(No Model.)

J. EINIG.

ELEVATOR ALARM.

No. 384,831. Patented June 19, 1888.

Fig. 1.

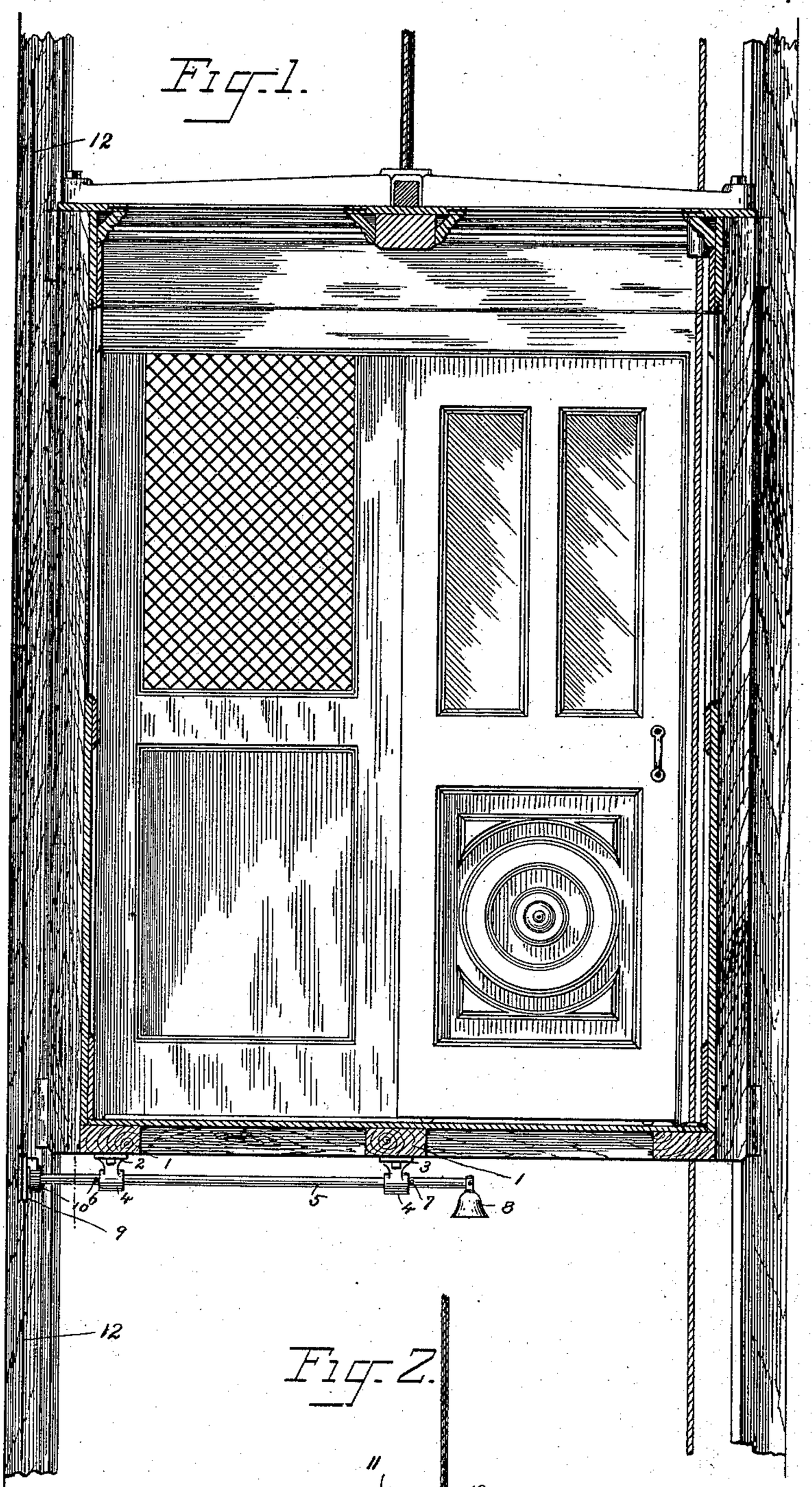

Fig. 2.

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UNITED STATES PATENT OFFICE.

JOHN EINIG, OF JACKSONVILLE, FLORIDA.

ELEVATOR-ALARM.

SPECIFICATION forming part of Letters Patent No. 384,831, dated June 19, 1888.

Application filed December 12, 1887. Serial No. 257,670. (No model.)

To all whom it may concern:

Be it known that I, JOHN EINIG, a citizen of the United States, residing in Jacksonville, county of Duval, and State of Florida, have invented certain new and useful Improvements in Alarms for Elevators, of which the following is a full, clear, and exact specification.

My invention relates to a device for giving alarm when the elevator is in motion while going up and down, as may be desired, the object of which being to signal to or notify any person who may be standing in the well or shaft that the elevator is descending and that they are in danger of being injured.

My invention consists in mounting a rotatable shaft upon any convenient part of the elevator-car, with a bell secured to one end thereof and a grooved wheel to the other, and providing a bearing-surface from top to bottom of the elevator-shaft with which said wheel engages, so as to revolve it and the shaft, and consequently sound the bell when the elevator is in motion.

My invention will be more fully understood by the following description with reference to the accompanying drawings, to wit:

Figure 1 is a vertical sectional view of an elevator having my improved alarm appended to its bottom. Fig. 2 is an enlarged detail view.

1 represents the sills upon which the floor or platform of the elevator rests. Secured to the under side of two of these sills are brackets 2 3, each of which supports a journal-bearing, 4, through which bearings projects the rotatable shaft 5, having lugs or collars 6 7 for the purpose of preventing longitudinal movement of the former.

Bolted transversely to the inner end of the shaft 5 is an ordinary bell, 8, which is provided with the usual loose clapper, and journaled loosely on the outer end of said shaft is a grooved friction-wheel, 9. Secured to the shaft, however, and in juxtaposition to the wheel 9, is a ratchet-wheel, 10, which is engaged by a pawl, 11, pivoted to the former wheel. A cord or cable, 12, which serves as the vertical bearing-surface for the grooved friction-wheel, is passed once around the latter and is stretched from top to bottom of the elevator-shaft for the purpose of engaging the periphery of said wheel, whereby when the elevator is put in motion the wheel 9 will revolve by virtue of its frictional contact with the cord; but by reason of its only having power to revolve the shaft through the medium of the pawl and ratchet the bell will only be sounded when the elevator is descending, or, if desired, when ascending. This bell could of course be made to ring while the elevator moved up and down, also, by merely keying the wheel 9 to the shaft; but this will be seldom found to be necessary.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination, with an elevator-car, of an alarm secured thereto, a shaft for operating said alarm, a friction-wheel on said shaft, and a cord extending throughout the extent of the travel of the elevator-car and engaging with said friction-wheel, as set forth.

2. The combination, with the elevator-car, of an alarm secured thereto, a friction-wheel for operating said alarm, and a cord rove on said wheel and stretched vertically in the elevator-shaft, substantially as set forth.

3. The combination, with the elevator-car, of a rotatable shaft journaled thereto, a bell on said shaft, a friction-wheel journaled loosely on said shaft, a perpendicular cord with which said wheel engages, and a pawl and ratchet secured to said shaft and wheel, respectively, whereby the shaft is revolved in one direction only, substantially as set forth.

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