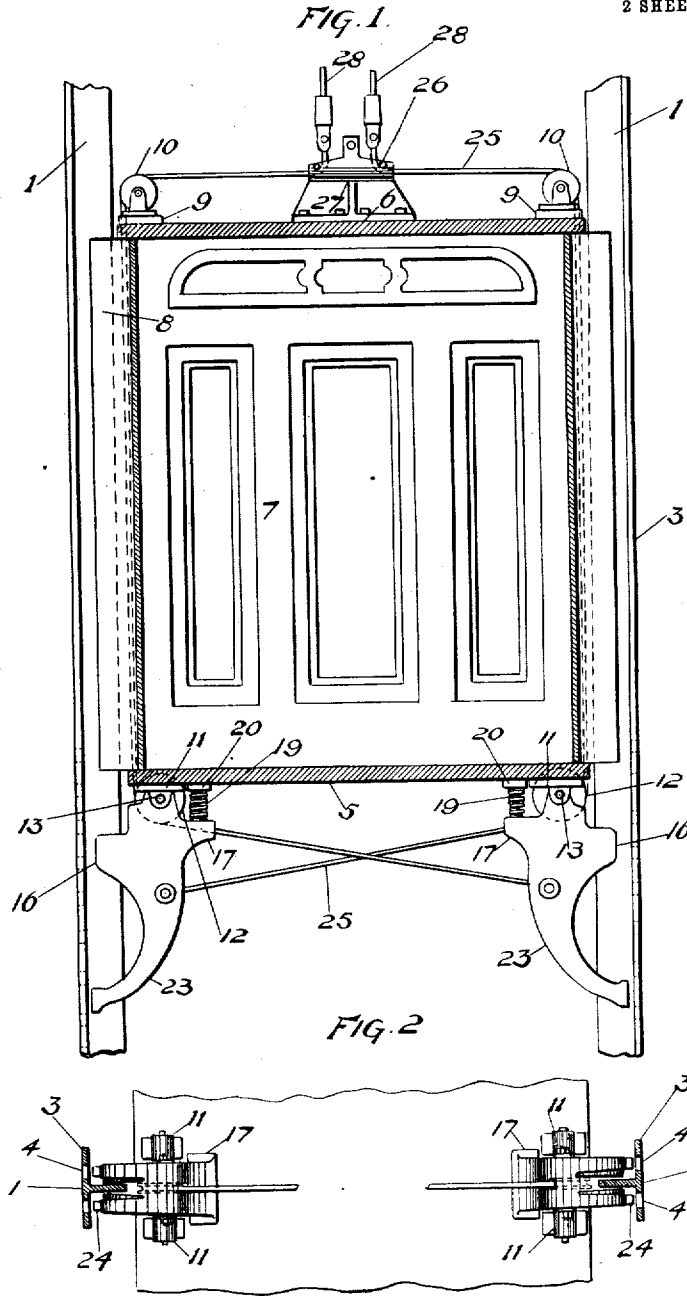


J. BALAZS.
SAFETY ELEVATOR DEVICE.
APPLICATION FILED APR. 25, 1911.

1,023,711.

Patented Apr. 16, 1912.

2 SHEETS-SHEET 1.



WITNESSES:

Erich Burkly
K. H. Butler

INVENTOR.

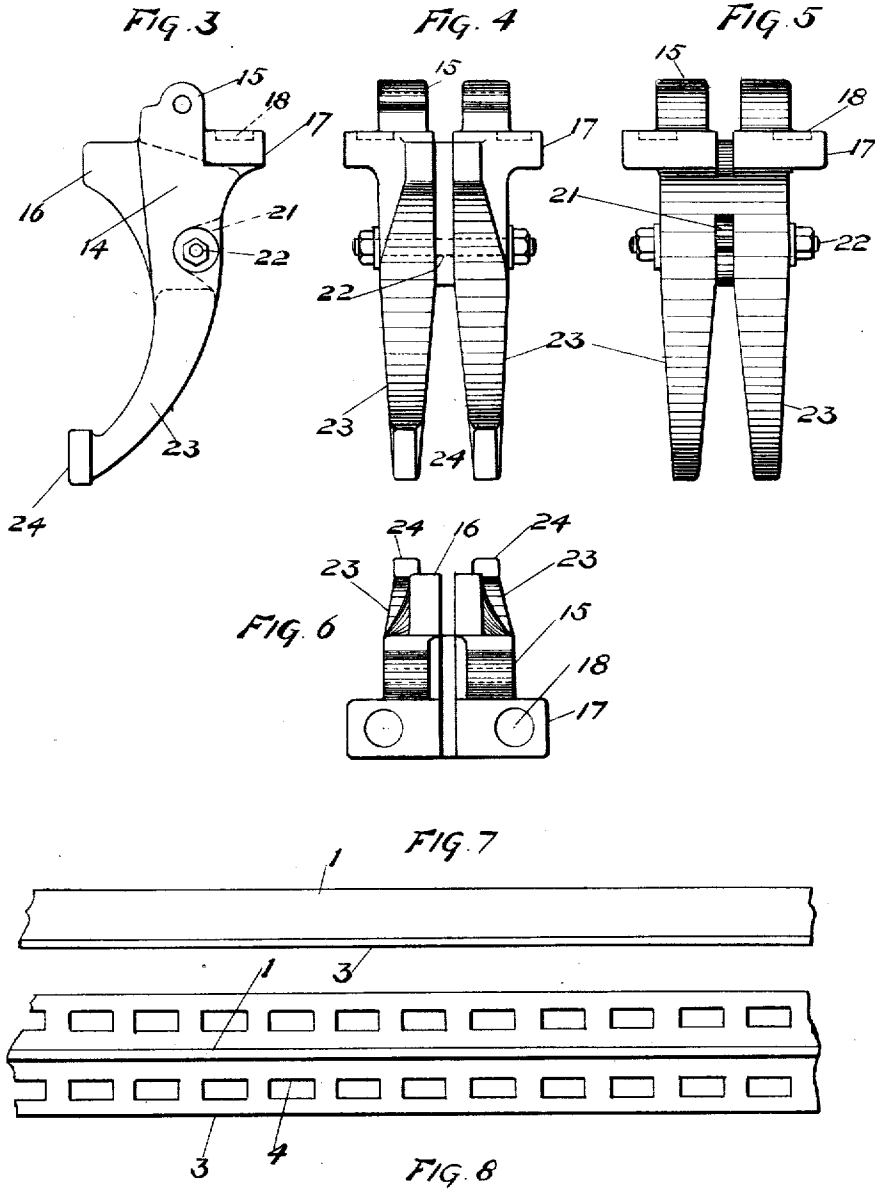
BY *JOHN BALAZS*
H. C. Everett & Co. ATTORNEYS

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UNITED STATES PATENT OFFICE.

JOHN BALAZS, OF MICHEL, BRITISH COLUMBIA, CANADA, ASSIGNOR OF ONE-FOURTH TO UNOKA MIHALJ, ONE-FOURTH TO MANDI BALINT, AND ONE-FOURTH TO G. HEKKEL, ALL OF MICHEL, CANADA.

SAFETY ELEVATOR DEVICE.

1,023,711.

Specification of Letters Patent.

Patented Apr. 16, 1912.

Application filed April 25, 1911. Serial No. 623,158.

To all whom it may concern:

Be it known that I, JOHN BALAZS, a subject of the King of Hungary, residing at Michel, Province of British Columbia, and Dominion of Canada, have invented certain new and useful Improvements in Safety Elevator Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a safety elevator device, and the primary object of my invention is to provide an elevator with positive and reliable means, in a manner as will be hereinafter set forth, for preventing the sudden descent of an elevator cage, should the hoisting cables thereof break.

A further object of the invention is to provide a safety elevator device with novel spring pressed gripping shoes that are released when the hoisting cable breaks to grip the guide or side rails of the elevator shaft or well.

These and such other objects as may hereinafter appear are attained by the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawings, wherein like numerals of reference denote corresponding parts throughout the several views, in which:—

Figure 1 is a front elevation of the elevator safety device as applied to an elevator cage, the cage being partly broken away and partly in section, Fig. 2 is a bottom plan of a portion of the same, Fig. 3 is an enlarged front elevation of a detached gripping shoe, Fig. 4 is an elevation of one side of the same, Fig. 5 is an elevation of the opposite side of the same, Fig. 6 is a plan of the gripping shoe, Fig. 7 is a front elevation of a guide rail of the elevator shaft, and Fig. 8 is a side elevation of the same.

The reference numerals 1 denote the vertical guide rails of an elevator shaft, these rails being preferably made of T-bars with the lateral flanges 3 thereof provided with equally spaced openings 4.

Slidably mounted between the guide rails 1 is a cage, comprising a floor 5, a roof 6 and walls 7, the floor 5 and the roof 6 being connected by vertical channels 8 that guide the elevator cage between the guide rails 1.

Mounted upon the roof 6, adjacent to the

upper ends of the channel bars 8, are the bearings 9 of revoluble grooved sheaves 10.

Mounted upon the bottom of the floor 5, adjacent to the lower ends of the channels 8, are the bearings 11 of revoluble grooved sheaves 12.

Pivotally mounted upon the journal pins 13 of the bearings 11 are gripping shoes identical in construction. Each shoe comprises a body 14 having vertical apertured lugs 15 adapted to receive the pins 13. The body 14 is provided with two guide lugs 16 upon one side thereof, these lugs being arranged in parallelism to extend along the sides of the guide rails 1. The opposite side of the body 14 is provided with two lateral extensions 17 having spring sockets 18. Adapted to engage in these sockets are the lower convolutions of coiled compression springs 19 having the upper convolutions thereof extending into the sockets 20, carried by the under side of the floor 5. The body 14 is recessed, as at 21 and provided with a transverse bolt 22, for a purpose that will presently appear. The lower end of the body 14 is bifurcated to form two curved gripping arms 23 having heads 24 adapted to engage in the openings 4 of the guide rails 1. Cables 25 are connected at one end to the bolts 22, these cables crossing beneath the floor 5, passing over the sheaves 12 upwardly through the channel bars 8 and over the sheaves 10. The other ends of the cables 25 pass under pins 26, carried by a connector 27 and are connected to hoisting cables 28. The connector 27 retains the ends of the cables 25 centrally of the roof 6 whereby the weight of the elevator cage will be equally distributed. When the hoisting cables 28 break, the cables 25 are released sufficiently to allow the springs 19 to force the heads 24 of the gripping arms 23 into the openings 4 of the guide rails 1, thereby holding the elevator cage in the shaft 2 until the hoisting cables have been repaired.

What I claim is:—

In an elevator safety device, the combination with guide rails provided with openings, and a cage slidably arranged between said rails, and hoisting cables for said cage, of sheaves carried by the roof of said cage, sheaves carried by the under side of the floor of said cage, shoes pivotally connected to the under side of the bottom of

said cage, each shoe comprising a body,
guide lugs carried by said body, and lateral
extensions carried by said body and having
spring sockets formed therein, coiled com-
5 pression springs arranged between said lat-
eral extensions and the floor of said cage, a
bolt carried by said body, gripping arms
carried by said body and having the lower
ends thereof provided with heads adapted to
10 engage in the openings of said guide rails,
and cables attached to the bolts of said shoes

and crossing beneath the floor of said cage,
said cables passing upwardly over the
sheaves of said cage and connected to the
hoisting cables of said cage, substantially as 15
described.

In testimony whereof I affix my signature
in the presence of two witnesses.

JOHN BALAZS.

Witnesses:

MIKE UNOKA,
LOUIS AUZEL.

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