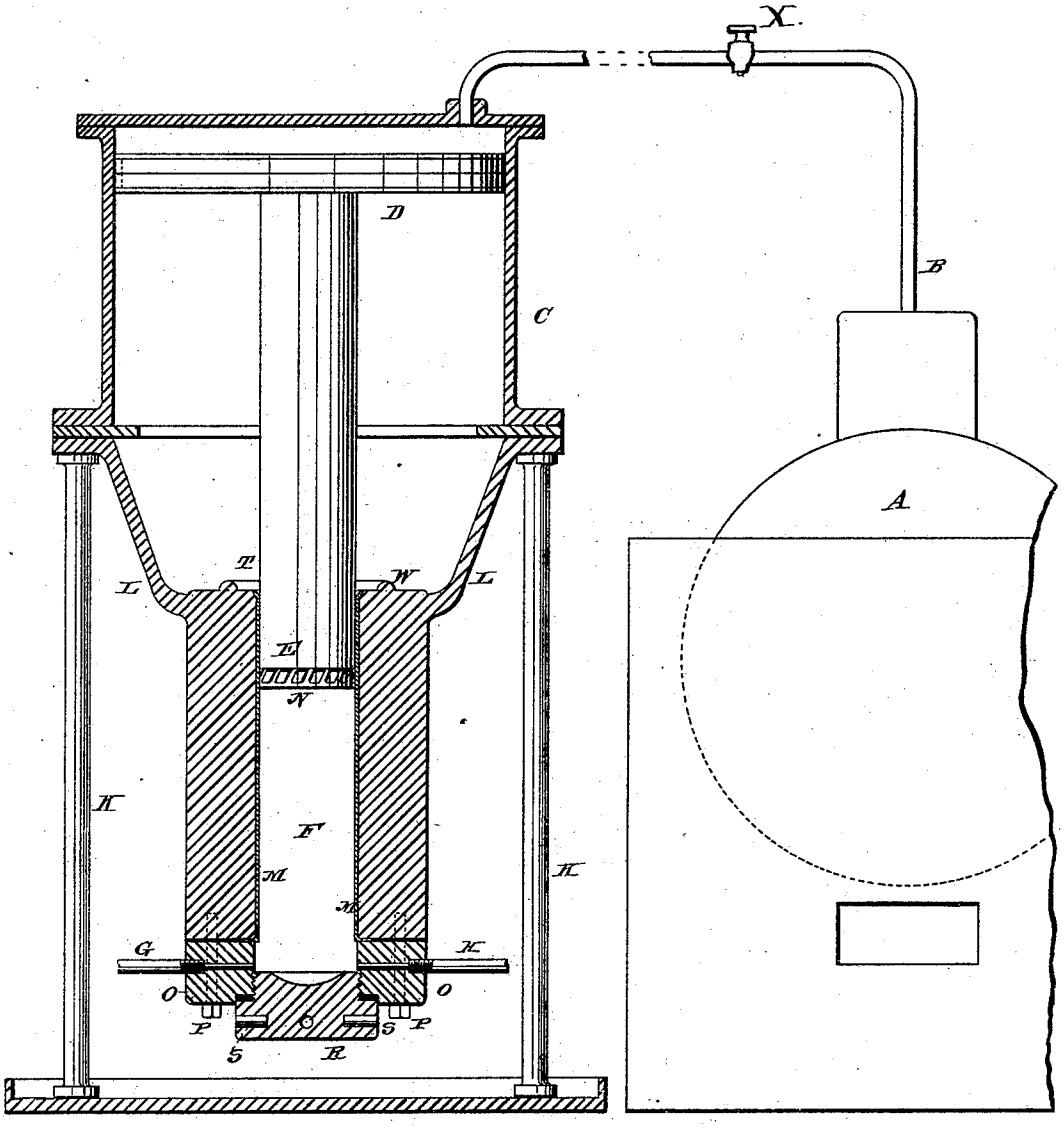
(No Model.)

J. B. EDSON.

ACCUMULATOR OF POWER.

No. 273,044. Patented Feb. 27, 1883.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JARVIS B. EDSON, OF NEW YORK, N. Y.

ACCUMULATOR OF POWER.

SPECIFICATION forming part of Letters Patent No. 273,044, dated February 27, 1883.

Application filed December 17, 1881. (No model.)

To all whom it may concern:

Be it known that I, JARVIS B. EDSON, residing in the city, county, and State of New York, have invented certain Improvements in Accumulators of Power, of which the following is a specification.

This invention pertains to certain improvements in power-accumulators to be operated by steam or other equivalent motor acting upon pistons of different sizes or areas.

The invention consists in providing the ends of the smaller cylinder with a section for receiving the inlet and outlet pipes and their connections, and with a plug in said sections in such a manner that the packing on the end of the piston may be refitted without removing all the connections, as will hereinafter appear.

In the drawing, which shows a vertical section of my accumulator, A represents the boiler or reservoir, from which the required amount of pressure is obtained through a pipe, as at B, to the larger cylinder, as at C, in which is fitted the piston D, the area of which is sufficient to give the extra amount of pressure to the smaller piston at E for performing the work. Said smaller piston works in a corresponding cylinder, F, and has its inlet and outlet connections at G and H, leading from the pumps to the presses, &c. The cylinders are of equal length, and the larger is mounted on suitable supports, as columns, at K, and the smaller cylinder may be suspended therefrom by hangers, as at L, so that its lower end may be free to be opened when desired. The smaller cylinder is lined with a thin sheet of metal, as copper, at M, to permit the packing at N to work smoothly in it, and the lower end of the cylinder is provided with an extension-ring, as at O, bolted firmly by screw-bolts, as P, to the end of the cylinder, and the pipes are tapped or fitted into this piece or extension, and below the chamber in which the piston works, and below the copper or smooth metal lining, so that it is not perforated by the inlet or outlet holes. This extension ring or piece O is provided with a screw-plug, R, to close the lower end of the cylinder, and its outer end is provided with holes, as at S, to receive a bar for screwing and unscrewing it whenever it is desirable to pack the piston, or for any other purpose. The upper end of the smaller cylinder is furnished with a groove or recess, T, around the piston, to permit the water or liquid in the cylinder as it may leak out to stand until the piston is reversed. It may also have a rib or collar at W, formed on the upper end, to form a reservoir for the same purpose.

It is evident that a reservoir for water at a sufficient height may be used instead of a steam-boiler; but in any case, by such a construction the pressure in the boiler or the reservoir will be direct acting upon the larger piston whenever the stop-cock at X is opened, and it is also evident that when the pressure of the force-pumps connected to the smaller cylinder becomes greater than the pressure upon the larger piston the liquid or steam will be forced back to the reservoir or boiler.

I therefore claim—

The combination of the smaller cylinder and the extension-ring O with the closing-plug R and the inlet and outlet pipes to and from the ring O, as hereinbefore set forth.

JARVIS B. EDSON.

Witnesses:
EUGENE N. ELIOT,
J. G. HINKEL.