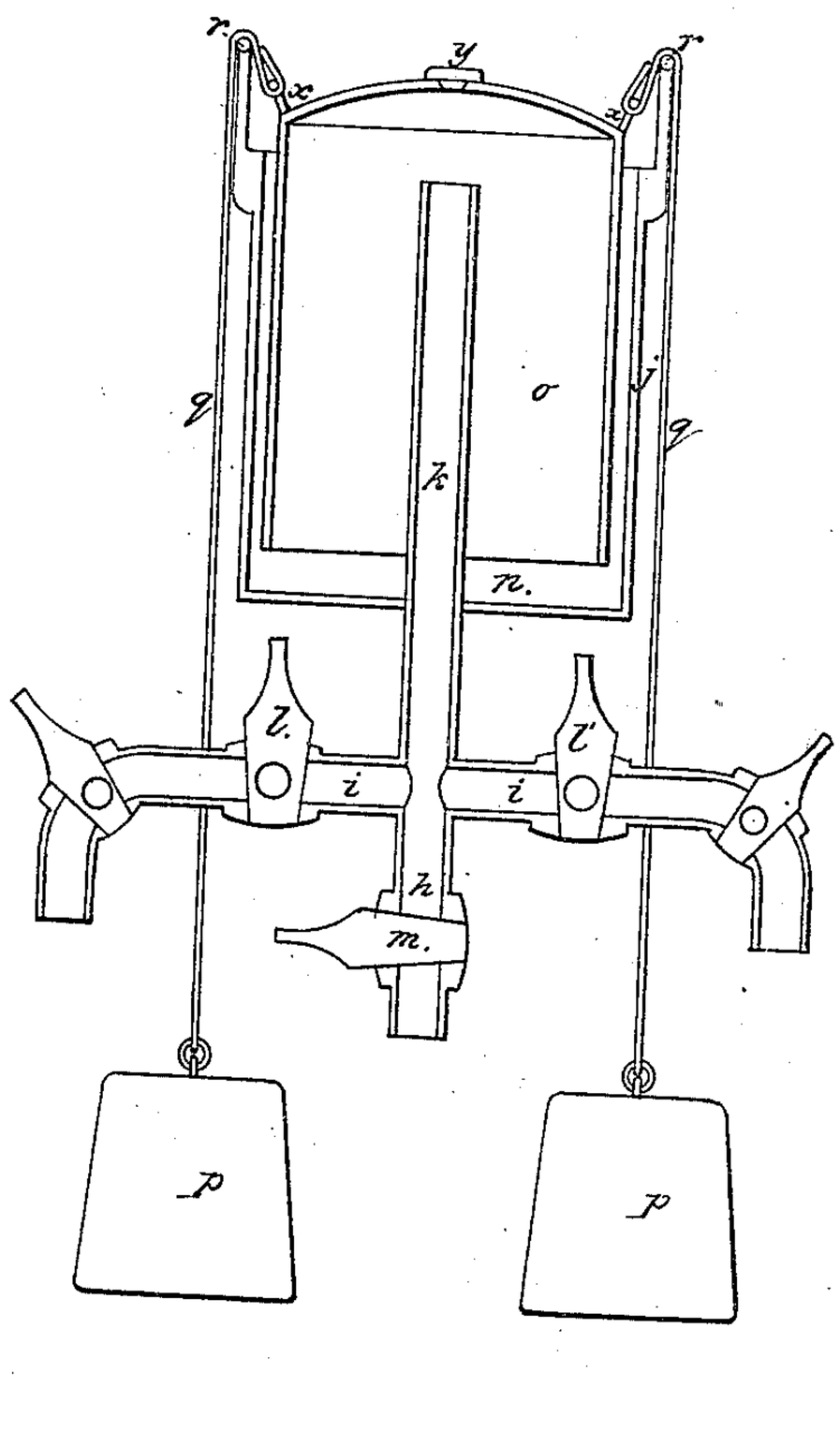
E. DUNSCOMB.

VACUUM PUMP.

No. 62,738. Patented Mar. 12, 1867.



WITNESSES:

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INVENTOR:

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United States Patent Office.

EDWARD DUNSCOMB, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 62,738, *dated March* 12, 1867; *antedated February* 28, 1867.

IMPROVEMENT IN VACUUM-PUMPS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, EDWARD DUNSCOMB, of the city of Boston, county of Suffolk, and Commonwealth of Massachusetts, have invented a new and useful Improvement in Vacuum-Pumps, and hereby declare to be full, clear, and exact descriptions of the same, reference being had to the annexed drawings, making part of this specification, in which—

n denotes a cistern, suitably situated, filled with water, or other proper substance, to make a water-tight joint. *o* is a bell, which, by its descent into the contents of *n*, makes the water-tight joint. In the roof of *o* is a hole. *y* is a cap, which is put on the hole in *o* to close the hole, and taken off to open the hole in *o*. *x x* are ears firmly secured to roof end of *o*. *q q* are cords, one end of which is bound to ears *x x*. *r r* are pulleys situated above cistern *n*. The cords *q q* pass over the pulleys *r r*. P P are weights, to which the other ends of the cords *q q* are secured. K is a vertical pipe. One end of K enters the bottom, and runs up to the top of cistern *n*. The other end of pipe K enters the horizontal pipe *i*. *i*, a horizontal pipe, has stop-cocks *l l'*. *h* is a vertical pipe, which has stop-cock *m*. One end of pipe *h* enters pipe *i*. The other end of pipe *h* is connected with or enters into the vessel where vacuum is required. *m* is the stop-cock of pipe *h*. *j* is the vacuum-pump, formed by the several parts above described.

To work the vacuum-pump, first empty bell *o* of air, take off cap *y*, close stop-cocks *l l' m*, take off weights P P, when bell *o* will descend into its cistern *n*, and, by its descent, drive out all air from itself through the hole in its roof. To establish vacuum in vessel desired, screw on cap *y*, hang on to bell *o* its weights P P, open cocks *l l' m*. Bell *o* is drawn up by descent of its weights P P, and exhausts into itself all air from the vessel wherein vacuum is required. Now expel the air from bell *o*, as before described, open the cocks *l l' m*, and hang on the weights P P, when the pump empties the vessel wherein vacuum is required of all vapor. If the contents of the vessel wherein vacuum is needed be gas, the bell *o* draws up and stores in itself the gas for utilization, as explained in my application of this date for patent for vacuum-pumps, vacuum-pans, vacuum-stills, and vacuum-retorts.

Claim.

I claim the peculiar construction of the vacuum-pump *j j*; that is, as composed of the vessels *n* and *o*, and pipes *h i* K, with their stop-cocks, to operate both as vacuum-pump and vapor-receiver and storer, substantially as in manner described.

EDWARD DUNSCOMB.

Witnesses:

C. H. GRIFFIN,

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