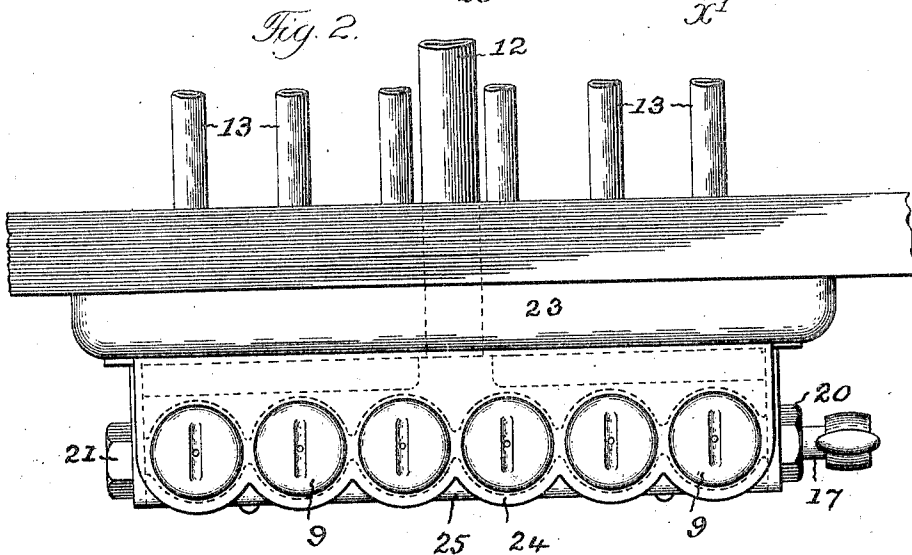
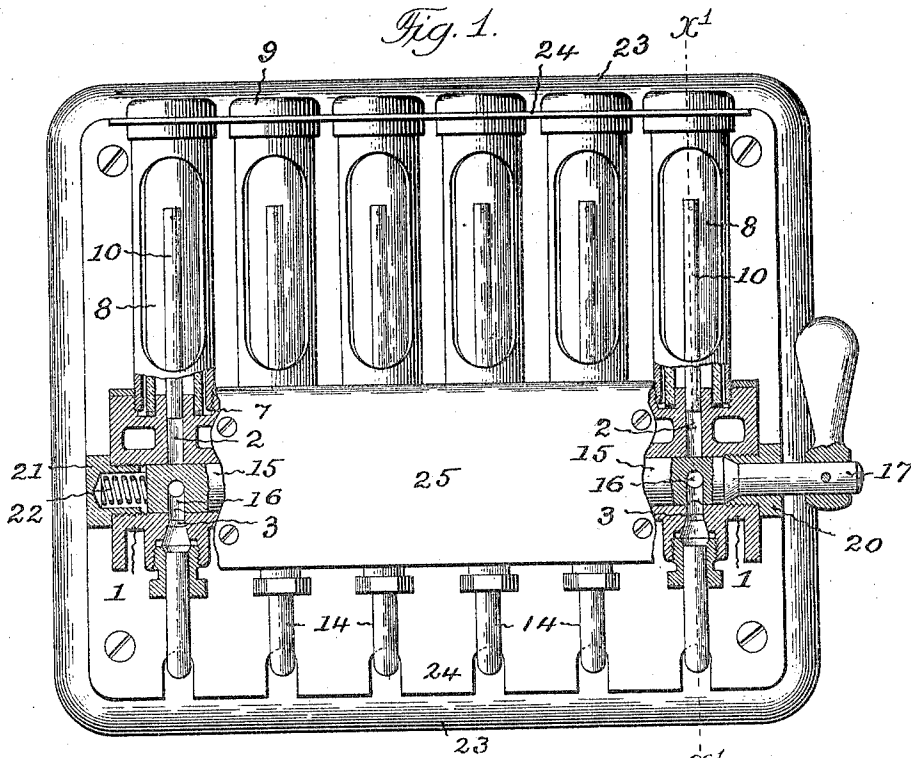


No. 811,543.

PATENTED FEB. 6, 1906.

H. J. CARLE.
FOUNTAIN SIGHT FEED.
APPLICATION FILED MAR. 24, 1905.

2 SHEETS—SHEET 1.



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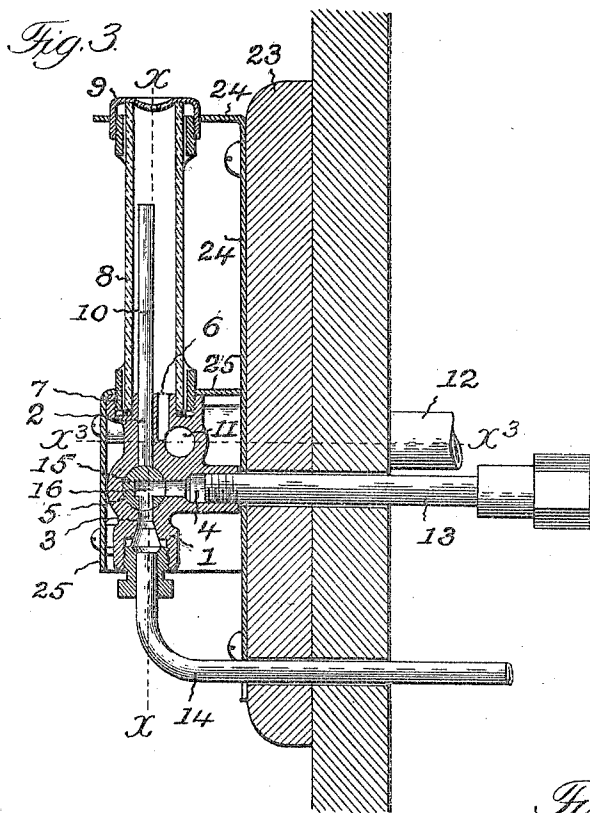


Fig. 4.

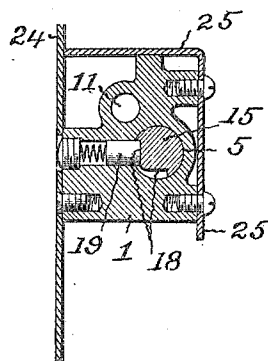


Fig. 5.

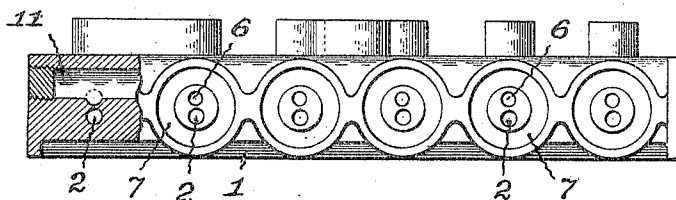
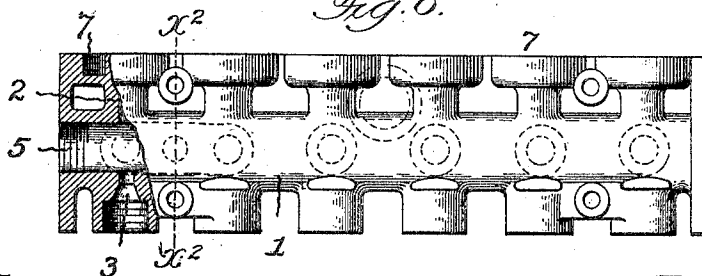


Fig. 6.



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UNITED STATES PATENT OFFICE.

HARRY J. CARLE, OF CHICAGO, ILLINOIS.

FOUNTAIN SIGHT-FEED.

No. 811,543.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed March 24, 1905. Serial No. 251,769.

To all whom it may concern:

Be it known that I, HARRY J. CARLE, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fountain Sight-Feeds, of which the following is a specification.

This invention relates to means for affording a visible indication of the flow of the lubricating or other fluid from a force-feed pumping apparatus, and more especially a pumping apparatus of the multiple-discharge type; and the present improvement has for its object to provide a simple and efficient structural formation and combination of parts by means of which temporary visible indications of the flow of fluid can be obtained when so desired and with which a positive pulsating feed is had at the point or points of delivery when such temporary visible feed is in its inactive or dormant condition, all as will hereinafter more fully appear and be more particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation, partly in section at line $x x$, Fig. 3, of a cluster of six individual sight-feed embodying the present invention. Fig. 2 is a plan view of the same. Fig. 3 is a transverse section of the same at line $x' x'$, Fig. 1. Fig. 4 is a detail transverse section at line $x^2 x^2$, Fig. 6. Fig. 5 is a plan view of the body portion or trunk, partly in section at line $x^3 x^3$, Fig. 3. Fig. 6 is a front elevation of the same, partly in section at line $x x$, Fig. 3.

Similar numerals of reference indicate like parts in the several views.

Referring to the drawings, 1 is the body portion or trunk of the present appliance, which in the multiple and preferred form of the present invention is formed with two series of passages 2 and 3 in vertical alinement, a series of horizontal passages 4, a longitudinal orifice or chamber 5, arranged at the intersection of the passages 4 with the passages 2 and 3 and common to the entire series of vertical and horizontal passages, and a series of companion passages 6 in its upper portion, in adjacent relation to the uppermost series of vertical passages 2, with both series of said passages 2 and 6 opening through the top of the trunk, as shown.

7 represents a series of annular recesses in

the top of the trunk, forming a series of receiving-chambers for the lower ends of the series of transparent sight-tubes 8, which are secured therein in any suitable and well-known manner. Each annular recess and its sight-tube is individual to an individual pair of passages 2 and 6, and said passages communicate with the interior of said sight-tube to constitute inlet and outlet passages therefor, as hereinafter more fully set forth.

9 represents cap-pieces secured to the upper ends of the sight-tubes in any usual and well-known manner to constitute closures for the upper ends of said sight-tubes.

10 represents a series of vertical discharge-nozzles located within the sight-tubes and having connection at their lower ends with the series of vertical passages 2 and adapted to discharge the fluid from said passages into the upper ends of the sight-tubes and so that the fluid will flow down the sight-tubes in a visible manner.

11 is a secondary longitudinal passage formed in the body or trunk 1, and communicating in common with the series of companion or return passages 6 aforesaid.

12 is a pipe adapted to connect the longitudinal passage 11 with the supply-tank of a multiple-discharge pumping apparatus to which the present invention is applied and through which the fluid from the series of sight-tubes is adapted to return by gravity into said supply-tank in the normal use of the apparatus.

13 represents a series of pipes adapted to connect the series of horizontal passages 4 in an individual manner with the outlet or discharge passages of a multiple-discharge pumping apparatus.

14 represents a series of pipes adapted to connect the series of vertical passages 3 in an individual manner with the different points at which a discharge of the fluid is required—as, for instance, the various bearings of an engine, an automobile, or the like.

15 is a cylindrical valve-head fitting the aforesaid longitudinal orifice or chamber 5 of the trunk and provided with a series of angular ports 16, individual to each chamber of passages 2, 3, and 4, as shown more particularly in Figs. 1 and 3. The arrangement is such that a quarter-turn of said valve-head in one direction will cause the angular ports 16 to register the passages 4 with the lower vertical points of use and by a quarter-turn in

the other direction will cause said angle-ports 16 to register the passages 4 with the upper vertical passages 2 to cause the fluid to discharge into the sight-tubes and afford a visible indication of workings of each one of the multiple discharges of the pumping apparatus. Such visible indications are had at the will of the operator in ascertaining the condition of the feed to the various points at which the fluid is used. Normally, however, the parts will be in the condition first described, with no discharge into the sight-tubes and with the multiple discharge from the pumping apparatus moving in a positive and pulsating manner to the different points of use.

17 is a handled stem projection at one end of the valve-head 15 for convenient operation of the same.

18 represents flat faces formed in a part of the circumference of the valve-head 15 at right angles to each other and adapted for engagement by a spring follower-plug 19, moving in the trunk 1, to insure the proper register of the ports in said valve-head with the passages in said trunk in either position of the valve-head.

20 and 21 are screw-plugs or bushings fitting the respective ends of the passage or chamber 5 and adapted to hold the valve-head 15 in place in said passage or chamber.

22 is a spring interposed between the bushing 21 and the end of the valve-head for yieldingly holding said valve-head to its end bearing against the bushing 20 aforesaid.

23 is a plate or bracket upon which the present appliance is supported and which when circumstances so indicate may be a vertical wall of the casing of the pumping apparatus.

24 is a sheet-metal angle-plate secured to the bracket 23, with its upper and horizontal flange provided with a series of orifices for the reception of the upper ends of the sight-tubes to retain the same in proper vertical position against accidental displacement in continued use.

25 is a sheet-metal angle-plate secured to the front of the trunk 1, with its upper and horizontal flange provided with a series of orifices fitting the base of the sight-tubes and adapted to cover over the upper and front surfaces of the trunk and afford a plain, economical, and easily-cleaned finish for that portion of the apparatus.

Having thus fully described my said invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A fountain sight-feed, comprising in combination, a trunk formed with an inlet-passage, duplicate and outlet passages intersecting the inlet-passage and a return-passage adjacent to one of said outlet-passages, a sight-feed tube communicating with the return and outlet passages aforesaid, a discharge-nozzle in said sight-tube communi-

cating with the outlet-passage aforesaid, and a semirotary valve arranged at the intersection of the inlet and outlet passages and adapted to control the direction of the flow of fluid through the same, substantially as set forth.

2. A fountain sight-feed comprising in combination, a trunk formed with a horizontal inlet-passage, vertical upper and lower outlet-passages intersecting said horizontal passage and a return-passage arranged adjacent to said upper vertical passage, a sight-tube attached to the trunk with its interior in communication with said upper vertical and return passages, a semirotary valve arranged at the intersection of said vertical and horizontal passages and having an angular port adapted to successively register said passages, and control the direction of the flow of fluid through the same, substantially as set forth.

3. A fountain sight-feed comprising in combination, a trunk formed with a horizontal inlet-passage, vertical upper and lower outlet-passages intersecting said horizontal passage and a return-passage arranged adjacent to said upper vertical passage, a sight-tube attached to the trunk with its interior in communication with said upper vertical and return passages, a discharge-nozzle arranged within the sight-tube and communicating with said upper vertical passage, a semirotary valve arranged at the intersection of said vertical and horizontal passages and having an angular port adapted to successively register said passages, and control the direction of the flow of fluid through the same, substantially as set forth.

4. A fountain sight-feed, comprising in combination, a trunk formed with a series of inlet-passages, duplicate series of outlet-passages intersecting the series of inlet-passages, a series of return-passages adjacent to one series of outlet-passages and a longitudinal passage common to the series of return-passages, a series of sight-tubes communicating with the series of outlet and return passages aforesaid, and a semirotary valve arranged at the intersection of inlet and outlet passages and adapted to control the direction of the flow of fluid through said series of passages, substantially as set forth.

5. A fountain sight-feed, comprising in combination, a trunk formed with a series of inlet-passages, duplicate series of outlet-passages intersecting the series of inlet-passages, a series of return-passages adjacent to one series of outlet-passages and a longitudinal passage common to the series of return-passages, a series of sight-tubes communicating with the series of outlet and return passages aforesaid, a series of discharge-nozzles in said sight-tubes communicating with one series of outlet-passages, and a semirotary valve arranged at the intersection of the inlet and

outlet passages and adapted to control the direction of the flow of fluid through said passages, substantially as set forth.

6. A fountain sight-feed, comprising in combination, a trunk formed with a series of horizontal inlet-passages, a series of vertical upper and lower outlet-passages intersecting the series of horizontal passages, a series of return-passages arranged adjacent to the series of upper vertical passages, and a longitudinal passage common to the series of return-passages, a series of sight-tubes attached to the trunk with their interiors in communication with said upper vertical and return passages, a semirotary valve arranged at the intersection of said vertical and horizontal passages and having a series of angular ports adapted to successively register said passages, and control the direction of the flow of fluid through the same, substantially as set forth.

7. A fountain sight-feed, comprising in combination, a trunk formed with a series of horizontal inlet-passages, a series of vertical upper and lower outlet-passages intersecting the series of horizontal passages, a series of return-passages arranged adjacent to the series of upper vertical passages, and a longitudinal passage common to the series of return-passages, a series of sight-tubes attached to the trunk with their interiors in communication with said upper vertical and return passages, a series of discharge-nozzles arranged within the sight-tubes and communicating with the upper series of vertical passages, a semirotary valve arranged at the intersection of said vertical and horizontal passages and having a series of angular ports adapted to successively register said passages and control the direction of the flow of fluid through the same, substantially as set forth.

8. A fountain sight-feed, comprising in combination, a trunk formed with an inlet-passage, duplicate outlet-passages intersecting the inlet-passage and a return-passage adjacent to one of said outlet-passages, a sight-feed tube communicating with the return and outlet passages aforesaid, a semirotary valve arranged at the intersection of the inlet and outlet passages and provided with angularly-arranged faces in a portion of its circumference, and a spring-follower adapted to engage such faces, substantially as set forth.

9. A fountain sight-feed, comprising in

combination, a trunk formed with a series of inlet-passages, duplicate series of outlet-passages intersecting the series of inlet-passages, a series of return-passages adjacent to one series of outlet-passages and a longitudinal passage common to the series of return-passages, a series of sight-tubes communicating with the series of outlet and return passages aforesaid, a semirotary valve arranged at the intersection of the inlet and outlet passages and provided with angularly-arranged faces in a portion of its circumference, and a spring-follower adapted to engage said surfaces, substantially as set forth.

10. A fountain sight-feed, comprising in combination, a trunk formed with a series of inlet-passages, duplicate series of outlet-passages, intersecting the series of inlet-passages, a series of return-passages adjacent to one series of outlet-passages and a longitudinal passage common to the series of return-passages, a series of sight-tubes communicating with the series of outlet and return passages aforesaid, a semirotary valve arranged at the intersection of the inlet and outlet passages and adapted to control the direction of the flow of fluid through said series of passages, and an angle-plate secured to the front of the trunk, and provided with a series of orifices in its upper flange to receive the base of the sight-tubes, substantially as set forth.

11. A fountain sight-feed, comprising in combination, a trunk formed with a series of inlet-passages, duplicate series of outlet-passages intersecting the series of inlet-passages, a series of return-passages adjacent to one series of outlet-passages and a longitudinal passage common to the series of return-passages, a series of sight-tubes communicating with the series of outlet and return passages aforesaid, a semirotary valve arranged at the intersection of the inlet and outlet passages and adapted to control the direction of the flow of fluid through said series of passages, and an angle-plate having a horizontal upper flange provided with a series of orifices to receive the upper ends of the sight-tubes, substantially as set forth.

Signed at Chicago, Illinois, this 8th day of March, 1905.

HARRY J. CARLE.

Witnesses:

ROBERT BURNS,
M. H. HOLMES.