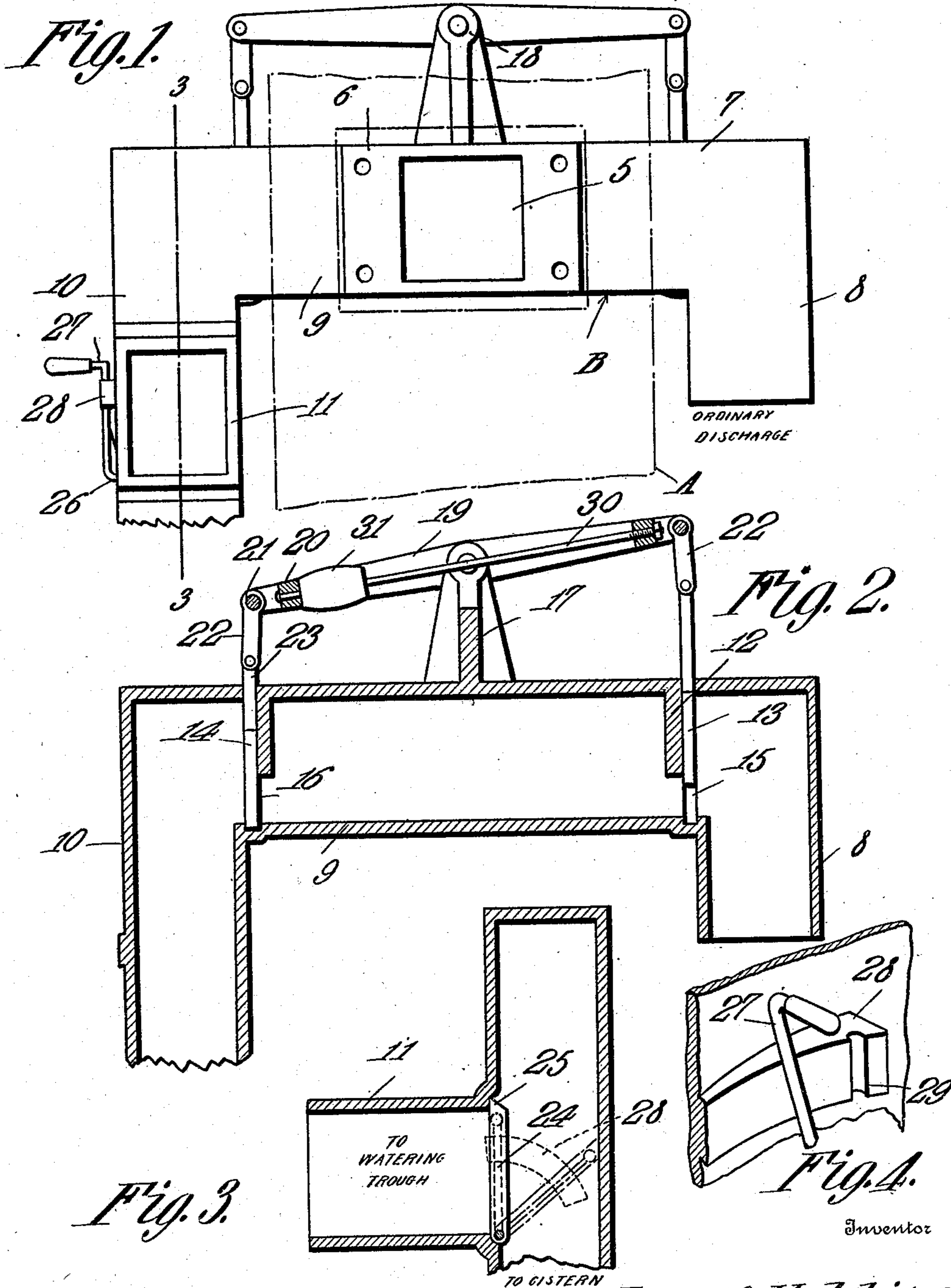


J. O. HUTCHISON.
PUMP SPOUT.
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Patented Apr. 27, 1909.



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UNITED STATES PATENT OFFICE.

JAMES OLIVER HUTCHISON, OF CROCKETT, TEXAS.

PUMP-SPOUT.

No. 919,870.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES OLIVER HUTCHISON, a citizen of the United States, residing at Crockett, in the county of Houston and State of Texas, have invented a new and useful Pump-Spout, of which the following is a specification.

It is the object of the present invention to provide a pump spout of such construction that waste of water will be obviated.

In some localities, where rain is infrequent and water is comparatively scarce and it is not desired to use potable water, such as obtained from an Artesian well for the purposes for which cistern water would be used, economical use of the water supply is imperative.

It is therefore the primary object of the present invention to provide a pump spout of such construction that the stale and warm water which is at first drawn from an Artesian well may be directed to a cistern for the purpose of increasing the water supply thereof and obviating waste of the water from the Artesian well, or to a watering trough or the like, and in which after such water has been drawn off, the discharge may be directed through a main discharge spout into a bucket or other receptacle.

In the accompanying drawings, Figure 1 is a front elevation of the spout embodied in the invention showing the same applied to an ordinary pump, the pump being illustrated in dotted lines. Fig. 2 is a vertical transverse sectional view through the spout showing the branch discharge closed and the main discharge opened. Fig. 3 is a view similar to Fig. 2, but taken on the line 3—3 of Fig. 1, and Fig. 4 is a detail perspective view of a valve operating device included in the structure.

In the drawings, the pump is indicated in general by the reference character A, and the spout embodied in the invention by the reference character B, the spout being secured to the front side of the pump in the same manner as the ordinary spout.

The spout proper is indicated by the numeral 5 and at its end is provided with attaching flanges 6 through which are passed suitable securing devices such as screws or bolts for fixing the spout upon the pump. Leading laterally from the spout proper 5 is a main discharge spout 7 having a down-
turned discharge end 8 and it is through this

spout 7 that the water is ordinarily discharged. This discharge spout 7 may extend from either side of the spout 5 and extending laterally in the opposite direction from the other side of the said spout 5 is a branch discharge spout 9 which is also turned downwardly laterally at its outer end as at 10. This branch discharge spout 9 has connected to it a pipe or other suitable conduit (not shown) which leads to a cistern or other suitable storing receptacle or reservoir (not shown) and leading, preferably rearwardly, from the branch spout 10 is a spout 11 which, for the sake of convenience in describing the structure will be termed the sub-branch discharge spout and this last named spout 11 is provided, as in the case of the spout 10, with a pipe or other conduit (not shown) which extends to a watering trough or similar water receptacle.

Within each of the spouts 7 and 9 adjacent the down-turned ends 8 and 10 thereof respectively, there is formed a web 12 which extends from side to side of the respective spout and from the top thereof to about the middle. The web 12 in the spout 7 and the corresponding web in the spout 9 afford seats for gate valves 13 and 14 respectively, these valves seating at their edges in grooves 15 and 16 formed in the side walls of the spouts respectively, it being understood that when the valves are in lowered position, as indicated as in the case of the valve 14 in Fig. 2 of the drawings, the passage of water beneath the seat 12 into the down-turned end of the spout is prevented, but when the valves are raised as in the case of the valve 13 in the said figure of the drawings, such passage of the water is permitted.

Formed upon the spout preferably at the point of junction of the main spout 5 with the spouts 7 and 9, is an upstanding bracket 17 having spaced pairs of pivot ears 18, there being an oscillatory arm 19 pivoted between the ears of each pair and these arms are connected adjacent their ends and to each side of the said bracket support 17 by cross pieces 20 which may be integral with the arms or separate therefrom. The arms are also connected, beyond the cross pieces 20 by pivot pins 21 to which are pivoted the upper ends of links 22, in turn pivoted at their lower ends to the upper ends of stems 23 formed one upon each of the valves 13 and 14. It will be observed from an in-

spection of Fig. 2 of the drawings, that when the arms 19 are oscillated to lower one valve, for example the valve 14, the other valve, 13, will be raised so that while the branch
5 discharge spout 9 will be closed, the discharge spout 7 will be opened to permit discharge of the water through its down-turned end portion 8. The reverse is true, of course, when the arms are oscillated to raise the
10 valve 13.

Pivoted within the down-turned end portion 10 of the spout 9 at the point of junction therewith of the sub-branch spout 11 is a flat valve 24 having its free end presented upwardly and beveled as indicated
15 by the numeral 25 so that the valve may either extend in the position shown in full lines in Fig. 3 of the drawings, in which position it will close the sub-branch spout 11,
20 or may lie obliquely across the spout 10 to close the same as shown in dotted lines in the said figure of the drawings, the beveled edge 25 of the valve, when in this position, resting directly flat against that side of the
25 said spout 10 opposite to the sides at which the valve is pivoted.

It will be understood, from Fig. 3 of the drawings, that when the valve is in the full line position, the sub-branch spout 11 will be
30 closed so that water flowing into the spout 9 will be discharged through the down-turned end portion 10 thereof and that when the valve is rocked to extend obliquely as shown in dotted lines in the said figure of
35 the drawings, water will be directed, from the end portion 10 of the spout 9 into the sub-discharge spout 11, provided of course, the gate valve 14 is in raised position so as to admit the water into the branch 9. The
40 pivot for the valve 24 is in the nature of a rod 26 which is mounted to rock in suitable bearings at the points stated and this rod, to one side of the spout, is turned to extend upwardly as at 27, it being in engagement
45 with and adapted to ride over a cam rib 28 formed upon the said side of the spout 10, the rod being resilient to such a degree as to permit it to follow the contour of the cam rib against its own resiliency, the rib being
50 formed with a notch 29 so located as to be engaged by the rod when the rod is in position to hold the valve 24 vertically or in position to close the sub-branch discharge spout 11. Connecting the cross pieces 20
55 which unite the arms 19, is a rod 30, upon which is slidably supported a weight 31.

It being supposed that the valve 14 is lowered and the valve 13 raised, and that the water in the pipe of the pump has stood
60 therein for quite a while and has become warm and stale, and it is desired to draw potable water from the well, the weight 31 is shifted, to the right in Fig. 2, so as to lower the valve 13 and raise the valve 14, the
65 discharge of water through the spout 7 be-

ing in this manner obviated but the discharge through the spout 5 being permitted. If a watering trough disposed near the pump is plentifully supplied with water, the valve
70 24 is moved to the position shown in Fig. 3 of the drawings and upon operating the pump water discharged therefrom will flow through the spout 9 and its down-turned portion 10, to a cistern which may be in this
75 manner supplied with water in addition to that supplied by rainfalls. After such quantity of water has been pumped from the well as would remove that which is not perfectly potable, the weight 31 is shifted to
80 the position shown in Fig. 2 of the drawings, and the valve 14 lowered and the valve 13 raised, thereby permitting the discharge of the water through the spout 7 and its down-turned portion 8 into a bucket or other
85 suitable receptacle. Should the watering trough adjacent the pump require water, the valve 24, instead of being moved to the position shown in full lines in Fig. 3 of the drawings, as before described, is moved to
90 dotted line position whereupon the water initially discharged from the pump will be directed through the sub-branch discharge spout 11 to the said watering trough. It
95 will thus be seen that waste of water is absolutely avoided and the fact will be appreciated that in localities where water is scarce regardless of the source from which it is obtained, the saving of the water is extremely
100 desirable and that the potable water of the Artesian well need only be used for drinking purposes, the stale or warm water which would otherwise be initially drawn from the well and thrown away, used for watering
live stock and for other purposes.

What is claimed is:—

1. A pump spout having a main discharge, a branch discharge, and a sub-branch discharge, means for closing either the main discharge or the branch discharge, and separate means for closing either the branch or
110 the sub-branch discharge.

2. In a pump spout, a main discharge, a branch discharge, a sub-branch discharge, valves arranged one within the main discharge and one in the branch discharge, connection between the valves whereby opening
115 of one valve will act to close the other valve, and means whereby the branch discharge or the sub-branch discharge may be closed independently of the said valves.

3. In a pump spout, a main discharge, a branch discharge, a sub-branch discharge, valves arranged one within the main discharge and one in the branch discharge, connections between the valves whereby opening
120 of one valve will act to close the other valve, and means whereby the branch discharge or the sub-branch discharge may be closed independently of the said valves, the said means, when in position to close the
125 130

passage through the branch discharge, serving to direct the flow through the sub-branch discharge.

4. In a pump spout, a main discharge, a
5 branch discharge, a sub-branch discharge, valves arranged one within the main discharge and one within the branch discharge, connection between the valves whereby opening of one valve will act to close the other
10 valve, a swinging valve arranged within the branch discharge at the point of junction with the sub-branch discharge therewith, an operating handle connected with the said valve whereby it may be swung to position
15 to open or close the passage in the said sub-

branch discharge, the said valve when in position to close the passage through the branch discharge, serving to direct flow through the sub-branch discharge, and means for holding the handle, when the
20 same is swung to position to move the valve to close said sub-branch discharge.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAMES OLIVER HUTCHISON.

Witnesses:

OLLIE NICHOLS,
ELWOOD ALLBRIGHT.