R. Wyatt.

Fire Escape.

No. 48,333. Patented Jun. 20, 1865.

Fig. 1.

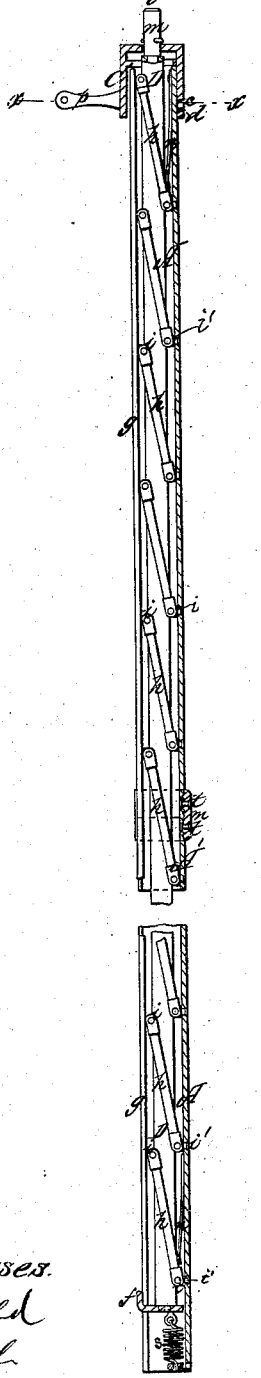


Fig. 2.

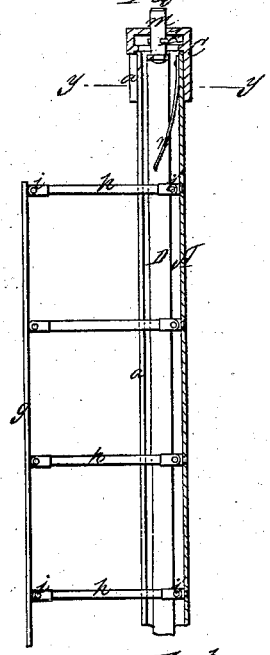


Fig. 3.

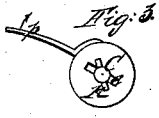


Fig. 4.

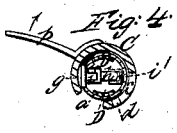
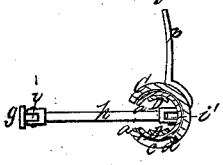


Fig. 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

ROBERT WYATT, OF BROOKLYN, NEW YORK.

IMPROVED FIRE-ESCAPE.

Specification forming part of Letters Patent No. **48,333**, dated June 20, 1865.

To all whom it may concern:

Be it known that I, ROBERT WYATT, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improved Fire-Escape; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical central section of my invention when not in use. Fig. 2 is a vertical central section of the same when in use. Fig. 3 is a top view of the same. Figs. 4 and 5 are horizontal sections through lines *x x* and *y y*.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in a fire-escape of novel construction, to be attached to the exterior of a dwelling-house or other building without defacing it or obstructing the sidewalk of the street, and to which, while it affords no facilities for burglary, access may be had from the several stories of the building, so that persons on the several floors may put it in a state for use without difficulty.

To enable others to construct and use my invention, I will proceed to describe it with reference to the drawings.

A A′ A⁴ are a series of wrought-iron tubes, of about two inches in diameter and of convenient length, connected by means of screwed sockets *m* and rivets *t* to form a continuous tube of such length as to reach from the upper windows of the building nearly to the ground. These tubes are slotted along the entire length, as shown at *a* in Figs. 2, 4, and 5, to a sufficient width for the reception of a flat iron bar, *g*, which is connected to the inside of the pipes A A′ A⁴, opposite to the slot *a*, by means of short rods *h h*, which are each hinged at one end to the said bar and at the other end to the tube, the said rods *h h* forming the rounds of a ladder, of which the tube forms one side and the bar *g* the other side. The hinges *i i′* permit the rounds *h h* to fold up within the tube and the bar *g* to enter the slot *a*, as shown in Figs. 1 and 2, which represent the ladder in the condition in which it remains till required for use, and in which condition it is kept by a cap, C, which is loosely fitted to the top of the tube, and by a hook, *f*, at the lower end of a forked bar, D, which is received within the tube in such manner that the rounds *h h* work freely through it. The cap C has in one side of it a slot, *e*, which receives a pin, *d*, which is fast to the upper joint of the tube, allowing the said cap to turn on the pipe A only a limited distance. The said cap has also a vertical slot, *a′*, to correspond with the slot *a* in the tube, which slot, when brought in a line with the slot *a*, enables the bar *g* and rounds *h h* to swing out through the latter slot and place the ladder in the condition for use shown in Figs. 2 and 5.

Another slot, *e*, is cut into the head of the cap C, to permit the passage through the cap of the pin *k*, which is inserted tightly through the upper pivot-like part or head *m* of the forked bar D, such pivot-like head being fitted to a central aperture in the head of the cap. This pin *k*, when above the head of the cap C and out of line with the slot *e*, as shown in Fig. 3, serves to hold up the forked rod D to such a position that when the ladder is folded up, as shown in Figs. 1 and 3, the catch *f* will confine the lower end of the bar *g* within the slot *a* of the tube, the cap C at the same time holding the upper end of the said bar *g* within the slot, and the cap and catch keeping the ladder folded.

n n are springs attached to the interior of the tube, to press against the upper and lower rounds, *h h*, for the purpose of unfolding the ladder for use when the cap C is turned to a proper position to liberate the bar *g* and allow it to pass out through the slot *a*. In Fig. 1 a spring is represented connected with the lower end of the bar D, to draw down the catch *f* and liberate the bar *g* when the upper end of the said bar D is liberated; but this spring is hardly necessary, as the weight of the said bar D would be sufficient to pull down the catch.

p is a lever, rigidly attached to the cap C in such a position that it may, by pulling an attached cord passing around a suitable pulley (not represented) and arranged within reach of one window on each floor of the building to the exterior of which the tube A A′ A⁴ is firmly secured, turn the cap C to a position to liberate the bar *g* and permit the unfolding of the ladder. The tube is secured to the building by means of suitable clips or clamps, which leave the slot *a* open. The tube is so secured to the building and the bar *g* of such length that when the rounds *h h* are in a horizontal position the lower end of the said bar will rest upon the ground and give a firm support to the rounds.

As the ladder is locked in its closed or folded position by the cap C at the top, it can only be unfolded by a person or persons in the building, and therefore affords no facility for burglary. When the said cap is turned by pulling the lever *p* to a position to allow the pin *k* to pass through the slot *e* in its head, the bar D and catch *f* drop far enough to liberate the lower end of the bar. The bar *g* and rounds are then started outward by the springs *n n*, and the weight of the said bar and rounds then brings the bar to the ground and the rounds to a horizontal position. Though the lower end of the bar *g* is first liberated, only one pull of the lever *p* is necessary. When the ladder is to be closed up, the cap C is first turned by the lever *p* to a position to bring the slot *a'* in line with the slot *a* and the slot *e* opposite the pin *k*. This permits the bar *g* to be lifted up into the slot *a* by a person on the ground, and the bar D to be lifted up in a similar manner to a position for the catch *f* to lock the lower end of the bar *g*. A further movement of the cap C while the bar D is thus held up brings the slot *a'* out of line with *a*, and the slot *e* out of line with the pin *k*, and so makes the said cap lock both the upper and lower ends of the bar *g*, the upper end being locked by the pin *k*, preventing the descent of the bar D and catch *f*.

The rounds *h h* may be made of wrought-iron tubing, with solid knuckle-piece secured in their ends to form the hinges.

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

1. The combination of the vertically-slotted tube A A' A^4, the bar *g*, and the hinged rounds *h h*, substantially as herein described, the whole forming a folding fire-escape ladder.

2. The bar D, catch *f*, and cap C, in combination with each other and with the slotted tube A A' A^4, bar *g*, and hinged rounds *h h*, substantially as and for the purpose herein specified.

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