

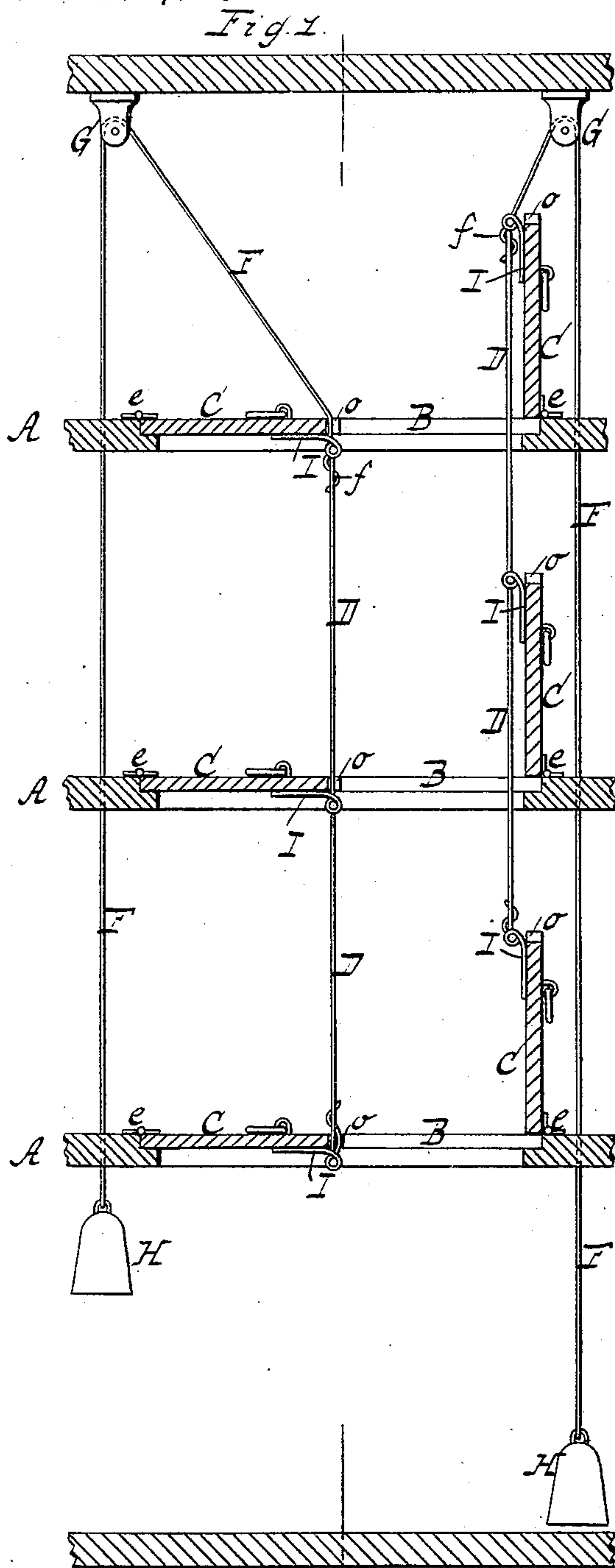
(No Model.)

E. KISS.

ELEVATOR HATCHWAY GUARD.

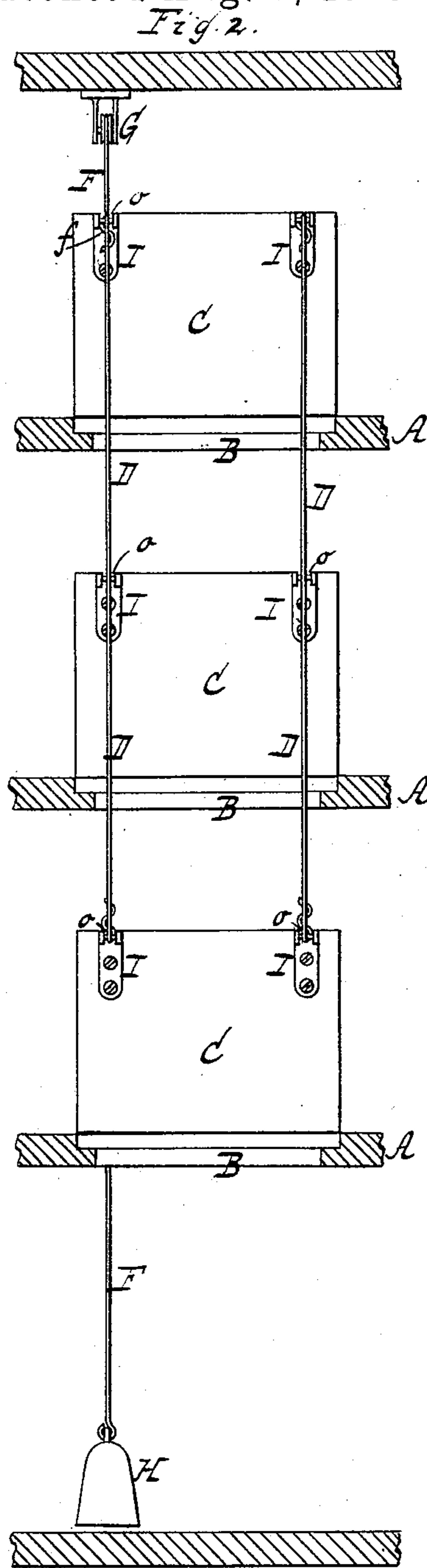
No. 282,905.

Patented Aug. 7, 1883.



WITNESSES:

William Miller
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INVENTOR

Emerick Kiss

BY *Van Gantvoord & Hauke*

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UNITED STATES PATENT OFFICE.

EMERICK KISS, OF NEW YORK, N. Y.

ELEVATOR-HATCHWAY GUARD.

SPECIFICATION forming part of Letters Patent No. 282,905, dated August 7, 1883.

Application filed March 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, EMERICK KISS, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Elevator-Hatchway Guards, of which the following is a specification.

This invention relates to apparatus for opening and closing the guard-doors of hatchways in a building; and it consists in the combination, with a vertical range of hinged doors, of links connecting such doors with each other and a cord or chain having one end attached to the upper door, thence extending over a guide-pulley, and having the other end provided with a balance-weight, so that all the doors open and close simultaneously. The weight, cord, or chain extends downward through the building, so that it is accessible from either floor, and may be taken hold of for operating the doors. The connecting-links are attached to the lower surfaces of the doors to act as guards or fenders when the doors are opened, they being received in notches in the free edges of the doors, as hereinafter more fully set forth.

This invention is illustrated in the accompanying drawings, in which Figure 1 is a sectional elevation of that portion of a building containing the hatchways, showing double doors, one opened and the other closed. Fig. 2 is a similar view, looking in an opposite direction to Fig. 1, with the doors opened.

Similar letters indicate corresponding parts. The letter A designates the floors of a building, each having a hatchway, B, provided with guard-doors C, the latter being hinged, as at *e*. The letter D indicates the links, serving to connect together each vertical range of doors; F, the door-operating cord or chain; G, the guide-pulley for the cord, and H the balance-weight. One end of the cord F is attached to the upper door, as at *f*, whence the cord extends upward over the pulley G and downward through the building, the pulley being hung to the ceiling or other suitable part of the upper floor. The weight H is suitably fastened to the lower end of the cord F, and is of such a size or proportion that it counter-

balances the vertical range of doors, excepting the lower one. If desired, the weight H may be inclosed in a box or casing.

It will be seen that when either door is opened the door or doors below it share its movement, due to the links D, while the door or doors above it are permitted to follow the action of the weight H, whereby they are opened. When, on the other hand, either door is closed, it acts on the door or doors above it to close the same, while allowing the door or doors below it to close by gravity; and hence all the doors open and close simultaneously.

The object of leaving the lower door unbalanced, as above described, is to avoid the accidental opening of the doors, as, by a gust of wind, in case they should be left unfastened, the weight of the lower door tending to keep the whole range of doors closed.

The opening and closing of the doors can be effected by lowering or raising the weight end of the cord F, and by arranging the latter to extend through the building it is rendered accessible from any floor, which is essential to its use for the purpose named.

The links D are composed of wire or other suitable material, and are attached to the lower or under surfaces of the doors, as by means of brackets I, so that when the doors are opened the links are brought in front of the doors, in which position they act as fenders for keeping out of contact with the doors, and especially their free edges the article, as a case, that may pass up or down through the hatchways. When the doors are closed the links D enter notches *o*, which are formed in the free edges of each of the doors opposite to the links.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, substantially as hereinbefore described, with a vertical range of hinged doors, of the links connecting such doors with each other, and the cord or chain having one end attached to the upper door, thence extending over a guide-pulley, and having the other end provided with a weight.

2. The combination, substantially as herein-

before described, with a vertical range of hinged doors each having notches in its free edge, of the connecting-links attached to the lower surfaces of the doors opposite to the notches, 5 to act as fenders when the doors are opened, and the cord or chain having one end attached to the upper door, thence extending over a guide-pulley, and having the other end provided with a weight.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

EMERICK KISS. [L. S.]

Witnesses:

W. HAUFF,
CHAS. WAHLERS.