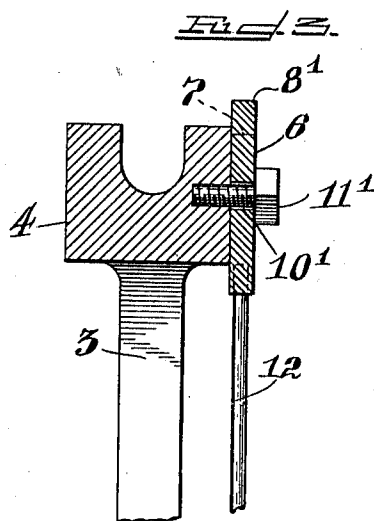
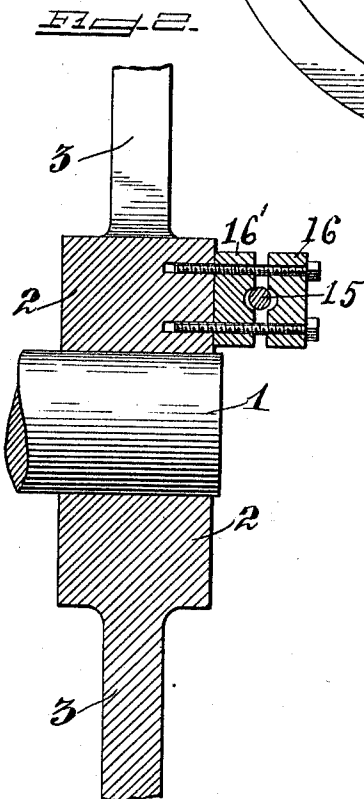
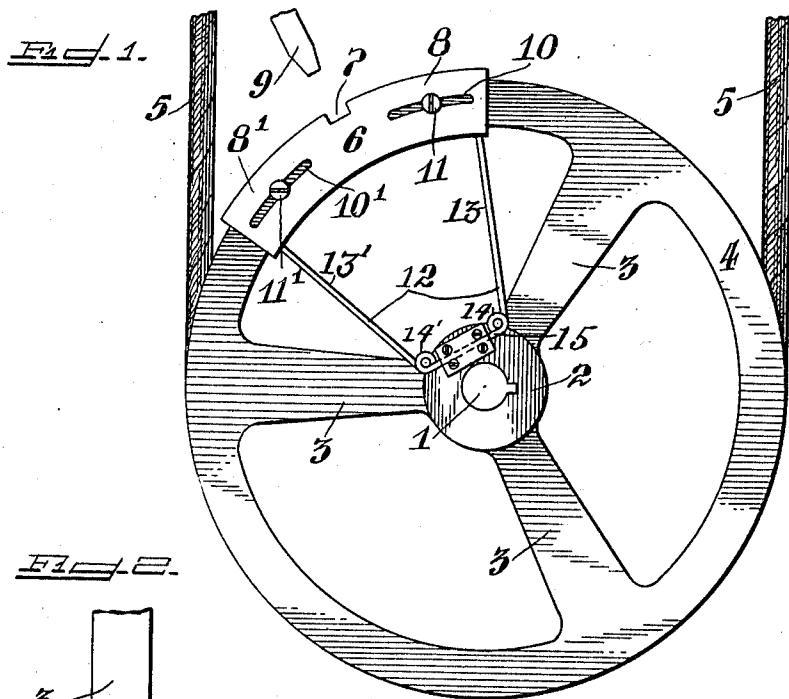


J. B. McKEOWN.
ELEVATOR LOCK.
APPLICATION FILED SEPT. 10, 1909.

990,281.

Patented Apr. 25, 1911.



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UNITED STATES PATENT OFFICE.

JOSEPH B. McKEOWN, OF UNION HILL, NEW JERSEY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO PUBLIC SAFETY COMPANY, A CORPORATION OF DELAWARE.

ELEVATOR-LOCK.

990,281.

Specification of Letters Patent.

Patented Apr. 25, 1911.

Application filed September 10, 1909. Serial No. 517,049.

To all whom it may concern:

Be it known that I, JOSEPH B. McKEOWN, a citizen of the United States, residing at Union Hill, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Elevator-Locks, of which the following is a specification.

My invention relates to improvements in locks to be applied to the valve controlling mechanism of elevators in connection with interlocking systems designed to prevent motion of the car while a gate is open.

My objects are the simple and cheap construction of such devices, the absolute locking of the car against motion but, at the same time, affording means whereby the valve may be moved slightly to compensate for leakages which would otherwise cause the car to rise or fall and to provide means for returning the valve to cut-off position after compensation.

In the accompanying drawing Figure 1 is a view of a form of my device on a valve wheel; Fig. 2 a view of the spring fastening; and Fig. 3 a view, partly in section, of the notched locking plate on the valve wheel.

1 is the valve wheel shaft, 2 the valve wheel hub, 3 the spokes of the valve wheel, 4 the grooved rim of the valve wheel and 5 the controller rope running to the lever or other controlling mechanism on the car in the shaft.

My device comprises a plate 6 having a notch 7 in the outer edge and a bearing surface 8, 8' extending on either side thereof. These bearing surfaces are long enough to accommodate all the travel of the wheel with respect to a bolt 9 moved by any suitable means, whether mechanical or electrical, into and out of the path of travel of the plate 6, its movement being controlled by the opening or closing of a gate. This plate 6 is secured to the wheel by means of studs 11, 11' working in the slots 10, 10' so that the plate is free to move slightly on the wheel, the limit of motion being the length of the slots. To maintain this plate at its normal position so that the notch will align with the bolt when the wheel is at the cut off position a spring 12 is provided. As shown this spring has the arms 13, 13' secured to the plate, coils 14, 14' and short connection 15. The two blocks 16, 16' each grooved on its

inner face are bolted together and to the wheel hub with the part 15 of the spring in the groove. This forms an elastic mounting for the notched plate the uses of which will be more fully set forth.

In operation the opening of the gate causes the bolt 9 to fall against the edge of the plate 6 and on turning the wheel to close the valve and stop the car the bolt will fall into the notch 7, for which it is a snug fit, and lock the valve at cut off position. As there is no play between the notch and bolt the car is firmly locked while the gate is opened. If either piston or valve is leaking the wheel may be moved in either direction against the compression of the spring until the limit of motion, as determined by the slots 10, 10', is reached thereby permitting enough water to leak in or out to hold the car at the floor. When the car is started the gate is closed which retracts the bolt and permits the wheel to be turned to run the car at full speed.

It is apparent that the valve can only be turned when the bolt is in the notch by the application of enough power to overcome the resistance of the spring and that upon this force being withdrawn the valve will be automatically moved back to cut off position. This feature of compensation with positive locking and automatic return to cutoff position distinguishes my invention from other locks wherein compensation may be provided but no provision is made for positive locking or for automatically returning the valve to cut off position if it is slightly moved.

I claim:—

1. An elevator lock comprising a bolt movable by the opening and closing of a gate; a notched plate, coacting with the bolt, secured to the controlling means for the valve the controller being capable of a limited movement with respect to the plate while the bolt is engaged in the notch and yielding means for normally returning the controller to cut off position while the bolt and notch are engaged.

2. An elevator lock comprising a bolt movable by the opening and closing of a gate; a valve wheel, a notched, slotted plate co-acting with the bolt; studs extending through the slots and securing the plate to the valve wheel; whereby the wheel may be

turned to a limited extent while plate and
bolt are engaged; and a spring secured to
the wheel and to the plate for maintaining
the plate in normal position but capable of
5 compression upon the application of power
to the wheel while plate and bolt are en-
gaged.

In testimony whereof I have affixed my
signature in presence of two witnesses.

JOSEPH B. McKEOWN.

Witnesses:

ROBT. B. KILLGORE,
F. McINERNEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
