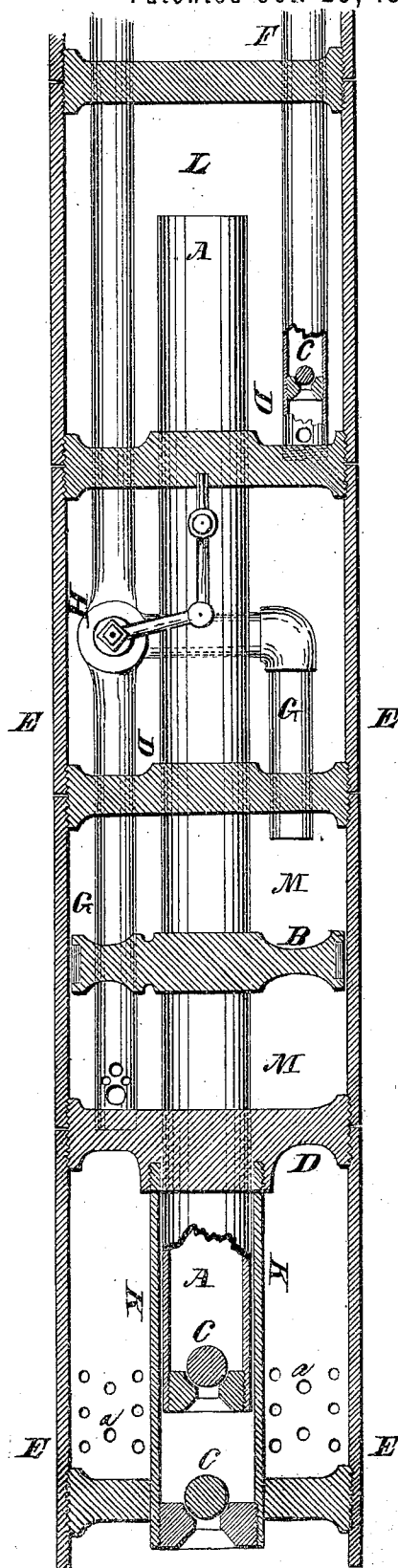


H. W. FAUCETT & A. T. COMER.

Improvement in Steam-Pumps for Artesian Wells.

No. 132,567.

Patented Oct. 29, 1872.



Inventors:

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UNITED STATES PATENT OFFICE.

HIRAM W. FAUCETT AND ALEXANDER T. COMER, OF TITUSVILLE, PA.

IMPROVEMENT IN STEAM-PUMPS FOR ARTESIAN WELLS.

Specification forming part of Letters Patent No. 132,567, dated October 29, 1872.

To all whom it may concern:

Be it known that we, HIRAM W. FAUCETT and ALEXANDER T. COMER, of Titusville, Crawford county, Pennsylvania, have invented certain Improvements in Steam-Pumps for Artesian Wells; of which the following is a specification, reference being had to the drawing hereto annexed, which represents a sectional view.

This invention relates to that class of pumps which are intended to force the oil from the bottom of an artesian well to the earth's surface; and consists, primarily, in the direct and successful application of the steam or compressed air to the pump itself, (all details not absolutely necessary to the exhibition of the principle itself being purposely omitted.)

In the drawing we have shown the outside ordinary well-casing E E, the pipe G extending to the boiler at the surface of the ground and admitting steam or compressed air to the cylinder, the pipe F also extending to the surface of the ground and carrying the oil into a tank; the piston-head B, with the hollow plunger A, working in the casing E E and around the pipe G; the plunger A working through the standards D D D (with packing-boxes not shown, but as ordinarily used) and into the lower pump-socket or barrel K K, having the check-valves C C C.

The pump when in position is placed at the bottom of the well; the fluid to be raised enters at the openings *a a a*, and, by the force of the pump, is deposited through the hollow plunger A into the upper air-chamber L, and finally driven to the surface through the pipe F. The pump is driven by the piston-head B, working in the cylinder M M, the steam entering the upper and lower ends of the cylinder alternately, as shown, by means of a cut-off, H, worked by the plunger A, suitable openings being left for the escape steam in the chamber N.

We do not claim a pump arranged upon the surface of the ground and connected with

tubes extending to or near the bottom of wells, through which steam or compressed air is forced, for raising oils, &c., from such wells, for such is not new; but

We claim as our invention—

1. The working mechanism of a steam or compressed air-pump, constructed as herein specified, arranged and operating within a cylinder with respect to admission-pipe G and a discharge-pipe, F, for the purpose of raising fluids from wells by the application of steam or compressed air, as set forth.

2. The pipe G and cut-off H, in combination with the piston B, cylinders M M, and hollow plunger A, the several parts arranged within a cylinder, E, for the purpose of raising fluid, such as oils, from wells by means of steam or compressed air or other elastic fluid.

3. The barrel K provided with a valve, *c*, in combination with the hollow piston A and its valve, substantially as described, said parts being arranged within a cylinder, E, for the purpose of raising fluids, such as oils, from wells by means of steam or compressed air or other equivalent elastic fluids, as described.

4. A hollow piston arranged within a cylinder, E, and guided in standards D D, substantially as described, in combination with the chamber L and exit-pipe F, barrel K, cylinders M, pipe G, and cut-off H, for raising oil from artesian wells by means of steam or compressed air.

5. The manner herein described of raising liquids to the surface from oil or artesian wells, the same consisting in directly applying a steam or compressed air-pump, constructed, substantially as herein described, at or near the bottom of such wells, substantially in the manner herein shown and specified.

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Witnesses:

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