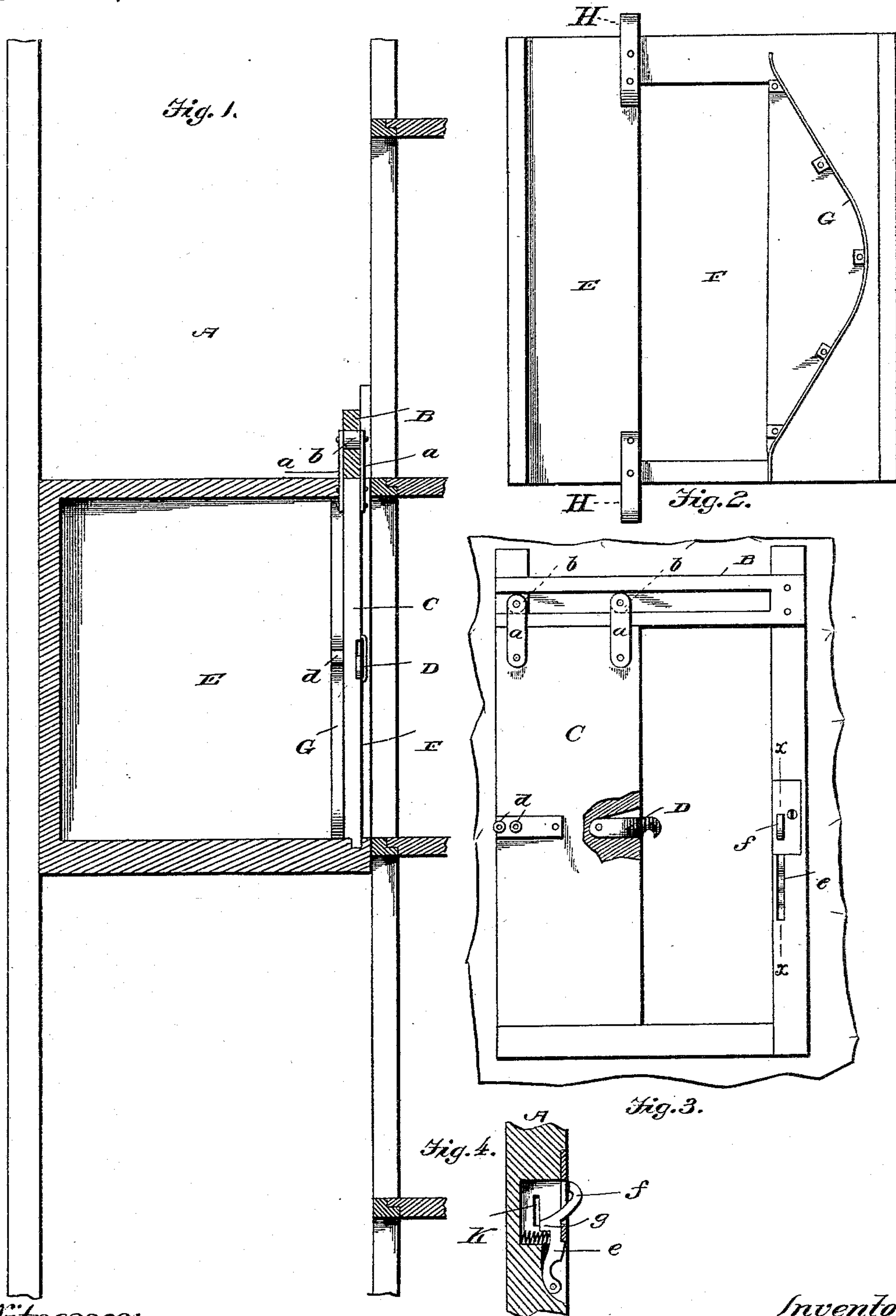


(No Model.)

H. G. HESTER.
ELEVATOR HATCHWAY.

No. 401,273.

Patented Apr. 9, 1889.



Witnesses:

James J. Sheehy

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UNITED STATES PATENT OFFICE.

HENRY GARRETSON HESTER, OF NEW ORLEANS, LOUISIANA.

ELEVATOR-HATCHWAY.

SPECIFICATION forming part of Letters Patent No. 401,273, dated April 9, 1889.

Application filed June 7, 1888. Serial No. 276,397. (No model.)

To all whom it may concern:

Be it known that I, HENRY GARRETSON HESTER, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in an Automatic Elevator-Door Opener, Closer, and Locker; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to improvements in mechanism whereby the doors at the well of an elevator may be automatically opened and closed as the carriage or car approaches and leaves the opening at each floor of a building.

The invention will be fully understood from the following description and claim, when taken in connection with the accompanying drawings, in which—

Figure 1 is an interior view of a portion of a well, showing a car with my improvements in section. Fig. 2 is an external view of the front of the car removed. Fig. 3 is an interior view of the well at one of the landings, showing the door open and the wall of the well broken away; and Fig. 4 is a detail sectional view of the door-lock, taken on the line $x x$ of Fig. 3.

Referring by letter to the said drawings, A indicates an elevator-well, which may be of the construction usually employed, having in its front wall and on the inner side thereof and above each landing a horizontal track, B, from which is suspended, by means of hangers a and friction-rollers b , a sliding door, C. The door C is provided at the middle of its length on its inner side with two horizontal friction-rollers, d , arranged at a sufficient distance apart to receive between them a curved flange carried by the car. In the opposite edge of the door and in a plane with the friction-rollers d is pivoted a gravitating latch, D, designed to operate with a lock at the landings, as will be presently explained.

E indicates the car or carriage, which is provided in its front wall with a doorway, F. At one side of this doorway is a vertically-arranged curved flange, G, which is designed

to enter between the friction-rollers d of the sliding door C as it approaches and leaves the landing. The curvature of this flange G is such that when the opening of the car has been brought clearly to the doorway at the landing the middle portion of the said flange will lie between the rollers d of the doorway, so that the releasing devices for the latch, which will be presently explained, may be brought into operation and the door opened and closed at the proper time.

H indicates shoes, there being one employed at the top and bottom of the doorway F in the car and on the side opposite the flange G. These shoes must be so arranged with respect to the flange that when its ends first enter between the friction-rollers d of the door one of the shoes will be operating upon the lock at the hatchway, so that the door at that point may be released, and as the car continues its movement after receiving or letting out passengers the shoe at the opposite end will come directly over the lock of the landing and operate the same, so as to secure the door in a closed position.

The lock which I employ is better shown in Fig. 4 of the drawings. This lock consists of a pivoted lever, e , which is provided at one end with an extended portion, f , designed to be engaged by the shoes of the car, and is provided on its opposite side with a lug, g , designed to intersect a slot, K, which receives the pivoted latch on the sliding door. It will thus be seen that by depressing the end f of the lever e its lug g will intersect the slot K, and consequently disengage the pivoted latch of the sliding door therefrom, when the curved track or flange on the car by engaging the friction-rollers will open and close the door at the landing.

Having described my invention, what I claim is—

In a device for operating doors at the landings of elevator-wells, the combination, with the car having the curved flange G, arranged as shown, of the shoes H, arranged at the opening of the car on the side opposite the said flange, and one directly opposite each end of the said flange, the sliding door carrying the pivoted latch and the friction-rollers d about midway of its length to be engaged by the

said flange, and the lock arranged at the door
of the landing to receive the pivoted latch,
whereby the said latch may be disengaged by
one of the shoes on the car pressing upon the
5 said lock-lever as the adjacent end of the
flange enters the rollers, substantially as speci-
fied.

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

HENRY GARRETSON HESTER.

Witnesses:

JOHN G. JARARD.

PERCY D. PARKS.