J. MATSCHKE.

PLUG COCK.

APPLICATION FILED NOV. 24, 1911.

1,067,747. Patented July 15, 1913.

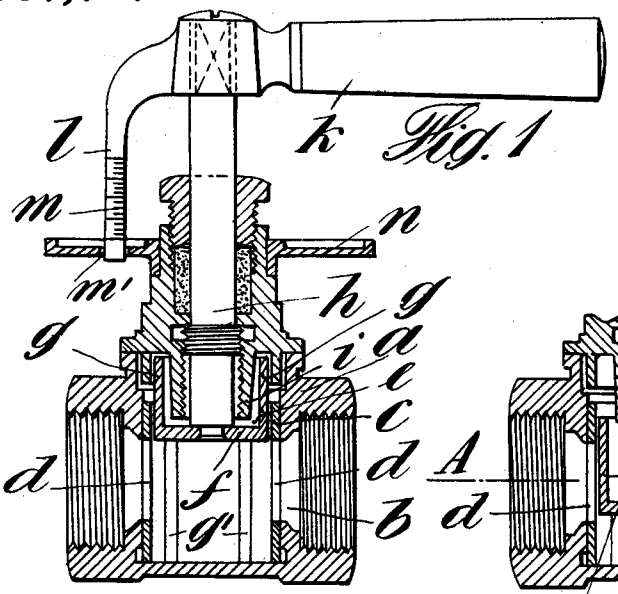


Fig. 1

Fig. 2

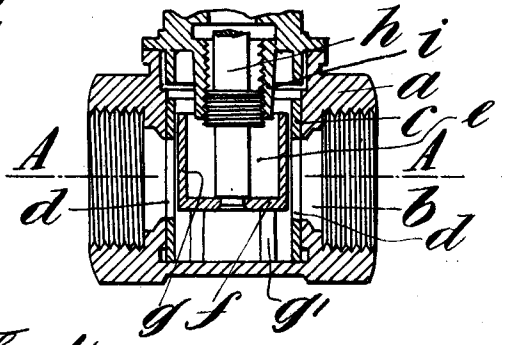


Fig. 4

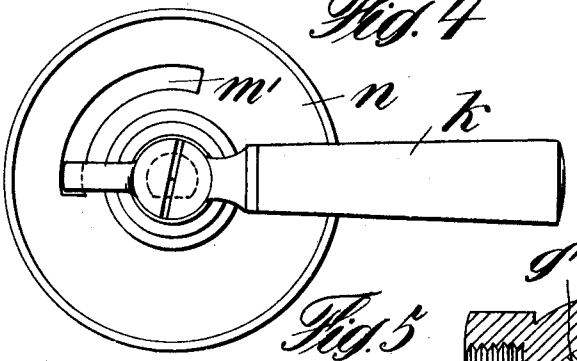


Fig. 3

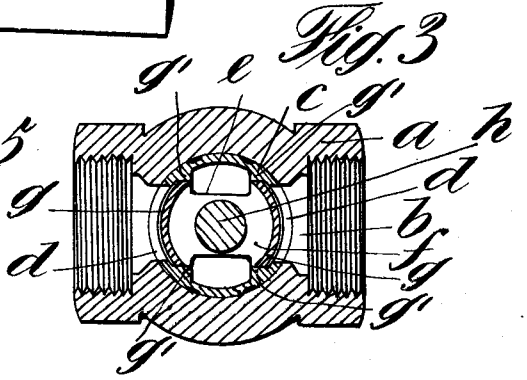


Fig. 5

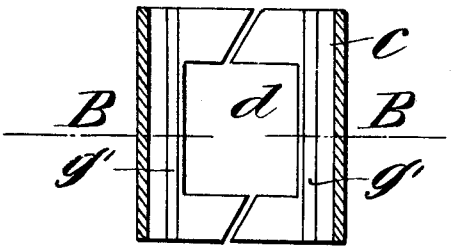


Fig. 6.

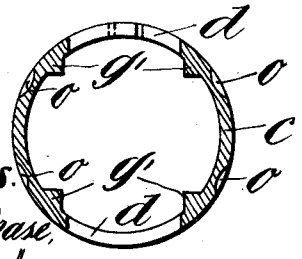
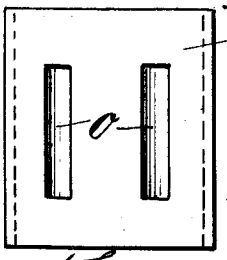


Fig. 7.



Witnesses.
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JULIUS MATSCHKE, OF BERLIN-TEGEL, GERMANY.

PLUG-COCK.

1,067,747. Specification of Letters Patent. Patented July 15, 1913.

Application filed November 24, 1911. Serial No. 662,184.

To all whom it may concern:

Be it known that I, JULIUS MATSCHKE, a subject of the Emperor of Germany, and resident of Berlin-Tegel, Germany, have invented new and useful Improvements in Plug-Cocks, of which the following is a specification.

My invention relates to those plug cocks in which the area of the plug-passage may be regulated by a special means, and the invention relates further to a special construction of the plug cock.

The object of my invention is illustrated on the accompanying drawings in which—

Figure 1 shows the cock with a fully opened passage in vertical section, Fig. 2 shows the lower portion of the cock with its plug-passage nearly closed by the special means, Fig. 3 is a horizontal section on line A—A of Fig. 2, Fig. 4 is the plug cock in plan, Fig. 5 shows on an enlarged scale the sleeve shaped plug in vertical section, Fig. 6 shows the same in cross section on line B—B of Fig. 5, and Fig. 7 in side elevation.

With reference to the drawings the plug cock comprises a body *a* of any suitable form. A portion of the passage *b* of the body is formed by a central vertical cylindrical chamber within which the sleeve shaped cylindrical plug *c* is placed. The latter has two oppositely arranged windows *d* forming, when in their respective positions, the passages through the sides of the plug *c*. Within said plug there is guided a slide *e*. It consists of a ground plate *f* and two oppositely arranged wings *g* in rigid connection with the latter. These wings lie close to the window portion of the inner surface of the plug *c*. Each wing is guided by two ribs *g'* which project from the inner surface of the plug *c*. The means for keeping the slide *e* in position consists of a rod *h* rigidly fixed to the ground plate *f* at its lower end. A portion of said rod is screw threaded, and this portion engages a screw threaded part *i* of the cock body, so that the slide *e* is able to be moved with respect to the plug *c* and its windows by turning the rod *h* in one or the other direction, whereby the uncovered area of the plug windows *d* is regulated. The upper end of the rod *h* which projects out of the cock body is provided with a detachable handle *k*. To the hub of said handle is fixed a vertical member *l* provided with a scale *m*. The member moves with its end within a curved slot *m'* of a disk *n* of the cock body. The member indicates the position of the slide *e* with respect to the windows *d* of the plug *c*. The ribs *g'* of the plug *c* at the same time stiffen the tightening wall of the plug. To the outer circumference of the latter there are arranged a number of grooves *o* in order to make the plug wall resilient. The one window side of the wall is cut through (Fig. 5), so that the plug has a natural springiness. With respect to the mentioned construction of the plug only a proportionally narrow tightening face is sufficient for always obtaining a tightness of the cock.

Having now described the nature of my invention what I claim is:

1. In a plug cock the combination of the body, a springy sleeve shaped plug therein provided with two opposite windows forming passages through the sides of the plug, a slide in the plug for regulating the flow through said windows, a number of ribs projecting from the inner wall of said plug for guiding said slide, and means for actuating said slide, as and for the purpose specified.

2. In a plug cock the combination of the body, a sleeve shaped plug therein with a number of grooves on its outer surface parallel with the axis and two opposite windows in its wall forming passages through the sides of the plug, a slide in the plug for regulating the flow through said windows, a number of ribs projecting from the inner wall of said plug for guiding said slide, and means for actuating said slide, as and for the purpose specified.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

JULIUS MATSCHKE.

Witnesses:

HENRY HASPER,

WOLDEMAR HAUPT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."