

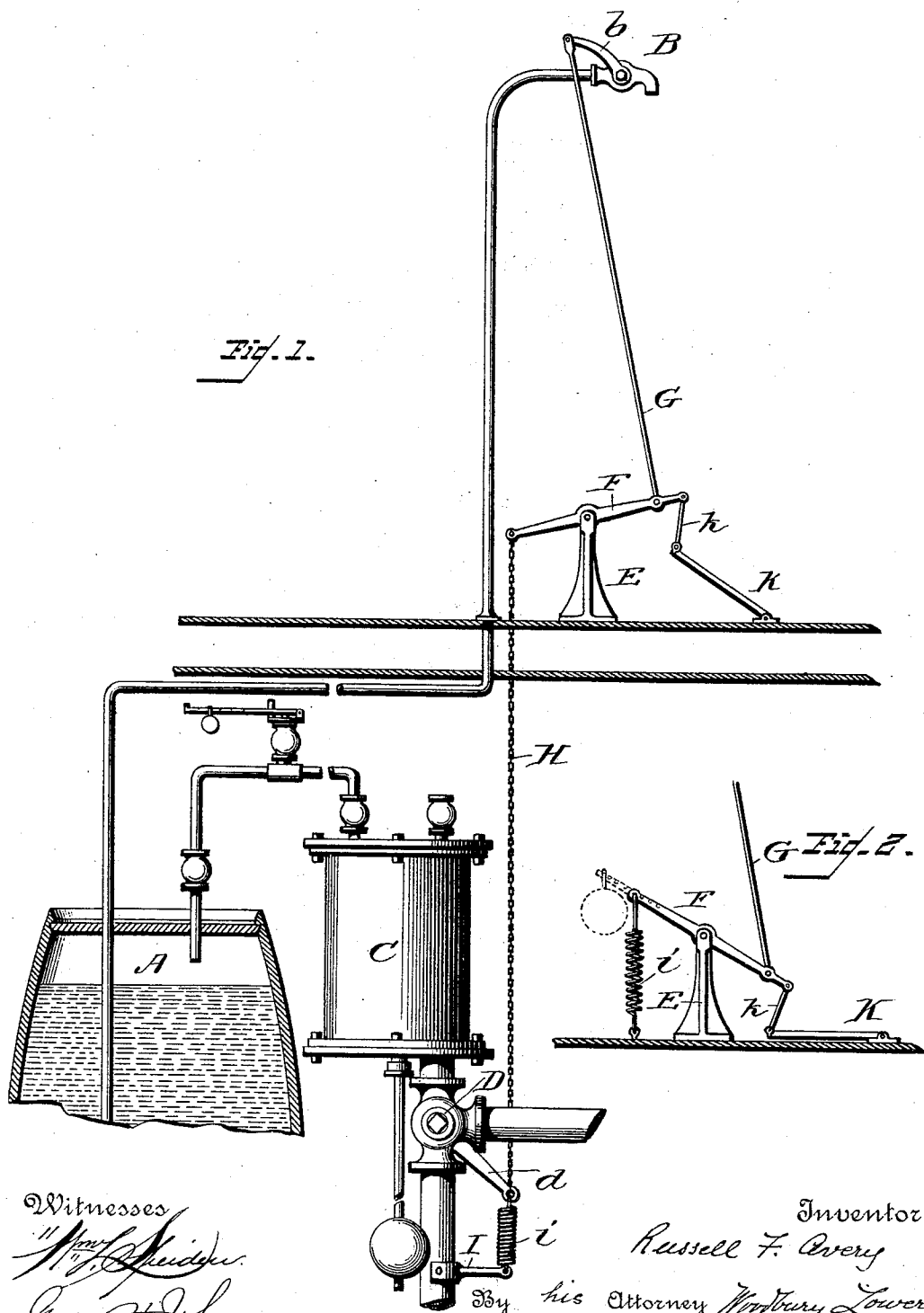
(No Model.)

R. F. AVERY.

DEVICE FOR OPERATING PUMPS BY MEANS OF TREADLES.

No. 482,777.

Patented Sept. 20, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

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DEVICE FOR OPERATING PUMPS BY MEANS OF TREADLES.

SPECIFICATION forming part of Letters Patent No. 482,777, dated September 20, 1892.

Application filed August 5, 1891. Renewed July 19, 1892. Serial No. 440,520. (No model.)

To all whom it may concern:

Be it known that I, RUSSELL F. AVERY, a citizen of the United States, residing at Spokane Falls, in the county of Spokane and State of Washington, have invented a new and useful Treadle Connection for Automatically and Simultaneously Opening and Closing the Dispensing-Faucet and the Pressure-Valve of a Pneumatic Liquid-Dispensing Apparatus, of which the following is a specification.

The object of my invention is to provide means whereby a faucet communicating with a vessel containing liquid and the valve of a pneumatic or other pump supplying an air-pressure to said vessel may be automatically and simultaneously opened and closed by means of a foot-treadle, giving the person operating said device the free use of his hands.

My invention consists of a treadle pivoted to a lever of the first class, one arm of said lever being connected with a faucet communicating with the vessel from which the liquid is to be drawn and the other arm of the lever with the lever of the pressure-valve in an air-compressor connected with said vessel.

In the accompanying drawings, which illustrate my invention, I have shown the lever and treadle as applied to the liquid-dispensing apparatus described in my application for Letters Patent filed April 13, 1891, Serial No. 388,770; but I do not limit myself to its use with this particular construction, as it may be used with any pump or air-compressor.

Figure 1 is a view of the same in combination with the compressor and liquid-containing vessel, and Fig. 2 is a view of the treadle as applied to the faucet alone.

A is a vessel containing the liquid to be drawn.

B is a faucet communicating with the vessel A and having the lever-handle *b*.

C is an air-pump for forcing air into the vessel A.

D is a valve through which hydraulic or other pressure is admitted to operate the air-pump, and *d* is its lever-arm.

E is a stand fastened to the floor, to which is pivoted the lever F, one arm of which is connected by the rod G with the handle *b* of the faucet B and the other arm by the chain H with the arm *d* of the pressure-valve D.

I is an arm, which is connected by the spring *i* with the pressure-valve arm *d*.

K is a treadle suspended by the link *k* to one arm of the lever F.

The operation of the device is as follows: In its normal position, as shown in Fig. 1, both the faucet B is closed and the valve D is turned off, so that no pressure is admitted to the air-pump C, as described in my application above referred to. When the treadle K is pressed down by the pressure of the foot, it and its connections take the position shown in dotted lines in Fig. 1, opening the faucet B, and at the same time the pressure-valve D, which causes the air-pump to force air into the vessel A and the liquid to flow from the dispensing-faucet B. As soon as the required amount of liquid is drawn, on removing the foot the spring *i* draws back the lever *d*, and with it the lever F, to its first position, simultaneously closing both faucet and valve.

I do not limit myself to the particular means for connecting the arms of the lever F to the valve and faucet, nor to the use of a spring for effecting the automatic closing, as a counter-weight may be used as an equivalent, nor to the particular location of the spring, as these details may be greatly varied without departing from the spirit of my invention.

Should it be desired to use my invention with the faucet alone, the chain H can be omitted and that arm of the lever F attached by the spring *i* immediately to the floor, as shown in Fig. 4. I thus provide an automatic treadle-operated device which opens and closes a faucet and the pressure-valve of the pump at one operation, absolutely prevents the careless leaving open of the faucet, and is under the immediate control of the person attending the device, while giving him the free use of both of his hands.

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

1. In an apparatus for dispensing liquids, the combination, with the faucet of the liquid-containing vessel and the pressure-valve of the air-pump connected therewith, of a centrally-pivoted lever, suitable connections between the arms of the lever, respectively, with the faucet and pressure-valve, a treadle at-

tached to said lever, and a device for automatically raising the lever after the treadle has been depressed, substantially as described.

2. In an apparatus for dispensing liquids,
5 the combination, with the faucet B, communicating with the liquid-containing vessel A, of the arm *b* of the faucet, the pivoted lever F, the rod G, connecting one arm of the lever F with the arm *b* of the faucet B, the treadle
10 K, pivoted to the lever F, and means for automatically raising the lever, substantially as described.

3. In an apparatus for dispensing liquids, the combination of the faucet B, communicating with the liquid-containing vessel A,

the arm *b* of the faucet, the pressure-valve D of the pump C, the arm *d* of the pressure-valve, the lever F, the rod G, connecting one arm of the lever F with the arm *b* of the faucet, the chain H, connecting the other arm of
20 the lever F with the arm *d* of the pressure-valve, the treadle K, pivoted to the lever F, and the spring *i*, attached at one end to the arm *d* of the pressure-valve and at the other
25 to a fixed support, substantially as described.

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Witnesses:

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