

O. E. DUEY.
HYDRANT.

APPLICATION FILED DEC. 14, 1912.

1,058,736.

Patented Apr. 15, 1913.

3 SHEETS-SHEET 1.

Fig. 1

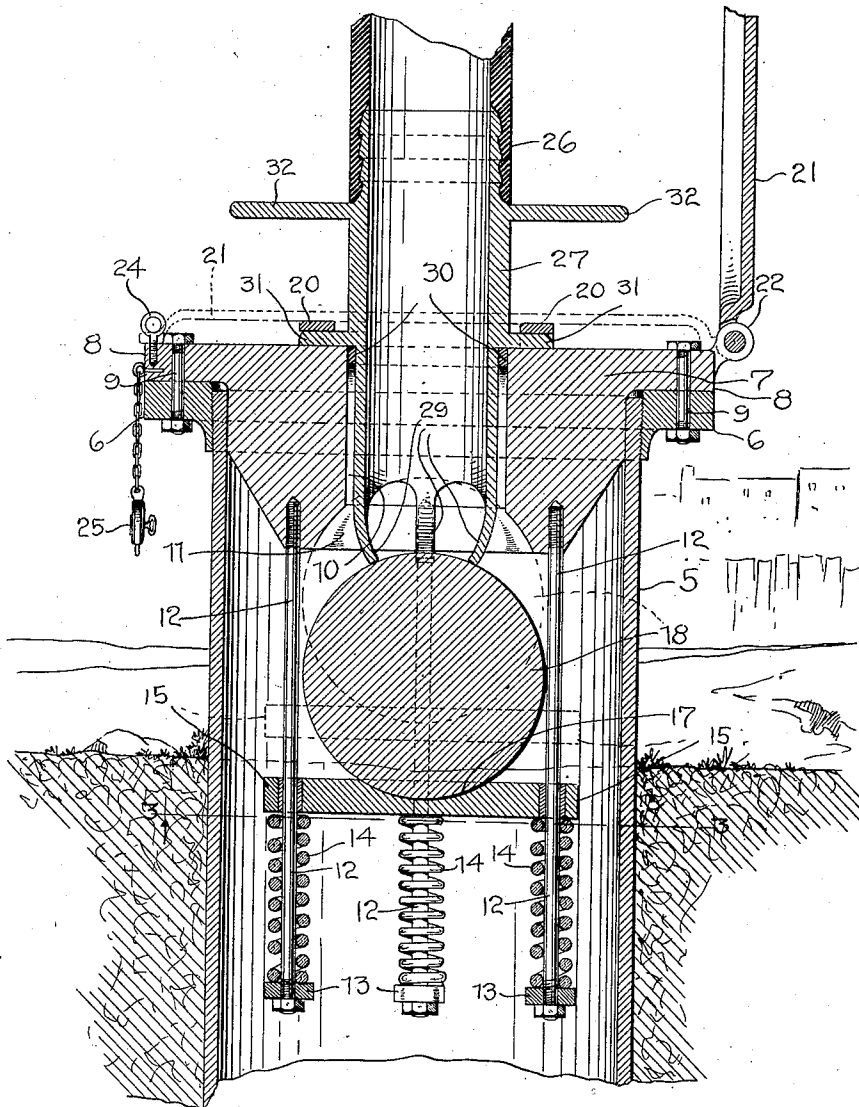
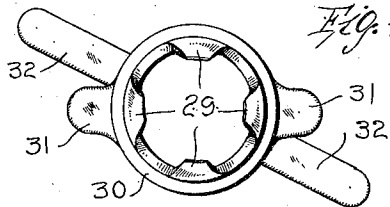


Fig. 2



Witnesses
Robert M. Sutphen.
A. I. Arnd.

Inventor
OTUS E. DUEY.

By *Watson E. Coleman*
Attorney

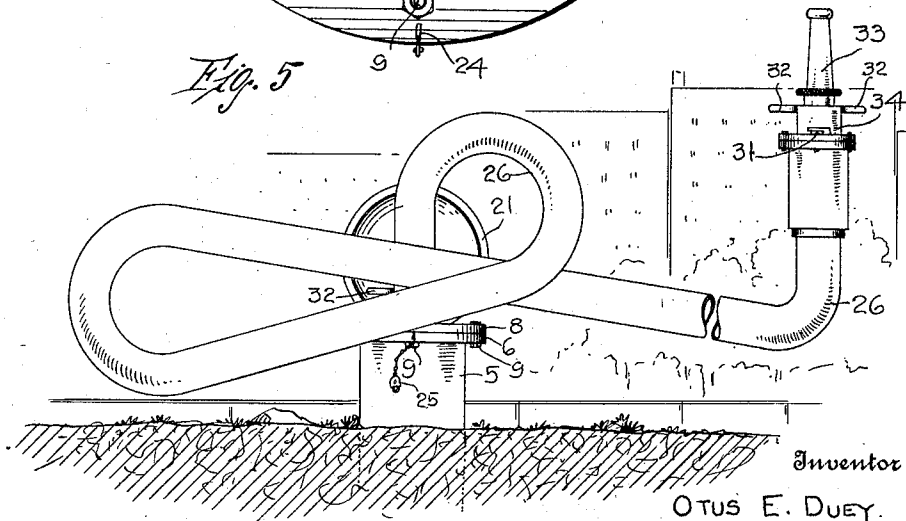
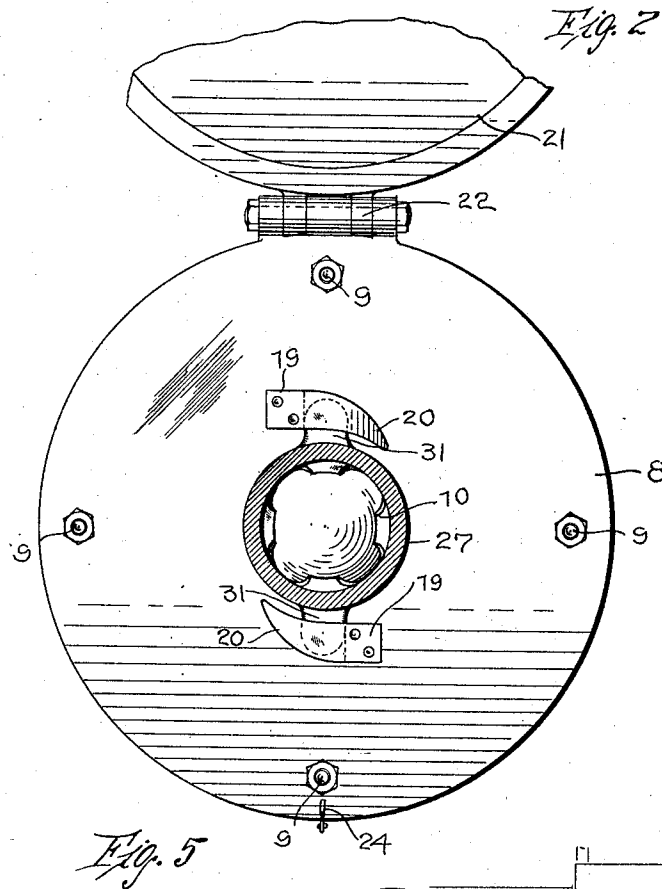
O. E. DUEY.
HYDRANT.

APPLICATION FILED DEC. 14, 1912.

1,058,736.

Patented Apr. 15, 1913.

3 SHEETS—SHEET 2.



Witnesses
Robert M. Sutphen.
A. I. Hind.

Inventor
OTUS E. DUEY.

By *Watson E. Coleman*
Attorney

O. E. DUEY.
HYDRANT.
APPLICATION FILED DEC. 14, 1912.

1,058,736.

Patented Apr. 15, 1913.

3 SHEETS—SHEET 3.

Fig. 3

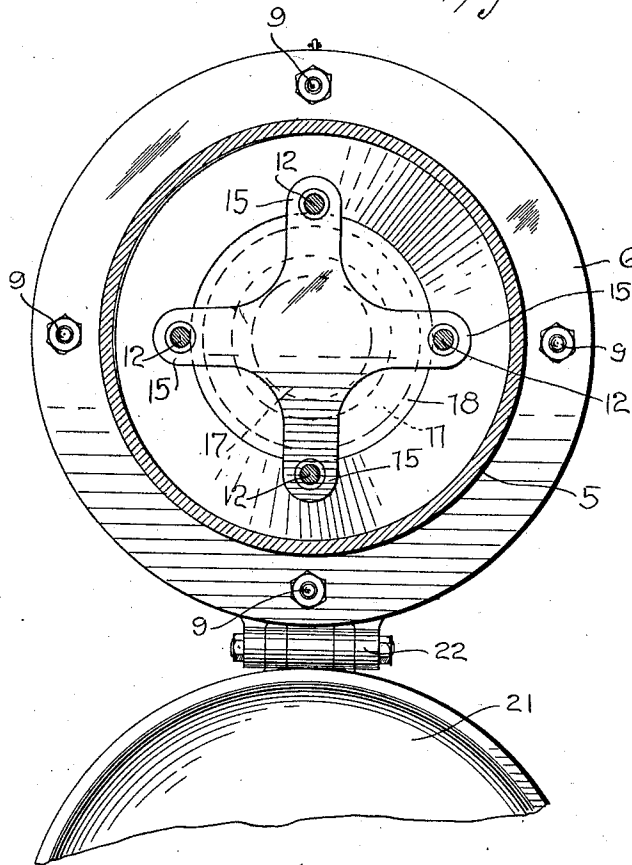
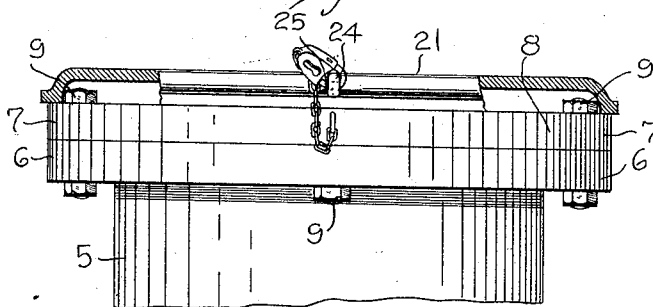


Fig. 6



Inventor
OTUS E. DUEY

Witnesses
Robert M. Sutphen.
A. J. Hind.

By *Watson E. Coleman*
Attorney

UNITED STATES PATENT OFFICE.

OTUS E. DUEY, OF MILLSAP, TEXAS.

HYDRANT.

1,058,736.

Specification of Letters Patent.

Patented Apr. 15, 1913.

Application filed December 14, 1912. Serial No. 736,818.

To all whom it may concern:

Be it known that I, OTUS E. DUEY, a citizen of the United States, residing at Millsap, in the county of Parker and State of Texas, have invented certain new and useful Improvements in Hydrants, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to hydrants and more particularly to a fire hydrant or plug, the invention having for its primary object to provide a device of this character having certain novel structural features which will admit of the easy and quick coupling of the fire hose to the hydrant.

Another object of the invention resides in the provision of a plug or hydrant embodying a casing having a head block provided with an outlet opening, a spring-seated valve normally closing said opening, and a coupling member connected to the flexible fire hose adapted to engage and unseat said valve, said head block being provided with means to coact with the coupling member and hold the same in water-tight engagement with the head block.

A still further object of the invention is to generally improve, simplify and increase the efficiency of devices of this character without materially increasing the cost of manufacture thereof and to produce a fire hydrant or plug wherein the act of coupling the hose to the plug effects the instantaneous release of the water from the hydrant at full pressure.

With the above and other objects in view as will become apparent as the description proceeds, the invention consists in certain constructions, combinations and arrangements of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing, in which

Figure 1 is a vertical section through the fire hydrant or plug showing the hose connected thereto; Fig. 2 is a top plan view of the hydrant with the cover thereof raised; Fig. 3 is a section taken on the line 3-3 of Fig. 1; Fig. 4 is an end elevation of the coupling member. Fig. 5 is a side ele-

vation of a hydrant or plug embodying the present improvements, showing the fire hose connected thereto; and Fig. 6 is an enlarged fragmentary elevation of the hydrant showing the lid or cover locked in its closed position.

Referring in detail to the drawings, 5 designates the tubular casing of the hydrant or plug which is connected to the water main in any usual or preferred manner. The upper end of this casing is provided with exterior screw threads with which the internally threaded ring or annulus 6 is adapted to be engaged. The head block indicated at 7 is provided with an annular peripheral flange 8 to rest upon the ring 6, said head block extending downwardly into the upper end of the casing 5. The flange 8 of the head block and the ring 6 are provided with registering openings to receive suitable connecting bolts 9 whereby the same are rigidly secured together. The head block 7 is provided with a central outlet opening or passage 10 for the water which at its lower end is flared or enlarged to form a valve seat 11. In the head block 7 adjacent to said valve seat, a plurality of depending rods 12 are threaded at their upper ends. The lower ends of these rods are provided with heads 13 against which the lower ends of the coil springs 14 engage. The upper ends of these springs bear against a series of radially disposed arms 15 formed upon a plate 16 the upper surface of which is centrally provided with a cavity 17 to receive a valve ball 18. It will be noted that the plate 16 is of restricted dimensions so as to allow of the free passage of the water between the spaced radial arms thereof. The springs 14 bearing against the under side of the arms 15 force the plate 16 upwardly upon the rods 12 and normally hold the ball 18 in engagement with the seat 11 of the head block 7, thereby closing the outlet opening or passage 10 in said block.

Upon the upper surface of the head block 7, on opposite sides of the opening 10 therein, the lugs or dogs 19 are secured, said lugs being formed with curved lips 20 which extend in relatively opposite directions and are spaced from the surface of the block 7. Upon the outer edge of the head block 7

a cover plate 21 is hinged as indicated at 22. This cover plate is bulged or curved to provide a cavity in the under surface thereof to accommodate the lugs 19 upon the head block. The cover 21 is provided adjacent its outer edge and opposite to the hinge 22 with a short slot 23 which is adapted to receive a staple 24 fixed in the block 7. A suitable padlock indicated at 25 is connected to the head block by means of a short chain the shackle of which is adapted to be passed through said staple to securely lock the cover in its closed position.

26 indicates a flexible hose. One end of this hose is provided with the coupling member 27. This coupling member is formed with a reduced longitudinally extending nipple 28 which terminates in a plurality of circularly arranged inwardly curved spaced fingers 29. This nipple 28 is of such diameter as to enable the same to be passed readily through the outlet opening 10 in the head block 7 of the hydrant. Upon this nipple at its inner end a rubber gasket 30 is arranged and the body of the coupling adjacent to this gasket is provided at diametrically opposite points with the studs 31. In the application of the coupling to the hydrant, the nipple 28 is inserted through the outlet opening 10 in the head block 7 and the fingers 29 on said nipple engaged with the valve ball 18. It will be obvious that as the coupling is forced into position upon the hydrant, the ball is moved from its seat, the plate 16 being forced downwardly and the springs 14 compressed. The rubber gasket 30 is forced into tight frictional engagement with the surface of the head block surrounding the opening 10 therein, and the lugs 31 are engaged under the oppositely extending lips 20 of the lugs 19, said coupling being turned so as to dispose the lugs thereon beneath the inner ends of said lips. It will thus be apparent that a very tight connection is effected between the coupling and the hydrant so as to prevent the escape of water at the joint thereof. The coupling member 27 is also provided with oppositely extending hand holds 32 whereby the same may be conveniently turned. The other end of the hose 26 is provided in its opposite end with a valve and head block corresponding in construction and arrangement with the corresponding elements of the hydrant. The nozzle indicated at 33 is threaded or otherwise connected to a coupling member 34 similar in all respects to the member 27 but constructed on a smaller scale. When the nipple of this coupling member 34 is inserted into the end of the hose, the valve therein is unseated in the manner above explained so as to permit of the escape of water from the hose through the nozzle 33.

From the foregoing, it is believed that

the construction and manner of operation of my improved hydrant and hose connection therefor will be fully understood. By means of the same the fire hose may be very quickly coupled to the hydrant to instantly release the water therefrom under full pressure. As the use of threaded connections for coupling the hose to the hydrant is entirely eliminated, consequent leakage of the water at the hydrant will be obviated.

It will of course, be obvious that my invention is susceptible of considerable modification in its structural details, and that the specific form and arrangement of the several elements as shown need not necessarily be adhered to in putting the invention into practice.

Having thus described the invention, what is claimed is:

1. A hydrant comprising a casing, an annulus threaded upon the upper end of said casing, a head block secured upon said annulus and extending into said casing, said head block having an outlet opening flared at its lower end to form a valve seat, a valve ball for engagement with said seat, spring-pressed means connected to the head block to hold the ball upon its seat, in combination with a hose coupling member having a nipple adapted to be inserted through the opening in said head block and engage said valve ball to unseat the same, and means mounted upon the head block to coact with means on the coupling member and retain the nipple thereof in the opening of the head block.

2. A hydrant comprising a casing, a head block mounted upon the upper end of said casing and extending into the same, said head block being provided with an outlet opening flared at its lower end to form a valve seat, a plurality of depending rods connected to the head block, a plate loosely mounted upon said rods, springs mounted on the rods normally acting to force said plate toward the head block, a valve ball arranged between said plate and the head block and normally engaged upon said seat, in combination with a hose coupling member adapted for insertion through the opening in the head block to engage said valve ball and unseat the same.

3. A hydrant comprising a casing, an annulus threaded upon the upper end of the casing, a head block secured to said annulus extending into the casing, said head block being provided with an opening and a valve seat at one end of the opening, a valve ball, means carried by the head block and removable therewith from the casing to normally retain said valve ball in engagement with the valve seat, said head block being provided upon its upper surface with lugs having oppositely extending lips spaced from the head block, in combination with a hose

coupling member having a nipple provided
with spaced fingers to engage the valve ball
and unseat the same, said coupling member
also having oppositely extending lugs
5 adapted to be engaged beneath said lips to
retain the nipple in the opening in the head
block.

In testimony whereof I hereunto affix my
signature in the presence of two witnesses.

OTUS E. DUEY.

Witnesses:

A. R. MATTHEWS,
J. R. DUEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."