

H. EPSTEIN & D. LUBINSKY.
GAS CONTROLLING DEVICE.
APPLICATION FILED JAN. 11, 1910.

968,457.

Patented Aug. 23, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

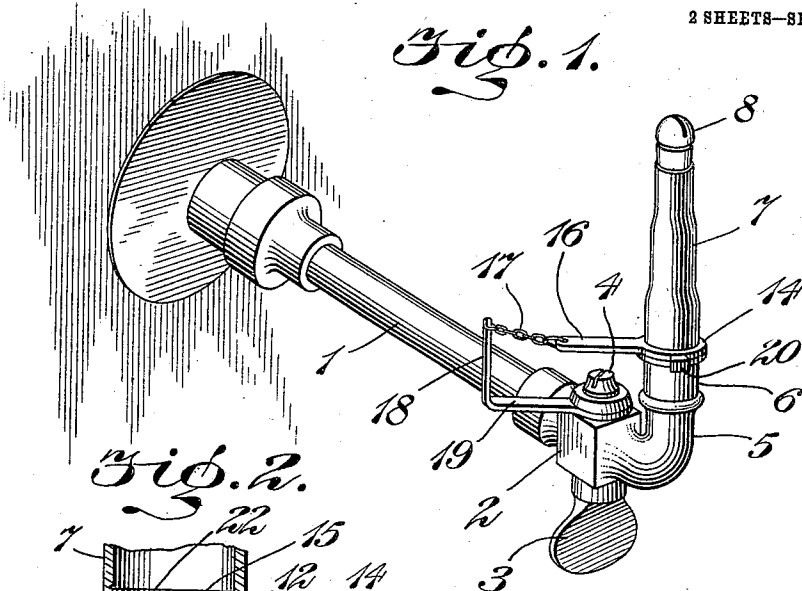


Fig. 2.

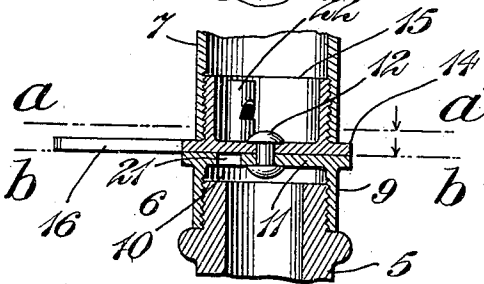


Fig. 5.

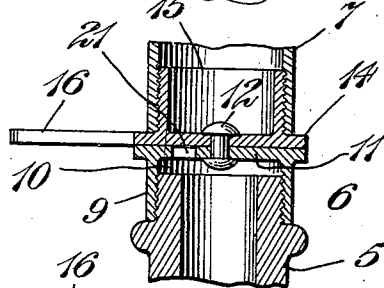


Fig. 3.

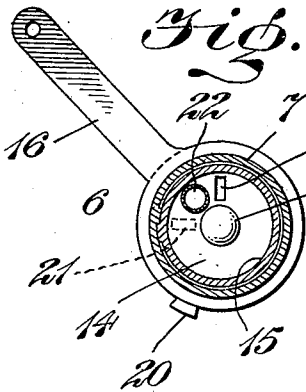


Fig. 4.

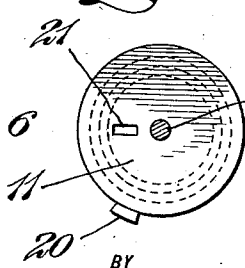
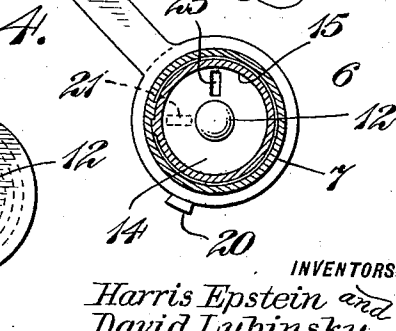


Fig. 6.



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2 SHEETS—SHEET 2.

Fig. 7.

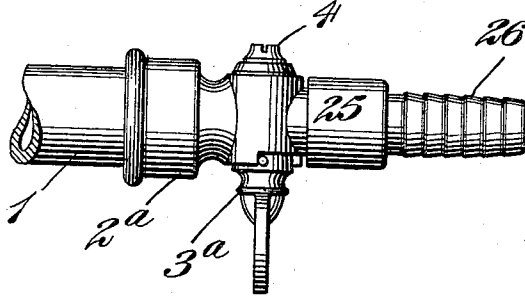


Fig. 8.

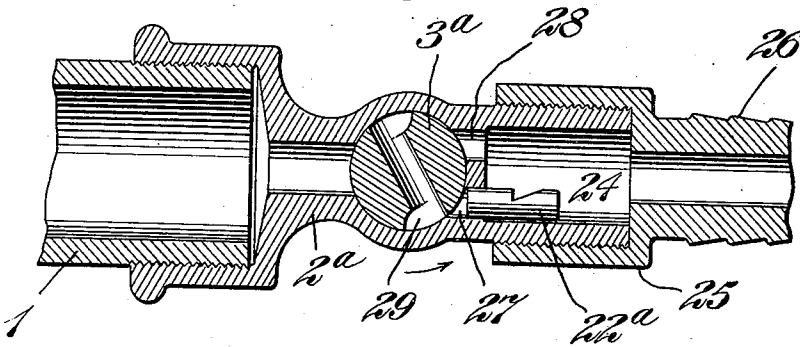
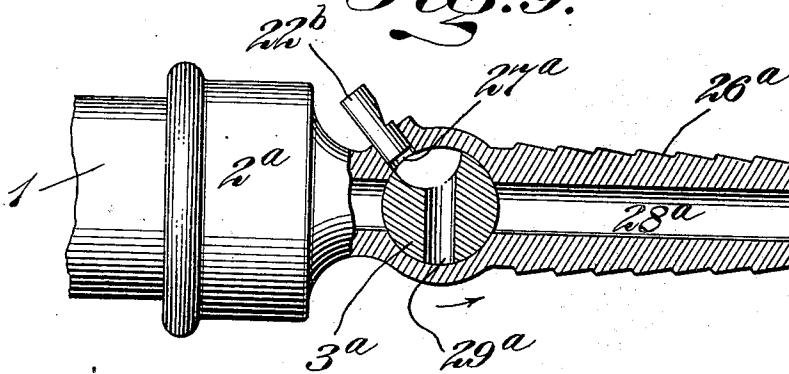


Fig. 9.



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UNITED STATES PATENT OFFICE.

HARRIS EPSTEIN AND DAVID LUBINSKY, OF BROOKLYN, NEW YORK, ASSIGNORS OF
ONE-THIRD TO ISAAC J. KAUFMAN, OF BROOKLYN, NEW YORK.

GAS-CONTROLLING DEVICE.

968,457.

Specification of Letters Patent. **Patented Aug. 23, 1910.**

Application filed January 11, 1910. Serial No. 537,528.

To all whom it may concern:

Be it known that we, HARRIS EPSTEIN, a citizen of the United States, and DAVID LUBINSKY, a subject of the Emperor of Russia, both residing in Brooklyn, county of Kings, and State of New York, have invented certain Improvements in Gas-Controlling Devices, of which the following is a specification.

10 This invention relates to certain improvements in gas controlling devices, and more particularly in that class of such devices which are especially designed and adapted for use at gas cocks, burners and the like, for
15 controlling the discharge of gas for the prevention of accidents due to leakage from the burners or service pipes, and the object of the invention is to provide a device of this general character of a simple and comparatively inexpensive nature, and of a compact
20 and durable construction which shall permit of more effectively guarding against the accidental escape or leakage of gas.

The invention consists in certain novel
25 features of the construction and combinations and arrangements of the several parts of the improved gas controlling device, whereby certain important advantages are attained and the device is rendered simpler,
30 less expensive, and otherwise better adapted and more convenient for use all as will be hereinafter fully set forth.

The novel features of the invention will be carefully defined in the claims.

35 In order that our invention may be the better understood we will now proceed to describe the same, with reference to the accompanying drawings, wherein—

Figure 1 is a perspective view showing
40 one embodiment of our improved gas controlling device applied for use in connection with an ordinary wall bracket and pillar burner; Fig. 2 is a fragmentary sectional
45 view drawn to an enlarged scale and taken axially through the lower portion of the pillar, and of the controlling means whereon the same is supported and illustrating certain features of construction to be hereinafter described; Fig. 3 is a sectional detail
50 view taken transversely through the controlling means in the plane indicated by the line *a—b* in Fig. 2; Fig. 4 is a transverse section taken through the controlling means in the plane indicated by the line *b—b* in
55 Fig. 2; Fig. 5 is an axial section similar to

Fig. 2, but showing a slightly different embodiment of our improved controlling means; Fig. 6 is a transverse section similar to Fig. 3, but taken through the device constructed as shown in Fig. 5; Fig. 7 is an elevation of another embodiment of our invention wherein the improved gas controlling means is applied for use in connection with a gas cock alone; Fig. 8 is an enlarged axial section taken through the device constructed as shown in Fig. 7, and illustrating certain features of construction to be hereinafter described, and Fig. 9 is a sectional elevation somewhat similar to Fig. 8, but illustrating still another embodiment of our improved gas controlling device.

Referring first to Figs. 1 to 4 inclusive, 1 represents a supply pipe herein shown as made in the form of an ordinary wall bracket to which is applied a cock 2 having the ordinary rotatable plug 3 secured in place by means of a screw 4 at its upper end, and 5 represents an upwardly directed nipple integrally produced upon the cock casing wherein the body portion of our improved controlling device, indicated as a whole at 6, is supported, while 7 represents a pillar extended above the controlling means and provided with a tip 8 whereat the gas is burned. The body portion of the gas controlling means herein shown comprises a lower member 9 of inverted cup-like shape having screw connection with the nipple 5 of the cup case, so as to permit of ready application of a device constructed according to our invention thereto or detachment therefrom, being provided with an internal chamber 10 communicating with the gas passage of said nipple 5, so as to receive gas therefrom, and having an upper flattened wall 11 extended across the top of said chamber affording a circular bearing whereon an upper member 14 is adapted for accurate contact. Said members 9 and 14 are connected for relative turning movement by means of a central rivet 12 or equivalent pivotal connection, whereby it will be evident that the upper member 14, is adapted for rotatory movement upon said lower member 9 for purposes to be hereinafter explained. Said upper member 14, as herein shown, is also of cup-like form, being provided with peripheral screw threads as shown at 15 for detachable connection of the pillar 7 therewith. Said upper member 14 of the im-

proved controlling means is herein shown provided with a laterally directed arm 16 integrally produced upon it, and connected by means of a chain 17 or equivalent flexible connection with the upwardly bent extremity 18 of a short arm or lever 19 secured to the plug 3 of the gas cock beneath the head of the screw 4 so as to be adapted to turn in unison with said plug during movement thereof for control of the discharge of gas from the supply pipe or bracket 1. By this arrangement of the parts it will be seen that when the plug 3 of the gas cock is turned to cut off the supply of gas from the body portion of the controlling means, the flexible connection afforded by chain 17 between the arm 19 of said plug, and the arm 16 of the upper member 14 of the controlling means, will operate to compel rotatory movement of said upper member 14 in unison with such turning movement of the plug, whereby an imperforate portion of the lower wall of said member 14 is adjusted over a port 21 produced in the circular top wall 11 of the lower member 9 in such a way that the escape of gas from the chamber 10 of said lower member upwardly through port 21 to the burner is effectively prevented, and when the cock 3 is reversely moved to permit the supply of gas from the bracket 1 to the chamber 10 of said lower member it is evident that the flexible connection at 17 will be inoperative to reversely move the upper member 14 of the controlling means and consequently the port 21 will remain occluded until such time as said upper member 14 shall have been turned by hand independently of the gas cock, to throw a port produced in its flattened bottom wall into registry with said port 21 of the lower member. In this way if by chance the person turning off the gas at the cock 3 should inadvertently reversely move the same or should said cock be struck by accident so as to permit the discharge of gas therefrom it is evident that the leakage of gas into the room will still be effectively prevented by reason of the occlusion of the port 21 so that the liability of accidents due to such leakage of gas is effectively prevented, while at the same time the member 14 may be readily turned when desired to permit the free flow of gas to the burner.

In connection with the controlling means as above described, we have provided an alarm device of simple and effective construction capable of operation to sound an alarm in case the member 14 should in any way be inadvertently moved, so as to permit the escape of gas at the tip 8, and as herein shown, this alarm device is made in the form of a whistle so secured to the bottom of the member 14 as to be supplied with gas through the port 21 of the lower member 9 upon comparatively slight rotatory move-

ment of said upper member sufficient to bring said whistle in registry with said port 21. By this means it will be seen that should the member 14 inadvertently be slightly turned said whistle 22 will be thrown into registry with the port 21 so that the gas escaping through said port 21 will sound the whistle and give warning of the escape of gas.

23 represents the main gas discharge port produced in the bottom of the member 14 and adapted to be brought into registry with the port 21 of member 9 after such turning movement of the upper member shall have been sufficient to first throw the whistle 22 into registry with port 21 and afterward to throw said whistle out of registry with the port of said lower member, whereupon free flow of gas is permitted through the improved controlling means to the pillar and tip supported thereon, and 20 represents a stop produced upon the lower member and projecting in the path of the arm 16 of the upper member, so as to limit the turning movement of said upper member in such a way as to terminate such turning movement when ports 21 and 23 are in registry, and also to prevent such backward movement of the member 14 as would permit said ports 21 and 23 to be brought into registry without sounding the whistle 22.

The construction illustrated in Figs. 5 and 6 is substantially similar to that above described excepting that the whistle 22 is omitted, reliance being placed upon the necessity for turning the upper member 14 of the controlling means after opening of the gas cock, as being sufficient to insure safety in certain cases.

In Figs. 7 and 8, we have shown the application of our improvements to a gas cock such as is adapted for use in connection with a hose for supplying gas to a gas plate or stove. In these views 2^a represents the casing of the gas cock and 3^a represents the plug thereof, the casing being provided with an extension 24 whereon screws the enlarged end 25 of a nipple 26 adapted to receive the end of the gas hose. The extension 24 is provided with two ports 27 and 28, adapted to be brought into registry successively with the port 29 of plug 3^a, and 22^a represents a whistle device supplied with gas through port 27 so that when the gas is turned on at the cock, the whistle will first be sounded to give warning and can only be thrown out of operation by free turning movement of the plug.

The device shown in Fig. 9 is substantially similar to that shown in Figs. 7 and 8 with the exception that the nipple 26^a is integrally produced upon the cock casing and has its gas passage 28^a arranged to correspond with one of the ports as 28 of the preceding structure, whereas the wall of the

casing is provided with a port 27^a corresponding with the port 27 of the preceding structure and adapted for the supply of gas to a whistle device 22^b upon slight turning
 5 movement of the block 3^a insufficient to discharge gas to the passage 28^a.

From the above description it will be seen that our improved controlling means is of an extremely simple and comparatively inexpensive nature and is particularly well
 10 adapted for use by reason of the efficiency of its operation in preventing accidental discharge or leakage of gas from the cock and giving warning in case such discharge or
 15 leakage should occur, and it will also be obvious from the above description that the device is susceptible of some modification without material departure from the principles and spirit of the invention, and for this
 20 reason we do not desire to be understood as limiting ourselves to the precise formation and arrangement of the several parts of the device as herein set forth, in carrying out our invention in practice.

25 Having thus described our invention, what we claim and desire to secure by Letters Patent is—

1. A device of the character described having members one of which is movable
 30 relatively to the other, said members having ports adapted to register when said movable member is actuated, and flexible means adapted for operative connection with a gas cock or the like and capable of operation to
 35 impart movement in one direction only to said movable member to throw said ports out of registry.

2. A device of the character described having members one of which is movable
 40 relatively to the other, said members having ports adapted to register when said movable member is actuated, a gas cock, and flexible means operatively connected therewith and adapted when actuated to move said movable
 45 member only in a direction to throw said ports out of registry.

3. A device of the character described having members provided with ports adapted
 50 relatively to the other, a gas cock, and a

flexible connection extended from the gas cock to one of said members and capable of operation to move said member in one direction only when the gas cock is operated.

4. A device of the character described 55 having members provided with ports adapted to register when one member is moved relatively to the other, a gas cock, means for moving one of the members relatively to the other from movement of said gas cock, and
 60 a pneumatic alarm device actuated from the discharge of gas when one member is moved relatively to the other.

5. A device of the character described having members provided with ports adapted
 65 to register when one member is moved relatively to the other, a pneumatic alarm device actuated from the discharge of gas and controlled from movement of one member relatively to the other, and means adapted
 70 for operative connection with a gas cock capable of actuation to move one of the members relatively to the other.

6. A device of the character described having members provided with ports adapted
 75 to register when one member is moved relatively to the other, a gas cock, an arm projected from one of said members and a flexible connection extended from the gas
 80 cock to the arm and capable of operation to move said member in one direction only when the gas cock is operated.

7. A device of the character described having members provided with ports adapted
 85 to register when one member is moved relatively to the other, a gas cock, an arm projected from said cock, and a flexible connection extended from the arm to one of
 90 said members and capable of operation to move said member in one direction only when the gas cock is operated.

In witness whereof we have hereunto signed our names, in the presence of two subscribing witnesses.

HARRIS EPSTEIN.
 DAVID LUBINSKY.

Witnesses:

J. D. CAPLINGER,
 W. C. ABBOTT.