improvements in regulating cocks, its object being to provide an improved construction of the same, adapted for use especially for thick, heavy liquids, such as tar or oil, and consists in the features of construction hereinafter described and claimed.

In the accompanying drawings forming part of this specification, Figure 1 is an elevation of my improved cock; Fig. 2 a plan view of the same, Fig. 3 a central longitudinal section, Fig. 4 a detail, partial, longitudinal section of the plug, and Fig. 5 is a cross-section of the same.

In the drawings, A represents a valve casing having inlet and outlet ports 2 and 3. Into this casing is fitted a conical plug B, held to its seat by a spiral spring 4, itself seated in a cap nut 5, and bearing upon the head of the plug. Around the cylindrical part 6 of the smaller end of the plug is fitted a suitable packing 7, as of wicking and litharge, a squared end 8 being adapted to receive the operating handle 9. The plug is hollow, as shown in Fig. 4, and is provided with oppositely disposed inlet and outlet ports 10 and 11. The port 10 is in the form of an isosceles triangle, the base of the triangle being parallel with the axis of the plug, and the other sides of the triangle beveled inwardly so as to present a cutting edge along the exposed sides of the opening to the incoming fluid to prevent its clogging, as shown in Fig. 5. The slide 12 is adjustably secured to the valve casing by means of a screw 13, which slide carries a set screw 14 threaded into a lug 15, having hinged connection 16 with the slide 12, to permit of its being turned bodily backward on the slide when desired to remove it from the path of movement of the handle 9. By the adjustment of the screws 13 and 14 the throw of the handle in the opening movement of the cock is limited by the engagement of the point of the screw 14 with the depending lug 17, which lug is V shaped in cross sections to offer a surer engaging surface for the point of the screw 14. The maximum size of the port will therefore be determined so as to limit the normal flow of the fluid while it is at the same time possible for an attendant to operate the handle in the opposite direction to lessen the flow momentarily. By means of the hinge connection of the stop screw 14 with its support, by means of which it can be thrown back out of engaging position with the handle, the handle can be turned to fully open the port for the purpose of permitting passage therethrough of any clogging matter which may be contained in the liquid; the outlet port of the lug being larger than the inlet, no clogging action can therefore take place there. The depending lug 18 is adapted to engage the stop 19 when the handle is turned to close the cock to prevent its being thrown too far.

As shown in Fig. 2 I prefer to provide the handle 9 with a slit 20 connected with the angular opening fitted to the squared end 8 of the plug, which slit is closed together by means of a screw 21 after the handle is placed in position so as to clamp the same upon the plug. The V shaped cutting edge of the inlet opening of the plug presents the minimum of frictional surface to resist the flow of the liquid, which is an important consideration in the case of heavy oils, tar and the like.

I claim:

1. In combination with a cock of the class described, an adjustable stop adapted to limit the opening movement of the cock, an adjustable support for said stop, and a swinging connection between said stop and support adapted to permit said stop to be thrown out of engaging position with said cock.

2. In combination with a valve of the class described, an operating handle having a depending V shaped lug, a lug having adjustable hinged support on the valve casing, and a screw threaded in said hinged lug and adapted to be engaged by said depending lug to limit the opening movement of said valve.

In witness whereof, I have hereunto set my hand at the city of New York, this 19 day of September, 1905.

WILLIAM NEWTON BEST.

Witnesses:

T. D. MERWIN,

J. T. CRANE.