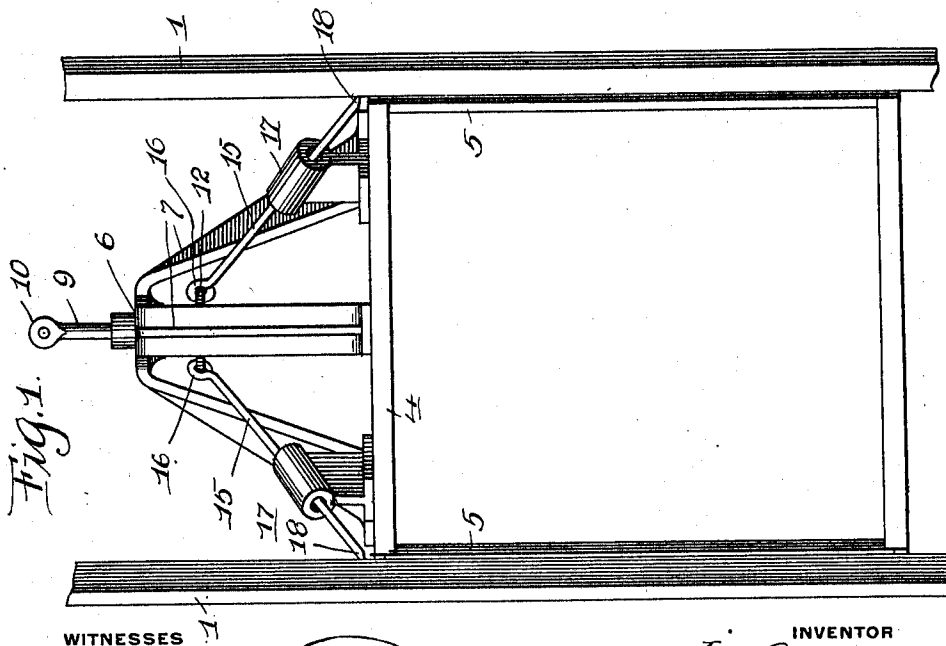
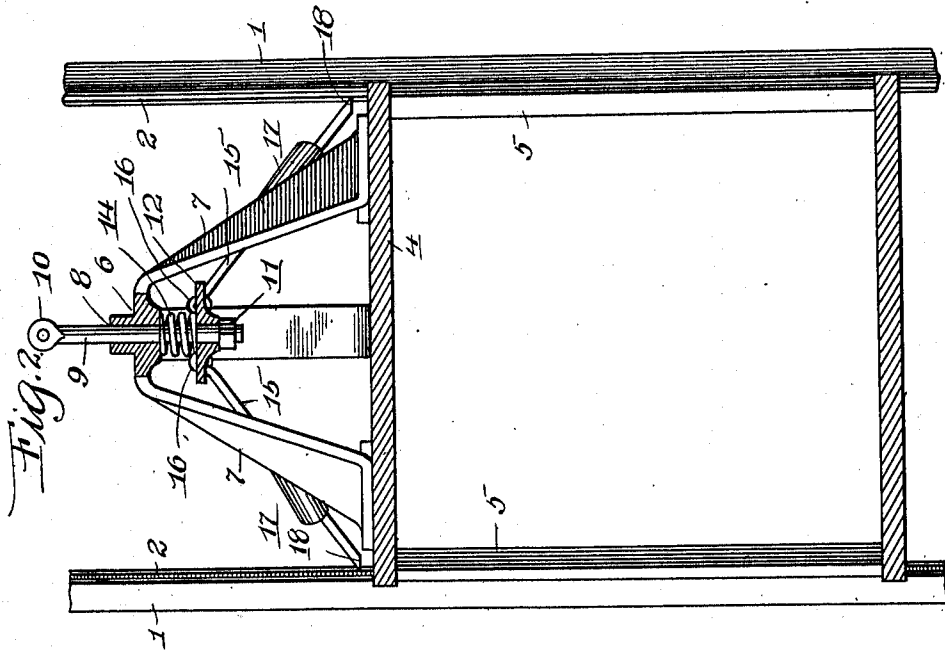


L. GYORFFY.
SAFETY ELEVATOR DEVICE.
APPLICATION FILED NOV. 23, 1910.

988,771.

Patented Apr. 4, 1911.

2 SHEETS—SHEET 1.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 3.

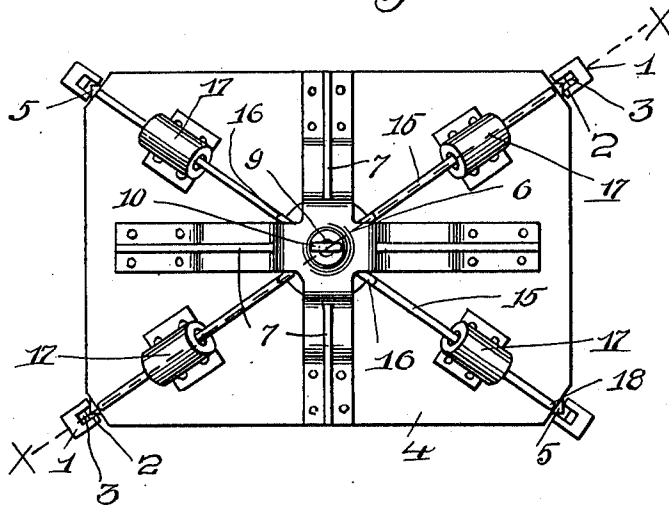
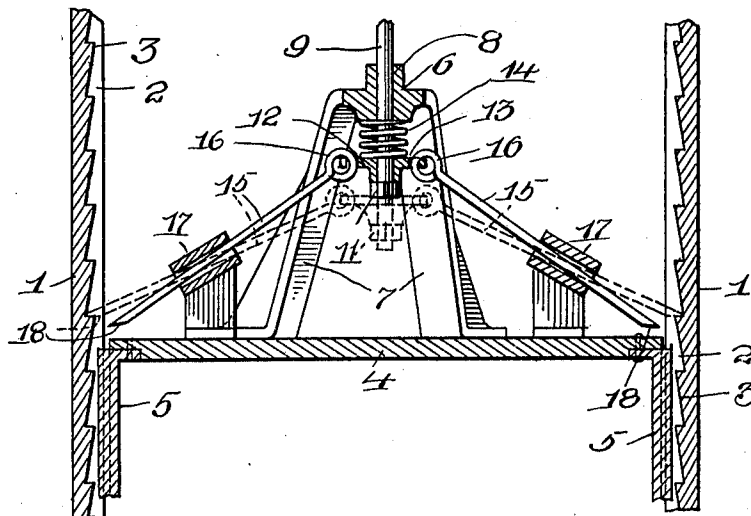


Fig. 4.



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SAFETY ELEVATOR DEVICE.

988,771.

Specification of Letters Patent.

Patented Apr. 4, 1911.

Application filed November 23, 1910. Serial No. 593,838.

To all whom it may concern:

Be it known that I, LAJOS GYORFFY, a citizen of the United States of America, residing at Audenried, in the county of Carbon and State of Pennsylvania, 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 drawing.

10 This invention relates to a safety elevator device, and more particularly to that class of safety appliances used in connection with elevator cages moved through the medium of hoisting cables.

15 The primary object of the invention is to provide positive and reliable means in a manner as will be hereinafter set forth for gripping the guide rails of an elevator shaft when the hoisting cables break, thereby preventing the elevator cage from suddenly descending.

20 A further object of the invention is to furnish an elevator cage with a safety appliance that is simple in construction, durable, easy to install and efficient for the purposes for which it is intended.

25 With the above and such other objects in view as may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawings forming part of this specification, wherein 35 there is illustrated a preferred embodiment of the invention, but it is to be understood that the structural elements thereof are susceptible to such changes as fall within the scope of the appended claim.

40 In the drawings: Figure 1 is a side elevation of an elevator cage provided with the safety appliance, Fig. 2 is a vertical sectional view of the cage and a portion of the device, Fig. 3 is a plan of the elevator cage, 45 and Fig. 4 is a vertical cross sectional view taken on the line X—X of Fig. 3.

50 The reference numerals 1 denote the corner posts or guide rails of an elevator shaft, these rails having the inner faces thereof provided with grooves 2 extending from the bottom of said rails to the top thereof, and in each groove is located a rack 3, the rack being either integral with the guide rail, as shown in Fig. 4 or a separate piece set in 55 the groove of said rail.

4 denotes an elevator cage having the ver-

tical frames 5 thereof extending into the grooves 2 to guide the cage in its movement between said rails.

6 denotes a bearing having the radially disposed legs 7 thereof suitably secured to the top of the cage 4. The bearing 6 is provided with a central vertical opening 8 and movably mounted in said opening is an anchor pin 9, said pin having the upper end thereof provided with an eye 10 to which the hoisting cables (not shown) are attached. The lower end of the pin 9 is provided with a nut 11 and mounted upon said pin and resting upon the nut 11 is a circular head 12 provided with openings 13. 60 65 70

14 denotes a compression spring encircling the pin 9 between the bearing 6 and the circular head 12, said spring being normally held under tension by the hoisting cables attached to the upper end of the pin 9. 75

15 denotes downwardly inclined arms having the upper ends thereof provided with eyes 16 loosely mounted in the openings 13 of the circular head 12, the arms 15 extending downwardly at an angle between the legs 7 and through angularly disposed and downwardly inclined guide sleeves 17 mounted upon supports carried by the top of the cage 4, said arms having the outer ends thereof beveled, as at 18 to engage the teeth of the racks 3. The inner diameter of each of said sleeves is materially greater than the diameter of either of the arms 15 whereby the inclination of the latter can be changed 90 when occasion so requires.

When the hoisting cables break, the tension of the spring 14 is released and this spring immediately pushes downwardly upon the circular head 12, carrying with it 95 the pin 9 and the arms 15, said arms being shifted into the grooves 2 and into engagement with the racks 3. Immediately upon the lower ends of the arms engaging the racks, the circular head 12 is held and the 100 spring 14 engaging the lower end of the bearing 6 will cushion the sudden stopping of the elevator cage. The cage will be safely supported by the arms 15 until the hoisting cables can be repaired or attached to the upper end of the pin 9. 105

What I claim is:—

In a safety device for elevators, the combination with guide rails, racks carried thereby, and an elevator cage, of a bearing 110 having angularly disposed legs connected to the top of said cage, a pin movably mounted

in said bearing and adapted to be connected to the hoisting cables of said cage, a head movably mounted upon said pin, angularly-disposed and downwardly-inclined guide sleeves carried by the top of said cage, radi-
5 ally disposed and downwardly inclined arms loosely connected to said head and extending between the legs of said bearing and through said sleeves to engage the racks of
10 said rails, the inner diameter of said sleeves with respect to said arms being such as to permit of the inclination of the arms vary-

ing when these latter are shifted and means including said pin and interposed between said head and said bearing and adapted to shift said arms into engagement with the racks of said rails, substantially as described.

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

LAJOS GYORFFY.

Witnesses:

GASPAR ROMÉY,
FOSTER M. ROBINSON.

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