Nov. 19, 1940. M. G. FARRAR 2,221,967

CYLINDER SUPPORTING AND PROTECTING MEANS

Filed Sept. 18, 1935 2 Sheets-Sheet 1

Fig 1

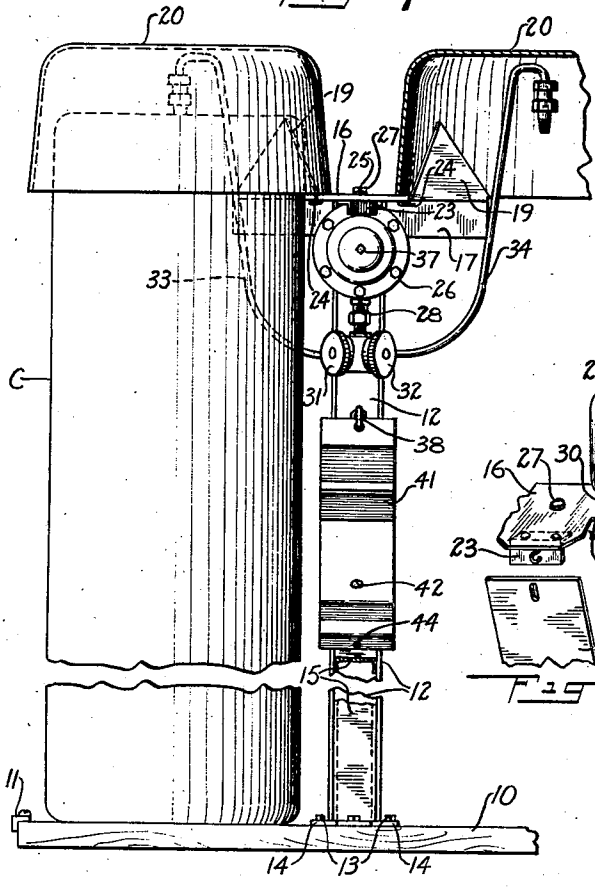
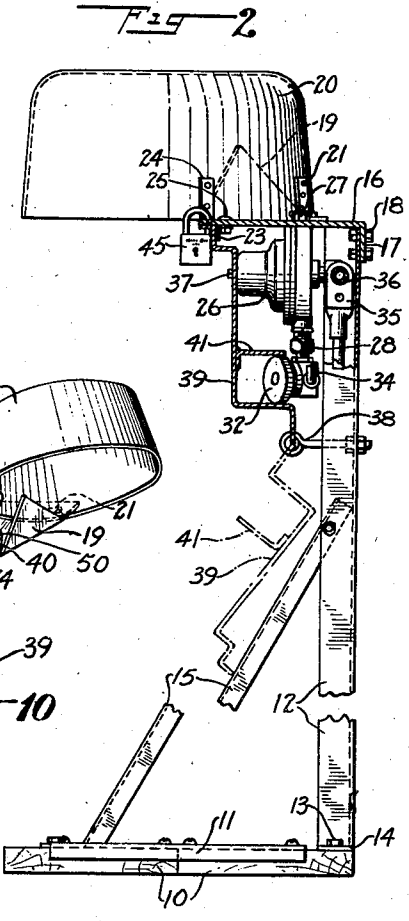


Fig 2



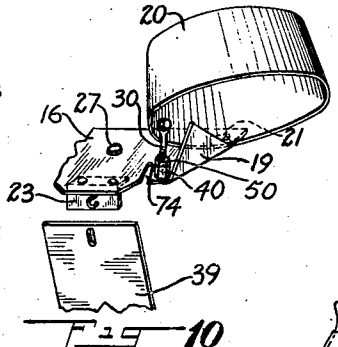


Fig 10

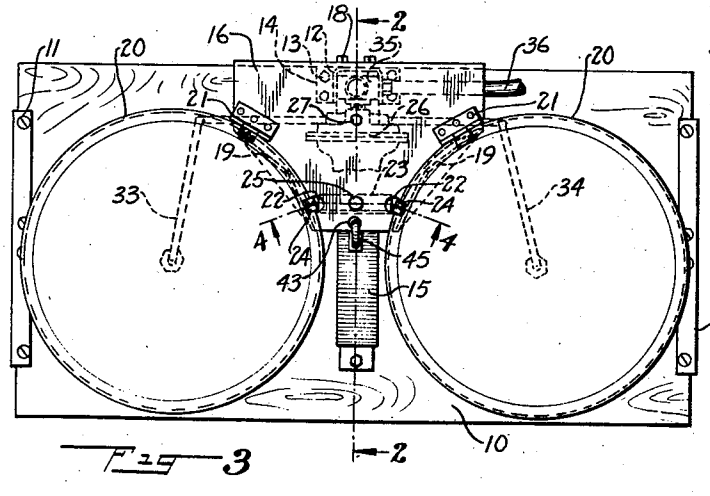


Fig 3

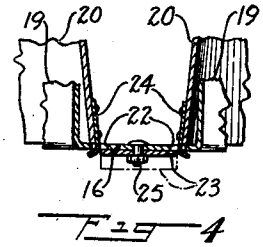


Fig 4

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CYLINDER SUPPORTING AND PROTECTING MEANS

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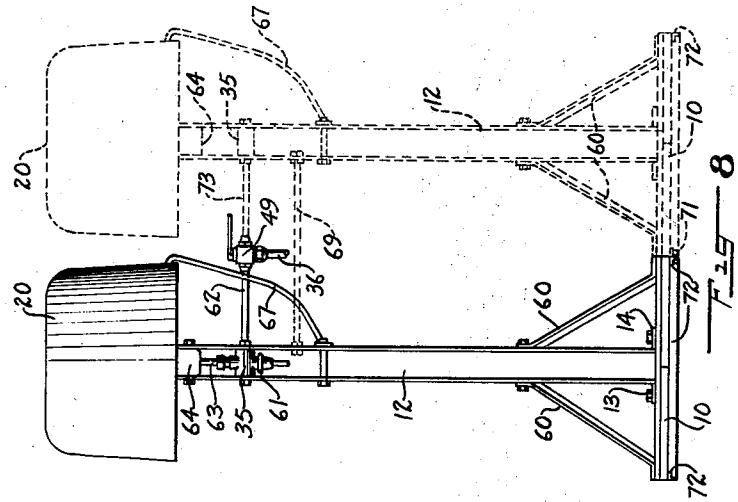


Fig. 8

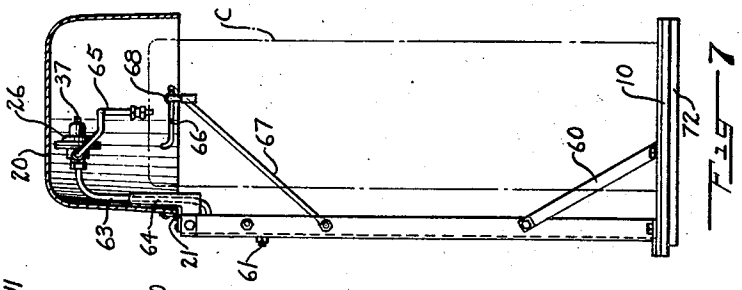


Fig. 7

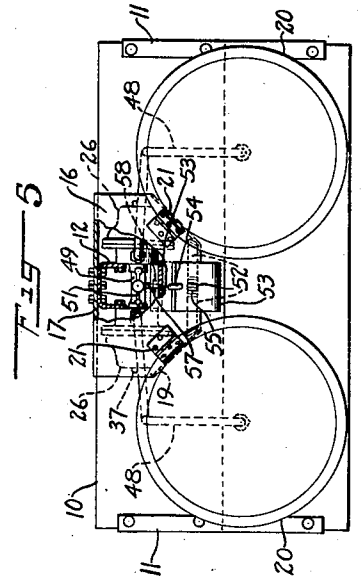


Fig. 5

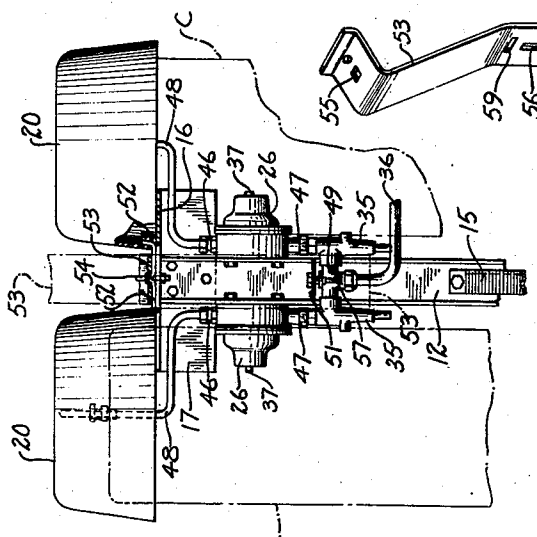


Fig. 6

Fig. 9

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2,221,967

CYLINDER SUPPORTING AND PROTECTING MEANS

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Application September 18, 1935, Serial No. 41,022

22 Claims. (Cl. 221—73.5)

This invention relates to compressed fuel-gas equipment, and more particularly to supporting and protective means for fuel-gas cylinders.

Steel cabinets have generally been used to house the steel cylinders containing compressed fuel gases and the auxiliary equipment connected to such cylinders to supply these gases for domestic heating purposes. Such cabinets are permanently installed outside a dwelling and protect the cylinders and their associated equipment against unauthorized tampering and harmful effects of the weather.

These cabinets are relatively expensive, heavy, and cumbersome to handle and install and they usually accommodate but two standard size cylinders and their auxiliary equipment. Moreover the doors to such cabinets often are difficult to open, and especially when ice or snow accumulates in front of them.

The principal objects of the present invention are to provide a lighter and less expensive supporting and protecting means for fuel-gas cylinders; to provide means to satisfactorily protect one or more fuel-gas cylinders and their auxiliary equipment, and to lock them in secured position; and to provide a unit capable of supporting and protecting a single cylinder so constructed that a plurality of such units may be secured together in a multiple assembly to support and protect any desired number of fuel-gas cylinders and their auxiliary equipment. These and other objects as well as the novel features of the invention will become apparent from the following description and the accompanying drawings, in which:

Fig. 1 is a front elevational view partly in section of one form of an apparatus embodying the principles of the invention;

Fig. 2 is a vertical cross-sectional view of the apparatus shown in Fig. 1 with certain portions in elevation, as taken along the line 2—2 of Fig. 3;

Fig. 3 is a plan view of the embodiment shown in Fig. 1;

Fig. 4 is a detail view of the locking means, as taken on the line 4—4 of Fig. 3;

Figs. 5 and 6 are respectively plan and fragmentary front elevational views of another form of an apparatus embodying principles of the invention;

Fig. 7 is a side elevational view partly in section of a further modified form of an apparatus for carrying out the features of the invention;

Fig. 8 is a front elevational view of the apparatus shown in Fig. 7, with a second apparatus shown in skeleton lines secured thereto;

Fig. 9 is a detail perspective view of a shield such as is used with the apparatus shown in Figs. 5 and 6; and

Fig. 10 is a perspective view of a modified form of dome-locking means shown holding the dome in partly open position.

The cylinder supporting and protective means comprises essentially a base, a column projecting upwardly from the base, and a dome pivotally secured to the upper portion of the column for enclosing the top of a cylinder, its outlet connections, and the usual cylinder valve. Cover plates are provided for protecting such associated parts as a regulator, mercury seal, etc.

Referring again to the drawings and more especially to Figs. 1 to 4, a preferred form of the invention comprises a base or platform plate 10 which may consist of sheet metal, molded composition material, or cast metal, but I prefer to use wood, as it possesses the combined desirable qualities of lightness, strength, and low cost. The wood preferably should be impregnated previously with creosote or a preserving solution to retard decay, and to resist deterioration by insects. Cleats 11, fastened along the short edges of the base or platform plate 10, secure the respective sections of the base 10 together. A column or standard 12, consisting preferably of a channel, extends vertically upward from the base 10 at the middle of the back edge, and is secured to the base by any convenient means, as bolts 13, extending from flanges 14 turned outwardly from the bottom of the channel column 12, through the base 10. A brace or bracket 15, shown in the drawings as a channel, extends angularly from the forward middle portion of the base 10 to an intermediate position of the column 12 and is secured at either end as by bolts. A sidewardly and preferably forwardly extending cover plate or cross-arm 16 having a downwardly depending portion 17 extends transversely of and preferably rests horizontally on the top of the channel column 12 and is secured to the web of the channel as by bolts 18 extending through the portion 17. The cover plate 16 preferably comprises a generally rectangular sheet of metal, the two forward corners of which are bent vertically upward to form supporting ears 19. A pair of bonnets or domes 20, preferably comprising dished sheets of metal, are pivotally secured at either side of the cover plate 16 by diagonally positioned hinges 21 secured respectively to the dome and the cover plate in any convenient manner. Each

dome 20, which normally encloses the top of a fuel-gas cylinder C by resting upon the supporting ears 19, may be raised upwardly into disengaged position until the side of the dome rests upon the cover plate 16.

Catches 24 for holding the domes in normal locked position consist of strips of metal secured to the outer side of the respective domes 20, bent inwardly at their lower end a short distance toward the center of the respective domes as shown in Fig. 4. The cover plate 16 is provided with two apertures 22 located near the catches 24, through which the catches depend. A locking bar 23, represented in the drawings as a strip of angle iron, is pivoted at its mid-section to the cover plate 16 by a bolt 25. The locking bar 23 is positioned between the catches 24 and is so dimensioned, that when it is pivoted to the locking position, the ends of the bar 23 engage the lower portions of the catches 24 and force the inwardly projecting ends into engagement with the sides of the respective apertures 22, to effectively lock the domes 20 against the cover plate 16. When the locking bar 23 is pivoted to the open position, the catches 24 may be lifted out through the apertures 22 by pressing the domes together slightly. The slight motion necessary to disengage the catches 24 is produced by the natural resilience of the domes which also tends to keep the catches 24 in engaged position, even when the locking bar 23 is in the open position.

I may prefer to use the dome-locking means illustrated in Fig. 10 which comprises a catch or latch 30 formed as an eyebolt and pivoted at its upper end to the side of the dome 20. The lower end is threaded to adjustably receive a nut 40 which may be held in position by a lock nut 50. The cover plate 16 is slotted or apertured as at 74 to receive the latch when the dome is being locked. The regulator protecting hood or shield 39 preferably locks against the bar 23 which is permanently fastened to the cover plate. The shield closes the end of the slot 74 when in the locked position, and prevents the latch 30 from being moved to the open position. When the shield 39 is removed, the latch 30 may be disengaged by a forward motion. The latch 30 may rest upon the cover plate 16 to hold the dome 20 in partly open position as shown in Fig. 10. Referring now to Fig. 1, a gas-pressure regulator or expansion valve 26 is held fast against the under side of the cover plate 16 at a position near the column 12 by means of a machine screw 27 or other equivalent means. A nipple 28 connects the high-pressure side of the regulator 26 with a pair of intercommunicating shut-off valves 31 and 32 having a single housing and having operating hand wheels angularly disposed to one another. Cylinder leads 33 and 34, comprising sections of bent tubing, communicate respectively with the usual individual cylinder valves at the top of cylinders C and the valves 31 and 32. The valves 31 and 32 control the distribution and flow of gas from either cylinder to the regulator, one of the valves normally being closed while the other is open. The low pressure discharge port of the regulator is connected with a closely adjacent standard-type mercury seal 35 housed within the channel 12. The flanges of the channel 12 are apertured to receive the discharge pipe 36, which extends from the mercury seal through one flange aperture to the distribution system. The mercury seal 35 is firmly held in position by the fixed regulator and by the abutment of the pipe 36 with the walls of the aperture in the channel flange. The sides of the mercury seal 35 preferably engage the inner walls of the channel 12, serving as added protection and support. The regulator 26 faces the opening between the two cylinders as shown in Fig. 1, and is provided with a pressure-adjusted protecting screw 37, the head of which projects axially and horizontally from the regulator housing.

An eyebolt 38 projects forwardly from the web of the column 12 to serve as a hinge for a front shield 39, shown in the disengaged position in full lines in Fig. 1, and in broken lines in Fig. 2. The hood or shield 39 consists preferably of a flat sheet of metal, bent into irregular outline as shown in Fig. 2. A strip 41 is secured to the shield 39 in the position shown as by soldering, brazing, etc., and serves as an extra protection for the valves 31 and 32. The shield 39 is wide enough to cover and partially enclose the valves, connections, mercury seal, and most of the regulator from exposure to tampering. The shield 39 is provided with an aperture 42 for straddling the head of the screw 37, which the walls of the aperture may abut to provide extra support for the shield. The front edge of the cover plate 16 and the top of the shield 39 are provided with apertures 43 and 44 respectively which align when the shield is in the closed or operative position. The yoke of a padlock 45 may be passed through the apertures 43 and 44 to lock the shield 39 in its normal position. Before the shield 39 can be moved into closed position, the bar 23 must be in the locking position as shown in Fig. 2. When the shield 39 is locked to the cover plate 16, the bar 23 cannot move into the open position because of the abutting relation between the top vertical portion of the shield 39 and the bar 23, as shown in Fig. 2. A single lock thus holds the domes 20 and the shield 39 in operative locked position against the cover plate 16 so as to protect the associated enclosed parts from exposure and damage. Conversely opening a single lock allows the domes 20 to be raised for inspection or substitution of cylinders and permits the shield 39 to drop into open position so as to expose the regulator 26 and valves 31 and 32.

The projection of the screw 37 through the shield 39 permits the pressure to be adjusted without unlocking the device. If preferred the aperture 42 may be omitted so as to prevent unauthorized tampering with the pressure adjustment. When the shield is locked in place, and cylinders C are in place, it is almost impossible for one to get at the handles of the valves 31 and 32, as the strip 41 and the bottom portion of the shield 39 engage the handles, while the cylinders C, column 12, and the shield 39 hide the handles from view. Hinging the domes to the cover plate provides a simple and efficient means for lifting the domes 20 out of normal position.

In the form of the invention shown in Figs. 5, 6, and 9, and in the form shown in Figs. 7 and 8, certain features have been modified. Since many of the parts are identical with those shown in Figs. 1 to 4, only a brief description of these parts is necessary and the following detailed description therefore is directed mainly to the modified features. Similar parts in all of the figures are identified by similar reference characters.

Referring now to Figs. 5, 6, and 9 of the drawings, the modified cylinder protective and supporting means comprises the before-mentioned combination of base 10, column 12 supported by the base 10, cover plate 16 mounted on the

column 12 and domes 20 pivotally secured to the cover plate 16. A regulator 26 is mounted on each of the opposite flanges of the channel column 12. The high-pressure inlet 46 and the low-pressure outlet 47 are diametrically located on the cylindrical portions of each regulator. A cylinder lead 48 extends from each of the high-pressure connections of the regulator 26 to the individual cylinder valve connection of a compressed fuel-gas cylinder C. A mercury seal 35 depends from and communicates with each low pressure outlet 47. The outlets from the two mercury seals 35 are connected to a three-way cock 49 which is adapted to shut off the flow from either cylinder C and to convey the low-pressure fuel gas from the other cylinder C to an outlet pipe 36, or to shut both off. An arrow-shaped handle 51 indicates the direction of flow within the three-way cock 49. With two regulators and two seals, it is possible to continue using gas from one cylinder even should one regulator or one mercury seal be rendered inoperative. It is further possible with this arrangement to have a gas supply at two different discharge pressures, either of which becomes immediately available by a simple turn of the handle 51.

Any convenient means may be provided to lock the bonnets or domes 20 over the cylinders C and to provide a shield for the regulators 26 and mercury seals 35, as for instance by the method employed in the structure shown in Figs. 1 to 4. However, I may provide each dome with a member 52, extending from the bottom of the dome horizontally toward one another and having a portion turned upward at the end of each member 52 so that the portions come adjacent one another, as shown in Fig. 6. A hood or shield 53 is pivoted on the cover plate 16 by means of a hinge element, such as an eyebolt 54, and is apertured as at 55 to receive the upturned portions of the members 52 and hold them in intimate contact. The shield 53 bends inwardly and downwardly, as shown in Fig. 9, and is apertured as at 56 so that the slotted lug 57 formed on the three-way cock 49 may project therethrough. The yoke of a lock 58 may be passed through the slotted lug 57 to hold the shield 53 against the cock 49, and to thus hold the domes down in operating position. Preferably the shield 53 comes so closely adjacent to the arrow-shaped handle 51 that when the shield is locked the position of the cock cannot be changed from the right or left position. The shield 53 may be apertured as at 59 to receive either end of the handle 51 so as to lock the cock in the "off" position. The form of the invention shown in Figs. 1 to 4 may also be provided with a cock or cocks having a pointer handle.

While either of the foregoing forms of the invention may be made with a single cylinder base, I prefer to provide a base capable of supporting two cylinders. The structure shown in Figs. 1 to 4 adapts itself well for use with one cylinder as the only addition necessary when adding a second cylinder is the cylinder lead. If desired, the dome for the second cylinder may be removed by sliding out the hinge pin when only one cylinder is needed.

In the form of the invention shown in Figs. 7 and 8, the cylinder protecting and supporting means is constructed as a unit adapted to hold a single cylinder. When it is desired to add a second cylinder a complete new unit is installed which is firmly secured to the first unit.

Each unit comprises a substantially square base 10 large enough to support but one cylinder. The usual column 12 extends upwardly from the rear edge of the base, and preferably consists of a channel. Brackets 60 extend angularly from the column 12 to the base 10 and serve both as a support for the column and as a means for aligning the cylinder C upon the base 10.

A mercury-sealing unit 35 is rigidly and detachably secured to the supporting column 12 near its upper extremity, as by a U-bolt 61 or by other convenient means. Extending laterally from the mercury-sealing unit 35 is an outlet tube 62, preferably a metal tube or pipe of substantial rigidity. A three-way cock 49 is provided at the opposite extremity of the tube 62 to control the distribution of gas. Extending upwardly from the mercury seal 35 is a conduit or tube 63 which is braced against the supporting column 12. This tube 63 communicates with, and serves as a mounting means for the regulator, or expansion valve 26. A shield 64 shown in the drawings as a piece of curved metal secured to the column 12 partially encloses the tube 63 and serves as a protection for the tube against damage which might otherwise result from violent contact with the cylinder C, as during installation.

A cylinder lead 65 comprises a spiral turn of tubing, one end of which connects with the regulator 26, the other end of which normally connects with the individual valve outlet of the fuel-gas cylinder C. The individual cylinder valve, (not shown) cylinder lead 65, the regulator 26, tube 63, and mercury seal 35 are all protected from exposure to the weather by being enclosed within the dome 20, pivotally mounted as by a hinge to the upper portion of the supporting column 12. The dome 20 is provided with a form of bayonet slot 66 adapted to receive the outturned end of a dome supporting rod 67. The other end of the rod 67 is joined pivotally to the supporting column 12 as shown. The dome may thus be raised or tilted backwards to expose the cylinder valve and connections while the dome supporting rod 67, sliding in the slot 66, may be made to engage the vertical portion of the slot 66 to hold the dome in open position.

It will be noticed that after a cylinder has been set in place and the dome lowered into operating position that it virtually encloses the top of the cylinder, locating and locking it in place, besides quite completely sealing off the chamber within the dome, thus guarding the enclosed parts against unauthorized tampering, and shielding the parts from exposure to weather conditions. The dome may be secured in the lowered or operating position by any suitable locking means. An arbitrary arrangement is disclosed in Fig. 7 wherein the bayonet slot 66 is provided with an enlarged portion close to its forward end to receive the yoke of a padlock 68 for locking the dome 20 in operating position.

These complete units may be quickly secured one to another, to operate in multiple. This provides for an economical and flexible means to increase or decrease the number of cylinders to be used at a single location. In Fig. 8 of the drawings, a second unit, illustrated in broken lines, is shown attached to the first unit. A connecting rod 69, preferably threaded at both ends, joins the respective supporting columns, holding each rigidly in fixed relation to the other. Holes are provided in the flanges of the supporting channels to receive the rod 69, and adjustment is made with nuts provided at each end of the rod.

The respective bases are also secured adjacent to one another by connecting means, such as bolts 71, extending between depending angle members 72 secured to the bases. Angle members 72 also serve to raise the unit from a firm foundation surface and allow for free ventilation under the platform or base 10. The angles further may be used in securing the base to a horizontal or vertical foundation surface. Even without additional fastening means, these angles serve to anchor the base to the earth or other foundation and inhibit sliding tendencies of the base during cylinder replacement operations.

A tube 73 extends from the cock or valve 49 to the mercury seal of the second unit, providing additional connecting means and support. The cock 49 is shown in Fig. 8 as being located midway between the two units. If desired it may be placed nearer one of the units so as to be sheltered somewhat by one of the domes 20. It will be noticed that each of the fuel-gas units contains a regulator and a mercury seal, which allows each to function independently of the other. Control of the flow of gas is effected in the low pressure section of the system.

By means of the present invention therefore the delicate instruments employed as auxiliary equipment in a fuel-gas cylinder distribution system are protected from damage and exposure to weather. The cylinder is of sturdy construction and does not require the extra protection afforded by a metal cabinet. Hence in the present invention a portion of the cylinder is exposed, resulting in a considerable saving both in weight and in the cost of the supporting and protecting means. It will be noticed that when the dome has been lifted from its normal position, the cylinder may be removed and replaced from the front or from either side, which adapts the improved cylinder supporting and protecting means for use in locations of limited area, and where insufficient room is available for removing the cylinders from the front as is ordinarily necessary with metal cabinets.

While the drawings and specification are directed to an apparatus for protecting and supporting compressed fuel-gas cylinders, it is obvious that cylinders of other fluids, such as oxygen, nitrogen, etc., may be substituted for the fuel-gas cylinders if desired. Various other modifications obvious to one skilled in the art may be made in the apparatus without departing from the scope of the invention as I contemplate any structure defined in the claims.

What is claimed is:

1. Means for supporting two gas-containing cylinders and for protecting the upper ends thereof and auxiliary equipment adjacent thereto, said means comprising a cylinder-supporting base; a generally horizontal arm extending near the top of and substantially from one cylinder to the other and being secured above and in fixed spaced relation to said base; and dome-shaped means adjustably mounted on said arm for enclosing the top portion of each cylinder.

2. Cylinder supporting and protecting means comprising a base for supporting a cylinder, a column extending upwardly from said base, a generally horizontal arm secured adjacent to the top of said column, a dome hinged to said arm for enclosing the entire top and upper wall portion of a cylinder disposed on said base; and means engaging said dome for retaining said hinged dome in normal spaced relation above the top of and away from the walls of said cylinder.

3. Fuel-gas cylinder supporting and protecting means comprising a horizontal base for supporting a fuel-gas cylinder, a column extending upwardly from said base, a cover plate at the top of said column, a dome pivotally mounted to said cover plate, and gas delivery means comprising a regulator communicating with such cylinder, said regulator being protected by said cover plate and said dome.

4. A gas-dispensing device adapted to protect a pair of gas-containing cylinders positioned adjacent to one another, comprising a supporting column extending upwardly intermediate said cylinders; a generally horizontal arm extending from opposite sides of said column toward the respective cylinders; movable dome-shaped means connected with said arm for enclosing the top portion of the respective cylinders when said means is in one position, and for exposing the top portions of the respective cylinders when said means is lifted from said position; a pressure regulator mounted adjacent to and in front of said column at a point near the top thereof and between said cylinders whereby said regulator faces the opening between said cylinders and is protected by said column and by said cylinders; and tubular means connecting said regulator with said respective cylinders.

5. A dispensing device comprising a base adapted to hold at least two cylinders, a column extending upwardly from said base, a cover plate secured to the top of said column, a dome for enclosing the top portion of each cylinder pivotally mounted with respect to the cover plate, and a regulator protected by said cover plate.

6. A gas-dispensing device comprising a base for supporting a plurality of gas-filled cylinders, a column extending upwardly from said base, a generally horizontal plate mounted adjacent to the top of said column, dome-shaped means pivotally secured with respect to said plate, said means normally enclosing the upper portion of the cylinders, means for inhibiting the motion of said dome-shaped means in a direction downward from the normal position, and locking means to prevent said dome-shaped means from being lifted from the normal position.

7. A compressed fuel-gas dispensing device comprising a base for supporting at least one fuel-gas cylinder, a column extending upwardly from said base, an apertured plate at the top of said column, at least one dome secured for pivotal movement with respect to said plate, said dome normally enclosing the top portion of a compressed fuel-gas cylinder; and a catch extending between said dome and said apertured plate to secure said dome in normal locked position.

8. A compressed fuel-gas dispensing device comprising a base for supporting at least one fuel gas cylinder, a column extending upwardly from said base, an apertured cover plate at the top of said column, at least one dome secured in pivotal relation to said cover plate, said dome normally enclosing the top portion of a compressed fuel-gas cylinder, a catch secured to said dome for locking engagement with said apertured plate, and a movable element forcing and maintaining said catch in engaging position.

9. A compressed fuel-gas supporting and protecting means comprising a base for supporting at least one fuel-gas cylinder, a column extending upwardly from said base, a cover plate se-

cured to said column and extending forwardly therefrom, pressure reducing mechanism beneath said cover plate, at least one dome pivotally mounted with respect to said cover plate and normally enclosing the top of each fuel-gas cylinder, and a shield for protecting said pressure reducing mechanism.

10. A compressed fuel-gas supporting and protecting means comprising a base for supporting at least one fuel-gas cylinder, a column extending upwardly from said base, a forwardly extending cover plate secured to said column, pressure reducing mechanism beneath said cover plate, at least one dome pivotally mounted with respect to said cover plate and normally enclosing the top of a fuel-gas cylinder, and a shield formed of bent sheet material being pivotally mounted between said column and said cover plate.

11. A fuel-gas cylinder distribution apparatus comprising a base for supporting at least one cylinder, a column extending upwardly from said base, a cover plate secured to said column, at least one dome mounted in pivotal relation to said cover plate, means positioned beneath said cover plate connecting with each cylinder for reducing the pressure of the distributed gas, said means including a distribution cock for conveying gas from either cylinder, a handle on said cock capable of indicating from which cylinder gas is flowing, and a shield extending from said cover plate to said cock and being secured at both ends when in the normal position, said shield being formed so as to lie in the normal position flat against said handle to prevent said handle from moving when gas flows through said distribution cock.

12. Cylinder supporting and protecting means comprising a platform for supporting a cylinder; a column extending vertically therefrom; means for engaging the side wall of a cylinder for inhibiting sidewise displacement of said cylinder on said platform, and comprising a diagonal brace extending from said column to said platform; and a dome secured adjacent to the top of said supporting column, said dome enclosing the top of said cylinder when in the operating position.

13. The combination with a fuel-gas cylinder, of a cylinder-supporting base, a column, a dome hinged with respect to the top of said column, and normally enclosing the top of said cylinder, a cylinder lead, an outlet tube, a pressure regulator supported by said cylinder lead and said outlet tube, said regulator being positioned above said cylinder and being shielded by said dome, and means for locking said dome in the normal enclosing position.

14. The combination with a cylinder, of a base, a supporting column, a dome secured adjacent to the upper portion of said column and normally enclosing the upper portion of said cylinder, and reinforcing means extending angularly between said base and said supporting column, said reinforcing means being disposed so as to extend adjacent to the sides of said cylinder to assist in aligning said cylinder with respect to said base and said dome.

15. A compressed fuel-gas cylinder supporting and protecting means comprising a base for supporting at least one fuel-gas cylinder, a column extending upwardly from said base, a cover plate secured to said column, pressure reducing mechanism beneath said cover plate, at least one dome pivotally mounted with respect to said cover plate and normally enclosing the top of a fuel-gas cylinder, and a shield positioned adjacent to and in front of the pressure reducing mechanism for protecting it from exposure.

16. A compressed fuel-gas dispensing device comprising a base for supporting at least one fuel-gas cylinder, a column extending upwardly from said base, a cover plate at the top of said column, at least one dome secured in pivotal relation to said cover plate, means for selectively locking said dome to said cover plate, each of said domes normally enclosing the top portion of a compressed fuel-gas cylinder, and a shield, pivotally secured at one end to the forward side of said column, and being normally held at the other end against said cover plate, said shield normally holding said means in the locking position.

17. A fuel-gas dispensing apparatus comprising a base, a column extending upwardly from said base, a cover plate at the top of said column, at least one dome movably secured to said cover plate, a gas regulator and a distribution cock or valve secured together in operative relation, and being positioned beneath said cover plate in front of said column, and a shield having a configuration permitting it to come closely adjacent to said regulator and to said distribution cock to protect them from exposure.

18. A fuel-gas dispensing apparatus comprising a base, a column extending upwardly from said base, a cover plate at the top of said column, at least one dome movably secured to said cover plate, a gas regulator and a distribution cock or valve secured together in operative relation, and being positioned beneath said cover plate and adjacent to said column, and a shield having a configuration permitting it to come closely adjacent to said regulator and to said distribution cock to protect them from exposure, said regulator having an adjustment screw, and said shield being provided with an aperture aligned with the said screw so as to permit adjustment of the screw while said shield is in the normal position.

19. A fuel-gas cylinder supporting and protecting means comprising a base for supporting at least one cylinder, a column extending upwardly from said base, a cover plate secured to said column, at least one dome mounted in pivotal relation to said cover plate, means protected by said dome and said cover plate connecting with each cylinder for reducing the pressure of the distributed gas, said means including a distribution cock for conveying gas from either cylinder, a handle on said cock having a configuration capable of indicating from which cylinder gas is flowing, and a shield connecting at its extremities with said cover plate and said cock when in the normal position, said shield being formed so as to lie in the normal position flat against said handle to inhibit movement of said handle when gas flows through it, said shield being apertured to receive in the normal position either end of said handle while said cock is in the off position, said shield thereby inhibiting movement of said cock when said shield is in the normal position.

20. In a cylinder-supporting and protecting means comprising a plurality of gas dispensing units, each unit including a base for supporting a cylinder, and a channel-shaped column; the combination comprising a mercury seal mounted between the flanges of each channel-shaped column, a distribution cock, and a tube extending from the outlet of each mercury seal through a

flange of said column to said distribution cock, for securing adjoining gas dispensing units together.

21. In a gas distribution system, the combination comprising a platform for supporting a fuel gas cylinder, a channel-shaped column extending upwardly from said platform, a regulator in gaseous communication with said cylinder, and a mercury seal connected to said regulator and secured against said channel-shaped column, said seal being housed within and protected by the flanges of said column.

22. A support and protecting device for fluid dispensing cylinder installations comprising an upright standard having at its upper extremity a protecting device for the valves of adjacent cylinders and for a pressure regulator assembly connected to said valves, said protecting device comprising a cross-arm, valve protecting bonnets carried at opposite ends of said cross-arm and adapted to enclose said valves, a regulator protecting hood associated with said cross-arm intermediate its ends adapted to enclose at least a portion of said regulator assembly, the bonnets of said protecting device being movable with respect to said valves and the hood of said protecting device being movable with respect to said regulator assembly, and means for locking the bonnets and hood of said protecting device in place.

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