Sept. 2, 1958 H. B. LARSON 2,850,259

ADJUSTABLY MOUNTED PIVOTED DRAIN VALVE

Filed July 16, 1956

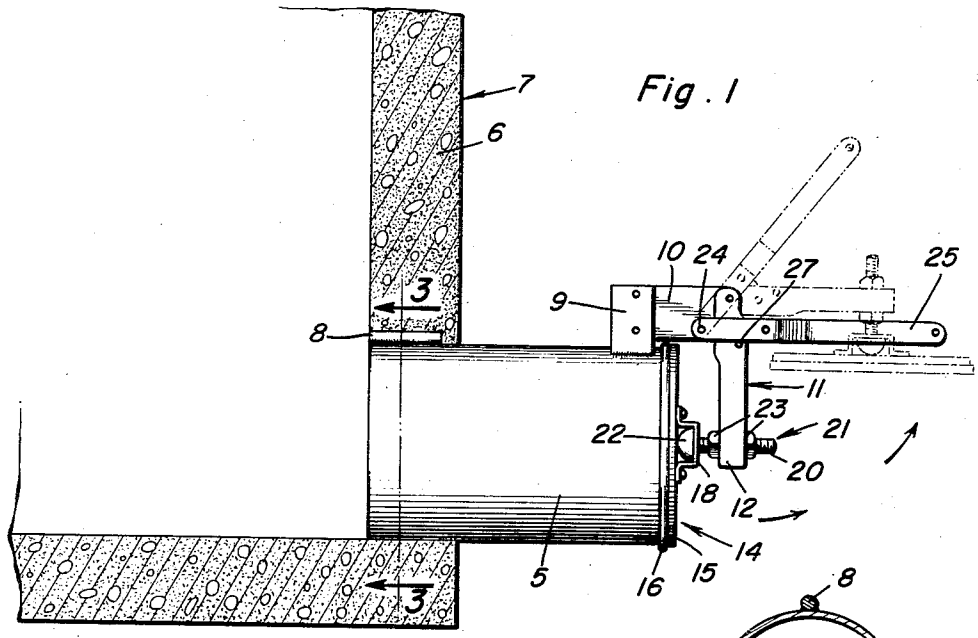

Fig. 1

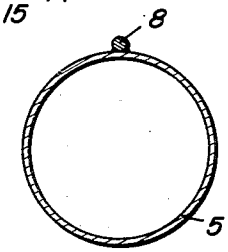

Fig. 3

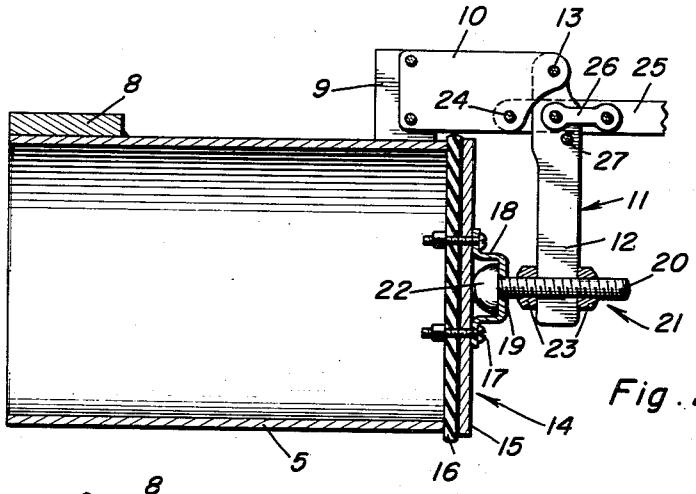

Fig. 2

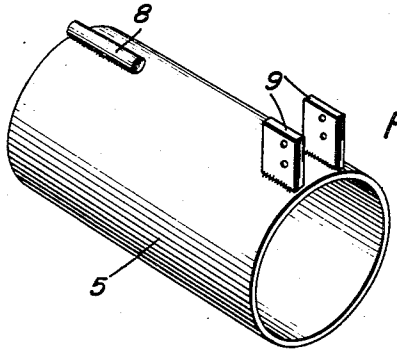

Fig. 4

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ADJUSTABLY MOUNTED PIVOTED DRAIN VALVE

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1 Claim. (Cl. 251—36)

The present invention relates to new and useful improvements in low pressure drain valves for metal and concrete water tanks, pools, irrigation lines, etc., and has for one of its important objects to provide, in a manner as hereinafter set forth, a device of this character comprising novel adjusting means.

Another very important object of the invention is to provide an adjustable, low pressure drain valve of the aforementioned character which embodies novel operating means.

Other objects of the invention are to provide an adjustable drain valve of the character described which will be comparatively simple in construction, durable, compact, highly efficient and reliable in use and which may be manufactured and installed at low cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a view in side elevation of a drain valve constructed in accordance with the present invention, showing the device installed in the lower portion of a concrete pool or tank;

Figure 2 is a view in vertical longitudinal section through the device;

Figure 3 is a view in transverse section through the tube or pipe, taken substantially on the line 3—3 of Figure 1; and,

Figure 4 is a perspective view of the pipe.

Referring now to the drawing in detail, it will be seen that reference character 5 designates a pipe of suitable material, preferably metal. In the embodiment of the invention which has been illustrated, both ends of the pipe 5 are smooth or unthreaded. The rear or inner end portion of the pipe 5 is adapted to be embedded in the lower portion of a wall 6 of a concrete tank or pool 7 and has welded thereon an anchoring lug 8.

Rising from the forward end portion of the pipe 5 is a pair of apertured ears 9. Rigidly secured between the ears 9 is a forwardly projecting metallic bracket 10. A vertically swingable arm 11 comprising a pair of spaced, parallel bars 12 is pivotally suspended from the upper forward end portion of the bracket 10, as indicated at 13. The pivoted end portions of the bars 12 straddle the bracket 10.

An adjustable valve 14 is mounted on the arm 11 and engageable with the forward end of the pipe 5 for closing said pipe. The valve 14 includes a metallic disk 15 having a resilient face 16 adhesively mounted thereon for engagement with the pipe 5. Secured by bolts 17 on the disk 15 is a metallic loop 18. The bight or intermediate portion of the loop 18 is apertured, as indicated at 19, to loosely accommodate the threaded shank 20 of a bolt 21. The bolt 21 further includes a rounded head 22 which abuts the disk 15 and is rockable thereon. The shank 20 of the bolt 21 passes between the bars 12 of the arm 11 and has threaded thereon a pair of nuts 23 for securing said bolt in adjusted position on said arm in an obvious manner. It will be noted that the nuts 23 are engaged with the opposite sides of the arm 11.

Pivotally mounted, as at 24, on the lower forward end portion of the bracket 10 is a bifurcated, vertically swingable hand lever 25. The bifurcated lever 25 straddles the bracket 10 and the pivoted end portion of the arm 11. A link 26 operatively connects the lever 25 to the arm 11. The link 26 is connected to the lever 25 between the furcations thereof and said link is connected to the arm 11 between the bars 12 thereof. Mounted transversely on the arm 11 is a stop pin 27 for the lever 25.

It is thought that the operation of the device will be readily apparent from a consideration of the foregoing. Briefly, when the lever 25 is swung downwardly from the broken line position of Figure 1 of the drawing, said lever actuates the arm 11 through the link 26 for engaging the valve 14 with the outer or forward end of the pipe 5. The lever 25 is forced past dead center into engagement with the stop pin 27 for clamping the valve 14 tightly against the end of the pipe 5. Thus, the pipe 5 is closed and sealed against leakage. Through the medium of the nuts 23, the valve assembly may be readily adjusted as desired on the arm 11. Then, the rockable mounting of the valve 14 on the bolt 21 permits said valve to automatically adjust itself to seat properly on the outer end of the pipe 5. It will be noted that the bolts 17 pass through the disk 15 and the face 16 for positively securing the valve assembly 14 together.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

A drain valve comprising a uniform diameter pipe including an open end, a bracket mounted on said pipe, an arm comprising a pair of spaced, parallel bars pivotally mounted on said bracket, a valve member engageable with the open end of the pipe, said valve member including a disk having a resilient face mounted thereon for engagement with the pipe, a loop mounted on said disk and having an opening in the bight portion, a bolt mounted in the opening and including a substantially rounded head abutting the disk, said bolt extending between the bars, nuts on said bolts engaged with the bars for adjustably securing said bolt on the arm, a hand lever pivotally mounted on the bracket and a link operatively connecting said lever to the arm for actuating the same for opening and closing the valve member.

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