

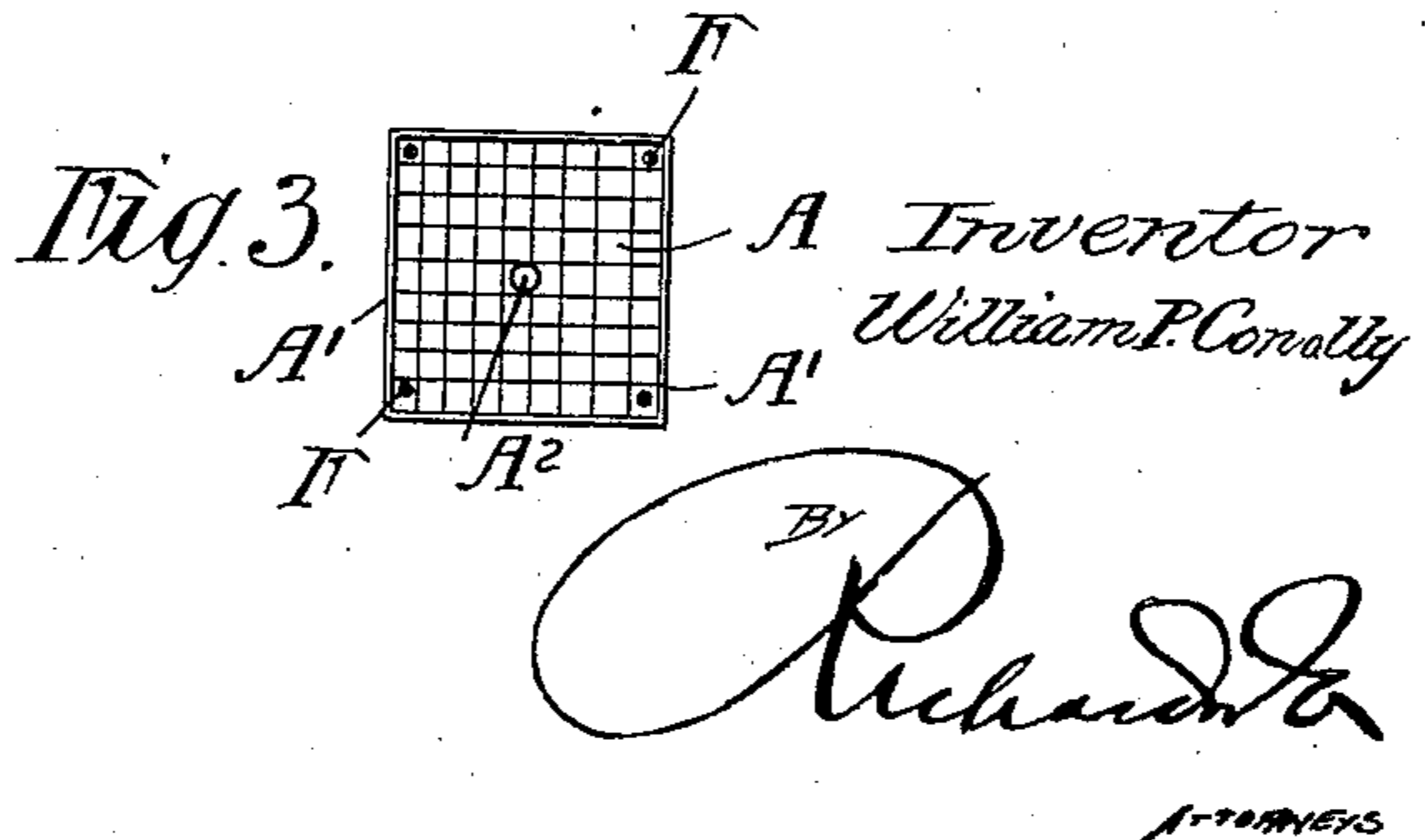
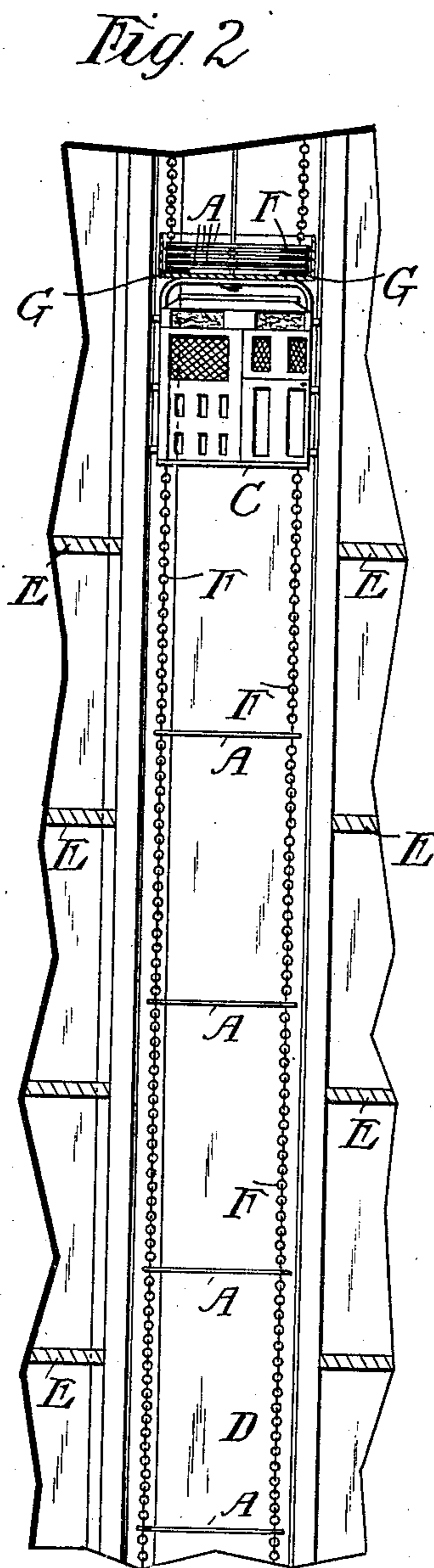
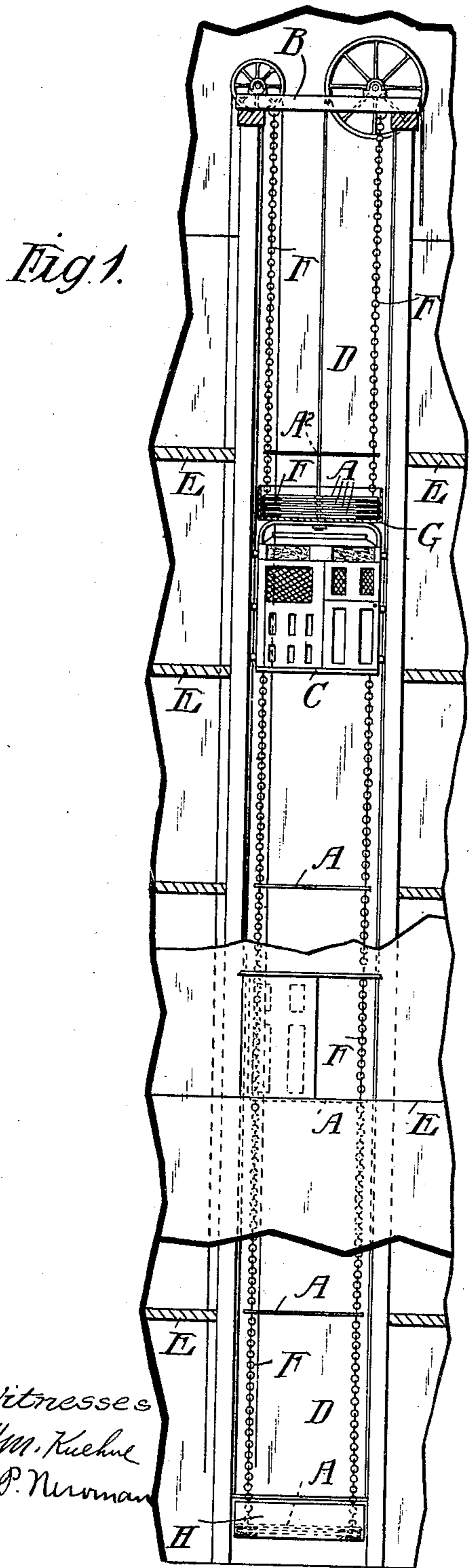
No. 828,385.

PATENTED AUG. 14, 1906.

W. P. CONOLLY.

ELEVATOR GUARD.

APPLICATION FILED NOV. 3, 1904.



# UNITED STATES PATENT OFFICE.

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## ELEVATOR-GUARD.

No. 828,385.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed November 3, 1904. Serial No. 231,264.

*To all whom it may concern:*

Be it known that I, WILLIAM PERCIVAL CONOLLY, a subject of the King of Great Britain and Ireland, residing at Oxford Chambers, Bourke street, Melbourne, in the State of Victoria, Australia, have invented certain new and useful Improvements in Elevator-Guards, of which the following is a specification.

10 This invention has been devised to provide efficient and simple means of preventing dangerous accidents happening in the shaft or well of a passenger or goods elevator. At present the lift-doors are sometimes left open and a person may walk unsuspectingly into the lift-shaft and a fatal accident take place. In some accidents which have recently happened the victim has walked through the open doors of the lift-shaft on his floor under the impression that the lift was where he had left it a minute or two previously, but owing to the lift having either automatically moved from its position or been operated by some other person a fatal accident has followed.

25 In order that my invention may be the more easily understood, reference may be made to the accompanying drawings, in which—

30 Figure 1 represents a lift shaft or well, partly in section, showing a passenger-elevator and my safety appliances in position. Fig. 2 is a somewhat similar view to Fig. 1, but showing the elevator and appliances in an altered position; while Fig. 3 is a plan view of one of the frames in the appliances hereinafter to be referred to.

35 In my invention I employ a number of moving frames A, hanging, respectively, from the top of the lift-shaft B and also from underneath the bottom of the lift-cage C. These frames A are approximately of the dimensions of the lift-shaft D, occupied by the cage C. The frames A are distanced from one another approximately the same distance as the floors E of the building are apart. I employ four pendant chains F, hanging in the form of a square from the top of the lift-shaft B and at the level of every floor E. These chains F are linked to their respective corners of the square frames A. These frames A consists of a staunch metal rim A', preferably constructed of tubing and the whole of its inner space being filled with either ropy material or preferably open-wire netting of a wide gage, (say a four-inch mesh.) The four chains F, I have mentioned termi-

nate in a metal tray G, the tray being placed securely upon the top of the lift-cage or elevator C, and the whole construction being so that as the lift works from the bottom floor to the top the chains F gradually and loosely fall into their respective corners in the tray G, and as each framework A is reached it also lies flat within the tray G, so that when the elevator C, with its said top tray G, has reached the top floor E the whole of the chains F and horizontal frames A above it will be found lying neatly in the said tray G. In like manner four chains F will hang from the four under side corners of the lift-cage or elevator C and will proceed down to a similar receiving-tray H, placed at the bottom of the lift-shaft D, so that as the lift ascends from the top floor E each of the frames A will, respectively, descend into and repose in the said bottom tray H. I would have it understood that when I have used the term "square" or "four corners" in the above description such form or number of chains F may be altered or modified to suit the varying shapes or dimensions of the lift-cages or elevators and the shafts in which they work. I would also have it understood that, by preference, I desire the frames A to be of a less area than that occupied by the floor of the lift or elevator C, so that each of such frames F will work conveniently in the tray G or H when the latter is of less superficial area than the extreme measurements of the top of the cage. I may in some cases employ ropes in lieu of chains F; but by experiment I have found that the ordinary open circular-linked chain is efficient and that the metal frames F, as described, are better than those of other material; but I may vary the kind of materials I have hereinbefore described without departing from the nature of my invention.

It will be seen that where my invention is in use and a person walks in through the open doors on any of the floors E and falls into a lift-shaft D his fall will be arrested in every case by one of the frames A hereinbefore referred to—that is to say, that the utmost distance that it would be practicably possible for a person to fall in a building in which the floors E were about twelve feet apart would only be a distance of about six feet, and then onto a more or less yielding or springy frame.

In the drawings I have illustrated a lift-cage or elevator worked by haulage-cable; but I would have it understood that if more

cables than one be used, or alternatively if an under piston be employed to elevate the cage, the perforation A<sup>2</sup> through the frames A will be modified or amplified accordingly and proportionately. In the illustration it will be seen that no perforation is necessary in those frames which are under the cage C.

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

In an elevator, the combination with the shaft, the cage, the chains extending from the top of the cage to the top of the shaft and

platforms secured at intervals to said chains, of a tray adapted to receive said platforms as the cage moves upward, said tray having upwardly-extending flanges adapted to retain said platforms thereon, substantially as described.

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

WILLIAM PERCIVAL CONOLLY.

Witnesses:

A. O. SACHSE,  
A. HARKER.