W. R. GREEN.

FIRE ESCAPE.

APPLICATION FILED JULY 31, 1917.

1,272,254.

Patented July 9, 1918.

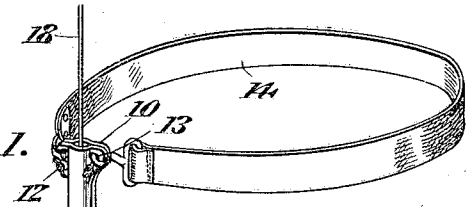


Fig. 1.

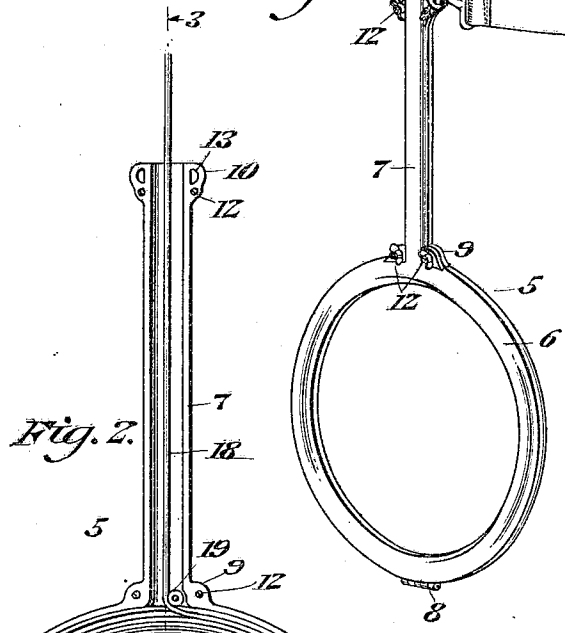
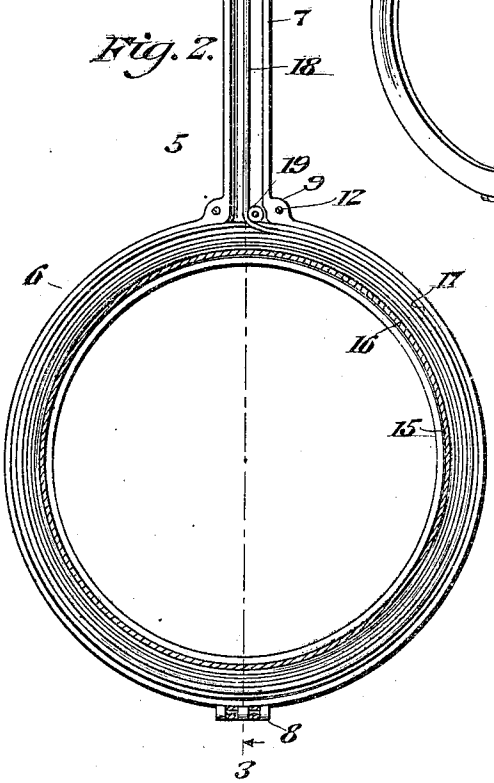


Fig. 2.



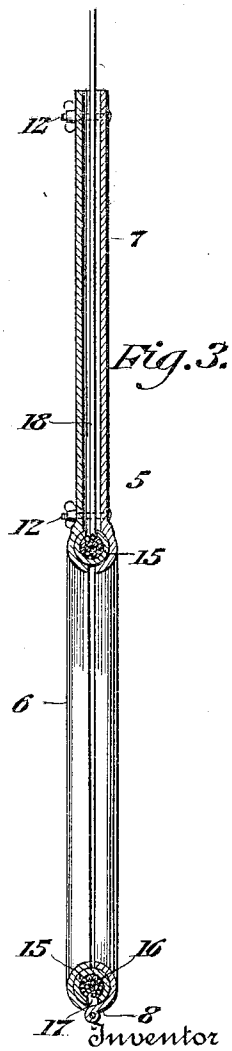


Fig. 3.

Witness

M. D. Shafer.

Inventor

W. R. Green

By Victor J. Evans

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM ROY GREEN, OF CHICAGO, ILLINOIS.

FIRE-ESCAPE.

1,272,254. Specification of Letters Patent. Patented July 9, 1918.

Application filed July 31, 1917. Serial No. 183,742.

To all whom it may concern:

Be it known that I, WILLIAM R. GREEN, a citizen of the United States residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Fire-Escapes, of which the following is a specification.

This invention relates to improvements in safety devices, being in the nature of a fire escape.

In carrying out my invention, it is my purpose to produce a simple, cheap and thoroughly effective means whereby a person may successfully lower himself from a burning building.

It is a further object of the invention to produce a device of this character which may be readily attached to the person of the user and which has associated therewith a cable wound around a suitable tubular ring, the end of the said cable being attached to a suitable support in the building, and the speed at which the cable is played out from the ring and the revolution of the ring may be readily regulated by the user of the device, so that the said user may be lowered at any desired speed.

It is a still further object of the invention to produce a fire escape which, when not in use, may be conveniently positioned in a room in near proximity to a window, without occupying much space in the room and without detracting from the appearance of the room.

It is a still further object of the invention to produce a device of this character including a tubular ring having a cable wound around the same, the end of the said cable being attached to a suitable support, the cable and ring being received in a compressible casing provided with a tubular guide for the cable proper, the user or operator, upon compressing the casing, causing the same to frictionally engage with the ring, and thus regulate the turning of the ring in the casing, and consequently, the rate of the speed at which the cable is unwound from the ring.

It is a still further object of the invention to produce a device of this character, which shall be of an extremely simple nature, comparatively cheap to manufacture, which may be readily and easily applied to or removed from the person of the user, and which shall be thoroughly efficient and safe in operation.

Other objects and advantages will present themeselves as the nature of the invention is more fully understood, reference being had to the accompanying drawing, in which,

Figure 1 is a perspective view of the improvement.

Fig. 2 is an approximately central vertical longitudinal sectional view through the same, and

Fig. 3 is a sectional view approximately on the line 3—3 of Fig. 2.

The improvement is broadly indicated by the numeral 5 and comprises an annular casing 6 provided with a tubular extension 7. The casing 6 is constructed of two similar members, as is also the cylindrical guide 7, the said members being hingedly connected as at 8, the said hinge being disposed directly opposite the cylindrical guide, and the guide, at its juncture with the annular casing is provided with lugs 9, and at its outer end is provided with flanges 10. Through the lugs 9, and through the flanges 10 are passed securing elements, preferably in the nature of removable bolts 12—12, whereby the straight edges of the members comprising the casing and guide tube may be connected. The flanges 10 have additional openings 13 receiving the hooked ends of a belt 14, the said belt being designed to be strapped around the person of the user, and in operation, the user places one of his legs through the annulus 6, and so it will be noted that the device may be easily and quickly positioned upon the person of the user.

The hinged casing 6 may be constructed of some suitable compressible material. The confronting edges of the sections are spaced away from each other, the distance between the said confronting edges gradually increasing from the outer or hinged portion of the casing to the opposite end thereof. By this arrangement a pressure of the sections toward each other will cause the edges of the said sections to be brought near to or against each other, for a purpose which will presently be described. This pressure may be exerted by the hand of the user or by the leg of the user when the user's leg is passed through the casing.

Arranged in the hollow casing 6 is a tubular ring 15. This ring, on its outer periphery is provided with a continuous slot 17, communicating with the groove 16 of

the ring. Numeral 18 designates a cable which has one of its ends secured in the ring. The cable is wound around the ring and has its outer portion guided over a grooved pulley 19 in the tube 7, the end of the said cable passing through the guide tube and being secured annular drum 15, the said drum having an annular bore 16 and to any desired support adjacent to a window in a building in which the device is designed to be arranged.

In case of fire or other accident, when a quick exit from the building is desired, the occupant of the room arranges the device upon his person, in a manner as previously described, and gradually lets himself out of the window. A compression upon the casing causes the same to frictionally engage with the ring 15, and as the latter turns in the unwinding of the cable, the rate of speed at which the said cable is unwound may be thus readily regulated. From the foregoing description, when taken in connection with the accompanying drawing, the simplicity of the construction and the advantages thereof, will, it is thought, be apparent to those skilled in the art to which such inventions appertain, without further detailed description. It is, of course, understood that the cable 18 is of a fire proof material so that injury to the same cannot result from the flames in the room to which the end of the said cable is secured. It will also be noted, that when the user has safely reached the ground, the securing elements 12 may be removed so that the sections may be separated and consequently, the casing may be preserved and again employed in connection with other hollow rings and cables, while still again, if the necessary implement is at hand, the cable may be severed and the drum also preserved.

Having thus described my invention, what I claim is:

1. In a device for the purpose set forth, a ring, a cable wound around the ring and having one of its ends secured thereto and its opposite end designed to be attached to a support, a split compressible casing loosely and wholly received in the ring, a guide tube for the cable upon the casing, said casing designed, when compressed, to frictionally contact with the ring to regulate the turning of the ring in the casing, when the cable is being unwound from the ring.

2. In a device for the purpose set forth, a tubular ring having a continuous slot upon its outer periphery, a cable secured in the ring and wound around the ring and having one of its ends passing through the slot, an annular split compressible casing receiving the ring and having an opening for the passage of the end of the cable on the ring, said casing being designed to be compressed against the ring to regulate the turning of the ring through the casing, when the cable is unwound from the ring.

3. In a device for the purpose set forth, a tubular ring, said ring having a peripheral slot, a cable secured in the ring and wound around the ring and having one of its ends passing through the slot therein, an annular casing for the ring comprising two hinged sections, a tubular guide formed on the casing also comprising a pair of sections, means removably associated with the guide for adjustably connecting the sections thereof, and guide means for directing the cable through the guide member, said casing designed to be compressed to bring the same into frictional engagement with the ring to regulate the turning of the ring in the casing when the cable is being withdrawn from the ring.

4. In a device for the purpose set forth, a tubular ring having a continuous opening on the outer periphery thereof, a cable wound in the ring and having one of its ends secured to the ring and its opposite end passing through the slot therein, an annular casing loosely receiving the drum, a tubular guide on the casing, said casing and guide comprising two members hingedly connected, and a grooved roller in the guide for the cable, said casing having its confronting edges gradually spaced from each other from the hinged connection of the said sections to a point diametrically opposite said hinge, and the sections of the casing being designed to be compressed to frictionally contact with the ring to regulate the turning of the ring in the casing when the cable is unwound from the ring.

In testimony whereof I affix my signature.

WILLIAM ROY GREEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."