

[54] YARD HYDRANT

[72] Inventor: Noel M. Anderson, P.O. Box 392, Storm Lake, Iowa 50588

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Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 857,886, Sept. 15, 1969, abandoned.

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[58] Field of Search 137/272, 280, 287, 288, 289;
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353, 354

[56]

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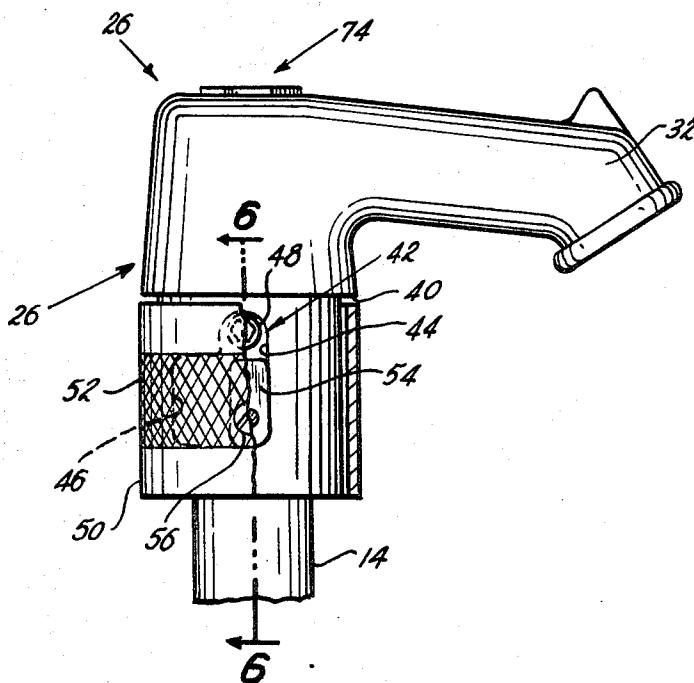
Primary Examiner—Alan Cohan
Assistant Examiner—Richard Gerard
Attorney—Morton S. Adler

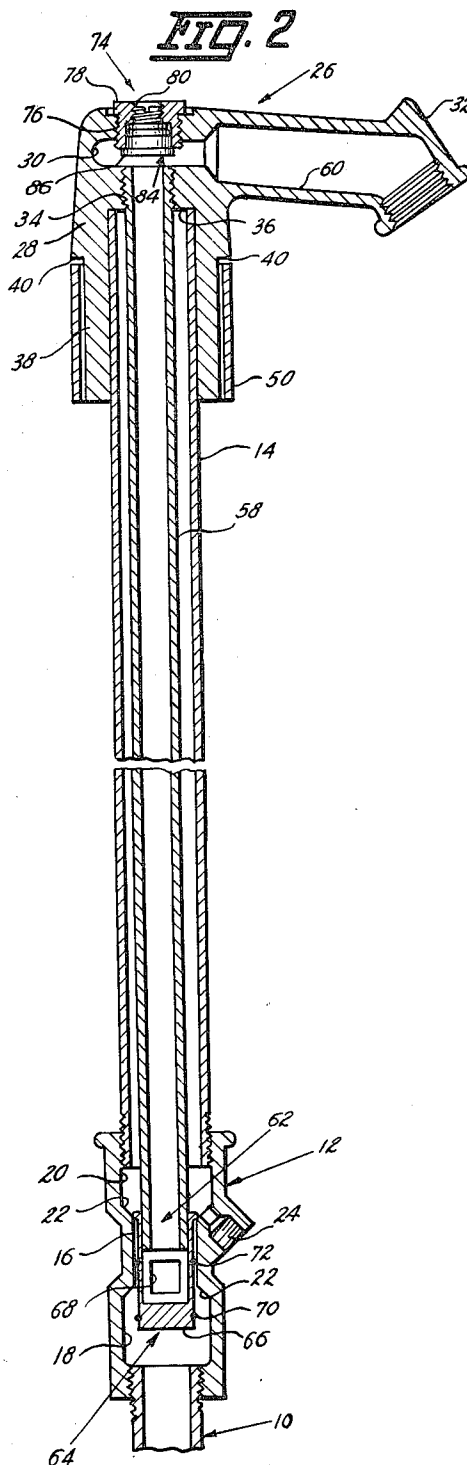
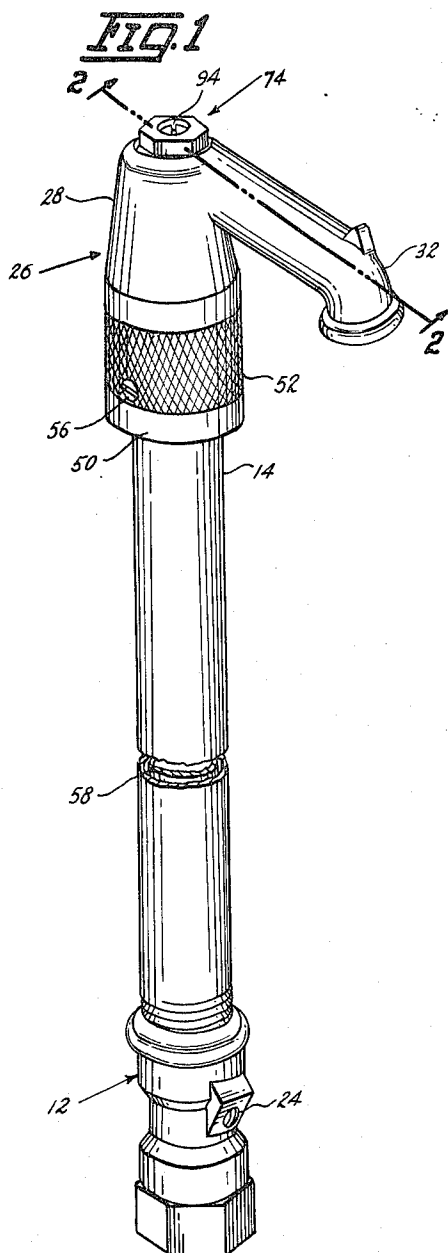
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ABSTRACT

A yard hydrant wherein no separate operating handle component is used or required and the operation of a valve assembly is accomplished by a movable spout head. A vertically disposed flow pipe disposed within a standpipe has a valve means at its lower end and is secured at its upper end to the hydrant head. Water under pressure reaching the valve will normally elevate the valve to closed position with the flow pipe and hydrant head being elevated accordingly. The valve means is either full open or full closed and is opened by depressing the hydrant head to correspondingly depress the flow pipe and open the valve. Means are provided to releasably lock the hydrant head and valve in depressed or full on position. Upon release of the head from depressed position, water pressure on the valve automatically elevates it to closed position. An adjustment means in the head relative to the top of the flow pipe is provided for regulating the volume of flow, if desired.

10 Claims, 14 Drawing Figures





INVENTOR.
NOEL M. ANDERSON

BY *Morton S. Adler*
ATTORNEY.

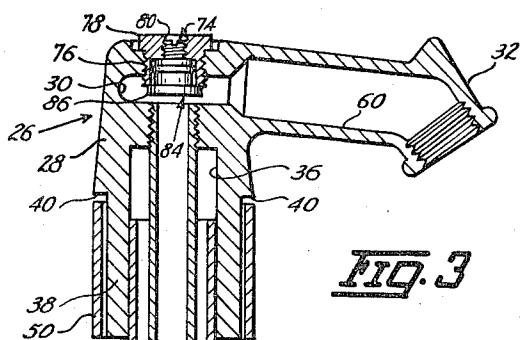


Fig. 3

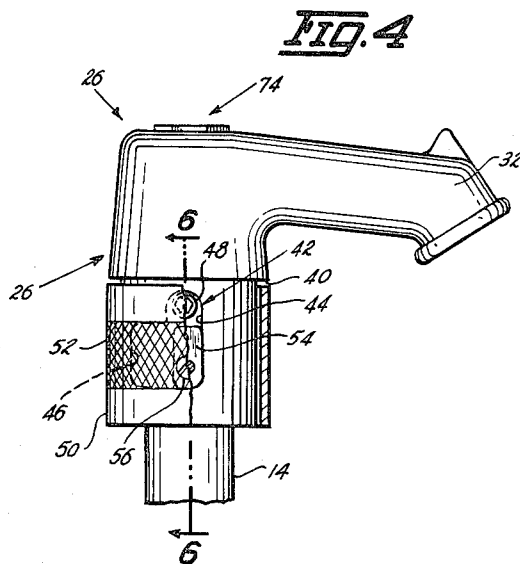


Fig. 4

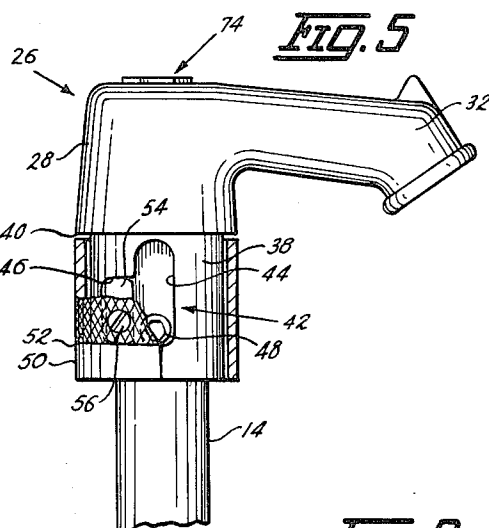


Fig. 5

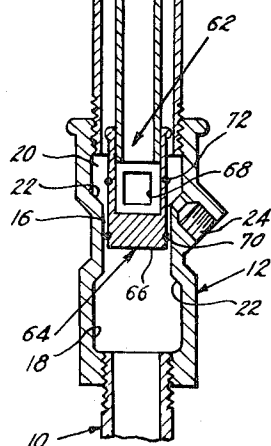


Fig. 6

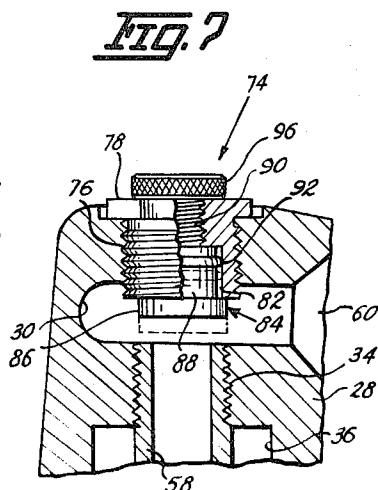
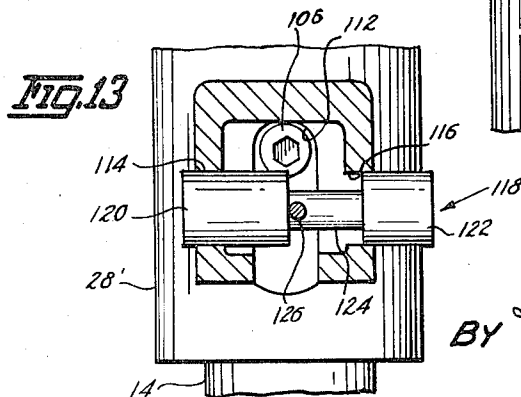
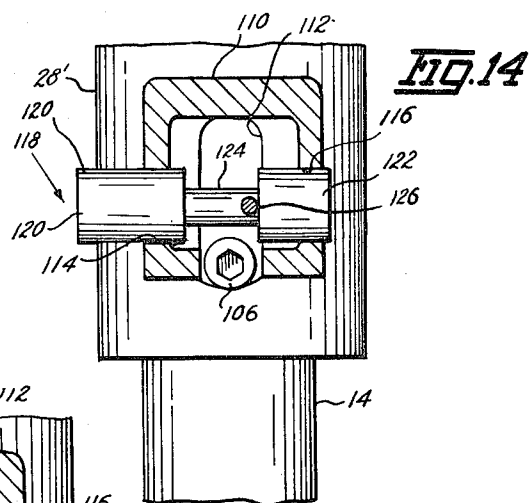
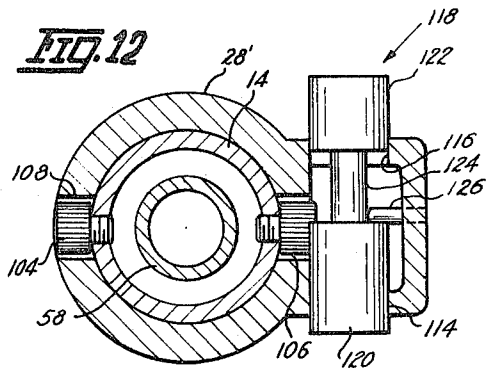
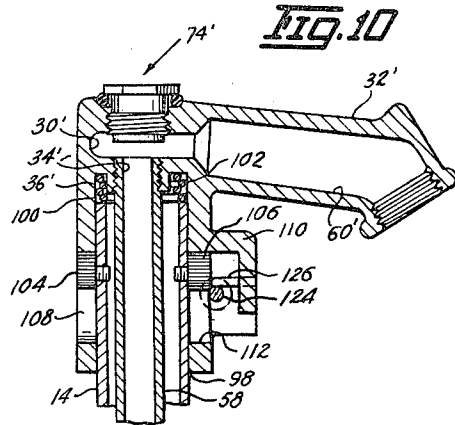
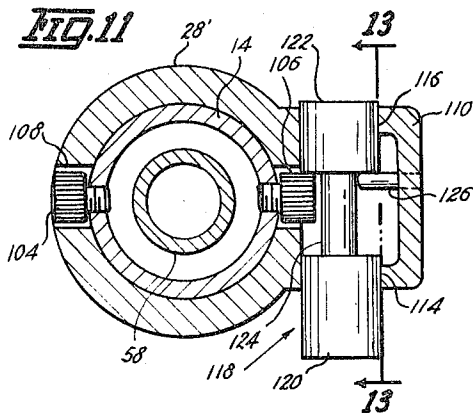
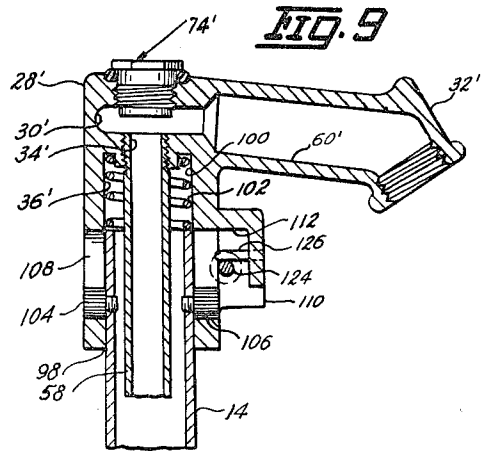
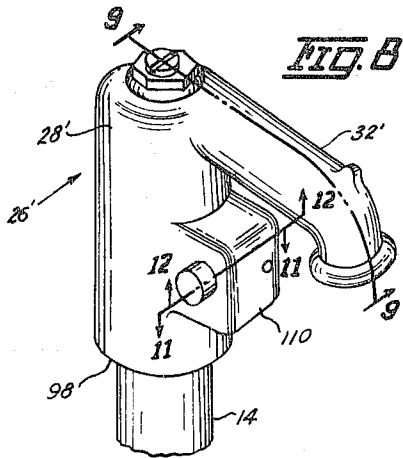


Fig. 7

INVENTOR.
NOEL M. ANDERSON

BY *Morton S. Adler*
ATTORNEY.



INVENTOR.
NOEL M. ANDERSON

BY *Malcolm L. Adler*
ATTORNEY.

YARD HYDRANT

CROSS REFERENCE TO RELATED APPLICATION

This invention is an improvement of the valve actuating assembly for a Yard Hydrant Valve disclosed in my copending application thereon, Ser. No. 703,973, filed Feb. 8, 1968, now U.S. Pat. No. 3,523,549 and is a continuation-in-part of my copending application for a Yard Hydrant, Ser. No. 857,886, filed Sept. 15, 1969, now abandoned.

Background of the Invention 1. Field of the Invention

This invention relates to yard hydrants and more particularly to a novel concept in hydrant structure which utilizes a movable spout head in place of a separate traditional type operating handle for opening and closing the flow of water through the hydrant head.

2. Description of the Prior Art

Hydrants have long been used in connection with water systems and much of the basic hydrant art appears to lie in the late 1800's and early 1900's. In such early art and even in later improvements it would appear that the hydrant device includes basically a fixedly mounted hydrant head for release of water with some suitable valve structure regulating the flow of water to the head and an appropriate operating handle means for controlling the movement of the valve components. Such handle means frequently comprises a swingable type handle or may include a rotatable knob and various structures are present in the art whereby the relationship of the control handle to the valve is such that volume flow control is possible. The present invention is believed to be a marked departure from these basic characteristics in that no separate operating handle or knob directly associated with the valve structure in the traditional operating handle concept is used or required and full valve control and volume of flow control is obtained by a novel movable spout head. One of the important advantages of the present invention is that it affords substantial economy in its fabrication without any loss in efficiency for its intended purpose.

SUMMARY

The present invention utilizes a hydrant flow pipe vertically movable within a standpipe. The lower end of the flow pipe is provided with any suitable valve means for controlling the flow of water therethrough from a water supply under pressure. The upper end of the flow pipe is fixedly secured to the hydrant spout head and in flow communication therewith and such head is vertically movable with the flow pipe and valve relative to the standpipe. The flow of water through the valve component is either in full on or full off position and normally, the contact of water under pressure with the valve will elevate the valve into closed position with the flow pipe and hydrant head being elevated accordingly. The opening of the valve on the flow pipe for the passage of water to the hydrant head is accomplished by depressing the hydrant head, which correspondingly depresses the flow pipe and valve to the open position of the valve. The hydrant head has a depending cylindrical portion defined in one embodiment as an integral sleeve slidably arranged upon the upper end of the standpipe and having a rotatable collar embracing the sleeve which can be rotated to a locking position relative to the standpipe when the hydrant head is depressed so as to maintain the head in depressed position with the valve open. In another embodiment, a transversely slidable locking pin is associated with the cylindrical portion to appropriately engage a stop on the stand pipe for holding the head in depressed or open valve position.

A flow adjustment means is provided in the hydrant head which can be adjusted to act against the outlet opening of the flow pipe within the head so as to control the volume of flow if desired. The flow of water through the hydrant is shut off by rotating the locking collar out of locking position whereby the water pressure acting on the valve automatically elevates the valve and the hydrant head to its closed position. Spring means may be provided relative to the spout head and stand-

pipe to cooperate with water pressure in moving the valve to closed position when the locking means on the head is released.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view showing one embodiment of this new yard hydrant,

FIG. 2 is a longitudinal sectional view thereof showing the lowermost position of the hydrant head relative to the standpipe when the valve assembly is in open position,

FIG. 3 is a view similar to FIG. 2 but showing the uppermost position of the hydrant head relative to the standpipe when the valve assembly is in closed position,

FIG. 4 is an elevational view, partly in section, of the hydrant head in its lowermost position and showing it locked to the standpipe in the open position of the valve assembly illustrated in FIG. 2,

FIG. 5 is a view similar to FIG. 4 but showing the hydrant head in its uppermost position and unlocked relative to the standpipe when the valve assembly is in closed position as illustrated in FIG. 3,

FIG. 6 is a cross sectional view taken on the line 6—6 of FIG. 4,

FIG. 7 is a fragmentary sectional view of the upper portion of the hydrant head to illustrate a second embodiment of the flow control element,

FIG. 8 is a perspective view of a second embodiment of the hydrant head in this invention,

FIG. 9 is a sectional view thereof taken on the line 9—9 of FIG. 8 showing the uppermost position of the hydrant head corresponding to the hydrant head position in FIGS. 3 and 5,

FIG. 10 is a view similar to FIG. 9 but showing the lowermost position of the hydrant head corresponding to the hydrant head position in FIGS. 2 and 4,

FIG. 11 is a sectional view taken on the line 11—11 of FIG. 8 to show the unlocked position of the locking pin when the hydrant head is in the uppermost position of FIG. 9,

FIG. 12 is a sectional view taken on the line 12—12 of FIG. 8 to show the locked position of the locking pin when the hydrant head is in the lowermost position of FIG. 10,

FIG. 13 is an elevational view of the locking pin with the face of the locking pin housing removed to more clearly illustrate the locked position of FIG. 12, and

FIG. 14 is a view similar to FIG. 13 but showing the unlocked position of FIG. 11.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to the drawings, I have used the numeral 10 to designate a standard water main supply pipe through which water is pumped under pressure. A hollow fitting 12, which also serves as a valve housing, is threadably attached to the supply pipe 10 at one end and at the other end is similarly attached to the lower end of a standpipe 14 so as to afford a fluid flow communication between said pipes. Intermediate the joined ends of the respective pipes 10 and 14 and within fitting 12, such fitting is provided with a reduced passageway designated by the numeral 16. Passageway 16 defines the enlarged lower chamber 18 in direct communication with supply pipe 10 and the enlarged upper chamber 20 in direct communication with the standpipe 14. At each end of the restricted area 16, the inner walls of fitting 12 are angled or bevelled toward the respective chambers 18 and 20 as indicated by the numeral 22. A drain hole 24 is provided in fitting 12 and in communication with the upper chamber 20.

Associated with the upper end of the standpipe 14 is my new hydrant head assembly of which one embodiment is shown in FIGS. 1—7 and a second embodiment is shown in FIGS. 8—14. With reference first to FIGS. 1—7, the hydrant head assembly is designated generally by the numeral 26 and includes a head section 28 provided with an upper chamber 30 in flow communication with an integral laterally projecting spout or nozzle member 32. Below chamber 30 and in com-

munication therewith is the restricted threaded bore or passageway 34 that extends to and communicates with the enlarged bore area 36 in the depending cylindrical portion of head section 28 here defined as an integral sleeve 38. The outer diameter of sleeve 38 is less than the diameter of the head section 26 to define the shoulder 40 and the internal diameter of bore 36 is such that sleeve 38 can be journaled upon the upper end of standpipe 14 whereby the head assembly 26 is vertically slidable relative to such standpipe.

Sleeve 38 as best seen in FIG. 5, is provided with a step-shaped opening or notch 42 defining an elongated portion 44 and the adjacent and communicating shorter length notch portion 46. A stop or boss 48 is secured to standpipe 14 so that it registers with the elongated portion 44 of notch 42 and serves to limit the uppermost and lowermost position of head section 28 relative to standpipe 14 as can be seen in FIGS. 4 and 5.

Rotatably arranged on sleeve 38 is the collar member 50 which has an outer diameter substantially the same as head section 28 at the shoulder point 40 so that collar 50 can be accommodated on sleeve 38 with the outer surface of the collar substantially planar with the outer surface of head section 28 as best seen in FIG. 1. The main outer surface of collar 50 is knurled as at 52 to facilitate the manual grasping of the same for rotation as will appear.

To the interior surface of collar 50 and oriented relative to slot 42 there is secured a lug 54 by means of a screw 56. The size of lug 54 is such as to permit of its reception within the confines of slot 42 and particularly within the short side 46 of such slot so that while collar 50 may be rotated relative to sleeve 38 within the limits of horizontal movement of lug 54 within notches 42 and 46, there is no vertical movement of collar 50 relative to such sleeve although said collar will move vertically with said sleeve relative to standpipe 14. By this arrangement, when head section 28 is in its uppermost position relative to standpipe 14 as seen in FIG. 5, the bottom edge of the long portion 44 of slot 42 will be engaged with the stop 48 and lug 54 will be in the short section 46 of slot 42. When the head section 28 is in its lowermost position relative to standpipe 14, the upper edge of the long portion 44 of slot 42 will be engaged with stop 48 and by manual rotation of collar 50, lug 54 is moved so as to be in the lower part of slot portion 44 directly below stop 48. In this position lug 54 together with stop 48 in effect provide a solid stop means in the long portion 44 of slot 42 so that the head section 28 becomes immovable relative to standpipe 14. The rotation of collar 50 so as to move lug 54 back to the small section 46 of slot 42 makes it possible for head section 28 to again be movable relative to standpipe 14 and the purpose and effect of this arrangement will be later described in detail.

A hydrant flow pipe 58 as best seen in FIGS. 2 and 3 is smaller in diameter than the standpipe 14 and is concentrically disposed within such standpipe as shown. The upper end of the flow pipe 58 is threadably secured to the restricted bore portion 34 of the head section 28 so that pipe 58 has flow communication with the passageway 60 within the spout or nozzle 32. The lower end of pipe 58 extends into the fitting 12 to accommodate a valve assembly designated generally by the numeral 62. Any suitable valve structure susceptible of actuation by a vertical movement may be employed and preferably, I utilize a valve structure as follows. The lower end of pipe 58 terminates in a plug or cap 64 which is hollow and closed at its bottom end 66. Spaced slightly upwardly from the closed end 66, plug 64 is provided with opposed lateral inlet openings or ports 68 affording the means of flow communication from the outside of plug 64 to the interior of the hydrant flow pipe 58. Plug 64 carries an external O-ring 70 seated in a suitable surface groove below the opening 68 and a second O-ring 72 similarly arranged above the opening 68.

Plug 64 as shown in the drawings is designed to be movable relative to the reduced passageway 16 in fitting 12 and for this purpose, the diameter of plug 64 is such that each of the O-rings 70 and 72 will be in fluid tight engagement with

passageway portion 16 whenever the position of plug 64 is such that one of said O-rings is within the limits of said reduced passageway.

A flow control assembly designated generally by the numeral 74 is provided in the top of the hydrant head assembly 26. As best seen in FIGS. 2, 3 and 7, a threaded opening 76 is provided in the top of head section 28 so as to communicate with head chamber 30, and a flow control nut 78 is threadably secured to head section 28 in opening 76. The upper portion of nut 78 is provided with the axial threaded opening 80 that communicates with the enlarged bore 82 in the lower portion thereof with said bore being in axial alignment with the axis of pipe 58. A flow control plug or bolt 84 includes a disk like head 86 with an adjacent concentrically reduced shank portion 88 and a further reduced externally threaded shank portion 90. The head 86 of plug 84 is disposed within chamber 30 in axial alignment with pipe 58 and with the threaded shank portion 90 threadably engaged within the threaded bore portion 80 of nut 76. Shank portion 88 of plug 84 is provided with an O-ring 92 for a fluid seal engagement with the walls of bore section 82 of nut 78. The outer extremity of the threaded shank 90 may be provided with a kerf 94 as seen in FIG. 1 or with a knurled knob 96 as seen in FIG. 7. By this arrangement, the rotation of plug 84 either by a screwdriver in the form shown in FIG. 1 or manually in the form shown in FIG. 7 will move head section 86 of the control plug 84 toward and away from the upper outlet opening of pipe 58 within chamber 30 and thus affords a most simple but efficient flow control assembly.

The kerfed shank 90 shown in FIG. 1 has the advantage of affording a more or less fixed adjustment for the hydrant flow when such type of adjustment will be desired for relatively long periods. The manually operable control knob 96 shown in FIG. 7 may be employed if frequent flow adjustments are required or desired.

With reference now to FIGS. 8-14, I have shown a second embodiment of a depressable and lockable yard hydrant head assembly utilizing the principle disclosed relative to FIGS. 1-7 and which is similarly associated with standpipe 14, flow pipe 58, fitting 12 and the valve assembly 62 as previously described. Accordingly, in the following description where there are like parts they will be given like numerals and corresponding parts will be given like numerals primed.

This embodiment of the hydrant head assembly is designated generally by the numeral 26' and includes the cylindrical head section 28' provided with an upper chamber 30' in flow communication with an integral laterally projecting spout or nozzle member 32'. Below chamber 30' and in communication therewith is the restricted threaded bore or passageway 34' that extends and communicates with the large bore area 36' which extends to the bottom end 98 of head section 28'. The upper end of bore area 36' defines an annular groove 100 intermediate the outer surface of head section 28' and the restricted bore or passageway 34'. The internal diameter of bore 36' is such that head section 28' can be journaled upon the upper end of standpipe 14 whereby head assembly 26' is vertically slidable relative to such standpipe. As indicated above, relationship of head assembly 26' to standpipe 14, flow pipe 58, fitting 12 and valve assembly 62 is the same as previously described and thus details particularly of fitting 12 and valve assembly 62 have not been shown in FIGS. 8-14. However, as seen in FIGS. 9 and 10 in the same relationship as in FIGS. 2 and 3, the upper end of the flow pipe 58 is threadably secured to the restricted bore portion 34' of the head section 28' so that pipe 58 has flow communication with the passageway 60' within the spout or nozzle 32'. A compression spring 102 is journaled on the upper end of flow pipe 58 below the restricted bore 34' so that the upper end of such spring seats in groove 100 and the lower end is abutted against the top edge of standpipe 14. By this arrangement as will appear, spring 102 acts against the hydrant head 28' to normally urge it to its uppermost position relative to the standpipe 14.

For purpose of description only, that part of the head assembly 28' directly below the nozzle 32' and the related standpipe 14 will be referred to as the front side of this head assembly and the opposite side will be referred to as the back side. On opposite sides of the standpipe 14 relative to the front and back sides of head section 28' and diametrically opposite to each other there is provided the respective studs or stops 104 and 106. The back side of head section 28' is provided with a vertical elongated slot 108 which registers with stop 104. The front side of head section 28' is provided with a protruding locking pin housing 110 which is integral with section 28' and defines the elongated slot 112 in such section oppositely disposed to slot 108 and adapted to register with and accommodate the stop 106. Thus the vertical movement of head section 28' relative to the standpipe 14 is limited in its downward movement by the engagement of the top edges of slots 108 and 112 with the respective stops 104 and 106 and the upward movement is limited by the engagement of the bottom edges of slots 108 and 112 with the respective stops 104 and 106. For purposes of locking head section 28' to standpipe 14 as will later appear, only stud 106 is required but I preferably include the additional stud to add to the efficiency of cooperation between section 28' and standpipe 14 under high pressures.

Opposite sides of housing 110 are provided with suitable registering openings 114 and 116 as best seen in FIGS. 13 and 14 for slidably receiving a locking pin designated generally by the numeral 118. Pin 118 is generally on a horizontal plane and designed to move transversely of the longitudinal axis of the standpipe 14. Pin 118 is preferably cylindrical having a long section 120 and a short section 122 of like diameter and an intermediate section of reduced diameter 124 so that pin sections 120 and 122 are longitudinally spaced apart as shown. A small pin or stud 126 is set into the front side of the lock pin housing 110 so as to extend substantially to the outer diameter of the reduced locking pin portion 124. The purpose of pin 126 is to prevent the locking pin 118 from being removed from housing 110 and the location of pin 126 is such that it will be abutted by the inner surface of pin portion 122 in one direction as seen in FIG. 14 and by the inner edge of pin portion 120 in another direction as seen in FIG. 13. In the unlocked position of pin 118 as seen in FIGS. 11 and 14, the short section 122 is pushed inwardly so that the reduced diameter portion 124 registers with stud 106 but because of its reduced diameter will move freely past such stud permitting section 26' to reach its uppermost position in FIG. 9 where valve 62 is closed. When section 26' is manually depressed to open valve 62, pin section 124 moves past and lower than stud 106 and by pushing in the large section 120 of pin 118, such section will engage and wedge against the lower side of stud 106 as seen in FIGS. 12 and 13 so that section 26' is immovable relative to standpipe 14 and valve 62 remains opened. To close valve 62, it is only necessary to push in the short section 122 of pin 118 and section 26' will automatically return to its uppermost position under water main pressure as previously described. This movement is aided by spring 102 but such spring is merely an added expedient which can be eliminated, if desired.

The flow control plug assembly 74' is the same in construction and purpose as assembly 74 previously described so a repetition of the details thereof would not appear to be necessary.

OPERATION

Under ordinary water main pressure and with head sections 28 or 28' in unlocked position relative to standpipe 14, the valve assembly 62 will be urged to its closed or uppermost position as shown in FIG. 3. In this position, O-ring 70 on the valve assembly 62 will be in fluid seal engagement in the restricted passageway 16 within the fitting 12 to close off any flow from pipe 10 to ports 68 and since the head section assemblies 26 and 26' are fixedly secured to the flow pipe 58

which in turn is secured to assembly 62, the upward travel of flow pipe 58 will correspondingly move the head section assemblies 26 or 26' to their uppermost position as seen in FIGS. 5 and 9. While ordinary main pressure will normally be sufficient to hold valve 62 closed when the hydrant head is not locked to the standpipe, I have provided the spring 102 in the embodiment of FIGS. 8-14 which provides additional force against the head section for urging it to its uppermost position.

This hydrant is put in operating or fluid flow position merely by manually depressing the head assemblies 26 or 26' to their respective lowermost positions shown in FIGS. 4 and 10 which causes O-ring 70 to descend into the lower chamber 18 so as to permit the flow of water through inlet 68 into pipe 58. In this position, the upper O-ring 72 is in fluid seal engagement within the restricted passageway 16 of fitting 12 to prevent any drain back from standpipe 14 into ports 68. With reference to head section assembly 26 in depressed position as shown in FIG. 4, sleeve 38 and collar 50 have moved so that stop 48 is now in the upper extremity of the long portion 44 of slot 42 so that by the manual rotation of collar 50, lug 54 is moved directly beneath stop 48 whereby such stop together with lug 54 substantially fills the entire area of the larger slot portion 44 of slot 42 and head section assembly 26 is effectively locked in place with the valve assembly 62 in full open position. By rotating collar 50 to move lug 54 back into portion 46 of slot 42, the pressure through pipe 10 will automatically move valve assembly 62, pipe 58 and head section assembly 26 to its closed position as seen in FIGS. 3 and 5. With reference to head section 26' in depressed position as seen in FIG. 10, the sliding of pin 118 as previously described to lock or unlock section 26' relative to standpipe 14 produces the same results as the rotation of collar 50 and lug 54.

From the foregoing, it will be appreciated that the position of valve assembly 62 is either in full open or full closed position and that the actual volume of flow through nozzle 32 is selectively controllable by appropriate adjustment of the valve adjustment assemblies 74 or 74'. With neither head section 26 or 26' is any separate operating handle required and thus considerable economy in manufacture is obtained without any loss in efficiency.

I claim:

1. A yard hydrant, comprising:

- a valve housing adapted to be connected at one end to a source of fluid under pressure,
- a standpipe having an upper and lower end with said lower end secured to said other end of said valve housing,
- a flow pipe concentrically disposed within said standpipe and reciprocal therein,
- valve means secured to one end of said flow pipe and operable relative to said valve housing by reciprocation of said flow pipe to selectively open and close flow communication to said flow pipe,
- a hydrant head with an integral nozzle secured to said other end of said flow pipe and in flow communication therewith,
- said hydrant head being slidably journaled on the upper end of said standpipe,
- the movement of said hydrant head in one direction acting to move said flow pipe and valve means to open flow communication with said source of fluid under pressure and movement of said hydrant head in the opposite direction acting to move said flow pipe and valve means to closed position relative to said fluid under pressure,
- stop means on said standpipe acting relative to said hydrant head to limit the movement of said hydrant head relative to said standpipe in two respective opposite directions to the respective open and closed positions of said valve means, and
- a manually operable locking means carried by said hydrant head selectively movable to cooperate with said stop means for holding said hydrant head immovable relative to said standpipe.

2. A device as defined in claim 1 wherein with said locking means out of locking position with said stop means, said valve means is normally urged into closed position under fluid pressure within said valve housing and effects the corresponding movement of said flow pipe and hydrant head.

3. A device as defined in claim 2 including a compression spring on said flow pipe disposed so as to act against said hydrant head and said standpipe and to cooperate with the fluid pressure when said hydrant head is in unlocked position in urging said hydrant head toward one direction of travel.

4. A device as defined in claim 1 wherein the immovable position of said hydrant head relative to said standpipe defines the open flow position of said valve means relative to said valve housing.

5. A device as defined in claim 1 including:

a flow control plug disposed in said hydrant head, and said plug being selectively movable toward and away from the point of flow communication between said flow pipe and said hydrant head to selectively narrow and enlarge said point of communication for regulating the volume of fluid flow through said nozzle.

6. A device as defined in claim 5 wherein one end of said plug is in communication with the exterior of said hydrant head for purpose of manual adjustment thereof

7. A device as defined in claim 1, wherein said locking means includes

an integral depending sleeve on said hydrant head in concentric spaced relationship exteriorally of said flow pipe and slidably journaled on the upper end of said standpipe,

said sleeve having a slot cooperating with said stop means on said standpipe to limit the movement of said sleeve in two respective opposite directions defining the respective open and closed positions of said valve means,

a rotatable collar carried by said sleeve, and

means on said collar and movable therewith for cooperation with said stop means to hold said sleeve and hydrant head immovable relative to said standpipe when said valve means is in open position.

8. A device as defined in claim 1 wherein said locking means includes

said hydrant head having a slot in juxtaposition to the upper end portion of said standpipe and cooperating with said stop means to limit the movement of said hydrant head in two respective opposite directions defining the respective open and closed positions of said valve means,

a locking pin,

means on said hydrant head for supporting said locking pin and permitting its slidable movement in respective op-

posite directions transversely of the longitudinal axis of said standpipe, and

with said hydrant head moved relative to said standpipe to effect the open position of said valve means, said locking pin being manually movable into wedging engagement with said stop means to hold said hydrant head immovable relative to said standpipe.

9. A device as defined in claim 1 wherein said locking means includes

said hydrant head having a slot in juxtaposition to the upper end portion of said standpipe and cooperating with said stop means to limit the movement of said hydrant head in two respective opposite directions defining the respective open and closed positions of said valve means,

a housing on said hydrant head enclosing said slot,

a locking pin slidably disposed in said housing to move in respective opposite directions transversely of the longitudinal axis of said standpipe,

means on said housing to limit the movement of said locking pin in two respective opposite directions, and

with said hydrant head moved relative to said standpipe to effect the open position of said valve means, said locking pin being manually movable into wedging engagement with said stop means to hold said hydrant head immovable relative to said standpipe.

10. A device as defined in claim 1 wherein said locking means includes

said hydrant head having a slot in juxtaposition to the upper end portion of said standpipe and cooperating with said stop means to limit the movement of said hydrant head in two respective opposite directions defining the respective open and closed positions of said valve means,

an elongated cylindrical locking pin having a relatively large diameter portion and a smaller diameter portion,

means on said hydrant head for supporting said locking pin and permitting its slidable movement in respective opposite directions transversely of the longitudinal axis of said standpipe,

with said locking pin moved in one direction, said smaller diameter portion being disposed to move freely past said stop means in the movement of said hydrant head relative to said standpipe, and

with said hydrant head moved relative to said standpipe to effect the open position of said valve means, said locking pin being manually movable to place said larger diameter portion into wedging engagement with said stop means to hold said hydrant head immovable relative to said standpipe.

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