

(No Model.)

2 Sheets—Sheet 1.

P. ZAHRINGER & H. BUCKSEY.
FIRE ESCAPE.

No. 497,619.

Patented May 16, 1893.

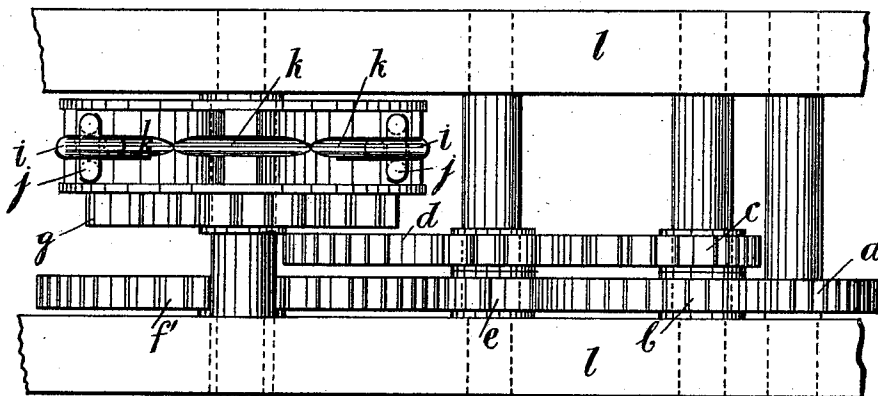
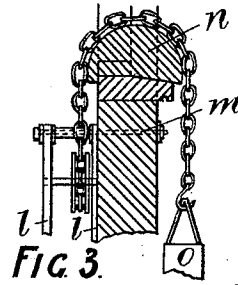
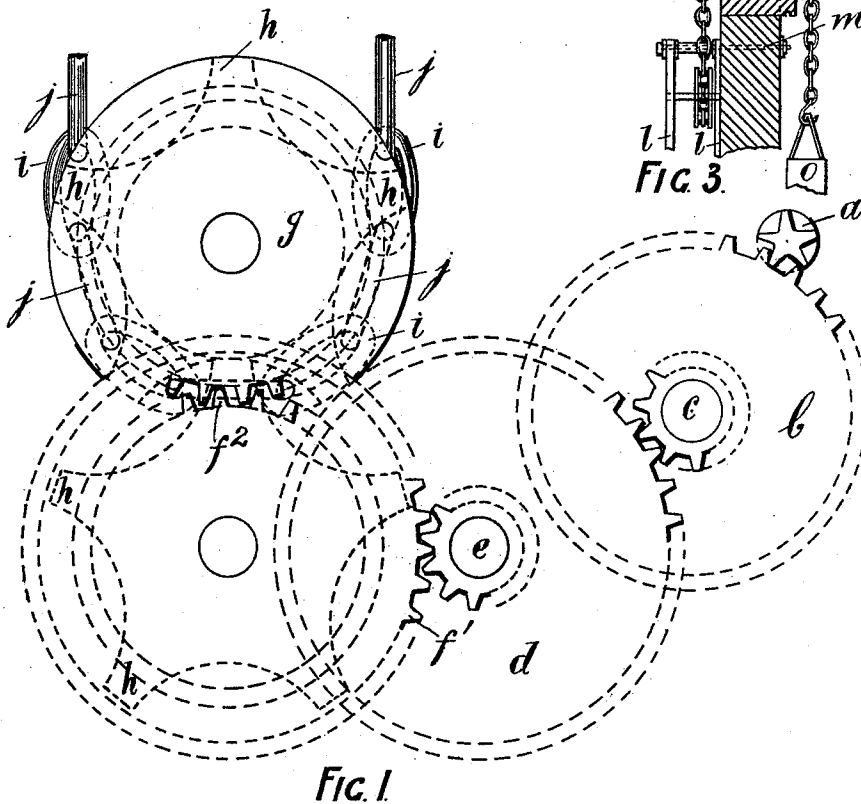


FIG. 2.

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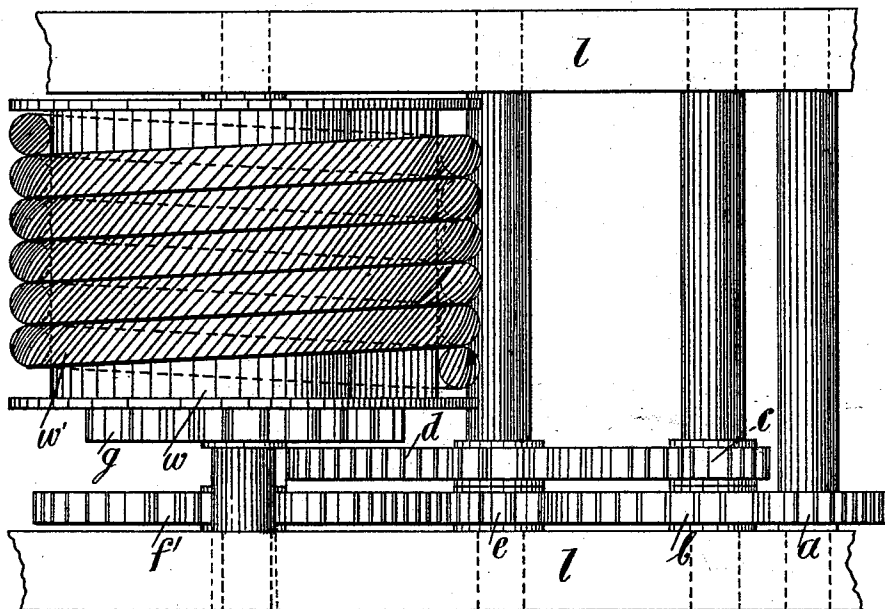
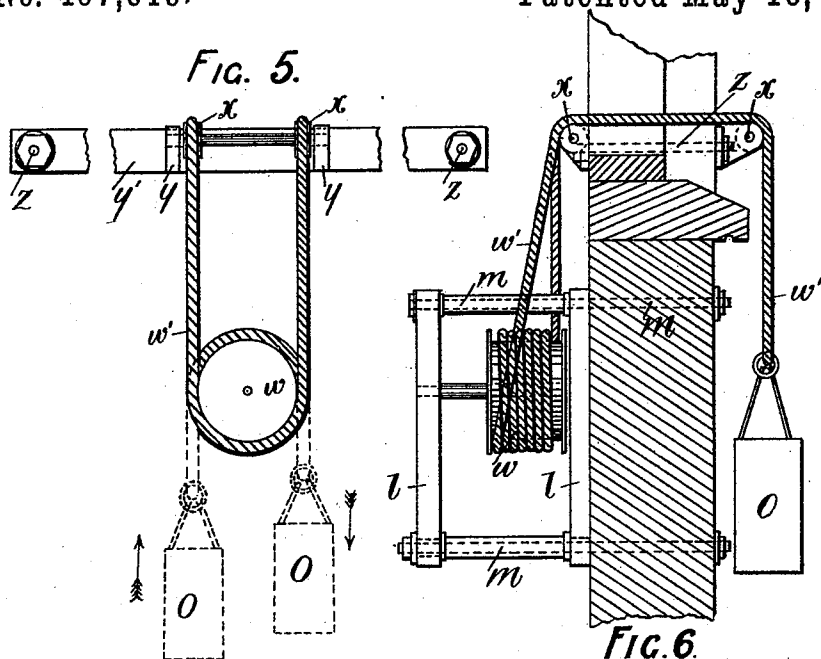


FIG. 4.

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UNITED STATES PATENT OFFICE.

PHILEMON ZAHRINGER AND HARRY BUCKSEY, OF LONDON, ENGLAND.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 497,619, dated May 16, 1893.

Application filed December 8, 1892. Serial No. 454,489. (No model.)

To all whom it may concern:

Be it known that we, PHILEMON ZAHRINGER and HARRY BUCKSEY, subjects of the Queen of Great Britain, residing at Hampstead, London, England, have invented a new and useful Improved Fire-Escape, of which the following is a specification.

The object of this invention is an improved fire escape that can be used by the inmates of a building in case of need and in order that our said invention may be fully understood we will now describe the same with reference to the accompanying sheet of drawings in which—

Figure 1. shows the mechanism for controlling the descent of the fire escape; Fig. 2 plan thereof. Fig. 4 shows a modification and Figs. 3, 5 and 6. show views of escape in position.

The same letters denote the same parts in all views.

a. b. c. d. e. f'. f² and *g.* show toothed wheels and pinions of a train. The wheels *f². g.* have projections *h. h.* on each of them and through each of these projections on the wheel *g.* a groove *k.* is cut for the links *i* of a chain to work into. The other intermediate links *j.* fit in between each projection as they pass round the under portion of wheel *g.* so as not to slip through the grooves *k.* Thus the wheel *g.* forms a chain wheel. The projections on wheel *f².* work through the intermediate links *j.* When the wheel *g.* is turned round it turns the wheel *f²* by gearing therewith and thus sets the whole train in motion such train controlling the speed of the chain wheel *g.* The projections *h. h.* are only provided as an extra security to prevent the chain running down quickly in the event of accident.

The whole of the mechanism is mounted in a frame *l.* which may be attached to the inside of a wall of a building just under the window by means of bolts *m.* (see Fig. 3.) and when in use the two ends of the chain are thrown out and may pass over a half round piece *n.* fixed on the window sill and to each of the ends of the chain we fix a carrier *o.* as shown in dotted lines in Fig. 5, each of said carriers being of sufficient size to hold one or two persons. Thus the weight of such person or persons descending will bring the other carrier up ready to receive fresh freight, so that by this means a number of persons can

descend from a building automatically in a short space of time.

Figs. 4, 5, 6. show modification of the mechanism before described. Fig. 6 shows side elevation of apparatus as it would appear when in use; Fig. 5. front elevation of a portion of same and Fig. 4 plan to an enlarged scale of the mechanism. In this modification it will be seen that a drum *w* and a wire rope *w'.* are employed instead of the chain wheel *g.* and wheel *f²* as before described the said rope being turned several times round the drum to prevent slipping. The two ends of said rope pass over pulleys *x. x.* fixed on the window sill the drum *w.* being controlled by a train of wheels as in the first named mechanism.

y y. are brackets carrying pulleys *x. x.* fixed to a bar *y'.* secured to wall by bolts *z. z.*

Instead of having the drum fitted as shown in the drawings it may be placed in any other suitable position.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a fire escape of the character described, the combination with a frame attached to the house and a sprocket wheel journaled therein, a chain having open links mounted on said sprocket wheel, carriers attached to the ends of said chain a second sprocket wheel also journaled in said frame and having teeth interpenetrating with those of the first sprocket wheel, the said teeth also engaging in said chain, and means for braking said second sprocket wheel, substantially as and for the purposes described.

2. In a fire escape of the character described, the combination with a frame attached to the house and a sprocket wheel journaled therein, a chain having open links mounted on said sprocket wheel, carriers attached to the ends of said chain, a second sprocket wheel also journaled in said frame and having teeth interpenetrating with those of the first sprocket wheel, the said teeth also engaging in said chain, and a train of gearing connected to both of said sprocket wheels and adapted to brake said chain, substantially as and for the purposes described.

PHILEMON ZAHRINGER.
HARRY BUCKSEY.

Witnesses:
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CHAS. ROCHE.