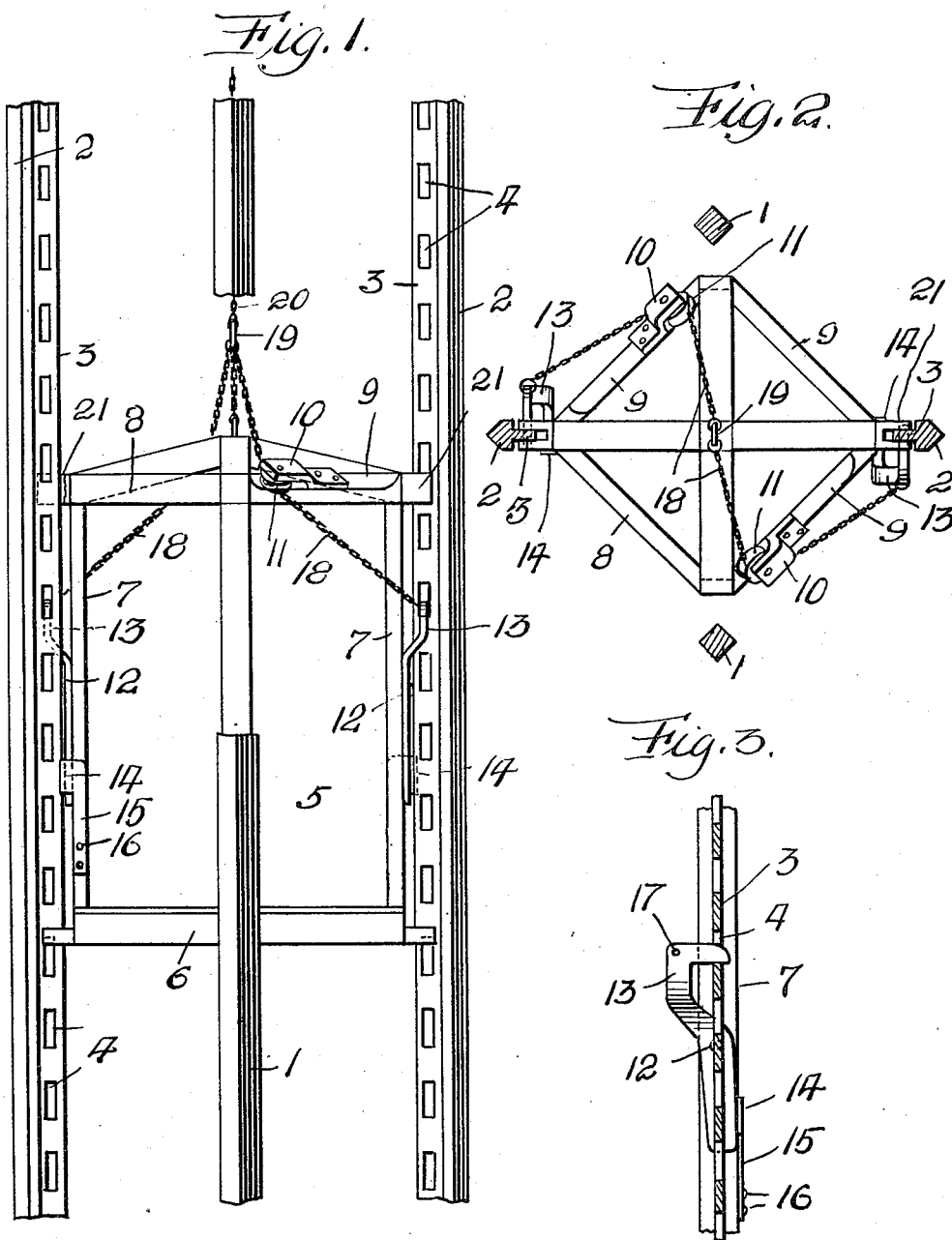


J. TÖZSÉR.
ELEVATOR SAFETY DEVICE.
APPLICATION FILED JAN. 4, 1912.

1,024,300.

Patented Apr. 23, 1912.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN TÖZSÉR, OF NEW YORK, N. Y., ASSIGNOR OF ONE-THIRD TO STEVE KONYHA AND ONE-THIRD TO LAJOS IMRECEZ, OF NEW YORK, N. Y.

ELEVATOR SAFETY DEVICE.

1,024,300.

Specification of Letters Patent.

Patented Apr. 23, 1912.

Application filed January 4, 1912. Serial No. 669,400.

To all whom it may concern:

Be it known that I, JOHN TÖZSÉR, a subject of the King of Hungary, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Elevator Safety Devices, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to an elevator safety device especially designed for freight elevators.

My invention aims to provide positive and reliable means, in a manner as will be hereinafter set forth, in connection with an elevator cage for preventing a sudden descent of the cage when the hoisting cable or chains thereof break or when the car is released from the hoisting drum or the cables.

My invention further aims to accomplish the above results by a mechanical construction that is applicable to various types of elevators, the safety device not interfering with the construction of an elevator cage or impairing its rigidity.

My invention further aims to provide an elevator safety device that embodies structural elements inexpensive to manufacture, durable and highly efficient for the purposes for which it is intended.

The invention will be hereinafter specifically described and then claimed, and reference will now be had to the drawing, wherein:

Figure 1 is a side elevation of a portion of an elevator shaft, showing a cage provided with the safety device, Fig. 2 is a horizontal sectional view of the same, and Fig. 3 is a vertical sectional view of one of the guide rails of the elevator shaft.

The reference numerals 1 and 2 denote vertical equally spaced rails arranged to provide a passageway for an elevator cage, the passageway being rectangular in cross section. The rails 2 are diametrically disposed and are provided with webs 3, said webs having equally spaced slots or openings 4. Slidably mounted between the rails 2 is an elevator cage 5 comprising a platform 6, vertical frames 7 and a rectangular frame 8. Oppositely disposed sides of the frame 8 are beveled or inclined, as at 9 and provided with bearings 10 for grooved rollers or pulleys 11. Pivotally connected to the frame 7, as at 12 are gripping mem-

bers 13 having the hook-shaped upper ends which are offset so as to engage in the openings or slots 4 of the diametrically opposed guides 2. The lower ends of these gripping members are engaged by the enlarged ends 14 of flat compression springs 15 secured, as at 16 to the sides of the frame 7. The hook-shaped gripping members 13 are apertured, as at 17 and connected to said members are the lower ends of chains or other flexible connections 18 that pass over the grooved rollers or pulleys 11 and are connected to a link 19, carried by a hoisting chain or cable 20 by which the cage 5 is elevated or lowered.

When the hoisting cable or chain 20 breaks or is disconnected relatively to the hoisting drum or cage 5, the hook-shaped gripping members 13 are released and the tension of the flat springs 15 is sufficient to force the hook-shaped members 13 into engagement with the webs 3 of the rails 2 and into the openings or slots 4 of said webs, whereby the descent of the cage 5 will be immediately stopped, thereby preventing the destruction of property and the loss of life by the sudden release of the elevator cage 5.

In order that the cage 5 can be guided by the rails 2, the upper and lower ends of said cage are provided with guide lugs 21 engaging the sides of the webs 3, these guide lugs insuring an easy movement of the cage between the rails.

It is thought that the operation and utility of the elevator safety device will be apparent without further description, and while in the drawing there is illustrated a preferred embodiment of the invention, it is to be understood that the structural elements thereof are susceptible to such variations as fall within the scope of the appended claim.

What I claim is:—

An elevator safety device comprising the combination with vertical guides provided with vertically disposed and inwardly extending webs each formed with a vertical row of openings, and a hoisting cable, of a cage slidably mounted between said guides and comprising a platform, vertical and rectangular frames, said rectangular frames having the oppositely disposed sides thereof inclined downwardly, gripping members pivotally connected to said vertical frames

and having hook-shaped upper ends offset
to engage in the openings of said webs,
means carried by said vertical frames and
engaging said gripping members for main-
5 taining them in engagement with said webs,
bearings carried by the inclined sides of
said rectangular frame, pulleys mounted in
said bearings and chains connected at one
end to said hoisting cable and extending
10 over said pulleys and connected to the off-

set upper ends of said gripping members
for maintaining said members out of en-
gagement with said webs.

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

JOHN TÖZSÉR.

Witnesses:

STEPHEN KONYHA,
LOUIS IMRECZE.

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