

No. 757,108.

PATENTED APR. 12, 1904.

M. GIGLER.
ELEVATOR.

APPLICATION FILED JUNE 22, 1903.

NO MODEL.

Fig. 1

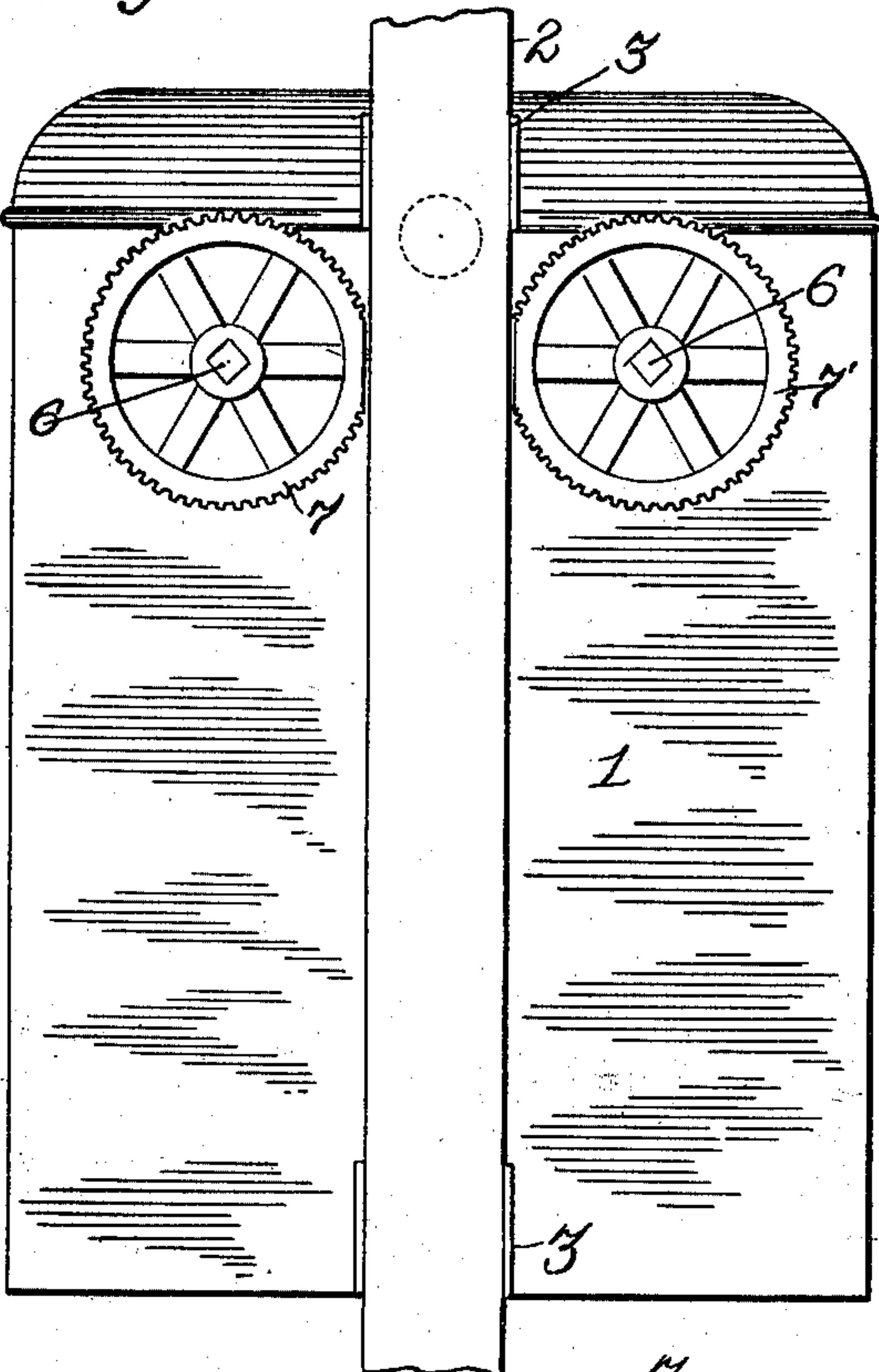


Fig. 2

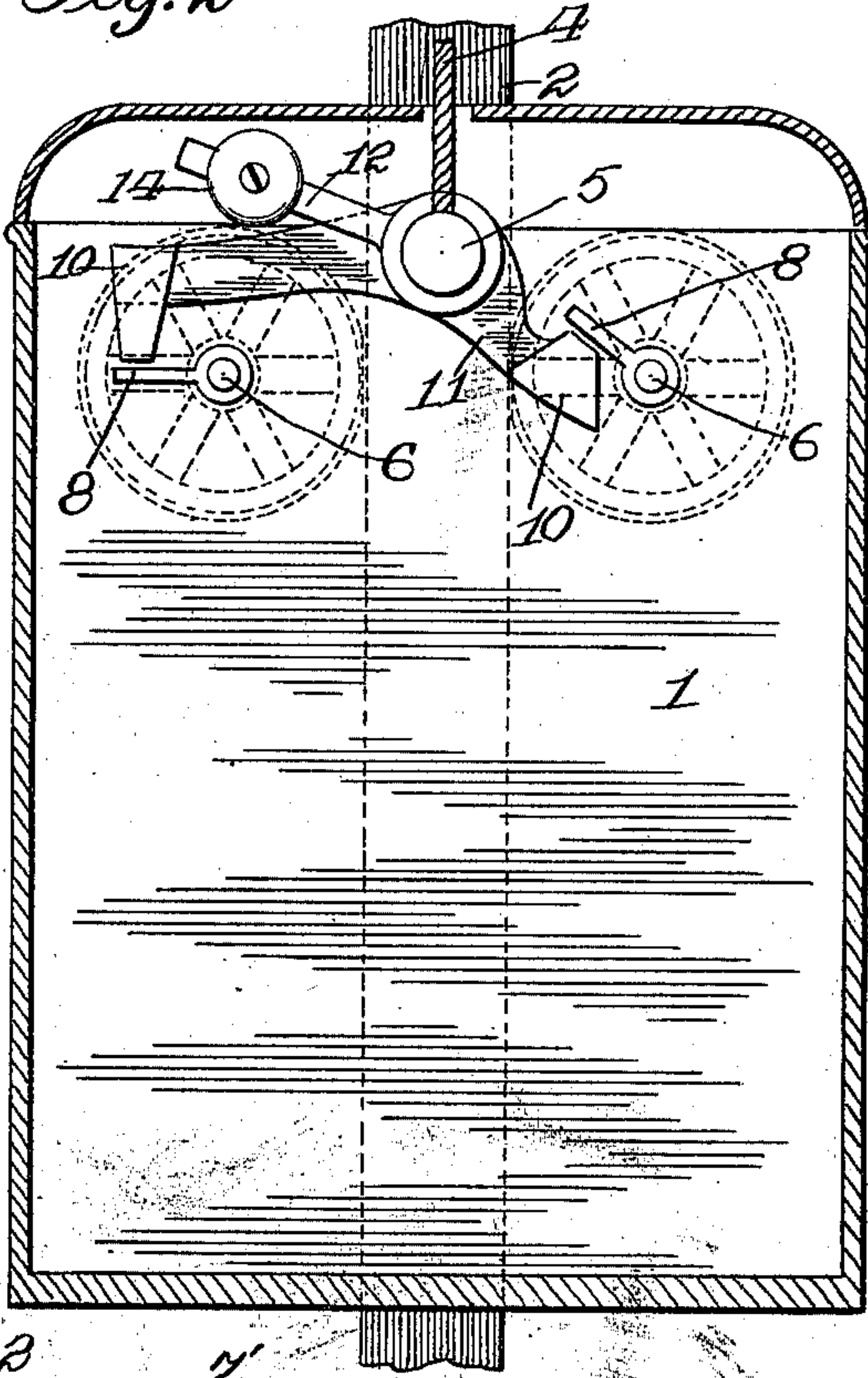
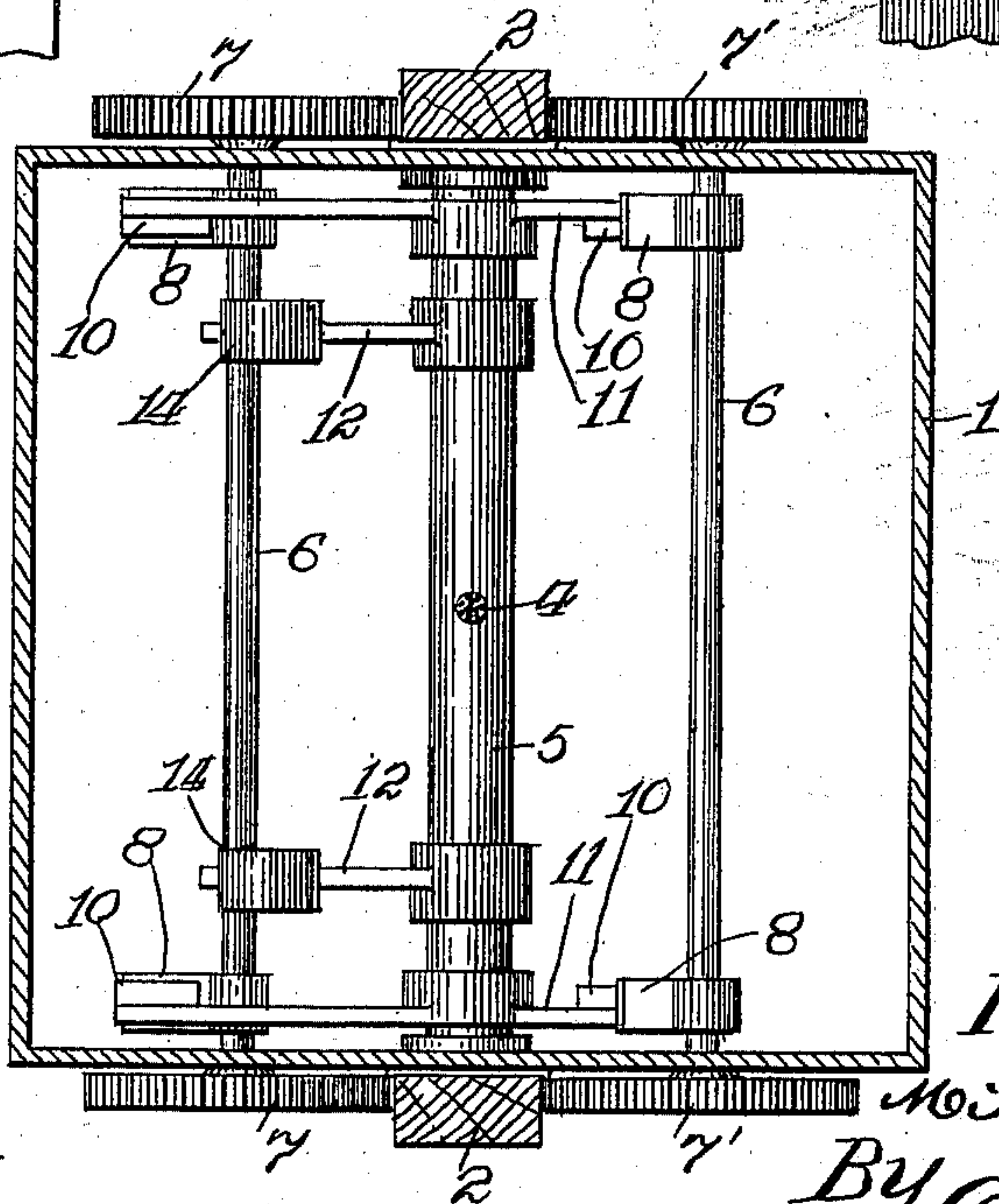


Fig. 3



Witnesses:
L. Boulton.
M. Hunter

Inventor;
Michael Gigler
By O. W. Lewis
Attorney.

UNITED STATES PATENT OFFICE.

MIHAL GIGLER, OF RESERVE TOWNSHIP, ALLEGHENY COUNTY,
PENNSYLVANIA.

ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 757,108, dated April 12, 1904.

Application filed June 22, 1903. Serial No. 162,551. (No model.)

To all whom it may concern:

Be it known that I, MIHAL GIGLER, a citizen of the United States, residing in Reserve township, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Elevators, of which improvement the following is a specification.

This invention relates to certain new and useful improvements in safety devices for elevators, and relates more particularly to that class of safety devices which are designed to catch and hold the car when any accident occurs in the hoisting mechanism or its connection with the car.

The object of this invention is to provide a device whereby should any accident happen the hoisting-cables or should the same become detached from the car the car will be surely held from falling.

With the above and other objects in view my invention consists in the novel combination and arrangement of parts, which will be hereinafter more fully described, and specifically pointed out in the claims.

In describing the invention in detail reference will be had to the accompanying drawings, forming a part of this specification, in which like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a side elevation of an elevator-car with my improved safety device applied thereto. Fig. 2 is a sectional elevation of the same, and Fig. 3 is a sectional plan view thereof.

The reference-numeral 1 indicates the elevator-car, and 2 2 the usual guides placed at convenient opposite sides of the elevator-well. The car 1 has provided thereon ways 3 3, adapted to embrace and travel over the guides 2 2 for the purpose of guiding the car. The hoisting cable or cables 4 are secured into the shaft 5, which extends across the interior top of the car and is pivotally mounted in the sides of the car. Two shafts 6 6 are also pivotally mounted in the sides of the car, the said shafts being somewhat below the shaft 5 and extending to the exterior of the car, and secured to these shafts outside the car-body are the gears 7 7 and 7' 7'. These gears have

a portion of their surface flattened, and the teeth are omitted from this flattened portion when the mechanism is in an inoperative position lying against or adjacent to the guides 2.

On the shafts 6 inside the car a member 8, provided near either side of the car, and extensions 10, formed on the lever 11, which is secured to the shaft 5, are adapted when the cable breaks or any other accident occurs to knock the members 8, thereby forcing the flattened portion of the gears 7 and 7' away from the guides 2, this causing the toothed portion of the gears to impinge against the guides and stop the descent of the car. The shaft 5 has secured to it two levers 12, on which adjustable weights 14 are placed, these weights being to actuate the shaft 5 when the same is not held in its inoperative position by the tautness of the hoisting-cables.

The operation of my device is as follows: The hoisting-cable being secured in the shaft 5 at right angles thereto normally holds the shaft in a predetermined position. The weights 14, connected with said shaft, tend to and will in case of accident cause the parts 10 to actuate the parts 8, secured to the shafts 6, on the outer ends of which the gears 7 7' are mounted. These gears have a flattened portion, which normally slides over the guides 2; but the teeth of said gears are adapted when brought in contact with the guides to impinge against the same and hold the car.

While I have herein described my invention in detail, it will be obvious that various slight changes may be made in the details of construction without departing from the general spirit of my invention.

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

1. A safety attachment for elevators comprising in combination with the vertical guides 2, and car, a shaft 5 journaled in the opposite walls of the car, a cable secured to said shaft, weighted members for rocking said shaft, shafts 6 mounted in the car, pinion-wheels mounted upon said shafts 6 and having flattened portions normally held adjacent to said guides, and means for turning said pinions so

that the teeth on the circumferences thereof will impinge against the guides, as the shaft 5 is rocked by the weights carried thereby, as set forth.

- 5 2. A safety apparatus for elevators comprising in combination with guides, a car mounted between the same, a shaft 5 journaled in the opposite sides of the car, a cable secured to said shaft, shafts 6 journaled in the
10 car, pinions mounted on the ends of said shafts 6 having flattened portions normally held adjacent to the guides, arms projecting from the shafts 6, a lever mounted upon the shaft 5, weighted members secured to and adapted to
15 rock the shaft 5 in case the cable secured there-

to breaks, the ends of said lever designed to contact with said arms as the shaft 5 rocks, for the purpose of throwing the flattened portions of the pinions away from the guides and causing the teeth of said wheels to impinge against the opposite edges of the guides, as set forth.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

MIHAL GIGLER.

In presence of—

FRED. O. HENZI,
M. HUNTER.