

G. & S. WALKER.
 SELF OPERATING ELEVATOR HATCH SLIDING COVER.
 APPLICATION FILED MAY 26, 1909.

997,481.

Patented July 11, 1911.

2 SHEETS—SHEET 1.

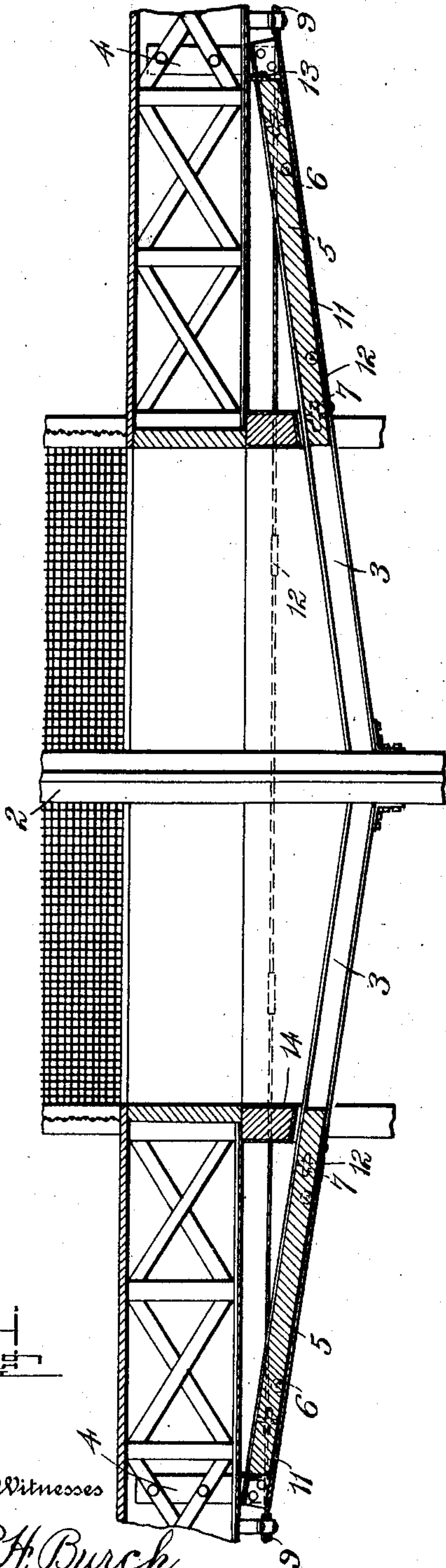


Fig. 1.

Witnesses

P. H. Burch
 C. B. McEachern

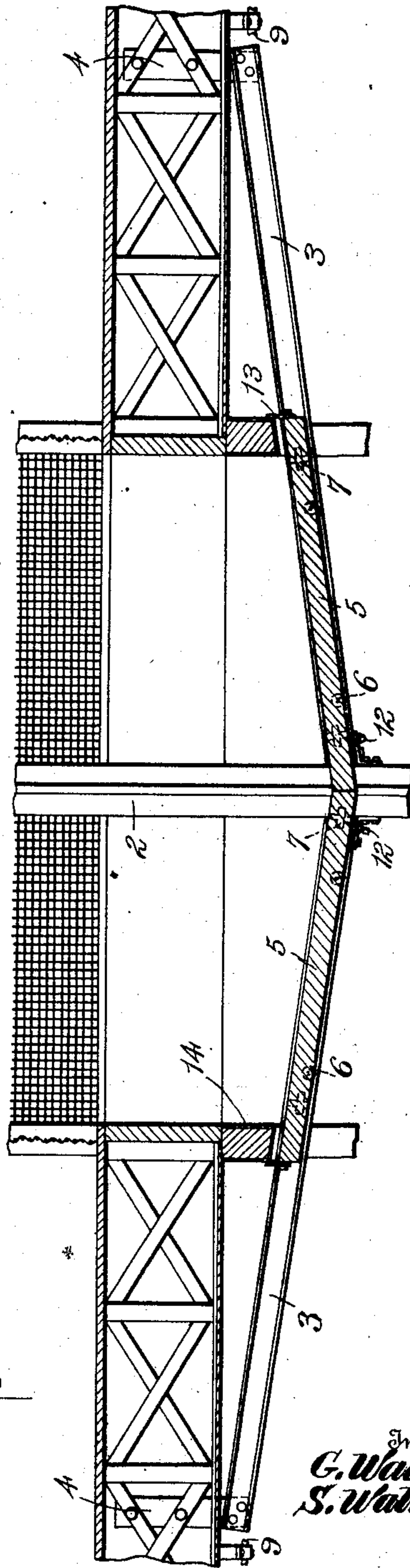


Fig. 2.

Inventors,
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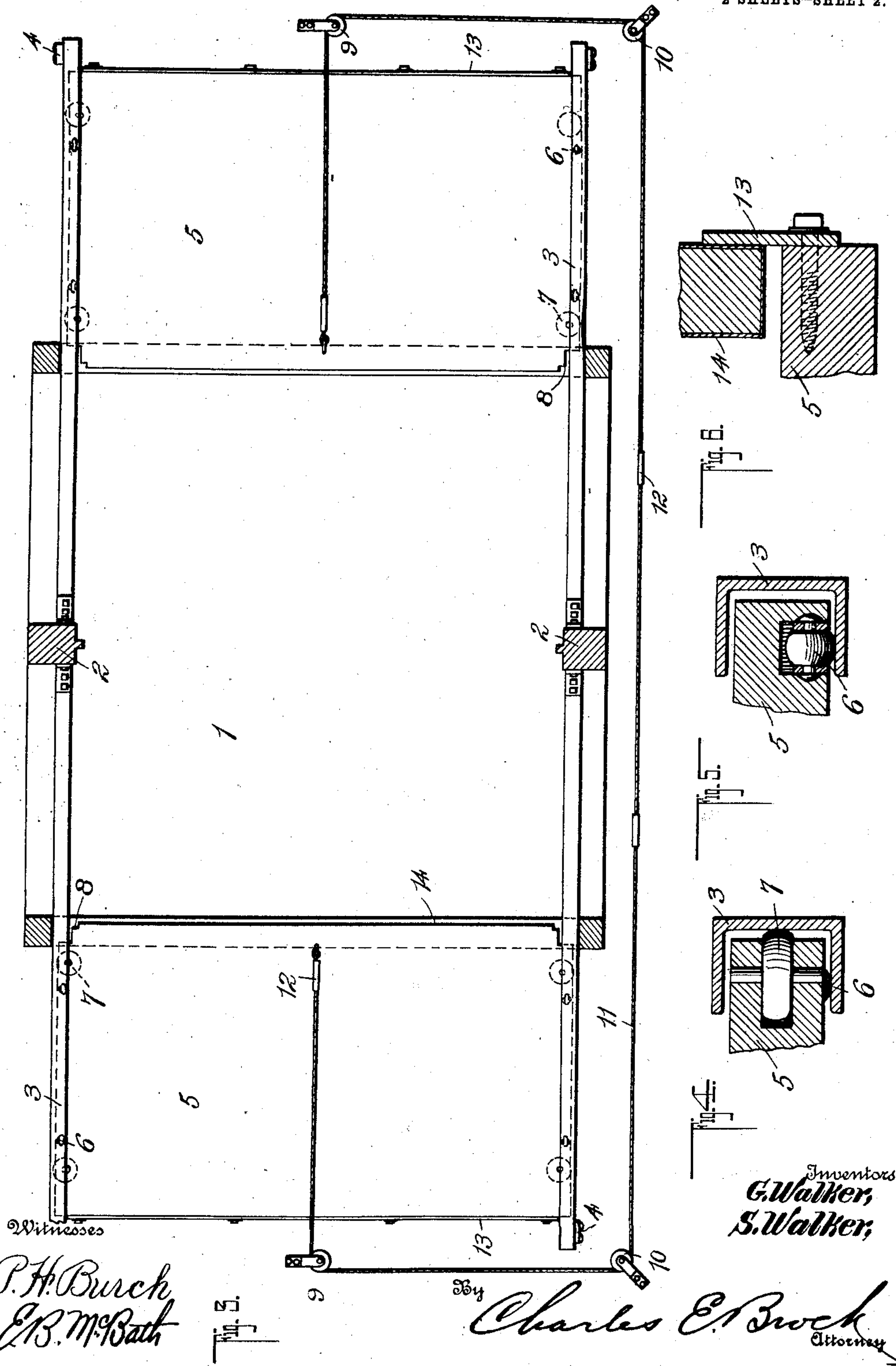
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2 SHEETS-SHEET 2.



UNITED STATES PATENT OFFICE.

GEORGE WALKER AND SIDNEY WALKER, OF SAN FRANCISCO, CALIFORNIA.

SELF-OPERATING ELEVATOR-HATCH SLIDING COVER.

997,481.

Specification of Letters Patent.

Patented July 11, 1911.

Application filed May 26, 1909. Serial No. 498,530.

To all whom it may concern:

Be it known that we, GEORGE WALKER and SIDNEY WALKER, citizens of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented a new and useful Improvement in Self-Operating Elevator-Hatch Sliding Covers, of which the following is a specification.

10 This invention relates to sliding fire proof hatches or doors for closing an elevator shaft in case of fire, and the said doors can be arranged at any point in said elevator shaft adjacent a ceiling, and as many pairs
15 of doors can be employed as may be necessary, depending upon the height of the building. The doors themselves may be of any fire resisting material or construction and the invention consists in the means pro-
20 vided for the automatic travel of the doors from an open to a closed position in the event of fire. The relative arrangement of the various parts with respect to each other can also be changed to suit the size and
25 shape of the elevator shaft in which the device is used, and in the case of double shafts in which two elevator cages work, the various parts may be duplicated or otherwise rearranged for the closing of such a shaft.

30 In the following description and in the drawings, we have shown the essential features of our invention arranged in a convenient form for use in connection with a single shaft and in these drawings:

35 Figure 1 is a vertical sectional view, the doors being shown in open position. Fig. 2 is a similar section, the doors being shown in closed position. Fig. 3 is a plan view, the doors being open. Figs. 4, 5 and 6 are sectional views illustrating details of construction.

45 In these drawings 1 represents the elevator shaft provided with the usual centrally arranged vertical guides 2 and extending from these guides to opposite sides of the shaft are inclined trackways 3 preferably formed of channel iron. These trackways are suitably secured to the upright guides 2 at their lower ends and at their upper ends
50 are connected to hangers 4 secured in the flooring. It will be noted that these trackways slope downwardly from the ceiling

and from opposite sides of the elevator shaft to the central guideways above referred to. Running in these trackways are fire proof
55 doors 5, the said doors being provided on their under faces and adjacent their side edges with rollers 6 which travel upon the lower flanges of the channel irons, and in order to avoid any possibility of the doors
60 binding or jamming rollers 7 are fitted into the opposite sides edges of the doors and bear against the outer vertical walls of said trackways, these rollers being shown in detail in Figs. 4 and 5, and it will be under-
65 stood that the rollers may be mounted in any manner desired as no specific construction of roller is claimed. In order to permit the doors 5 to fit close together their lower end corners are rabbeted as shown at 8 so that
70 these corners will fit around the guides 2, the adjacent lower edges of the doors meeting on the central transverse line of the shaft. The doors it will be understood being held by the inclined tracks always oc-
75 cupy an inclined position.

It will be obvious from the above description that unless positively held, the doors will run to the lower ends of the track and will consequently close the shaft.
80 To hold the doors in open position, we place suitable pulleys 9 adjacent the upper ends of the doors, and pulleys 10 to one side, but in alinement with the pulleys 9. A fusible cable 11 has its ends connected respectively
85 to the two doors, and this cable runs over the pulleys 9 and 10, and we also prefer to insert at various places in the cable fusible links 12 of any suitable material. It will be obvious that as soon as the cable 11 separates,
90 or a link 12 melts, the doors will run by gravity into closed position. To effectively close the elevator shaft a flange of metal 13 is run along the upper ends of the doors, thus sealing the upper edges from track to track,
95 as shown in Fig. 2, and we also tin or otherwise fire proof adjacent parts of the elevator shaft as shown at 14. It will be obvious that any kind of rollers can be employed in connection with the door and the pulleys and
100 cables can be run in various ways without departing from the spirit of our invention.

What we claim is:

The combination with a hatchway, of

downwardly inclined tracks extending from
opposite sides to the center of said hatch-
way, doors adapted to automatically travel
down said tracks and close said hatchway,
5 pulleys arranged respectively at the upper
ends and adjacent upper corners of said
door, and a fuse having its ends connected

to said doors and running over said pulleys,
as and for the purpose set forth.

GEORGE WALKER.
SIDNEY WALKER.

Witnesses:

M. F. KENT,
PAUL H. MOORE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
