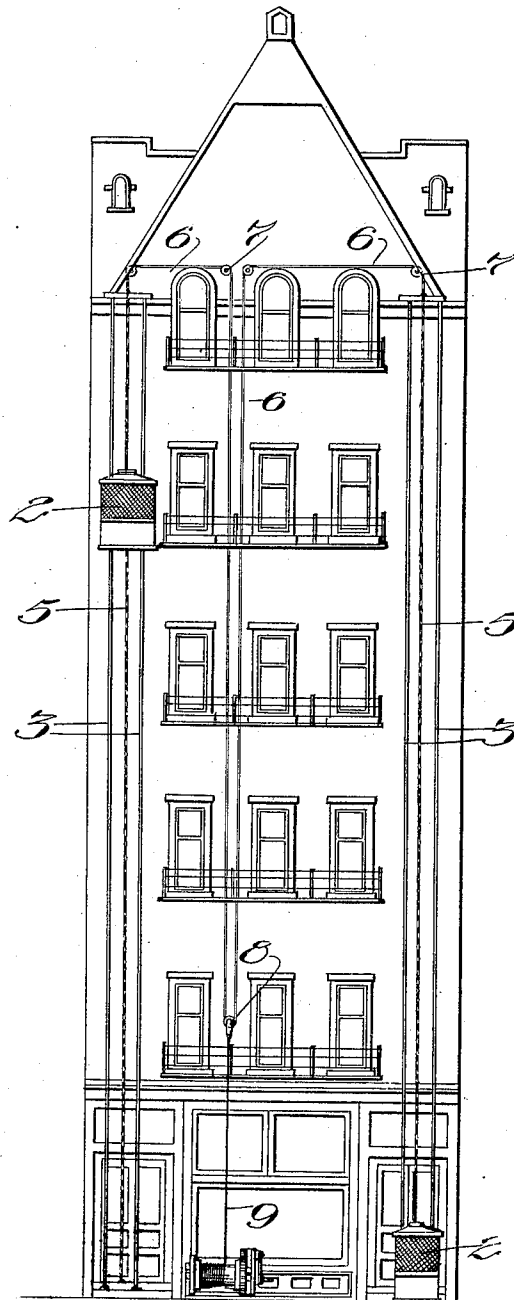


C. METZLER.
FIRE ESCAPE APPARATUS.
APPLICATION FILED OCT. 16, 1911.

1,053,425.

Patented Feb. 18, 1913.

2 SHEETS—SHEET 1.



Witnesses:
Thos. Eastberg.
J. E. Maynard.

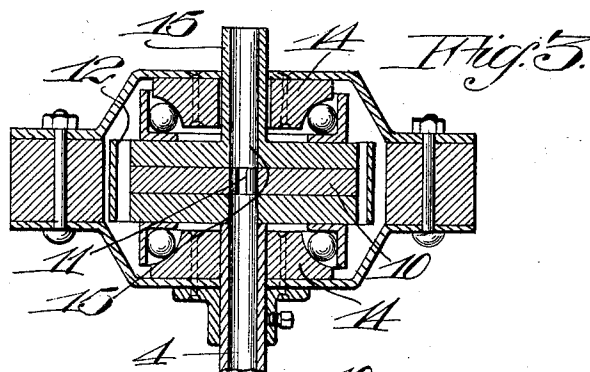
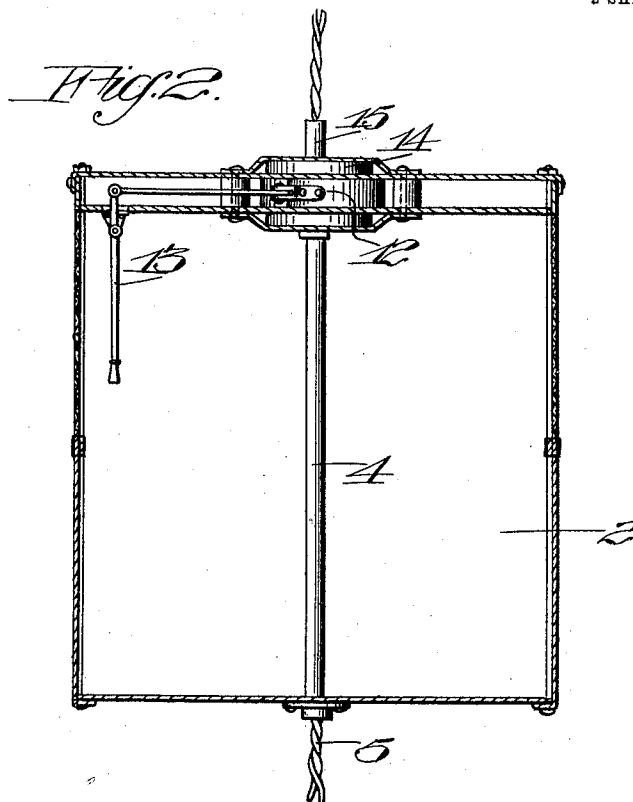
Inventor:
Conrad Metzler.
by G. H. Strong.
J. H. Ellis

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2 SHEETS—SHEET 2.



Witnesses:
Shas Kastberg
A. E. Maynard

Inventor:
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UNITED STATES PATENT OFFICE.

CONRAD METZLER, OF FRESNO, CALIFORNIA, ASSIGNOR OF ONE-FOURTH TO AUGUST SCHWABENLAND, OF SANGER, CALIFORNIA.

FIRE-ESCAPE APPARATUS.

1,053,425.

Specification of Letters Patent.

Patented Feb. 18, 1913.

Application filed October 16, 1911. Serial No. 654,892.

To all whom it may concern:

Be it known that I, CONRAD METZLER, a citizen of the United States, residing at Fresno, in the county of Fresno and State of California, have invented new and useful Improvements in Fire-Escape Apparatus, of which the following is a specification.

This invention relates to fire escape apparatus.

The object of this invention is to devise and provide an apparatus by which occupants of buildings may be safely conveyed from the various floors to the ground; and particularly to provide such an apparatus capable of rapid operation and having large capacity.

An important object is to provide a device whereby the speed of travel of the passenger vehicles may be readily controlled by a passenger or other occupant of the car.

A feature of the invention is to so construct the apparatus that the load of one car may be utilized to operate the other car.

The invention consists of the parts and the combination and construction of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a view showing a complete apparatus as erected adjacent to a building. Fig. 2 is a detail view of one of the cars. Fig. 3 is a detail view of the car brake. Fig. 4 is a plan view of the brake disk.

One form of the apparatus as shown, includes one or more passenger-carrying cars 2, each of which is adapted to travel vertically between guides 3 of appropriate construction. Each car 2 is provided with a central tube 4 through which plays a substantial, stationary twisted bar or cable 5, the ends of which are held securely to the building or adjacent structure.

The cars 2 are connected by a flexible cable or its equivalent 6 which passes over properly located guide pulleys 7, and is rove through a sheave block 8. The block is

movable up or down as the exigency requires during the operation of the apparatus, so that one or the other of the cars can be brought into proper position with the several floors of the building while the other car may be at one or the other extreme of its movement.

Preferably, the length of the tackle cable 6 is such that the two cars may be at the same time in lowermost discharging position and then by restraining one, the other may be quickly raised to uppermost extreme by simply pulling down the block 8.

When the upper car is loaded and descending, by holding the block 8 stationary, by means of a rope 9, the other car will be elevated. Letting out or taking up the rope 9 will permit the tackle block to draw up or let out slack and consequently alter the relative positions of the cars as desired.

An important feature of this invention is the means by which the speed of travel and the starting and stopping of each car is controlled. This means comprises a plate or disk 10, centrally provided with an opening or throat 11, of contour similar to the cross-section of the twisted stay cable 5. When the car is traveling vertically, the twist of the cable 5 causes the plate 10 to revolve and thus by applying a suitable brake, as band 12, to the periphery of the plate, its rotation and the motion of the car is stopped.

The brake 12 may be applied by means of a lever or suitable connection 13, which is within reach of the passengers in the car.

The plate 10 is mounted in appropriate bearings 14 and may be provided with an upwardly projecting tube 15, which guides the cable straight into the throat of the plate.

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

A fire escape including a plurality of vertically movable cars, a flexible connection passing over overhead pulleys and extending from one car to the other, guides for the

cars, a winding drum and a cable there-
from connected to the portion of said flexi-
ble connection between the cars, said cable
having a pulley through which the flexible
5 connection is rove, and means on each car
for restraining the movement thereof.

In testimony whereof I have hereunto set

my hand in the presence of two subscrib-
ing witnesses.

CONRAD METZLER.

Witnesses:

IRVINE P. ATEN,

M. JORGENSEN.

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