May 10, 1955 C. M. ADAMS ET AL 2,707,967

DRAIN DEVICES

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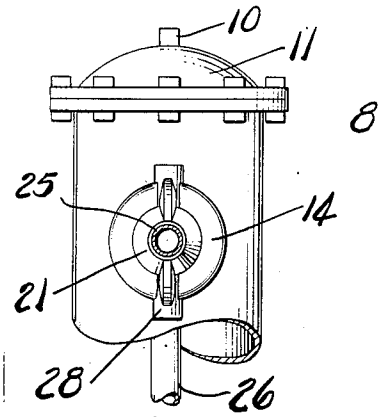


Fig. 2

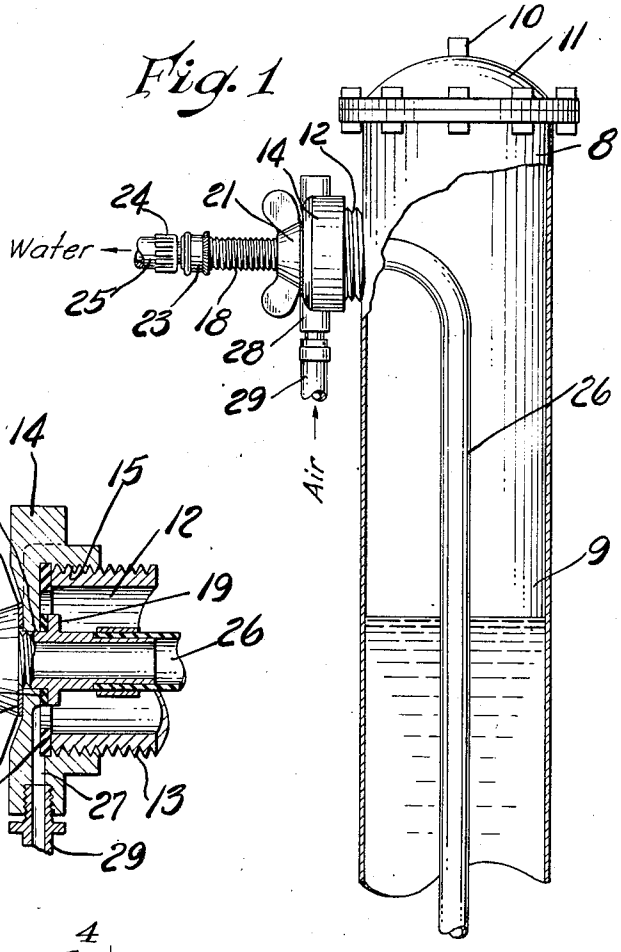


Fig. 1

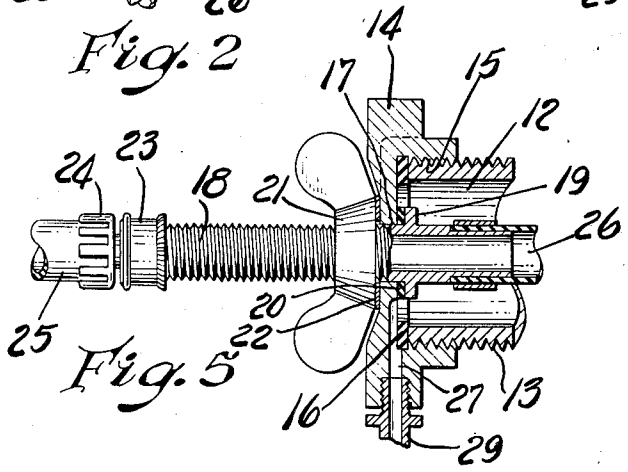


Fig. 5

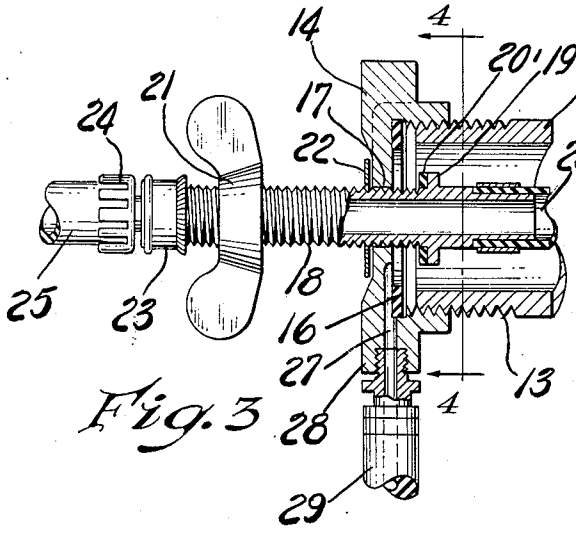


Fig. 3

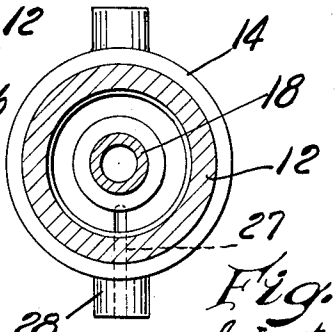


Fig. 4

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DRAIN DEVICES

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1 Claim. (Cl. 137—212)

This invention relates to a drain device for removing water from the barrel of fire hydrants and similar receptacles.

One of the prime objects of the invention is to design a very simple, practical and inexpensive means for removing water from the barrel of a fire hydrant, eliminating the possibility of the water freezing in and cracking the barrel and freezing the valve to its seat in cold weather, making it difficult to operate in the event of fire or other emergency.

Another object is to design a drain device which is readily and quickly attachable to the outlet nozzle of a hydrant and by means of which the water in the hydrant barrel can be easily and rapidly expelled, without manual labor and in a minimum length of time.

A further object is to provide a drain device which releasably fits the discharge nozzle of the hydrant; which is very compact so that it can be readily transported or stored, and which is provided with means for ready attachment of a hose leading to the pressure-producing device.

A further object still is to provide a very simple mechanism which can be easily manufactured and assembled; which is readily transportable from place to place, and which eliminates all of the manual pumping labor present in the conventional method of draining fire hydrants.

With the above and other objects in view, the present invention consists in the combination and arrangement of parts, hereinafter more fully described, illustrated in the accompanying drawing, and more particularly pointed out in the appended claims, it being understood that changes may be made in the form, size, proportion, and minor details of construction, without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:

Fig. 1 is a fragmentary, part-sectional view of a fire hydrant showing our improved draining device mounted in position thereon.

Fig. 2 is a fragmentary, side-elevational view thereof.

Fig. 3 is an enlarged, sectional view showing the device attached to the discharge nozzle of the hydrant.

Fig. 4 is a sectional, end view taken on the line 4—4 of Fig. 3.

Fig. 5 is a view similar to Fig. 3 showing the members in secured position.

Referring now more specifically to the drawing in which we have shown the preferred embodiment of our invention, the numeral **8** indicates a conventional fire hydrant having a vertical barrel section **9**, a valve stem **10** which projects through the upper end of the cap **11**, and a discharge nozzle **12** projects from the side wall of the hydrant and is threaded as at **13** to accommodate a conventional cap (not shown) as usual.

Our device comprises an auxiliary cap **14** which can be formed of any desired material to make it readily transportable; it is threaded as at **15** to engage the threaded section **13** of the nozzle, and a gasket **16** is provided in said cap for engagement by the end of the discharge nozzle to provide a leak-proof joint thereat.

A centrally disposed opening **17** is provided in the cap **14**, and a threaded stem **18** projects therethrough, a shoulder **19** being provided on said stem, and a gasket **20** is provided thereon for engagement with the inner face of the auxiliary cap **14** when the device is secured in position.

A relatively large wing nut **21** is mounted on the

outer end of the threaded stem **18** together with a washer **22** which engages the outer face of the cap and against which the wing nut bears when screwed tight on the cap, this nut forcing the gasket tightly against the cap and forming a leak-proof joint thereat.

A conventional header **23** is provided on the outer end of the stem **18**, and a nipple **24** has threaded connection therewith, the hose **25** being connected thereto in the usual manner so that the water can be directed as desired.

A similar flexible hose **26** is connected to the inner end of the stem **18** in any approved manner, and leads down into the hydrant barrel **9**, as clearly shown in Fig. 1 of the drawing, the hose being of sufficient length so that all of the water can be expelled.

An intake port **27** is provided in the flange **28** of the cap **14**, and a flexible air line **29** is removably connected thereto in any approved manner, so that air may be forced into the barrel of the hydrant.

When it is desired to drain or remove the water from the barrel of the hydrant, the conventional cap (not shown) is first removed; the auxiliary cap **14** is then screwed in position so that the end of the nozzle **12** is pressed firmly against the gasket **16** and forms a seal-proof joint thereat, the end of the hose **26** extending into and resting at the bottom of the barrel.

The wing nut **21** is then threaded down against the cap, forcing the gasket **20** firmly against the inner face of the cap, and forming a leak-proof joint at this point. Air is then forced into the hydrant barrel **9** through the intake port **29**, forcing the water up through the flexible hose **26**, and out through hose **25** until all of the water has been expelled.

The pressure-producing means (not shown) can be carried on a small truck or trailer (not shown), and no tools other than a standard wrench is necessary to connect and disconnect the cap.

From the foregoing description, it will be obvious that I have perfected a very simple, practical, and efficient drain device by means of which the barrels of hydrants and similar apparatus can be readily drained.

What we claim is:

A drain device for hydrants comprising an auxiliary threaded cap removably engaging the horizontally disposed discharge spout of a fire hydrant, a centrally disposed stem from which water may be discharged projecting through said cap, a shoulder on said stem adjacent the inner face of said cap, a gasket interposed between said shoulder and the inner face of said cap and forming a leak-proof joint between said cap and stem, said shoulder and gasket being of less diameter than said spout to provide an annular passage therebetween into said spout, a flexible hose connected to the inner end of the stem and depending into the upright hydrant barrel, a second gasket on the inner face of the cap for engagement with the end of the discharge spout, a radially disposed air intake port extending through the peripheral wall of said cap to communicate with said annular passage, and manually operable means provided on the stem for forcing said stem gasket tight against the inner face of the auxiliary cap.

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