

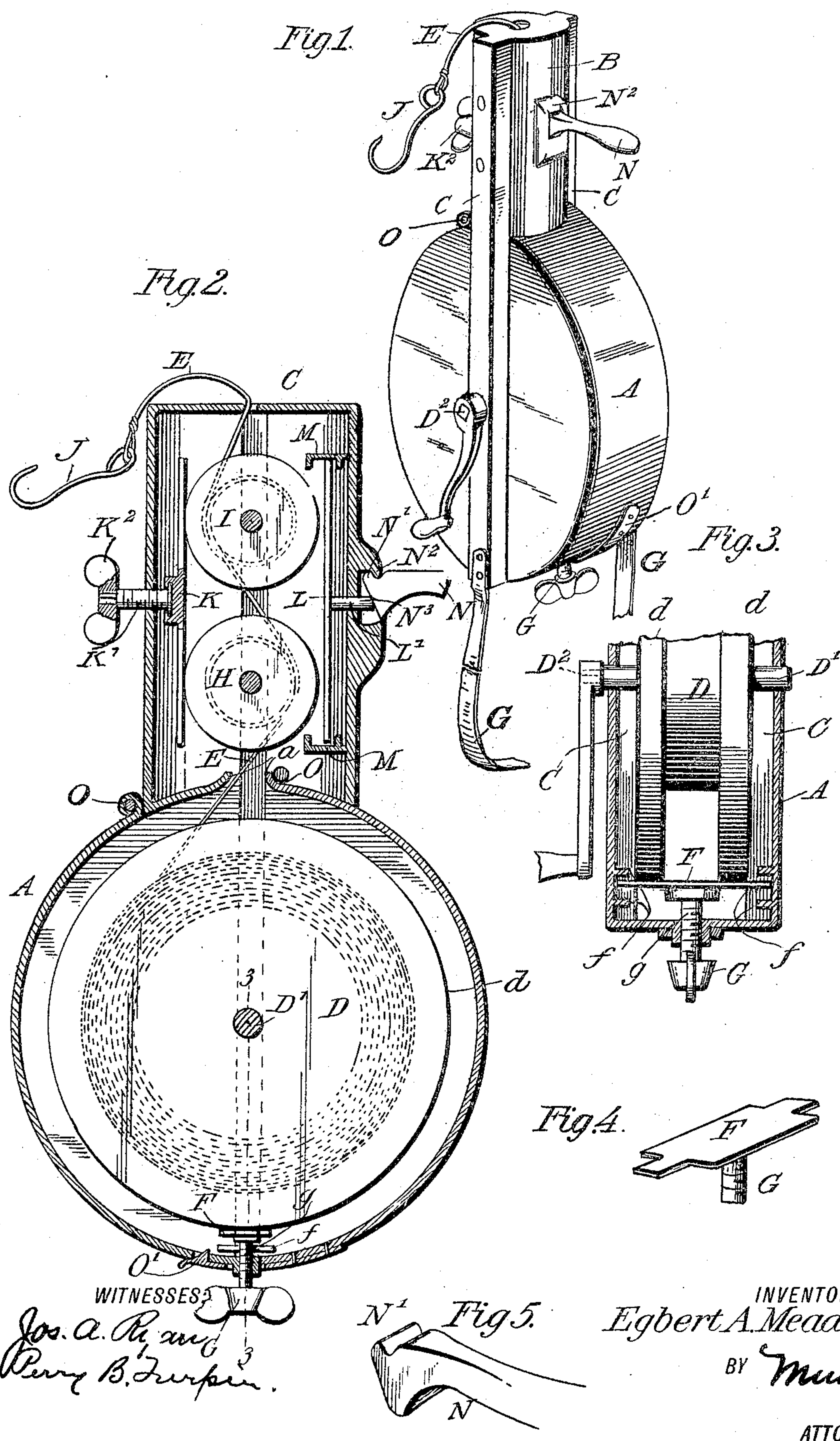
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PATENTED AUG. 22, 1905.

E. A. MEADERS, JR.

FIRE ESCAPE.

APPLICATION FILED FEB. 7, 1905.



UNITED STATES PATENT OFFICE.

EGBERT AUSWELL MEADERS, JR., OF GRENADA, MISSISSIPPI.

FIRE-ESCAPE.

No. 797,903.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EGBERT AUSWELL MEADERS, Jr., a citizen of the United States, residing at Grenada, in the county of Grenada and State of Mississippi, have made certain new and useful Improvements in Fire-Escapes, of which the following is a specification.

My invention is an improvement in fire-escapes; and it consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of the improved fire-escape. Fig. 2 is a vertical section thereof drawn transversely through the axis of the flattened cylindrical section of the casing. Fig. 3 is a detail section on about line 3 3 of Fig. 2. Fig. 4 is a detail perspective view of the brake-bar, and Fig. 5 is a detail perspective view of the hooked lever.

In carrying out my invention I employ a casing having a flattened cylindrical section A, which may be termed the "main" section of the casing, and an upright cylindrical section B, the latter being mounted on and communicating with the section A at the upper side of the latter and being made of considerably-smaller diameter than the section A, as shown. As shown, the diameter of the casing-section B is substantially the same as the axial length of the section A, and the casing is corrugated longitudinally at C, whereby to brace the same and increase its strength in use.

The section A contains the reel D, which has its stub-shafts D' journaled in the opposite corrugations C, and one of the stub-shafts D' is provided with a squared socket D² to receive a crank-handle, whereby the reel may be rewound when desired. The reel is also provided with the end flanges d, between which the line E is wound, and these end flanges are pressed upon by the brake-bar F. This brake-bar F is suitably guided at its ends by the side plates of the casing-section A. As shown, the ends of the brake-bar F extend within the corrugations C below the reel D and are thereby held from movement in the direction of the circumference of the reel, and inwardly-projecting lugs f lap above and below the brake-bar F and cooperate with the corrugations C in preventing any considerable displacement of the brake-bar F. This brake-bar F is preferably of spring material and is operated by a screw G, which threads at g in the casing and bears at its inner end against

the spring brake-bar F at a point between the flanges d of the reel D, so the brake-bar may be pressed with any degree of force against the flanges of the reel and yet will possess sufficient resilience to avoid any injury to the flanges d of the reel because of any slight inequalities in the surface of said flanges. By this construction the operator carried by the sling G from the casing may exert any desired tension upon the line E in order to assist in controlling the descent.

The line E passes from the reel D up through an opening a in the top of the casing A and thence into the lower end of the casing-section B, whence it passes around a lower guide-pulley H in one direction, thence in the opposite direction around an upper guide-pulley I, and thence out of the top of the casing-section B, and preferably has a suitable hook J, whereby it may be secured to a window-sill or to any convenient object within the room from which the person desires to escape. The line E may preferably be a small cable-wire of sufficient length to bear the weight of a descending person. By passing the line in reverse directions about the guide-pulleys H and I it will be noticed I relieve to a great extent the strain upon the reel D, and I also prefer to employ brake devices operating in connection with the guide-pulleys H and I and which I will now describe. The brake devices for the pulleys H and I comprise two brake-bars K and L, the brake-bar K being pressed by a screw K' against the flanges of the pulleys H and I to any desired extent preliminary to starting on the descent. It is not intended to manipulate this brake-bar K during the descent of the escaping person; but I provide the brake-bar L, held and movable at its ends in suitable keepers M, formed by lugs carried by the casing and arranged to be set in contact with the flanges on the guide-pulleys H and I by a lever N, operating upon a stem L', projecting from the bar L at a point midway between the pulleys H and I. This lever N is hooked at one end at N' to engage in suitable seats at N² above the stem L' of the brake-bar L, so the lever may be applied and removed by the operator whenever it is desired to manipulate the brake-bar L, the lever being provided with a projecting portion or cam N³ to act upon the stem L' and force the brake-bar L toward the pulleys H and I, it being preferred to make this brake-bar L of spring material, so it will yield slightly to avoid any injury to the pulleys.

The screw K' for operating the brake-bar K may be provided with a removable key or head K², such key being removed when the fire-escape is in action.

By preference one-half of the rim of the lower casing-section A may be opened and removed, it being provided with a catch O at the top and a suitable snap-fastening O' at the bottom, as shown in the drawings.

In practice the fire-escape is intended to be made of such size that it can be conveniently carried in a satchel or trunk and can be immediately brought into use whenever desired in a hotel or elsewhere. Ordinarily the main section of the casing will be about five or six inches in diameter and about two and a half inches thick or in the direction from end to end along its axis.

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

1. The improvement in fire-escapes herein described, comprising the casing having a flattened cylindrical section, and an upright cylindrical section mounted on and communicating at its lower end with the upper side of the flattened cylindrical section and provided along the opposite sides of said casing with the longitudinal corrugations, the reel journaled in the lower section and provided with flanges, the brake-bar of spring material arranged within the flattened cylindrical section and projecting at its ends into the corrugations at the opposite sides thereof, lugs above and below the opposite ends of the brake-bar, a screw operating upon the brake-bar at a point between the flanges of the reel, the upper and lower guide-pulleys in the upper cylindrical section of the casing, the brake-bar bearing upon said pulleys, means for exerting the desired tension upon said brake-bar, the spring brake-bar bearing against the flanges of the guide-pulleys, keepers in which the opposite ends of the brake-bar are movable, a stem projecting from the brake-bar between the points where it bears upon the guide-pulleys, and a lever operating upon said stem, substantially as and for the purposes set forth.

2. The combination in a fire-escape, with a

casing, of a reel journaled in the casing, and upper and lower guide-pulleys arranged above the reel the line passing from the reel around the said pulleys in reverse directions, and brake devices including a bar bearing near its ends against the guide-pulleys whereby to control the descent, substantially as set forth.

3. The combination in a fire-escape with the reel, and the guide-pulleys, of a casing having a flattened cylindrical section receiving the reel, and an upright cylindrical section communicating at its lower end with the upper side of the flattened cylindrical section, the casing having longitudinal corrugations extending alongside the flattened cylindrical section and the upright cylindrical section of the casing, and the brake-bar operating upon the reel and projecting at its ends into the longitudinal corrugations substantially as set forth.

4. The combination with a reel and a casing receiving the same, of a spring-bar bearing against the flanges of the reel, keeper devices in the casing outside of the reel and between which the ends of the brake-bar are movable, and operating devices acting on the brake-bar between the flanges of the reel, substantially as set forth.

5. The combination in a fire-escape with the reel, and the upper and lower guide-pulleys, of a brake-bar bearing adjacent to its ends upon the upper and lower guide-pulleys, and a removable operating device acting upon the bar between the said guide-pulleys, substantially as set forth.

6. The combination in a fire-escape with the casing, and the reel, of the upper and lower guide-pulleys, a brake-bar extending between the guide-pulleys and bearing at its ends against the upper and lower guide-pulleys, devices operating upon the bar between the guide-pulleys for pressing the bar against such pulleys, and keeper devices for the end of the brake-bar, substantially as set forth.

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Witnesses:

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