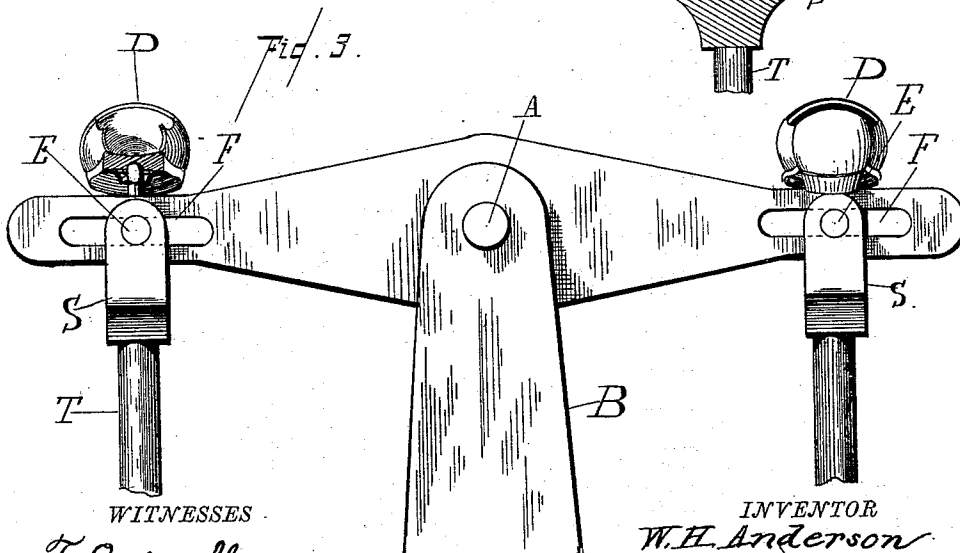
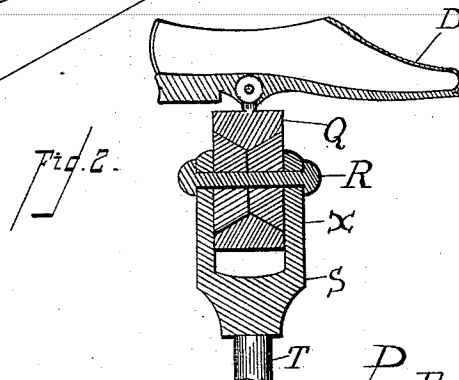
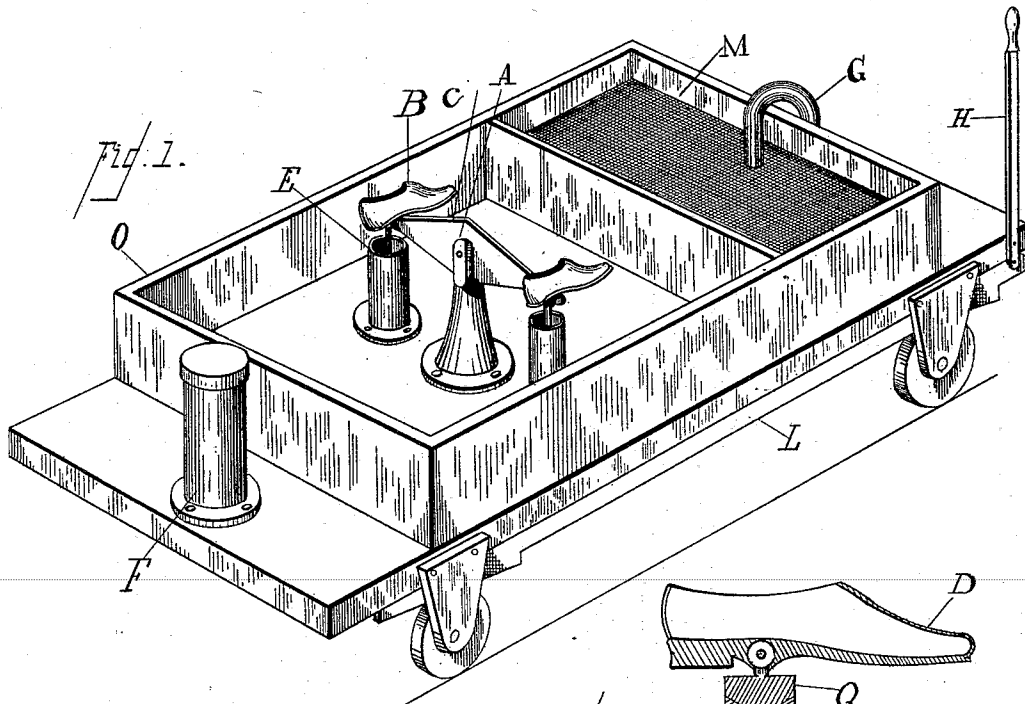


(No Model.)

W. H. ANDERSON.
TREADLE PUMP.

No. 439,992.

Patented Nov. 4, 1890.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM H. ANDERSON, OF RIVERSIDE, CALIFORNIA.

TREADLE-PUMP.

SPECIFICATION forming part of Letters Patent No. 439,992, dated November 4, 1890.

Application filed January 6, 1890. Serial No. 336,102. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. ANDERSON, a citizen of the United States, residing at Riverside, in the county of San Bernardino, and State of California, have invented certain new and useful Improvements in Treadle-Pumps, of which the following is a specification.

My invention relates to improvements in treadle-pumps; and it consists in certain novel features, hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a pump provided with my improvements. Fig. 2 is a vertical cross-section of the treadle, and Fig. 3 is a side elevation of the walking-beam or treadle.

Referring to the drawings by letter, B designates a standard, having a bifurcated upper end, in and to which the walking-beam or treadle C is pivoted by a transverse bolt or pivot-pin A, as shown.

D designates shoes or foot-rests, which are swiveled to the upper sides of the walking-beam at or near the ends of the same, so as to be maintained in a horizontal position at all times. These shoes or rests receive the feet of the operator when the device is in use. The walking-beam or cross-bar is provided at or near its ends with the longitudinal slots F, the upper and lower edges of which are convex. Half-pulleys X are fitted in these slots, and are held therein by axles or pivot-pins R, to the ends of which I pivot the upper ends of the piston-rods H, as shown.

The construction and arrangement of the several parts of the device being thus made known, the operation and advantages of the same will be readily understood.

The operator stands upon the walking-beam with his feet in the shoes D, and by throwing his weight alternately upon the opposite shoes vibrates the walking-beam or treadle, and thereby reciprocates the pistons and so operates the pump.

It will be noticed that the arrangement and construction shown and described provides a device which can be easily and rapidly operated, and in which the friction will be reduced to a minimum, the rollers serving not only to reduce the friction, but also moving from end to end of the slots to overcome the tendency of the piston-rods to bind upon the walking-beam or other parts.

By employing half-pulleys I am enabled to make the walls of the slots convex, thus preventing the pulleys moving laterally, and consequently obviating twisting of the piston-rods or other parts. The half-rollers are fitted in the slots from opposite sides, as will be readily understood.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination of the walking-beam having longitudinal slots in its ends, said slots having convex walls, the half-rollers fitted in said slots from the opposite sides of the same, the piston-rods pivoted to the axles of the rollers, and the shoes swiveled on the upper side of the walking-beam, as specified.

In witness whereof I have hereunto set my hand and seal.

WILLIAM H. ANDERSON. [L. s.]

Witnesses:

A. B. SMITH,
S. R. LANGWORTHY.