No. 834,429. PATENTED OCT. 30, 1906.

W. W. WIGGS.

ANGLE COCK.

APPLICATION FILED JAN. 9, 1906.

2 SHEETS—SHEET 1

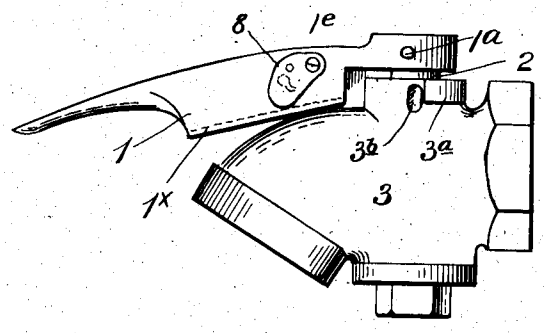


Fig. 1.

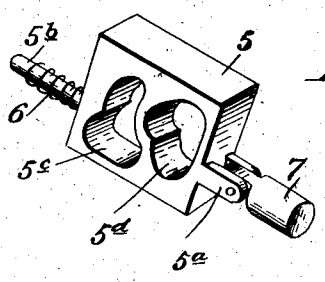


Fig. 6.

Fig. 2.

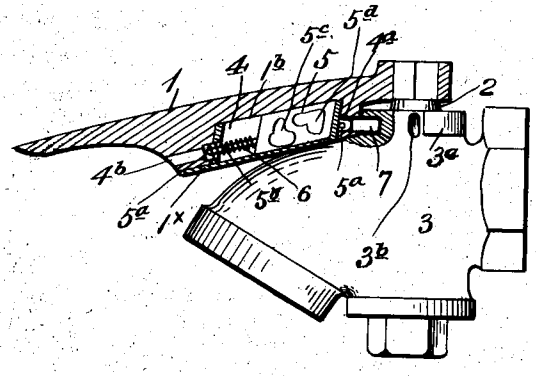
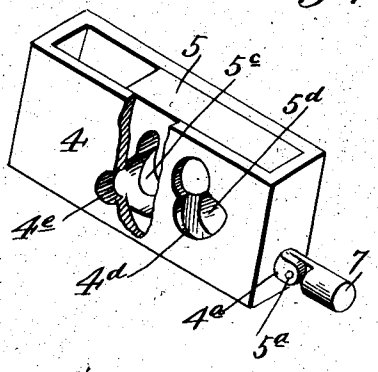


Fig. 7.



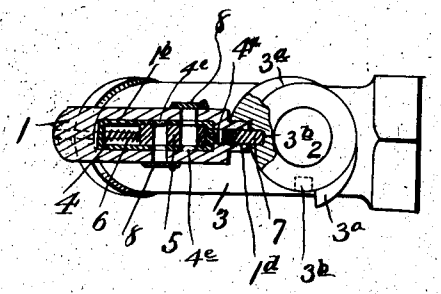


Fig. 3.

WITNESSES:

H. T. McKeever.

J. W. Slater

INVENTOR:

W. W. Wiggs

BY Lewis Bagger & Co.

Attorneys

No. 834,429. PATENTED OCT. 30, 1906.

W. W. WIGGS.

ANGLE COCK.

APPLICATION FILED JAN. 9, 1906.

2 SHEETS—SHEET 2.

Fig. 4.

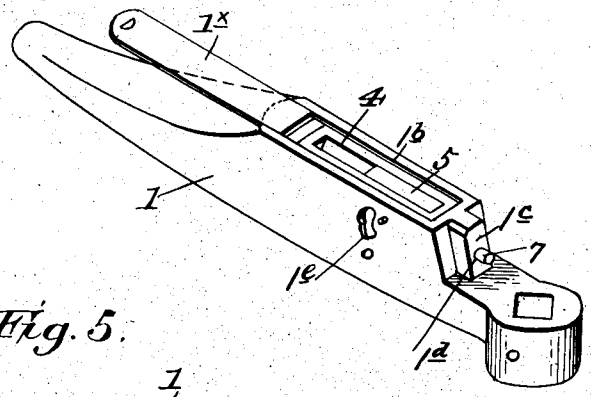


Fig. 5.

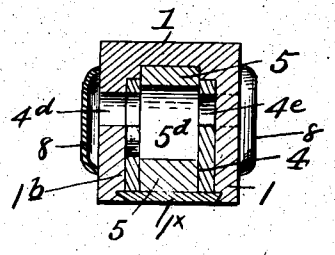


Fig. 8.

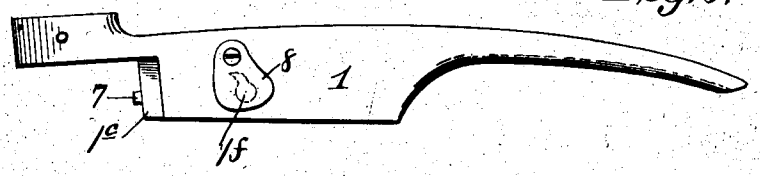




Fig. 9.

WITNESSES:

H. T. McKeever.

J. H. Mister

INVENTOR:

W. W. Wiggs.

BY Louis Bagger & Co.,

Attorneys.

UNITED STATES PATENT OFFICE.

WESLEY WASHINGTON WIGGS, OF NASHVILLE, TENNESSEE.

ANGLE-COCK.

No. 834,429. Specification of Letters Patent. Patented Oct. 30, 1906.

Application filed January 9, 1906. Serial No. 295,322.

To all whom it may concern:

Be it known that I, WESLEY WASHINGTON WIGGS, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Angle-Cocks, of which the following is a specification.

My invention pertains to improvements in what are termed "angle-cocks" for train air-brake pipes.

Said invention has for its object principally to guard against tampering or otherwise interfering with the working or operative position of the cock or parts of the brake applying or releasing pressure and to carry out the same in a simple, economic, and effective manner.

Said invention consists of certain structural features, substantially as hereinafter fully disclosed and specifically pointed out by the claims.

In the accompanying drawings, Figure 1 is a side elevation of the preferred embodiment of my invention. Fig. 2 is a vertical longitudinal section thereof produced through the cock-lever in the direction of its length. Fig. 3 is a horizontal section taken through the stop-shoulder of the angle-cock casing and the cock handle or lever superposed in position thereon with its locking mechanism. Fig. 4 is an enlarged detached perspective of the cock-actuating handle or lever viewing the same from its attaching end. Fig. 5 is a cross-section produced through said lever or handle and its contained locking or retaining means. Fig. 6 is a disassembled perspective view of the slide with its articulated or pivoted bolt; and Fig. 7 is a like view showing the slide with its attached bolt and inclosing casing, parts of the latter being broken away; and Figs. 8 and 9 are opposite side views of the cock handle or lever.

In carrying out my invention I provide a suitable handle or lever 1 for conveniently actuating or turning the plug or cock 2 of the usual type or form employed in air-brake train-pipes, said cock or plug having its inclosing casing or shell 3 constituting a coupling or connection between sections of the train-pipe cast or provided upon its upper end with suitable abutments or stops 3^a, which prescribe or restrict the arc of movement of said lever or handle in operating said cock or valve. Said handle or lever, suitably adapted for application or attachment to the cock or plug 2, being fitted thereto after the fashion of a wrench, as well known and preferably pinned thereto, as at 1^a, has a chamber 1^b, preferably opening out through the under side of said lever or handle and suitably closed at the bottom by a removable slide or closure $1^\times$, and having the front end wall thereof formed with a forward extension or stud 1^c for engagement with the stops or abutments 3^a of the plug or cock casing 3 for aiding the limiting or prescribing movement of said lever or handle.

Contained or housed within the chamber 1^b of the handle or lever 1 is a supplementary casing or inclosure 4, having preferably upward and rearward inclined forward and rear ends and adapted itself to receive or contain a sliding slide 5, having correspondingly-outlined end walls and equipped at its ends with guiding or controlling studs or extensions 5^a 5^b, respectively, received or fitting in openings or passages 4^a 4^b in the end walls of the supplementary inclosure or casing 4. Upon the stud extension 5^b of the slide 5 is arranged a spring 6 for delivering its tension or stress upon the slide, said spring extending in common with said stud extension through the opening 4^b in one end wall of said casing 4 and bearing upon the opposite end wall of the handle-chamber 1^b, the purpose of which is apparent. The opposite end stud extension 5^a of the slide 5 has pivoted or articulated thereto a bolt 7, which is guided and works within a passage or aperture 1^d, produced through the forward extension or stud 1^c of the handle-chamber 1^b, and which bolt is effective to be projected outward beyond said stud extension when the tumbler is key-actuated for engagement with either of two apertures or sockets 3^b, formed in the cock-casing 3 close to the stops or abutments 3^a, for effectively locking the handle or lever 1 in place from being tampered with or unauthorizedly manipulated, and therefore guarding against cutting off the air-pressure or other pressure-supply from any one or more train-pipe sections, and accordingly from a car or cars of a train, the advantages of which are obvious. Said slide is equipped, preferably, with duplicate openings 5^c 5^d, one being in outline just the reverse of the other, for the reception of the key-bit and the manipulation of the slide, together with its bolt, from opposite sides of the cock-actuating handle or lever, the object of which from a point of convenience is apparent. Said key-

bit-receiving openings 5^c 5^d are practically of acorn shape or outline, as shown, for obvious purposes, the supplementary casing 4 also having corresponding openings 4^c 4^d in its opposite sides registering with the aforesaid openings, respectively, also additional openings 4^e in its opposite sides to receive and form bearings for the key beyond its bit, as well understood. The cock lever or handle 1 has also openings 1^e 1^f, produced through its opposite sides of the key-bit outline and registering in position with the openings in the supplementary casing and the slide-openings to provide for the insertion of the key from either side of the cock handle or lever and its engagement with and for actuating the slide in projecting and withdrawing its bolt, as in locking and unlocking the lever or handle.

The key-openings 1^e 1^f are suitably guarded by pivoted spring-controlled escutcheon plates or guards 8 to provide for the automatic covering or guarding thereof, as will be readily seen. From the aforesaid it is believed that the operation of the device will be clearly understood. It is noted, however, that the contrivance is highly effective for its intended purpose, being proof against manipulation without the use of its key, and even though the cock lever or handle retaining pin be removed the lever could not be detached from the cock, which would be necessary to obtain an effective grip or purchase upon the cock or plug for its actuation, since the bolt of the locking mechanism of the lever or handle is still in locked engagement with either of its receiving-sockets in the plug or cock casing.

I claim—

1. A device of the character described, having its actuating-lever equipped with locking mechanism including a bolt and a slide for said bolt housed within said lever and said lever provided laterally with key-receiving means to permit the actuating of said slide and bolt.

2. A device of the character described, comprising an angle-cock-actuating lever equipped with a slide for actuating a bolt adapted to engage a socket in the angle-cock casing or housing and means for the effective retention of said bolt in locked position.

3. A device of the character described, comprising an angle-cock lever, a bolt effective to engage a socket in the angle-cock casing, a slide for said bolt having duplicate key-bit-receiving openings and means adapted to retain said slide and bolt in locked position.

4. A device of the character described, comprising an angle-cock-operating lever having inclosed therein a slide equipped with a bolt engaging a socket in the cock-casing, and an inner or supplementary casing containing said slide and adapted to permit the bolt to project therethrough for engagement with a socket or notch in the angle-cock casing.

5. A device of the character described, embracing an angle-cock-actuating lever inclosing a supplementary casing containing a slide having an articulated or jointed bolt engaging a notch or socket in the angle-cock casing, said slide having key-bit-receiving openings and guiding end extension-studs let into apertures in said supplementary casing and one projecting still further into a passage or aperture in the handle and through a forward stud extension of said handle.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WESLEY WASHINGTON WIGGS.

Witnesses:

D. W. BURKE,

C. L. RINGLER.