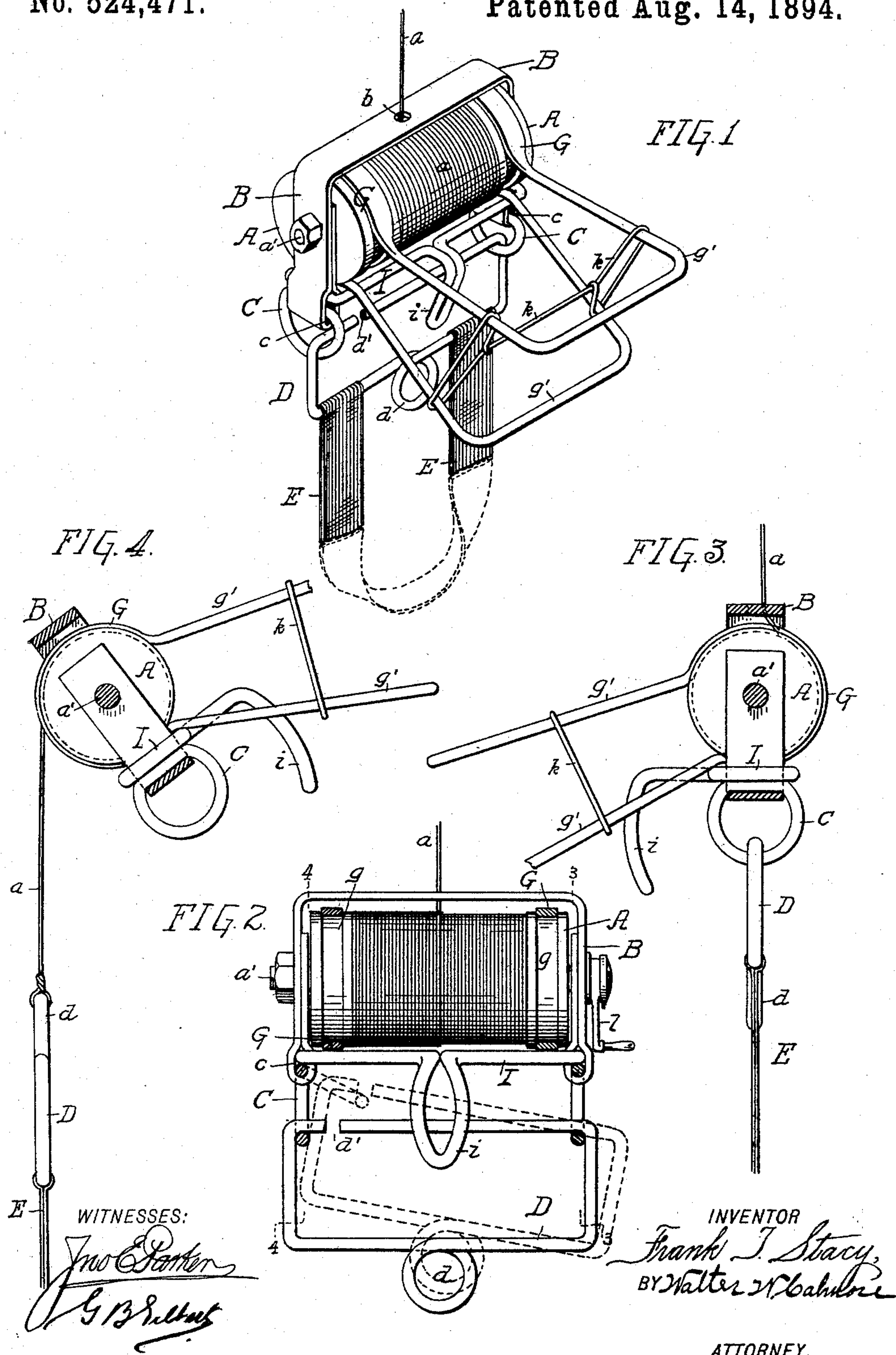


(No Model.)

F. T. STACY.
FIRE ESCAPE.

No. 524,471.

Patented Aug. 14, 1894.



UNITED STATES PATENT OFFICE.

FRANK T. STACY, OF PHILADELPHIA, PENNSYLVANIA.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 524,471, dated August 14, 1894.

Application filed February 8, 1894. Serial No. 499,468. (No model.)

To all whom it may concern:

Be it known that I, FRANK T. STACY, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain improvements in fire-escapes, and has for its object the construction of an exceedingly simple and compact form of fire escape which may be carried without difficulty in the pocket or in a satchel.

The invention further contemplates a construction by which the fire escape may be reversed to lower one or more persons from an elevation without danger, or may be used and governed by the person descending.

In the accompanying drawings:—Figure 1, is a perspective view of a fire escape constructed in accordance with my invention. Fig. 2, is a longitudinal sectional elevation of the same, on the line 2—2, Fig. 3. Fig. 3, is a transverse section on the line 3—3, Fig. 2, and Fig. 4, is a transverse section on the line 4—4, Fig. 2, illustrating the parts in different positions from that illustrated in said Fig. 2.

The fire escape forming the subject of my invention is provided with a cord, or by preference a small wire of great tensile strength, and is so arranged that the user, by securing one end of the cord or wire to any heavy or permanent object may descend in safety to the street at any speed desired, without personal injury, and with the exercise of but a small amount of strength. It is further so arranged that in the event of the user wishing to lower another person he may readily reverse the position of some of the parts and lower such person safely to the ground, and then after recoiling the wire or cord upon the spool or reel provided for that purpose, may lower himself with but little difficulty.

Referring to the drawings, A represents a spool or reel of sufficient size to contain a large quantity of cord or wire *a*. This spool is mounted on an axis *a'* held in bearings in a suitable frame B, extending around the spool, and the upper cross bar of such frame being provided with an opening *b* through

which the cord or wire may pass as it leaves the spool during the descent. In the opposite ends of the frame B are formed eyes *c* through which are passed rings C pivoted loosely in the said eyes and serving to support a rectangular link D provided at its lower central portion with an eye *d*. Secured to the lower bar of this link are straps E extending down for some distance below the link so as to form a loop which may be passed around the body.

The spool or reel A is provided, at its opposite ends, with annular grooves *g* in which are fitted friction bands G, extending for some distance around the spool, and terminating in handles *g'* which may be grasped by the user, and when pressed together, retard the speed of rotation of the spool to an extent dependent upon the pressure exerted. To more effectually aid in holding the bands or brakes in contact with the spool, the handles are connected by a sliding loop *k*, which may be moved to and fro to tighten or release the brake, as desired.

In ordinary use, the loose end of the cord or wire *a* is secured to any heavy or fixed object, and after the strap or belt E has been passed around the person it is simply necessary to grasp the handles *g'* and commence the descent, tightening or loosening the handles, as may be necessary to retard or increase the speed of descent. It may be desirable however, to first lower another person or articles of value, and when such is the case the parts are brought to the position shown in Fig. 4, the first step being to remove the link D from its pivoted supporting rings C, which may be done by moving the link to the position shown by dotted lines in Fig. 2, and then swinging the ring C up through the opening *d'* formed in the link for that purpose. After the release of one ring C the link may be readily manipulated so as to pass the opposite ring C through the opening *d'* and the link is then free. The straps or bands are then moved from the lower to the upper bar of the link as shown in Fig. 4, and the cord or wire, having been previously removed from the opening *b*, is secured in the eye *d*.

In the lower portions of the opposite ends of the frame B, are the eyes through which the rings C are passed, and in these eyes are also held the opposite ends of a bar I pro-

vided at its central portion with a claw or finger *i* which may be engaged with any object, such for instance as a window sill, and when the parts are to be used in the position 5 shown in Fig. 4, this claw or finger will materially lessen the labor of the user, and objects of considerable weight may be readily lowered.

At one end of the axis *a'* is a crank *l* by 10 which the cord or wire may be readily rewound after use.

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

15 1. The combination of the frame, an axis journaled therein, a spool or reel mounted on said axis and having annular grooves on its flanged end portions, friction bands at the opposite ends of said spool or reel and adapted 20 to said grooves, operating handles connecting those portions of those friction bands on the same side of the spool or reel, a connecting link adapted to slide upon the handles, rings pivoted to the opposite ends of the frame, the 25 links supported by said rings and a strap or band depending from said link, substantially as specified.

2. The combination of the frame, an axis journaled therein, a spool or reel mounted on 30 said axis, friction bands at the opposite ends of said spool or reel, operating handles connected thereto, a strap carrying link, a strap

or band depending from said link, and a supporting finger or claw carried by the frame, substantially as specified. 35

3. The combination of the frame, an axis journaled therein, a spool or reel mounted on said axis, friction bands at the opposite ends of said spool or reel, operating handles connected thereto, a strap carrying link, a strap 40 or band depending from said link, and a transverse bar, as *I*, supported by the frame and having a supporting finger or claw, as *i*, substantially as specified.

4. The combination of the supporting frame, 45 having an opening *b*, an axis journaled on said frame, a spool or reel mounted on said axis and having annular grooves at its opposite ends, friction bands adapted to said annular grooves, operating handles for said friction bands, a bar, as *I*, supported by the frame 50 and having a finger or claw, as *i*, the rings *C* pivoted at the opposite ends of the supporting frame, and a removable slotted link normally hung from said rings and having an 55 eye, as *d*, and supporting bands or straps depending from said slotted link, substantially as specified.

In testimony whereof I affix my signature in the presence of two witnesses.

FRANK T. STACY.

Witnesses:

W. R. CLEVINGER,

AARON ALLISON.