

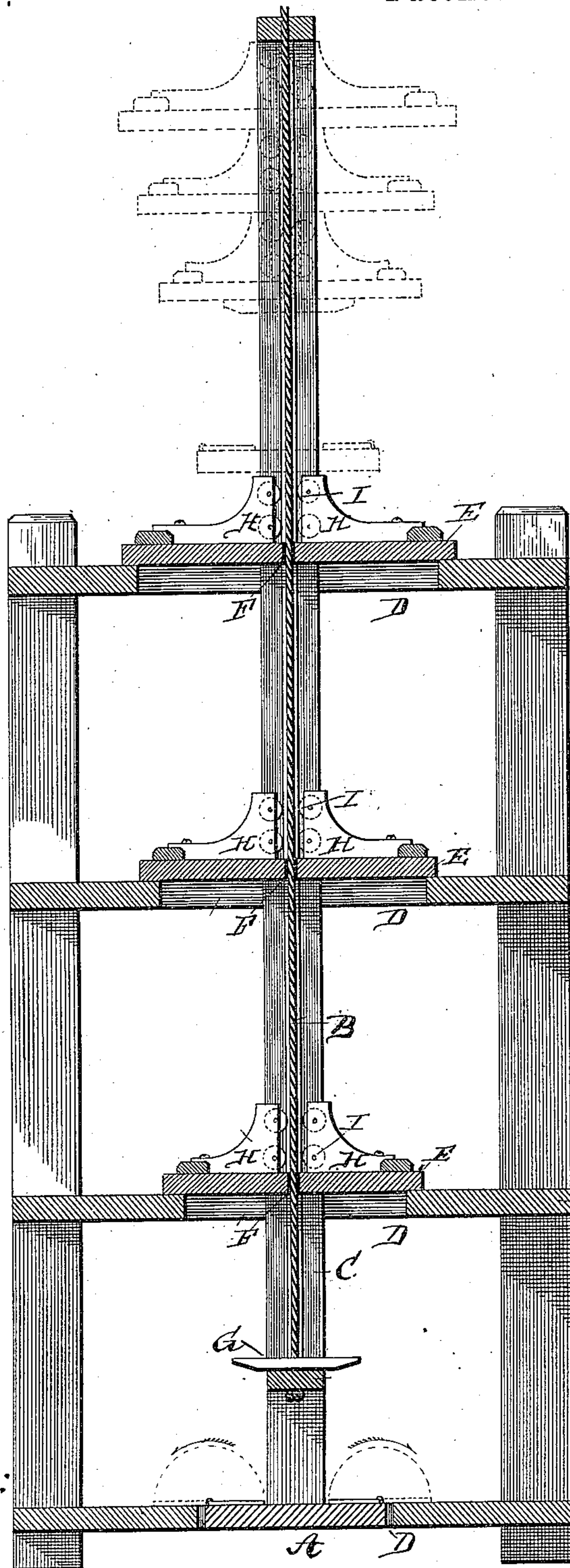
(No Model.)

R. T. BEAN.

HATCHWAY PROTECTOR FOR ELEVATORS.

No. 287,219.

Patented Oct. 23, 1883.



Witnesses:

S. S. Chiles

Q. J. Thompson

Inventor:

R. T. Bean

UNITED STATES PATENT OFFICE.

ROBERT T. BEAN, OF MOUNT STERLING, KENTUCKY.

HATCHWAY-PROTECTOR FOR ELEVATORS.

SPECIFICATION forming part of Letters Patent No. 287,219, dated October 23, 1883.

Application filed July 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, ROBERT T. BEAN, a resident of Mount Sterling, in the county of Montgomery and State of Kentucky, have invented certain new and useful Improvements in Hatchway-Protectors for Elevators; and I do hereby declare that the following is a clear and exact description of the same, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, which forms a part of this specification, and which represents a vertical sectional view through the several stories of a building having a hatchway in each floor and an elevator provided with my improved hatchway-protector.

My invention has relation to that class of protectors for elevator-hatchways in which a series of covers fitting over the several hatchways are removed by the elevator as it ascends and placed back over the hatchways as it descends; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawing, the letter A indicates the elevator-platform; B, the rope or chain, and C one of the guide-posts which are placed upon two opposite sides of the elevator-shaft, and serve to guide the elevator as it travels up or down in the same. The hatchways D in the several floors are of different diameters, the upper one being the largest and the others decreasing in diameter till the lowermost hatchway, which is of such a diameter that the platform will fill it. A number of covers, E, fit over the hatchways, each one being slightly larger than the hatchway it covers, and each hatchway being sufficiently large to admit of the cover fitting over the hatchway below passing through it, and all the covers are provided at their center with a perforation, F, through which the elevator-rope passes.

The top of the elevator-cage is provided at each side with a cross-piece, G, which, when the cage ascends, strikes the under side of the lower cover, raising the same, and as the

cage now ascends through the several hatchways the covers are collected one upon the other until the top is reached. As, now, the elevator descends, the uppermost cover is first deposited at the uppermost and largest hatchway, the next cover at the next and smaller hatchway, and so forth until the bottom of the shaft is reached, when all the hatchways again are covered.

To guide the covers as they travel up or down, I provide two pairs of knees, H, one pair at each of the guide-posts, and place two knees of a pair, one at each side of the guide-post, facing the same with their vertical edges, which are provided with anti-friction-rollers I, thus reducing friction and keeping the covers from becoming tilted, and thus binding against the guide posts or ropes as they are raised or lowered.

It will be seen that, the platform being just large enough to fill the lowermost hatchway, the edges of the same will be a considerable distance from the edges of the upper hatchways, and to bridge over the space thus formed when the elevator stops at one of the upper floors, I provide two hinged flaps, one at each side of the platform, which may be swung back upon the platform when not used, and swung out upon the floor when the platform stops in a hatchway, thus bridging over the open space.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of the guide-posts, secured at the opposite sides of the elevator-shaft, with the hatchway-covers adapted to be raised by the ascending elevator-cage, and provided each with two pairs of knees, one knee at each side of the guide-posts, the said knees having anti-friction rollers upon their vertical edges, traveling upon the sides of the guide-posts, as and for the purpose shown and set forth.

2. The combination of a building having hatchways of increasing diameter from the lower floor to the upper floor, and having two guide-posts at the opposite sides of the elevator-shaft, an elevator-platform as large

as the lowermost hatchway, and having two hinged flaps upon the opposite sides of the platform, and provided with two transverse bars at the top of the cage of the platform, 5 and a number of covers of gradual downwardly-decreasing diameter, each cover fitting over one hatchway, and having two pairs of knees having their vertical edges provided with anti-

friction rollers traveling upon the sides of the guide-posts, as and for the purpose shown and 10 set forth.

ROBERT T. BEAN.

Witnesses:

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