

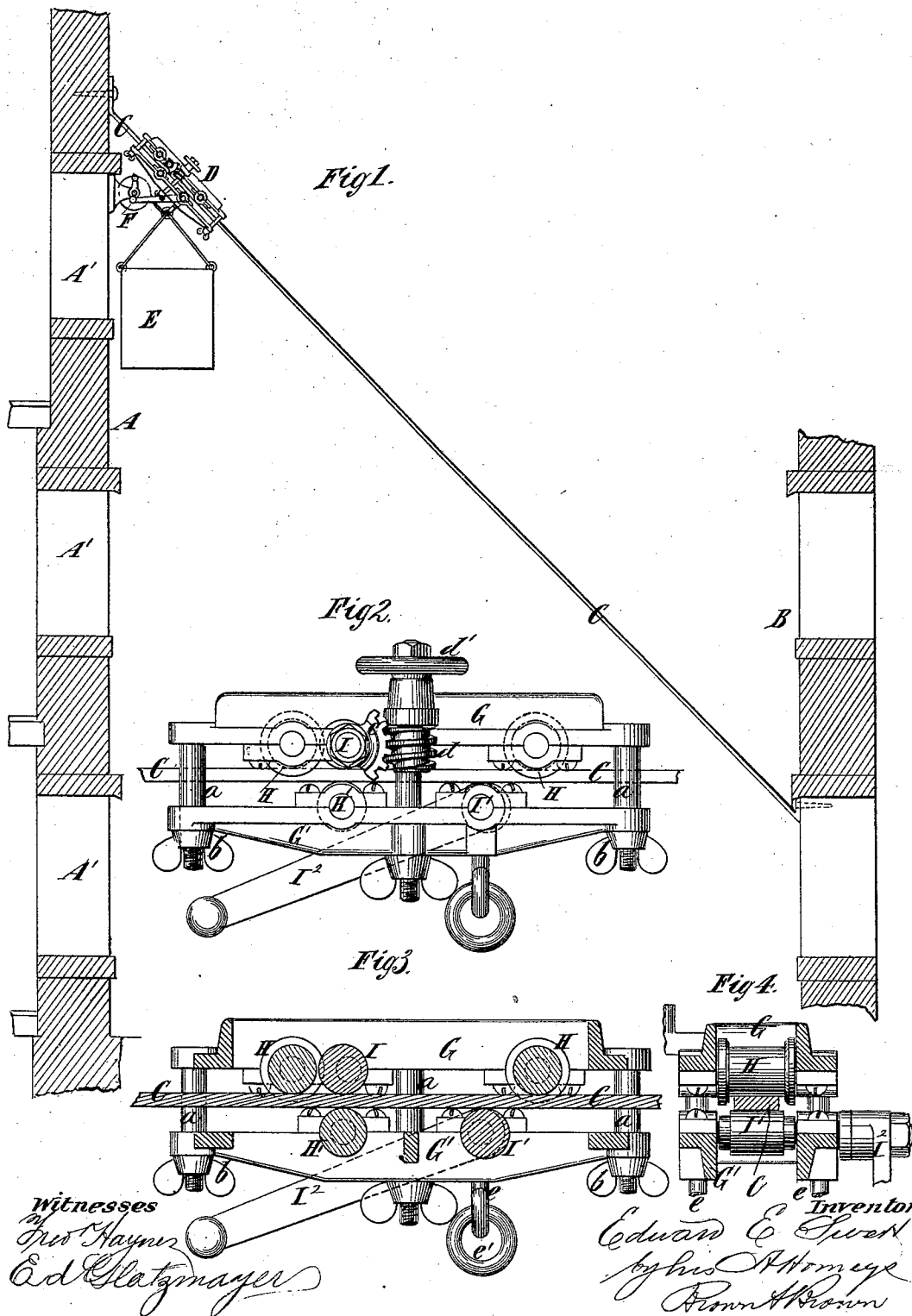
(No Model.)

E. E. SWETT.

FIRE ESCAPE.

No. 247,708.

Patented Sept. 27, 1881.



UNITED STATES PATENT OFFICE.

EDWARD E. SWETT, OF BIDDEFORD, MAINE.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 247,708, dated September 27, 1881.

Application filed June 23, 1881. (No model.)

To all whom it may concern:

Be it known that I, EDWARD E. SWETT, of Biddeford, in the county of York and State of Maine, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification.

My invention relates to fire-escapes in which are employed carriages or frames having rollers journaled in them, which are adapted to run or move upon a rod, bar, or rope extending from the burning building.

The invention consists in certain novel features in the construction of the movable carriage and its brake appliances, hereinafter more fully described.

In the accompanying drawings, Figure 1 represents a sectional view of a portion of two buildings and a view of my improved fire-escape. Fig. 2 represents a side view of the movable carriage upon a larger scale. Fig. 3 represents a longitudinal section of said carriage and a portion of the rod or bar upon which it moves, upon the same scale as Fig. 2; and Fig. 4 represents a transverse section of said carriage, also upon the same scale as Fig. 2.

Similar letters of reference designate corresponding parts in all the figures.

A designates the wall of a building in which I will suppose a fire has broken out, and A' designates the window-openings.

B designates the wall of a second building, which may be supposed to be on the opposite side of the street from the building A.

C designates a rod or bar of iron secured at its upper end to the upper part of the building A, and extending downward and also outward away from the side of the building A, and in the present instance to the lower part of the building B. In this case the rod or bar C is of rectangular cross-section, as seen in Fig. 4.

D designates a carriage movable along the rod or bar C, and having suspended from it a cage or car, E, for the reception of a person or persons. The said carriage is provided with suitable brake appliances, hereinafter to be described. After the carriage has made a trip downward it may be pulled back and upward by means of a rope or cable, which may be wound upon a stationary reel, F, at the upper end of the rod or bar C.

I will now describe the construction of the carriage, which is clearly shown in Figs. 2, 3, and 4.

G G' designate two metal frames of nearly equal size and shape, and which are secured together by means of bolts or studs *a* and nuts *b*, which may be manipulated to draw the two frames together or allow them to move apart.

In the upper frame, G, are journaled two cylindric rollers, H, and in the lower frame, G', is journaled a single cylindric roller, H', and these rollers receive between them the rod or bar C, as seen most clearly in Figs. 3 and 4.

In the upper frame, G, is also journaled a cam or eccentric, I, and in the lower frame, G', is journaled a similar cam or eccentric, I', and by turning either of these cams or eccentrics upon its journals the rod or bar C is gripped between it and the opposite rollers, and the movement of the carriage is either wholly stopped or retarded. The cam or eccentric I is intended for holding the carriage fast to the rod or bar C as will be necessary while the cage E is being loaded, and the said cam or eccentric has upon it a geared sector, *c*, with which engages a worm, *d*, which may be turned by the hand-wheel *d'* to clamp the carriage to the rod or bar C or to release it wholly therefrom. The cam or eccentric I' is intended to serve as a brake in retarding the movement of the carriage and preventing its acquiring too great a momentum.

Upon the journal of the cam I' is fixed a handle or lever, I², which is adapted to be controlled by the person in the car. By moving the lever I² the cam or eccentric can be quickly applied to the rod or bar C, and serve as a brake for more or less retarding the movement of the carriage in its descent.

In the under side of the frame G' are inserted two eyes, *e*, in which are rings *e'*, by which the cage E may be suspended from the carriage.

The two frames G G' might be rigidly secured together, so as to form, in fact, a single frame.

By my invention I provide a fire-escape which may be easily controlled by a person in the cage.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, in a carriage for a fire-

escape, of a frame or frames, rollers journaled
in said frame or frames and adapted to re-
ceive between them a rod or bar upon which
said carriage may move, and a cam or cams
5 journaled in said frame or frames and adapted
to be turned to cause them to gripe said rod or
bar, substantially as specified.

2. The combination of the frames G G', roll-

ers H H', cams I I', the sector *c* and worm *d*,
for turning the cam I, and the handle or lever *h* to
I², for turning the cam I', substantially as speci-
fied.

EDWARD E. SWETT.

Witnesses:

O. F. PAGE,

JOHN BERRY.