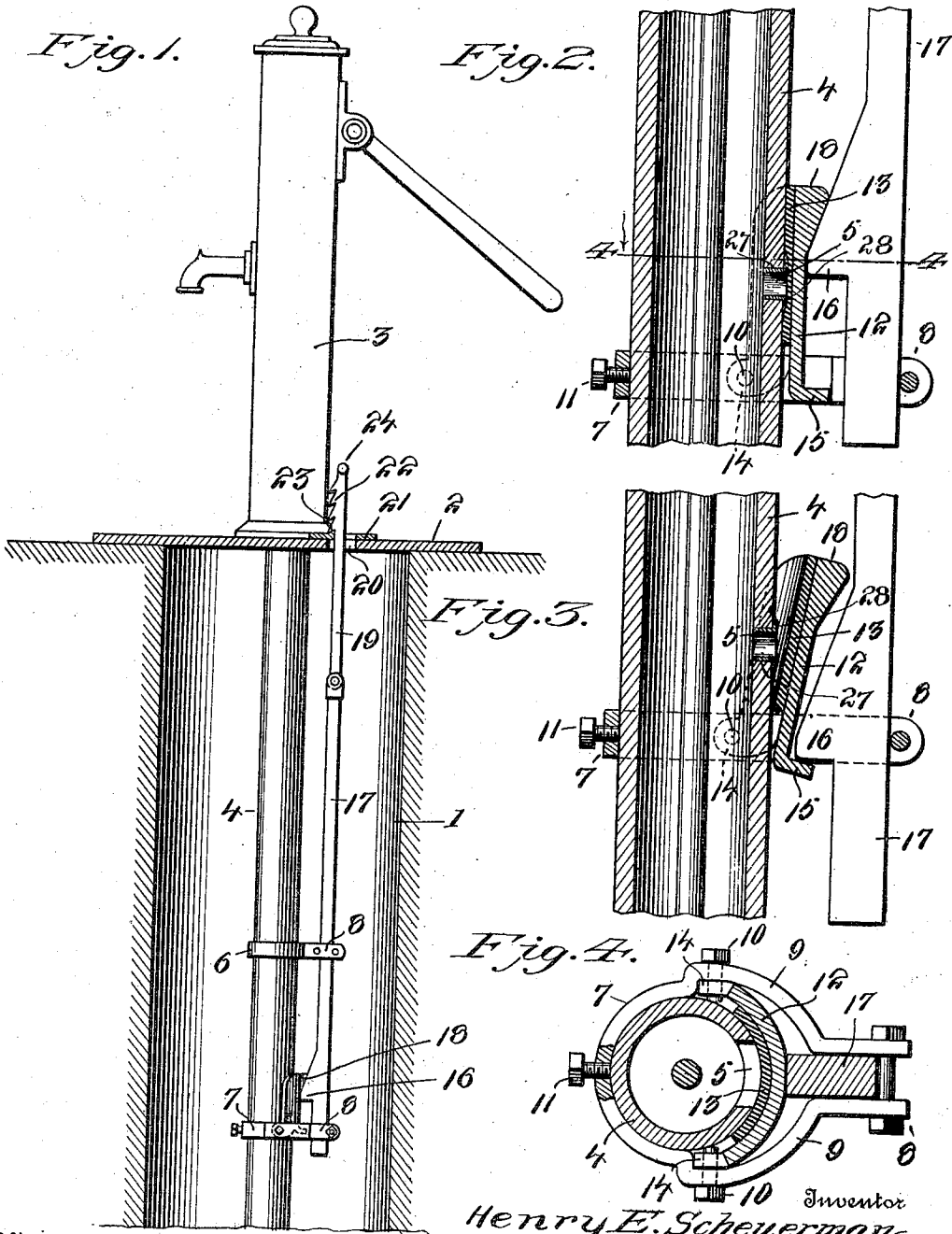


H. E. SCHEUERMAN.
PUMP.
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Patented Oct. 11, 1910.



Witnesses

Edwin L. McKee
Wm. Ragger

Henry E. Scheuerman

By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

HENRY E. SCHEUERMAN, OF OTIS, KANSAS.

PUMP.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY E. SCHEUERMAN, a citizen of the United States of America, residing at Otis, in the county of Rush and State of Kansas, have invented new and useful Improvements in Pumps, of which the following is a specification.

This invention relates to pumps, and it has for its object to provide a vent or drain opening through which the water may be drained from the pump barrel above the freezing line and to provide further means of simple and improved construction whereby the said opening may be obstructed when the pump is in use so as not to interfere with the operation.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawing,—Figure 1 is a sectional elevation showing a pump and a portion of the pump tube or barrel extending into a well, the same being equipped with the device forming the subject of the present invention. Fig. 2 is a vertical sectional view of a portion of the pump tube having the drain opening, the closing member being shown in obstructing position. Fig. 3 is a similar view, the closing member being shown in non-obstructing position. Fig. 4 is a horizontal sectional view taken on the line 4—4 in Fig. 2.

Corresponding parts in the several figures are denoted by like characters of reference.

1 designates a well covered by a platform 2 which supports the pump 3, the latter being of the ordinary or any well known and suitable construction. The tube or pump barrel 4, which extends from the pump downwardly into the well, is provided with a suitable drain opening 5. Clamps 6 and 7 are mounted in suitable positions upon the pump tube or barrel, one of said clamps 6 being above the drain opening, while the

other clamp is directly below and adjacent to said opening. The clamps 6 and 7 are each provided with laterally extending guide arms 8, and the clamp 7 is provided with outwardly offset side portions 9 which are spaced from the body of the pump barrel and are provided with pivotal members 10 extending in the direction of the pump barrel which is engaged by the inner terminal of said members. The clamp 7 also has a tightening screw 11.

12 designates a valve or closure which consists of a plate which is suitably curved to conform to the curvature of the pump barrel, said valve or closure being provided with a shield or packing member 13 of rubber or other suitable yielding material directly engaging the pump barrel. Said valve or closure is also provided with ears 14 pivotally engaging the supporting members 10 and with an outwardly projecting heel 15 lying in the path of a lug 16 which is formed upon an operating rod or slide 17 that is supported for vertical movement between the arms 8 of the clamps 6 and 7. The upper face of the lug 16 is beveled, as shown, to engage a correspondingly beveled lug 18 near the upper end of the plate which constitutes the valve or closure. Hingedly connected with the upper end of the bar or slide 17 is an arm or handle member 19 that extends through an aperture 20 in the platform 2 and through a slotted plate 21 supported upon said platform, said arm being provided with teeth or ratchets 22 to engage an upwardly extending rib 23 upon the slotted plate 21 for the purpose of supporting the slide or operating bar and related parts in adjusted position. The arm 19 may also be provided with a cross bar or handle 24 at its upper end to enable it to be conveniently manipulated.

It is preferred to place in the vent opening 5 a nipple 27 having an annular flange 28 lying upon the outer face of the pump barrel to engage the shield or pad 13 of the valve member 12, thereby coöperating with said valve member to form a perfect closure. The lug or projection 18 upon the valve member 12 may be omitted when desired, but it is preferred to use said lug as a limit to the upward movement of the operating rod.

It will be readily seen that by moving the operating bar 17 in a downward direction, the lug 16 will strike the heel projection 15

of the valve, thereby tilting the latter to the non-obstructing position shown in Fig. 3 and permitting the water in the pump barrel above the drain opening 5 to escape through said opening. The drain opening, it is to be noted, is to be located below the normal freezing point, and it will thus be obvious that when the water above said opening is drained off, there will be no danger of the pump freezing. By moving the slide and operating rod in an upward direction, the lug or projection 16 will force the valve in the direction of the pump barrel until it strikes the correspondingly inclined or beveled lug 18, when the valve or obstructing member will be forced tightly against the outside of the pump barrel, thus obstructing the drain opening and permitting the pump to be effectively used.

20 This improved device, as will be seen, is very simple in construction and easy of application, and it will be found to be thoroughly efficient for the purposes for which it is provided.

25 Having thus described the invention, what is claimed as new, is:—

1. In a device of the character described, a pump barrel having a drain opening, clamps engaging the barrel and having laterally extending arms, a valve or closure pivotally supported by one of the clamps, an operating member slidably supported by the

arms of the clamps and engaging the closure to move the latter to or from an obstructing position, and means for securing the operating member in adjusted position. 35

2. In a device of the character described, a pump barrel having a drain opening, a clamp engaging the barrel and having outwardly offset side portions, pivot pins extending through the latter in the direction of the pump barrel, a curved plate constituting a closure having ears pivotally engaging the pins, and an operating rod supported for vertical sliding movement and engaging the closure to move the latter to and from an obstructing position. 40 45

3. In a device of the character described, a pump barrel having a drain opening, a valve or closure pivotally supported adjacent to said opening, and a suitably supported vertically slidable operating rod having a beveled lug; said closure being provided at its lower end with a lip lying in the path of the said lug and adjacent to its upper end with a lug beveled to correspond with the beveled face of the lug upon the operating rod. 50 55

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

HENRY E. SCHEUERMAN.

Witnesses:

H. S. OCHS,
A. MOORE.