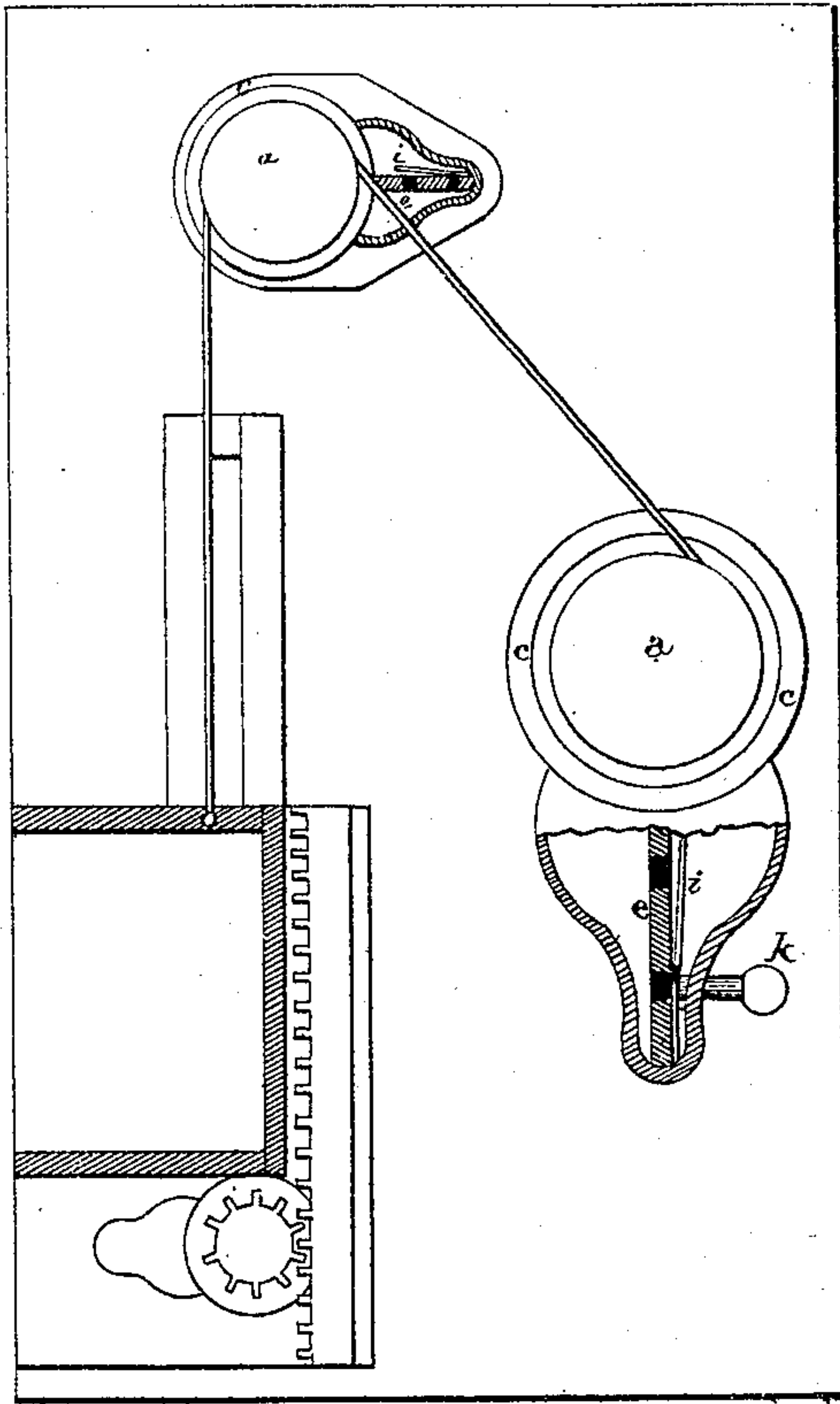


J. S. BALDWIN.  
Elevators.

No. 138,985.

Patented May 20, 1873.

Fig. 1.



WITNESSES.

W. H. Duhamel  
Alex Davidson.

INVENTOR.

J. S. Baldwin.  
Per H. H. H. H.  
att.

# UNITED STATES PATENT OFFICE

JAMES S. BALDWIN, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN ELEVATORS.

Specification forming part of Letters Patent No. **138,985**, dated May 20, 1873; application filed March 17, 1873.

*To all whom it may concern:*

Be it known that I, J. S. BALDWIN, of Newark, county of Essex and State of New Jersey, have invented certain new and useful Improvements in Elevators, of which the following is a specification:

The nature of my invention relates to a method of regulating the speed of elevators; and consists in attaching to the pulleys and drum pumps the piston of which is attached to the former, and which keeps a body of fluid circulating around in a chamber, the flow of the liquid being controlled by a valve which will close as soon as the current becomes too rapid, and thus check the motion of the descending body.

Figure 1 represents my invention as applied to an elevator for the purpose of checking the descent of the car.

*a* represents the drum of an elevator, which is operated by the elevating mechanism in any suitable manner, and which is secured to the piston of a rotary pump inclosed in the shell *c*, so that when the drum is revolved, to either raise or lower the car, or any weight attached to it, it will cause the piston to revolve with it. Inclosed in the shell is a quantity of oil, water, or any suitable fluid, which, as the piston revolves, is forced around in the shell, passing through the opening in the partition *e*. The opening *e* is controlled by an elastic or other valve, *i*, which allows the liquid to flow freely through, while the car or weight attached to the drum is being elevated, but in descending, as soon as the piston begins to revolve too rapidly, the pressure from the increased rapidity causes the valve to close and thus stop or check the motion of the body. Passing through the shell, and controlling an opening through

the partition, is a valve-rod, *k*, which is used by the person in charge to start the machine after it has been stopped. The elevating-rope passes up over a pulley, which is secured to a piston, and is then fastened to the car. To the car is secured a third pump provided with a pinion which engages in a rack-bar, and thus serves to check the motion in the same manner.

I do not confine myself to the use of or claim as my invention any particular form of pump; any of the known kinds of pumps or hydraulic machines which will keep the fluid circulating around in the shell may be used for the purpose.

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

1. The method of regulating the speed of elevators by connecting hydraulic pumps with the several pulleys or drums, substantially as set forth.

2. The pump connected to the drum and pulley of an elevator, so as to check its speed substantially as set forth.

3. In combination with the elevator, the shells *c* in which the rotary pistons operate, having partitions *e*, automatic valves *i*, drums, and pulleys, substantially as shown and described.

4. The automatic valve *i*, provided with valve-rod *k*, for the purpose of starting the elevator, substantially as shown and described.

In testimony that I claim the foregoing as my invention I hereunto affix my signature this 14th day of March, 1873.

JAMES S. BALDWIN.

Witnesses:

S. A. BALDWIN,  
S. BALDWIN.