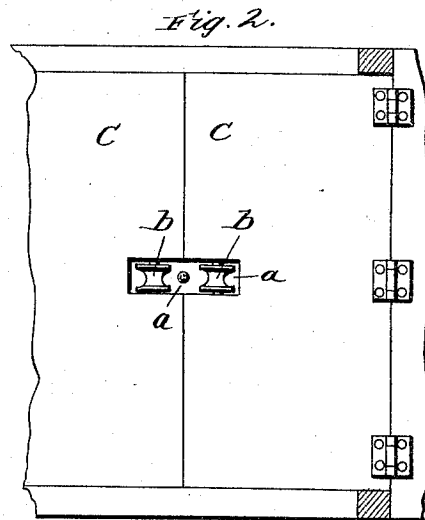
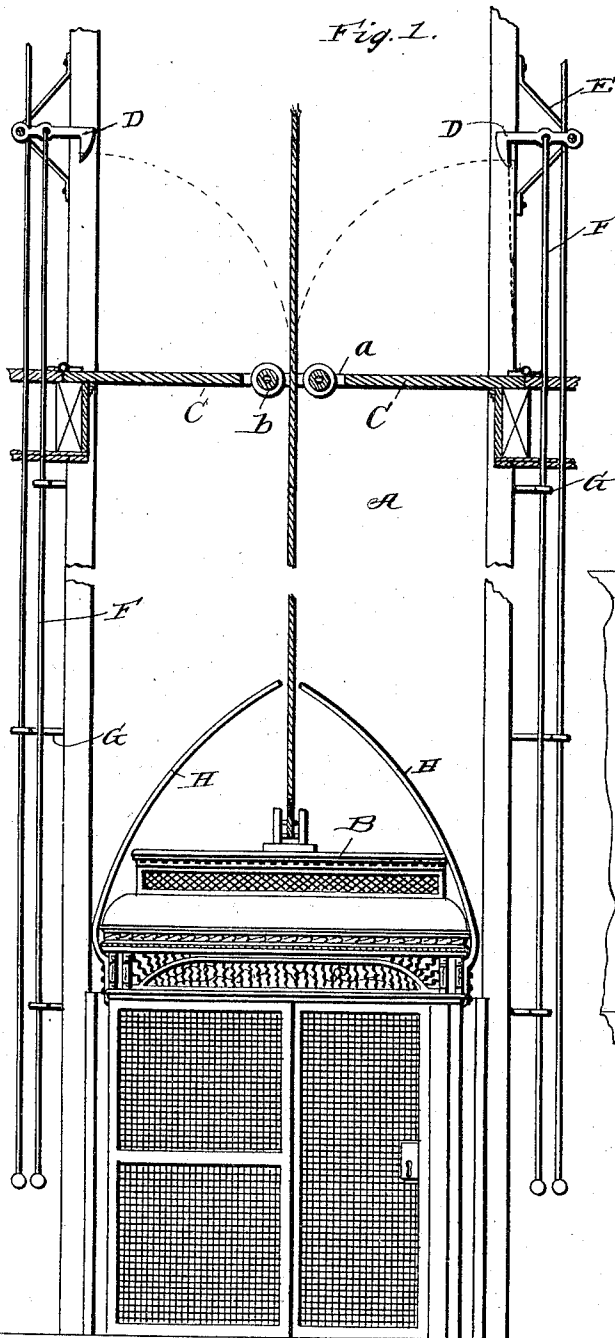


(No Model.)

G. W. MORGAN.
ELEVATOR DOOR.

No. 542,023.

Patented July 2, 1895.



Witnesses:
Chas. A. Rader
R. D. Matthews

Inventor
Geo. W. Morgan
By *James J. Sheehy*
Attorney

UNITED STATES PATENT OFFICE.

GEORGE WEBSTER MORGAN, OF ST. THOMAS, CANADA.

ELEVATOR-DOOR.

SPECIFICATION forming part of Letters Patent No. 542,023, dated July 2, 1895.

Application filed February 27, 1895. Serial No. 539,886. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WEBSTER MORGAN, a citizen of Canada, residing at the city of St. Thomas, in the county of Elgin and Province of Ontario, Canada, have invented certain new and useful Improvements in Doors for Elevator- Wells and Means for Operating the Same, of which the following is a specification.

My invention relates to improvements in doors for elevator-wells and means for operating the same, and its novelty and advantages will appear from the following description and claim, when taken in connection with the annexed drawings, in which—

Figure 1 is a view, partly in elevation and partly in section, of an elevator-well, showing my improvements applied and a car therein; and Fig 2 is a horizontal sectional view of a part of the well, showing the doors for closing the same, in plan and partly broken away.

Referring by letter to said drawings, A indicates an elevator-well, and B a car, both of which may be of the usual construction.

C indicates doors which are composed of boiler-iron or other suitable fireproof material. These doors are arranged at each floor or landing in a building and are hinged one on each opposite wall of the well, as shown. The doors are provided at their contiguous edges and in the middle thereof with recesses *a*, and in these recesses are journaled two grooved antifriction-rollers *b*, for a purpose which will be presently described.

Pivoted at a suitable point above each set of doors are gravity-catches D, which are designed to engage and hold the doors in an open position. These catches are shown as journaled at their outer ends to the brackets E, and depending from a suitable point in their lengths are manipulating-rods F. These rods pass through suitable guide-eyes G, as shown, and extend within convenient reach of the lower floor, so that a person may grasp them to operate the catches.

H indicates devices for lifting and opening the doors C. These lifting devices comprise two stout metallic rods secured one to each side of the car and curved upwardly and inwardly above the car where they terminate in close relation to the lifting-cable. These

curved rods are designed to contact with the antifriction-rollers in the doors and lift the same until they are engaged by the gravity-catches D, where they will be held in an open position.

It will be observed that when the rods H engage the antifriction-rollers *b* of the doors C they will be held against casual displacement from the said rollers by the walls of the recesses *a*, and it will also be observed that by virtue of the said rods H being curved and disposed inwardly and upwardly, as shown, the doors C will be raised without offering any material resistance to the passage of the elevator-car, which is a desideratum. It will further be observed that the rods H may be readily connected to any elevator-car without interfering with the ordinary connection of the lifting-cable thereto, which is an important advantage.

It is obvious that after the door has been once opened by the devices upon the car the said car will be free to pass up and down the well; but should a fire take place and it becomes desirable to close the well it is simply necessary to manipulate the rods F, when the doors will be allowed to drop in a closed position.

Having described my invention, what I claim is—

The combination of an elevator well, the doors C, hinged on opposite sides of said well and having the aligned recesses *a*, in the middles of their contiguous edges, the grooved anti-friction rollers *b*, arranged in the recesses *a*, of the doors and so that they will rest a slight distance apart when the doors are in a closed position, the car, the lifting cable connected to the car the two separate curved rods H, connected to opposite sides of the car and extending upwardly and inwardly from the same so as to enter the recesses *a*, between the rollers *b*, and engage said rollers and having their contiguous ends arranged on opposite sides of the lifting cable and a suitable means for engaging and holding the doors when they are raised substantially as specified.

GEORGE WEBSTER MORGAN.

Witnesses:

M. W. SHARON,
D. D. LONG.