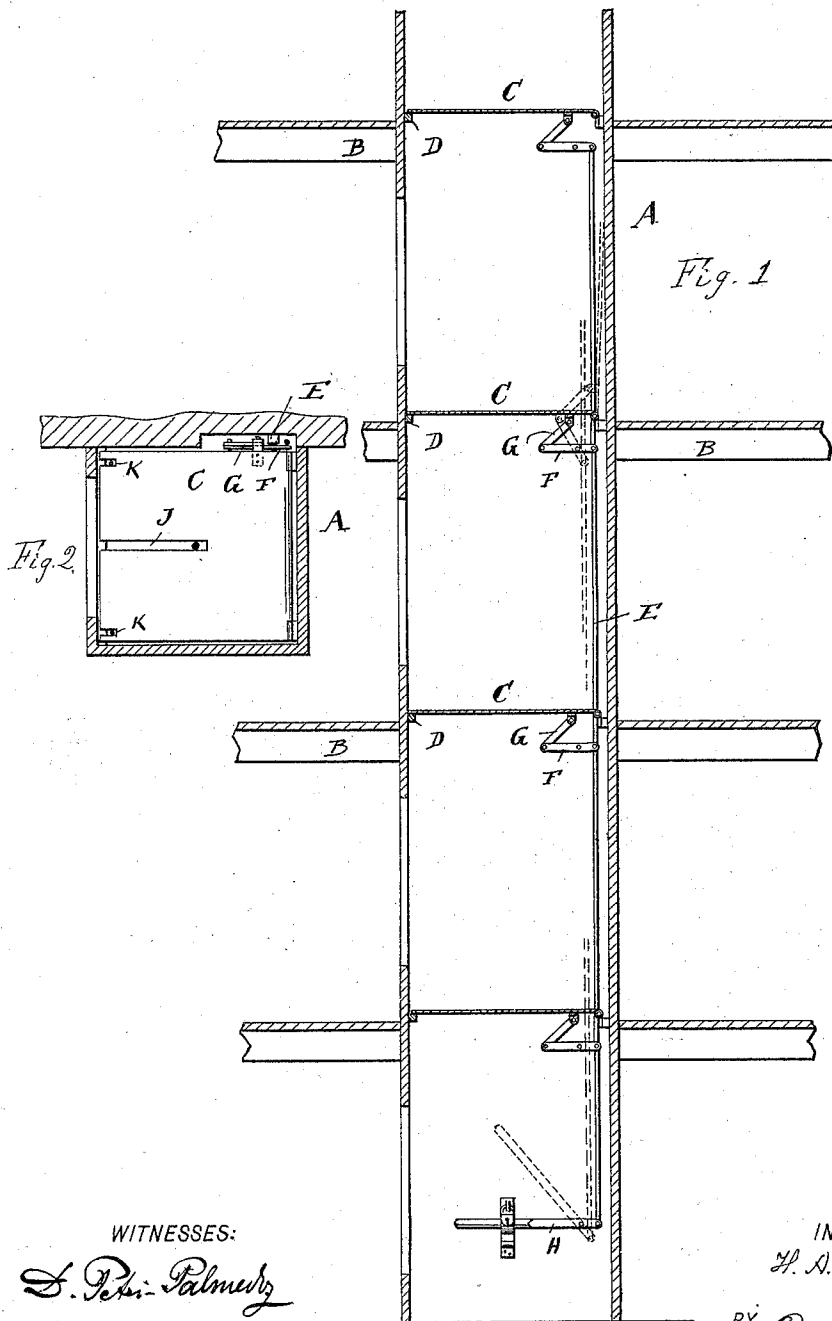


(No Model.)

H. A. WINKOPP.
DUMB WAITER OR ELEVATOR SHAFT.

No. 550,810.

Patented Dec. 3, 1895.



WITNESSES:

S. P. Palmery
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UNITED STATES PATENT OFFICE.

HANS ADOLPH WINKOPP, OF NEW YORK, N. Y.

DUMB-WAITER OR ELEVATOR SHAFT.

SPECIFICATION forming part of Letters Patent No. 550,810, dated December 3, 1895.

Application filed April 26, 1895. Serial No. 547,255. (No model.)

To all whom it may concern:

Be it known that I, HANS ADOLPH WINKOPP, a citizen of the United States, and a resident of the city of New York, in the county of New York, in the State of New York, have invented certain new and useful Improvements in Dumb- Waiter or Elevator Shafts in Buildings, of which the following is a specification.

This invention relates to improvements in dumb-waiter and elevator shafts.

The object of my invention is to provide a new and improved attachment for dumb-waiter and elevator shafts by means of which the shaft can be closed at all the stories simultaneously, either from the roof or cellar or any other story of the building, all the several closing devices being swung down to close the shaft or swung up to open the same when any one is swung up or down at any one story of the building.

The invention consists in the combination, with a dumb-waiter or elevator shaft, of a series of doors of different elevation and connecting said doors with each other to cause them all to swing together.

The invention also consists in the combination and construction of parts and details, all as will be fully described hereinafter, and finally pointed out in the claim.

In the accompanying drawings, forming a part of this specification, and in which like letters of reference indicate like parts in all the views, Figure 1 is a vertical longitudinal sectional view of a dumb-waiter shaft provided with my improvement. Fig. 2 is a horizontal sectional view of the same.

The dumb-waiter shaft A is of the usual construction and is to be provided with the customary devices for guiding the car up and down in the shaft, said devices and car not being shown, as their construction is well known and the drawings would become confused by showing them.

At each floor B of the building I provide a hinged trap-door C of sufficient size for closing the shaft when in lowered position, which door when lowered rests upon a cleat D, secured to that wall of the shaft opposite the one to which the door is hinged. The doors are to be hinged to the wall opposite the one in which the doors leading to the shaft are arranged.

The trap-doors C are to be made of wood or with a light metal frame, and said doors are to have the upper and lower sides covered with sheet metal or asbestos cloth, so as to render them practically fireproof.

A vertically-sliding rod E is suitably mounted and arranged along one side wall of the shaft within said shaft, and said rod extends the entire height of the shaft, as shown, and is located close to the hinged ends of the several doors C. A lever F, having a long arm and a short arm, is pivoted to that side of the shaft on which the rod E is guided below each door C at the hinged ends thereof. The shorter arm of each such lever F is pivotally connected with the rod E below the door, and the end of the longer arm of said lever is pivotally connected with the lower end of a connecting-rod G, the upper end of which is pivotally connected with the under side of a door C near the hinged end of the latter. The lower end of the rod E is pivotally connected with one end of a pivoted handle-lever H, which can be locked in place when the doors C are closed by a suitable locking device—for example, as shown, a hasp and a padlock.

Each door C is provided with a slot J, extending from its free edge to the center to permit of the passage of the suspension rope or cable and also in its free edge with a series of slots or recesses K for the hand ropes or cables.

The operation is as follows: When the dumb-waiter is to be used, the several doors C are swung upward, so as to leave a free passage in the shaft, the doors remaining in this position as they swing slightly beyond the center when opened or raised. At night when the dumb-waiters are no longer to be used the janitor or other attendant pulls down the free end of the handle-lever H, whereby the rod E is moved up and swings down the several doors C together, and then said lever H is locked in place, thus preventing any person, tenant, or intruder from raising any one of the several doors C. In the morning the lever H is unlocked and the several doors are raised by means of said lever to remain so during the day. If at any time during the day a fire is discovered in the cellar or any other floor, the several doors C are at once swung down either by operating the lever H

in the cellar or by swinging down any one door, as thereby the rod E is moved upward and swings down all the other doors, thus preventing the fire from passing into the shaft
5 and up through the same to the several stories.

By means of this simple device a fire can be confined to any floor, either by a person on said floor or by a person on any other floor of the building.

10 My improved attachment requires no changes in the construction of the shaft and can be applied on old shafts as well as on shafts being erected.

Having thus described my invention, what
15 I claim as new, and desire to secure by Letters Patent, is—

In a building, the combination with an open

shaft, of a series of doors hinged in the same, at different elevations, at one end of each door, to swing upward and also to close the
20 shaft, a vertically sliding rod mounted in the shaft, a pivoted lever at each door, having one end pivotally connected with said rod and a link connecting the opposite end of each lever with each door, substantially as herein
25 shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 22d day of April, 1895.

HANS ADOLPH WINKOPP.

Witnesses:

OSCAR F. GUNZ,
N. M. FLANNERY.