

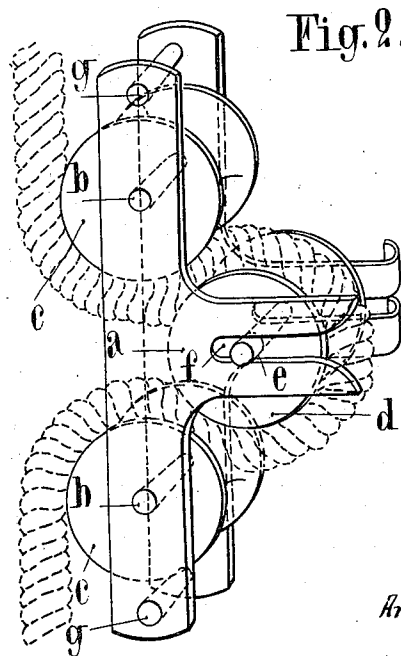
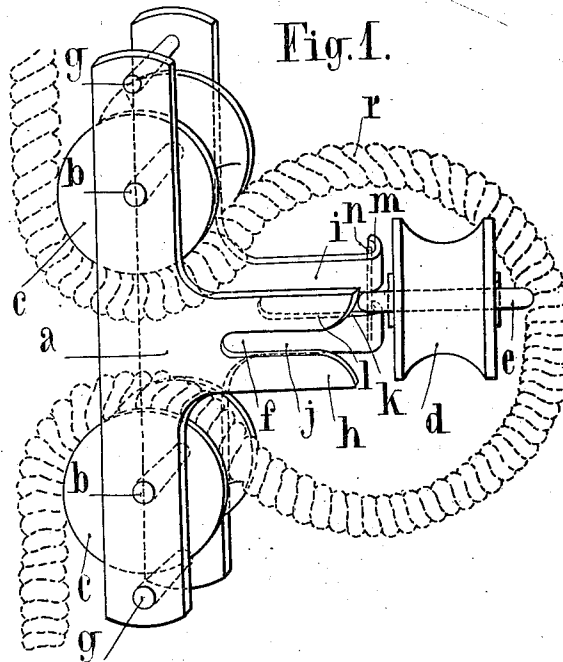
July 31, 1923.

A. J. M. BARTHÉLÉMY DIT P. CANS

1,463,149

FIRE ESCAPE

Filed Jan. 19, 1922



INVENTOR
Antoine, Joseph M. B. Paul Cans
BY *Richard G. Grier*
ATTORNEYS

UNITED STATES PATENT OFFICE.

ANTOINE JOSEPH MARIUS BARTHELEMY DIT PAUL CANS, OF PARIS, FRANCE.

FIRE ESCAPE.

Application filed January 19, 1922. Serial No. 530,271.

To all whom it may concern:

Be it known that I, ANTOINE JOSEPH MARIUS BARTHELEMY DIT PAUL CANS, citizen of the Republic of France, and resident of Paris, France, have invented a new and useful Fire Escape, which improvements are fully set forth in the following specification.

In case of a building getting afire, salvage has been effectuated hitherto by means of ladders and ropes permitting the persons endangered to be brought down to the ground. But everytime a person or thing is brought down, the firemen have to climb up again to the stories, whether they bodily accomplish the salvage or use ropes.

This method involves drawbacks: it requires far too long a time, while being dangerous and laborious both for persons endangered and for rescuers.

The object of my invention is to provide a device which allows the aforesaid drawbacks to be done away with, this is to say, that will allow immediate and prompt rescue, with a reduced number of rescuers while affording comfort and great safety.

My device can be used either by any endangered person or by the rescuers and requires only a rope affixed at a proper spot on the building and leading to the ground.

My device is characterized by the fact that two fixed rollers are combined with a mobile one, such rollers being properly adjusted between two suitable cross-ties, permitting instant fixing of the device to the rope at any height without the ends of the said rope having to be passed or threaded between the rollers.

Suitable means are preferably provided to enable the device to be secured to the belt or waist of any endangered person or persons who, jumping out, will descend at a speed which they are enabled to regulate simply by pulling on the rope, braking being ensured by the free play of the mobile runner which is automatically moved towards the fixed runners by the horizontal thrust caused by the increased tension in the rope and from the fixed runners by the resistance offered by the elastic properties of the rope in resisting the clamping effect produced between the fixed and mobile runners.

In the case where the endangered parties are inert, or again in the case where objects or things are to be rescued, the downward speed is adjusted by a fireman stand-

ing at the lower end of the rope and whose function or duty is simply to exert a proper pull upon the rope and to unhook the device and its load when the latter reaches the ground.

In order to make my invention more clearly understood, I have illustrated, as an example of the same, an embodiment of it in and by the appended drawing.

It should, of course, be understood that forms and sizes, and the number of fixed and mobile parts, as well as the arrangement thereof can be modified or altered without departing from the scope and principle of my invention.

In the said drawings:

Figure 1 is a perspective view showing the device open.

Figure 2 is a perspective view showing the device in working order.

As will be seen, the "escape" performed as per my invention is constituted by two cheeks *a* parallelly located, forming a main body, and connected by axles *b* bearing or supporting two fixed rollers *c*.

Projecting laterally from the cheeks *a* are appendages *h* and *i* which are provided with the aligned elongated slots *j* and *l* respectively to furnish slideways for the axle *e* of a mobile runner *d*. Fixed within the axle *e* adjacent the appendage *i* is a pin *n* shown partially in dotted lines in Fig. 1 of the drawing, which cooperates with the outwardly curved ends *m* of the appendage *i* to limit the outward movement of the axle *e* and to provide a hinge pin upon which the axle *e* and mobile runner may be swung from the closed position shown in Fig. 2, to the open position shown in Fig. 1. The ends of the slot *j* are flared as indicated at *k* to facilitate the entry of the axle *e* into the slot *j*.

The rope will thus be compressed between the fixed and the mobile rollers in ratio to the weight or load carried or supported by the device and the lowering speed may be regulated by a mere pulling on the lower length or portion of the rope.

A method of using the aforescribed escape is as follows:

When the device is to be used for the rescue of a number of persons, who may be entrapped in a burning building, the fireman or any other person being equipped with a rope and any number of the attachments, it will only be necessary to secure one end

of the rope to any desired support upon the building; the other end of the rope being thrown down so that it will hang to the ground. The mobile roller *d* on each of the devices it is desired to use is thrown to the position shown in Fig. 1, a loop is quickly made in the rope and inserted between the rollers *c*, after which the roller *d* is turned upon its pivot so that the loop of the rope will extend around the outer face of the mobile roller in the position shown in Fig. 2. It will be understood that the rescue devices may be attached to either of the axles *g*, will also be attached to the belts or around the waist of the person whom it is desired to rescue. It is only necessary then; that the person endangered shall jump out from the window and allow themselves to descend to the ground. The speed of descent can be regulated by the person using the escape by merely placing tension upon the lower portion of the rope so as to cause the mobile roller *d* to move inwardly towards the fixed rollers, which obviously will produce a clamping effect upon the rope between the rollers. If the person being rescued is unconscious or otherwise unable to regulate the speed of descent by placing tension upon the lower portion of the rope, the speed of the descent can be regulated by the fireman or other person upon the ground by merely exerting a pull upon the rope to check the descent as desired. While the downward journey of one person is taking place, the fireman at the top of the rope will in the meantime be enabled to attach another device and send down another person without having to give any further attention or thought to the device after it is started on its downward journey.

It will be obvious that private homes may be equipped with a device of this character, and that all of the people may be rescued without having to wait for the arrival of the fire apparatus and that it also may be effectively used for salvaging furniture or other articles. It will also be understood that the device will be of great value as a fire escape for use with houses, workshops or other places where a number of people are employed.

While I have described my invention in connection with use as a fire escape, it will be obvious that the same may be used for all sorts of practical purposes such as handling or lowering heavy objects from a building and that the principles of construction are equally applicable to toys or reduced models.

Having now particularly described and ascertained the nature of my said invention and the manner in which the same is to be performed, what I claim is—

1. The combination with a flexible ele-

ment, of a main body, a pair of rollers rotatably mounted in said body upon spaced parallel axes, fixed in a substantially vertical common plane, a mobile roller rotatably mounted upon an axle movable transversely of said vertical plane and means to pivotally mount said axle to permit it to be swung out of parallelism with the axes of said pair of rollers into a position substantially at right angles to said axes.

2. The combination with a flexible element, of a main body, a pair of rollers rotatably mounted in said body, upon spaced parallel axes, fixed in a substantially vertical common plane, said main body having a pair of slots extending transversely to said vertical plane, an axle mounted for longitudinal, slidable movement in said slots, a third roller rotatably mounted on said axle, said slots having their outer ends open, means secured to and slidable with said axle for pivotally mounting said axle upon an axis extending substantially at right angles to said slots, and means to limit the outward movement of said first named means.

3. The combination with a flexible element, of a main body, a pair of rollers rotatably mounted in said body upon spaced parallel axes, fixed in a substantially vertical common plane, said main body having a pair of spaced jaws extending laterally of said vertical plane, each of said jaws having an elongated open end slot, an axle mounted for slidable movement longitudinally of said slots, means secured to and slidable with said axle for pivotally mounting said axle upon an axis transverse to its longitudinal axis, and one of said jaws provided at its outer end with means to limit the movement of said first named means.

4. The combination with a flexible element, of a main body, a pair of rollers rotatably mounted in said body upon spaced parallel axes, fixed in a substantially vertical common plane, said main body having a pair of spaced jaws extending laterally of said vertical plane, each of said jaws having an elongated open end slot, an axle mounted for slidable movement longitudinally of said slots, a pin secured to and passing transversely through one end of said axle outside one of said jaws, said jaw being provided with stop means adjacent the open end of its slot to engage said pin and prevent said axle and third roller from becoming accidentally detached from said jaws.

In testimony whereof I have signed this specification in the presence of a subscribing witness.

CANS, ANTOINE JOSEPH MARIUS
BARTHÉLEMY dit PAUL.

Witness:
CHARLES LÉON LOISEL.