

C. COOKSON.

Lowering Attachment to Hydraulic Elevators.

No. 209,110.

Patented Oct. 22, 1878.

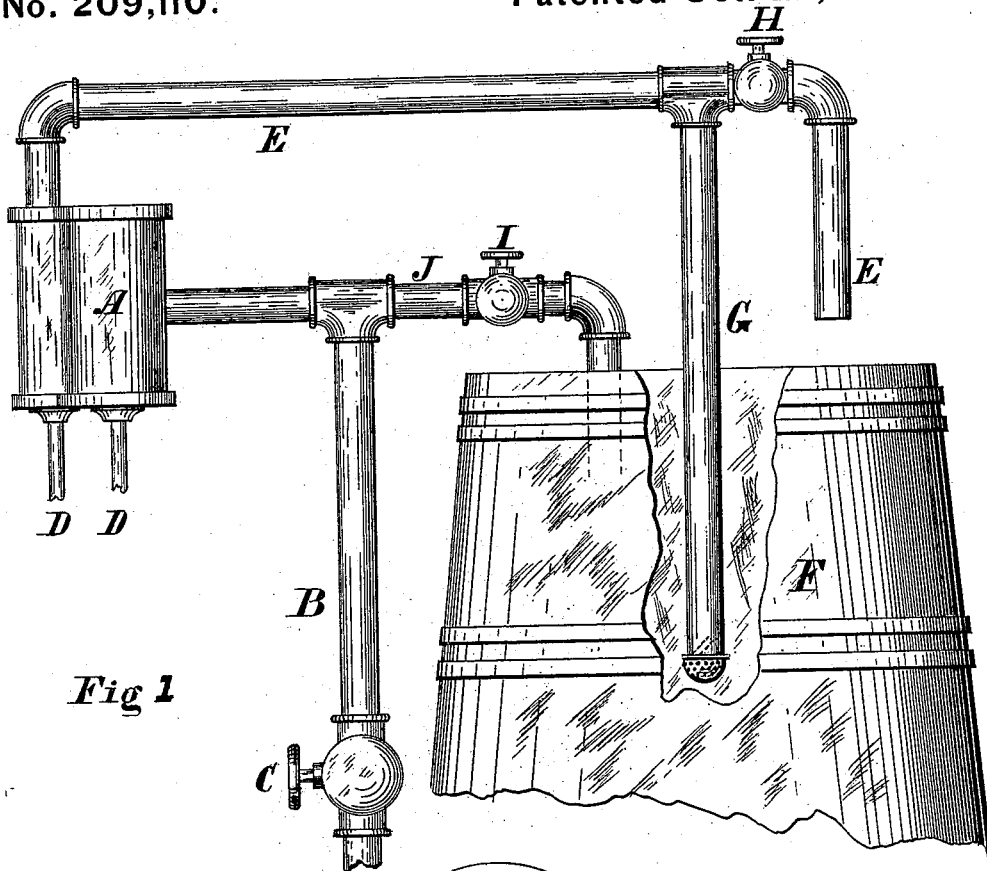
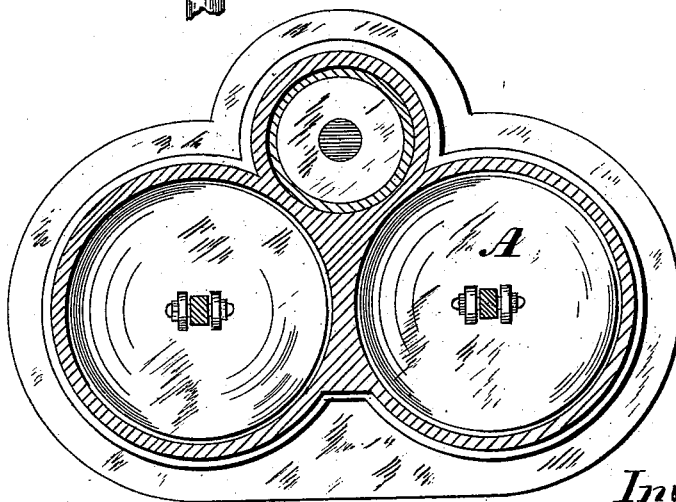


Fig 1



Inventor

Witnesses

Fig 2

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CHARLES COOKSON, OF WRIGHT'S GROVE, ILLINOIS.

IMPROVEMENT IN LOWERING ATTACHMENTS TO HYDRAULIC ELEVATORS.

Specification forming part of Letters Patent No. **209,110**, dated October 22, 1878; application filed December 22, 1877.

To all whom it may concern:

Be it known that I, CHARLES COOKSON, of Wright's Grove, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Lowering Attachments to Water-Elevators, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a side elevation of the cylinders and tank and their connecting-pipes and cocks, showing the application of my invention, and Fig. 2 shows a plan view of the cylinders which are used more particularly in connection with elevators for elevating freight and passengers in buildings.

The object of my invention is to utilize the water that has been used for the purpose of raising an elevator, to regulate or control its descent. I apply said apparatus to any of the water-power elevators in which the weight of the elevator acts as the power to operate the valves or pistons in the cylinders, to make them act as a pump to pump the water back through the cylinders. The descent of the elevator is controlled by the extent to which the cock is opened in the pipe through which the water is pumped by the weight of the elevator.

My invention consists in the combination, with the cylinders of such a water-elevator, of a water-tank and an arrangement or combination of pipe and cocks, hereinafter fully shown and described.

In the accompanying drawings, A are the cylinders, which are constructed in accordance with the specification and drawings shown and described in the Letters Patent issued to Joseph Lewis February 9, 1871, and improved by him in Letters Patent No. 152,235, dated June 23, 1874, to which I refer for a complete description of such cylinders. B is the inlet-pipe, which receives water from the street-main or from any other source from which pressure can be obtained. C is a stop-cock, whereby water is admitted, through the pipe B, to the cylinders A. D are the piston-rods, which communicate the power to suitable machinery, such as in general use in operating such elevators above referred to. E is the pipe which conducts the exhaust-water, which

passes from the cylinders to the tank F. G is a pipe extending from the pipe E to near the bottom of the tank F.

When the elevator has been raised as high as it is desired to take it, the operator closes the cock H in the pipe E, also the cock C in the pipe B, and opens the cock I in the pipe J. Now, the weight of the elevator being connected, by its connecting machinery, to the piston-rods D, puts them in operation, and causes the cylinders and the valves connected therein, when constructed as described in the patents above referred to, to act as a pump and pump water from the tank F, through the pipes G, E, and J, back into the tank.

The rapidity with which the elevator will descend and the amount of weight that would be held in the elevator would be governed by the cock I, and the elevator could be held at any point by closing the cock I.

When it is desired to raise the elevator again, the cock I is closed and the cock C opened, which brings into use the water from the hydrant and communicates to the cylinders A power, which causes them to act as engines to raise the elevator.

It will be observed that each time the elevator goes up fresh water is taken from the street-main and used for obtaining the power for raising the elevator, but that that water is used over again to control the descent of the elevator.

I do not limit myself to any special construction of cylinders or valves or pistons, but refer to Mr. Lewis' patent for a description of such as I am now using for running water-elevators.

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

In combination with water-elevator cylinders A, the pipes B, J, and E, provided with suitable cocks, and the water-tank F, for the purpose of controlling the descent of a water-elevator, substantially as specified and shown.

CHARLES COOKSON.

Witnesses:

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