

M. STRELEZKY.
COCK.

APPLICATION FILED JAN. 2, 1909.

932,188.

Patented Aug. 24, 1909.

2 SHEETS—SHEET 1.

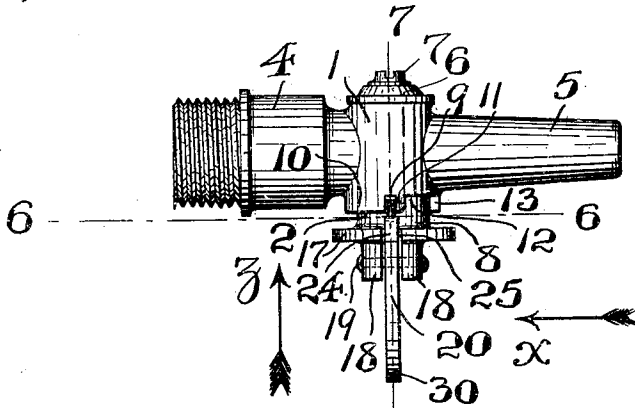


Fig. 1

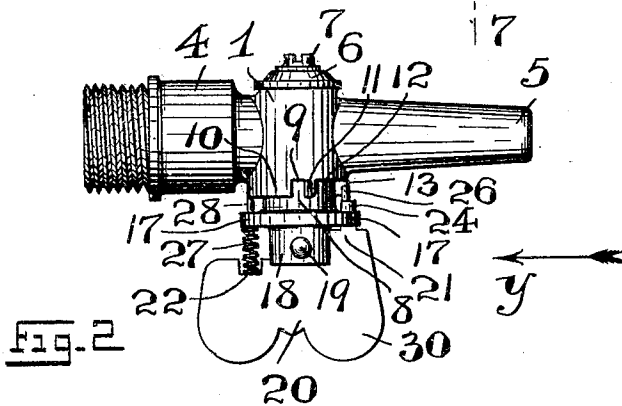


Fig. 2

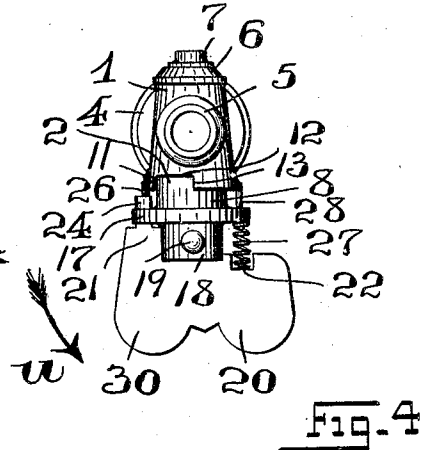


Fig. 4

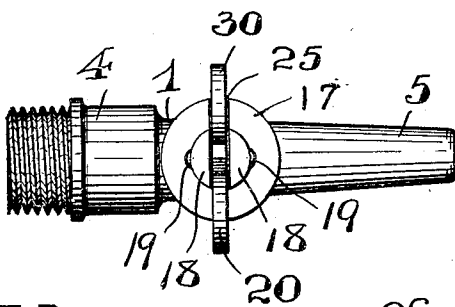


Fig. 3

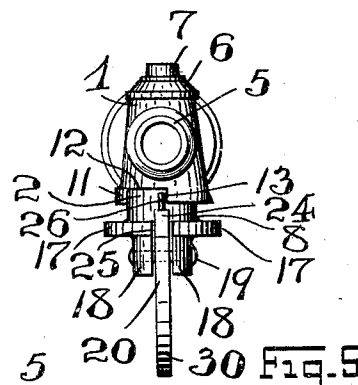


Fig. 5

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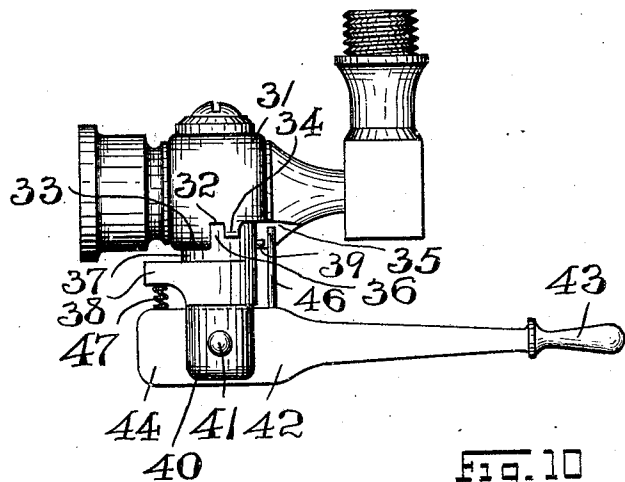
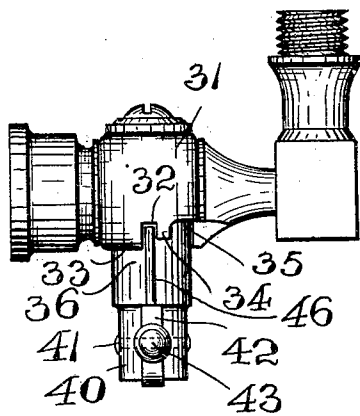
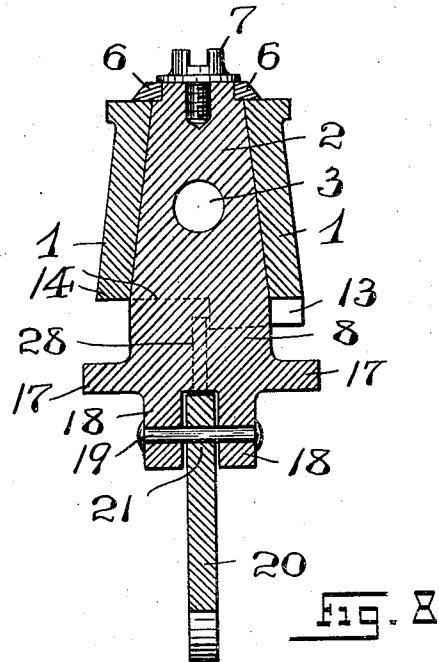
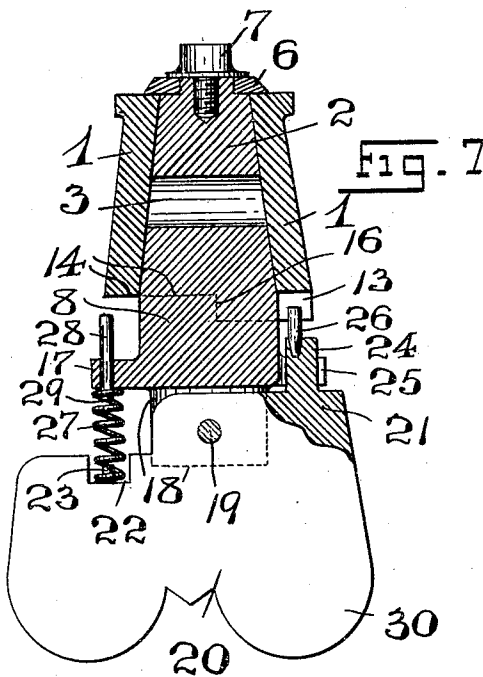
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UNITED STATES PATENT OFFICE.

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COCK.

932,188.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MEYER STRELEZKY, a subject of the Emperor of Russia, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Cocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

This invention relates, generally, to improvements in safety-attachments for locking or holding the valve-spindles of cocks of the various kinds in their closed positions against being turned accidentally; and, the invention relates, more particularly, to a novel means or retaining device which is especially adapted for use with the turning or fingerpiece of the valve-spindle of a gas-cock, or other cock, and is of such a construction, so that while the plug or valve-spindle of the gas-cock can be turned on and off in the usual manner, the plug or valve-spindle is locked or held against accidental turning in its normal closing position.

The invention has for its principal object to provide a neat and cheaply constructed locking or retaining means adapted to be used with the usual oscillating plug or valve-stem and its turning member or fingerpiece of a cock, whether for gas, liquids, or otherwise, which operates in such a manner that the movable parts are locked or held in their normal initial positions against accidental turning, but the retaining or holding means being readily manipulated by the person, almost simultaneously with the turning of the fingerpiece for the purpose of providing a direct passage for a gas or liquid through the valve-plug or spindle and the interior of the cock.

Other objects of this invention not at this time more particularly enumerated will be clearly understood from the following detailed description of my present invention.

With the various objects of my present invention in view, the invention consists, primarily, in the safety-cock hereinafter more

particularly set forth; and, the invention consists furthermore in the various arrangements and combinations of devices and parts, as well as in the details of the construction of the same, all of which will be more fully described in the following specification and then finally embodied in the clauses of the claim which are appended to and which form an essential part of this specification.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of a gas-cock provided with a valve-spindle or plug and a turning member or fingerpiece for oscillating the spindle, the fingerpiece being pivotally connected with the spindle and being provided with a locking or retaining means for holding the parts in their normally locked relation; Fig. 2 is a similar view of the said parts, the valve-spindle and its pivoted fingerpiece, however, being shown turned in a plane at right angles to the plane of the fingerpiece shown in said Fig. 1; and Fig. 3 is a bottom view of the cock and parts. Fig. 4 is an end view of the cock, looking in the direction of the arrow *x* in said Fig. 1; and Fig. 5 is a similar view of the same, looking in the direction of the arrow *y* in Fig. 2. Fig. 6 is a horizontal sectional representation of the device, said section being taken on line 6—6 in said Fig. 1, looking in the direction of the arrow *z*. Fig. 7 is a transverse vertical section, said section being taken on line 7—7 in said Fig. 1, and said view being made on an enlarged scale; and Fig. 8 is a similar view with the valve-stem or plug shown turned at right angles to its former position indicated in said Fig. 7. Fig. 9 is a side elevation of a gas-cock of a slightly modified construction, provided with a valve-spindle and a pivoted handle connected therewith, said handle being provided with a holding or retaining means embodying the principles of the present invention; and Fig. 10 is a similar view of the gas-cock showing the handle turned at right angles to its normal position indicated in said Fig. 9.

Similar characters of reference are employed in the above described views, to indicate corresponding parts.

In the accompanying drawings I have shown the principles of my present invention as applied to a gas-cock, but it will be understood that it may be applied to any other
5 form of cock, faucet, or the like.

The gas-cock in this instance consists of a main body formed with a centrally disposed hollow member 1, in which is rotatably disposed a tapered valve-spindle or plug 2
10 formed with a laterally extending duct 3 which may be located at right angles to or may be moved in alinement with the tubular interior of the inlet member 4 and the outlet member 5 connected with and extending
15 respective from the opposite sides of the said hollow member 1. The oscillating valve-spindle or plug 2 is rotatably secured within the chambered part of the member 1, being held in place at its upper end-portion, by
20 means of the usual washer 6 and screw 7, while its lower and large end-portion 8 extends from an opening in the under or lower side of said member 1, substantially as shown. The lower marginal edge-portion of
25 the said body or member 1, which surrounds the said lower opening, is made with a receiving depression or recess 9, formed by the part 10 and a projection or lug 11, and with the cut-away part 12 and a stop 13. In its
30 opposite part, the said marginal edge-portion is made with a cut-away part 14 forming with said edge-portion suitable stops 15 and 16. Connected with and preferably forming an integral part of the said lower
35 and large end-portion 8 of the valve-spindle or plug 2 is an annular rib or projection 17 which forms a disk-like member or element, and extending from the lower face of the same are a pair of perforated ears or lugs 18
40 provided with a pintle or pivot-pin 19 suitably secured to said ears or lugs and extending directly across the space formed between the said ears or lugs. Movably arranged in said space and pivoted upon said pin 19 is
45 the upper portion 21 of a suitable turning member or fingerpiece, as 20, the latter being made with a recessed part 22, which is preferably provided with a pin or post 23. Extending from the upper edge of the said
50 portion 21 is a lug or projection 24, which extends into and is movably fitted in an opening or slot 25 in the annular rib or projection 17, as clearly illustrated in the several figures of the drawings. The upper
55 portion of said lug or projection 24 extends slightly above the upper surface of said annular rib or projection 17 and is provided with a vertical pin or post 26, said post or pin 26 under normal conditions being arranged in the receiving depression or recess
60 9, substantially as shown in Figs. 1 and 6 of the drawings. The means for normally forcing this post or pin 26 into said recess 9 is a suitably coiled spring 27 which has

its one end-portion arranged over the previously mentioned pin or post 23 in the recessed part 22, the said spring being suitably compressed and having its other end-portion arranged over the lower end-portion 29 of a
65 suitable pin or post 28, said pin or post being secured to said annular rib or projection 17, directly opposite the said lug or projection 24, and having said end-portion 29 projecting from the lower or under surface of the
70 rib or projection 17, substantially as shown. The compressed coils of this spring, as will be clearly evident, cause the turning member or fingerpiece 20 normally to stand in the positions indicated more particularly in
75 Figs. 2, 4 and 7 of the drawings. The upper end-portion of the said pin or post 28 extends into and is movably arranged in the cut-away part 14, so that it can be moved against either stop 15 or 16, as and for the purposes
80 to be presently more fully described.

Having in the above description in a general way set forth one arrangement and combination of devices and parts showing one
85 embodiment of my present invention, I will now describe the manner of releasing the turning member or fingerpiece from its normally locked relation, for operating the
90 valve-plug or spindle and to provide an open or direct passage for the gas or liquid through the cock.

By taking hold of the edge-portion 30 of the turning-member or finger-piece 20, and pulling in a downward direction, in the direction of the arrow *v* in Fig. 4 of the drawings, a sufficient movement of the said finger-
95 piece 20 is produced so as to withdraw the post or pin 26 from its normally locked or holding engagement from within the receiving depression or recess 9. The fingerpiece, at the same time, can be turned in the usual
100 manner, the pin or post 28 moving in the cut-away part 14 until it is brought against the stop 15, whereby the movement of the fingerpiece and the valve-spindle or plug is arrested so as to bring the parts of the cock
105 into their opened relation, shown in Figs. 2, 5 and 8 of the drawings. At the same time, having released the pulling force from said portion 30 of the fingerpiece 20, the spring
110 27, the coils of which have been still further compressed, will cause the fingerpiece to assume its former position with the said post or pin 26 extending into the cut-away part 12 and arranged directly against the side of
115 the stop 13. As shown more particularly in Fig. 6 of the drawings, the side of the projection or lug 11 is chamfered, so that, when the fingerpiece 20 is moved in its opposite direction for the purpose of closing the
120 valve-spindle or plug, the pin or post 26 will readily move over the said chamfered surface of the projection or lug 11 and will again be forced into the said recess 9, be-
125

tween the stops 10 and 11, to once more hold or retain the turning member or fingerpiece 20 in its locked position against accidental turning, as will be clearly evident.

5 In Figs. 9 and 10, I have shown a slightly modified construction of gas-cock, the same, however, still embodying the principles of the present invention. Referring now to the said figures of the drawings, the main body-
10 portion 31 of the cock is made with a receiving recess or depression 32 formed by the part 33 and a short lug 34, the said body being also cut away, as at 35, so as to provide a suitable stop. The portion 37 of the
15 valve-spindle or plug 36 is provided with a laterally extending projection, as 38, and with a small pin or lug 39, the latter being movably disposed in the cut-away part 35 and the recess 32, being adapted to pass di-
20 rectly beneath the lower end of the lug 34 during the oscillatory movements of the valve-stem or plug 36, as will be clearly evident. The said stem or plug 36 is also provided upon its lower end with a pair of
25 perforated ears or lugs, as 40, provided with a pintle or pivot-pin 41 suitably secured to said ears or lugs and extending directly across the space formed between said ears or lugs. Movably arranged in said space and
30 pivoted upon said pin 41 is a valve-spindle turning member in the form of a lever or arm 42 which is provided at one end with a handle or fingerpiece 43 and has a projecting end-portion 44 arranged directly be-
35 neath the laterally extending projection 38. A spring, as 45, is arranged between said projection 38 and the end-portion 44, substantially as shown, the purpose of this spring being to force the free end of a post
40 46 under normal conditions into holding or retaining engagement with the receiving recess or depression 32, so as to prevent any accidental turning of the valve-stem or plug, as will be clearly evident. By pulling the
45 arm or lever 42 downwardly the free end-portion of the post 46 is withdrawn from the receiving depression or recess 32, whereby the valve-spindle or plug can be turned by means of the said handle or lever, the
50 spring 45 cooperating with the lever to return it to its horizontal position, so that the free end of the post 46 will extend into the cut away part 35, the small pin or lug 39 limiting the rotary movement of the valve-
55 spindle by coming in contact with the shoulder at the end of the said cut-away part 35. It will be evident that the operation of the several parts shown in said Figs. 9 and 10 is the same as that described in
60 connection with the construction of the device illustrated in Figs. 1 to 8 inclusive.

I am aware that some changes may be made in the arrangements and combinations of the various devices and parts, as well as

in the details of the construction of the said 65 parts, without departing from the scope of my present invention as described in the foregoing specification and as defined in the appended claims. Hence, I do not limit my present invention to the exact arrangements 70 and combinations of the devices and parts as set forth in the said specification, nor do I confine myself to the exact details of the construction of any of the said parts as illustrated in the accompanying drawings. 75

I claim:—

1. In a cock, the combination with a chambered body provided with a tubular inlet and outlet, a valve-plug rotatably arranged within said body and having an end-portion 80 extending therefrom, said end-portion being provided with perforated ears, a turning member pivoted between the perforated ears of the said end-portion of the valve-plug, and a retaining means connected with said 85 turning member adapted to be brought in holding engagement with a portion of said body to retain the valve-plug normally in its non-rotative relation against turning by accident, but permitting the turning of said 90 valve-plug when said retaining means is disengaged from its holding engagement with said body, and means for limiting the rotative movement of said valve-plug, consisting of a cut-away portion in said body formed 95 at its ends with stops, and a post connected with said valve-plug, said post extending into said cut-away portion and being adapted to be arrested in its movement by said stops.

2. In a cock, the combination with a 100 chambered body provided with a tubular inlet and outlet, a valve-plug rotatably arranged within said body and having an end-portion extending therefrom, said end-portion being provided with perforated ears, a 105 spring-controlled turning member pivotally arranged between the ears of the said end-portion of the valve-plug, and a retaining means connected with said turning member adapted to be brought in holding engage- 110 ment with a portion of said body to retain the valve-plug normally in its non-rotative relation against turning by accident, but permitting the turning of said valve-plug when said retaining means is disengaged 115 from its holding engagement with said body, consisting of a cut-away portion in said body formed at its ends with stops, and a post connected with said valve-plug, said post extending into said cut-away portion 120 and being adapted to be arrested in its movement by said stops.

3. In a cock, the combination with a chambered body provided with a tubular inlet and outlet, a valve-plug rotatably ar- 125 ranged within said body and having an end-portion extending therefrom, said end-portion being provided with perforated ears,

said body being provided with a receiving recess and a cut-away part formed at one end with a stop, a turning member pivotally arranged between the ears of the said end-portion of the valve-plug, and a retaining post connected with said turning member, said post extending normally into said receiving recess to retain the valve-plug in its non-rotative relation against turning by accident, but said post being adapted to be withdrawn from said receiving recess and moved into said cut-away portion so that the valve-plug can be turned.

4. In a cock, the combination with a chambered body provided with a tubular inlet and outlet, a valve-plug rotatably arranged within said body and having an end-portion extending therefrom, said end-portion being provided with perforated ears, said body being provided with a receiving recess and a cut-away part formed at one end with a stop, a turning member pivotally arranged between the ears of the said end-portion of the valve-plug, and a retaining post connected with said turning member, said post extending normally into said receiving recess to retain the valve-plug in its non-rotative relation against turning by accident, but said post being adapted to be withdrawn from said receiving recess and moved into said cut-away portion so that the valve-plug can be turned, and means for limiting the rotative movement of said valve-plug.

5. In a cock, the combination with a chambered body provided with a tubular inlet and outlet, a valve-plug rotatably arranged within said body and having an end-portion extending therefrom, said body being provided with a receiving recess and a cut-away part formed at one end with a stop, a turning member pivotally connected with the said end-portion of the valve-plug, and a retaining post connected with said turning member, said post extending normally into said receiving recess to retain the valve-plug in its non-rotative relation against turning by accident, but said post being adapted to be withdrawn from said receiving recess and moved into said cut-away portion so that the valve-plug can be turned, and means for limiting the rotative movement of said valve-plug, consisting of a second cut-away portion in said body formed at its ends with stops, and a second post connected with said valve-plug, said post extending into said last-mentioned cut-away portion and being adapted to be arrested in its movement by said stops.

6. In a cock, the combination with a chambered body provided with a tubular inlet and outlet, a valve-plug rotatably arranged within said body, and having an end-portion extending therefrom, the said end-portion

of the valve-plug being provided with an annular rib having a slot therein, said body being provided with a receiving recess and a cut-away part formed at one end with a stop, a turning member pivotally connected with the said end-portion of the valve-plug, a spring arranged between an edge-portion of said turning member and said rib, and a retaining post upon said turning member, said post extending through the slot in said rib and projecting into said receiving recess to retain the valve-plug in its non-rotative relation against turning by accident, but said post being adapted to be withdrawn from said receiving recess and moved into said cut-away portion so that the valve-plug can be turned.

7. In a cock, the combination with a chambered body provided with a tubular inlet and outlet, a valve-plug rotatably arranged within said body, and having an end-portion extending therefrom, the said end-portion of the valve-plug being provided with an annular rib having a slot therein, said body being provided with a receiving recess and a cut-away part formed at one end with a stop, a turning member pivotally connected with the said end-portion of the valve-plug, a spring arranged between an edge-portion of said turning member and said rib, and a retaining post upon said turning member, said post extending through the slot in said rib and projecting into said receiving recess to retain the valve-plug in its non-rotative relation against turning by accident, but said post being adapted to be withdrawn from said receiving recess and moved into said cut-away portion so that the valve-plug can be turned, and means for limiting the rotative movement of said valve-plug.

8. In a cock, the combination with a chambered body provided with a tubular inlet and outlet, a valve-plug rotatably arranged within said body, and having an end-portion extending therefrom, the said end-portion of the valve-plug being provided with an annular rib having a slot therein, said body being provided with a receiving recess and a cut-away part formed at one end with a stop, a turning member pivotally connected with the said end-portion of the valve-plug, a spring arranged between an edge-portion of said turning member and said rib, and a retaining post upon said turning member, said post extending through the slot in said rib and projecting into said receiving recess to retain the valve-plug in its non-rotative relation against turning by accident, but said post being adapted to be withdrawn from said receiving recess and moved into said cut-away portion so that the valve-plug can be turned, and means for limiting the rotative movement of said valve-plug, consisting of a second cut-away portion in said body

formed at its ends with stops, a post connected with and extending from the annular rib of said valve-plug, said post extending into said last-mentioned cut-away portion
5 and being adapted to be arrested in its movement by said stops.

In testimony, that I claim the invention

set forth above I have hereunto set my hand
this 30th day of December 1908.

MEYER STRELEZKY.

Witnesses:

FRED. C. FRAENTZEL,

FRED. H. W. FRAENTZEL.