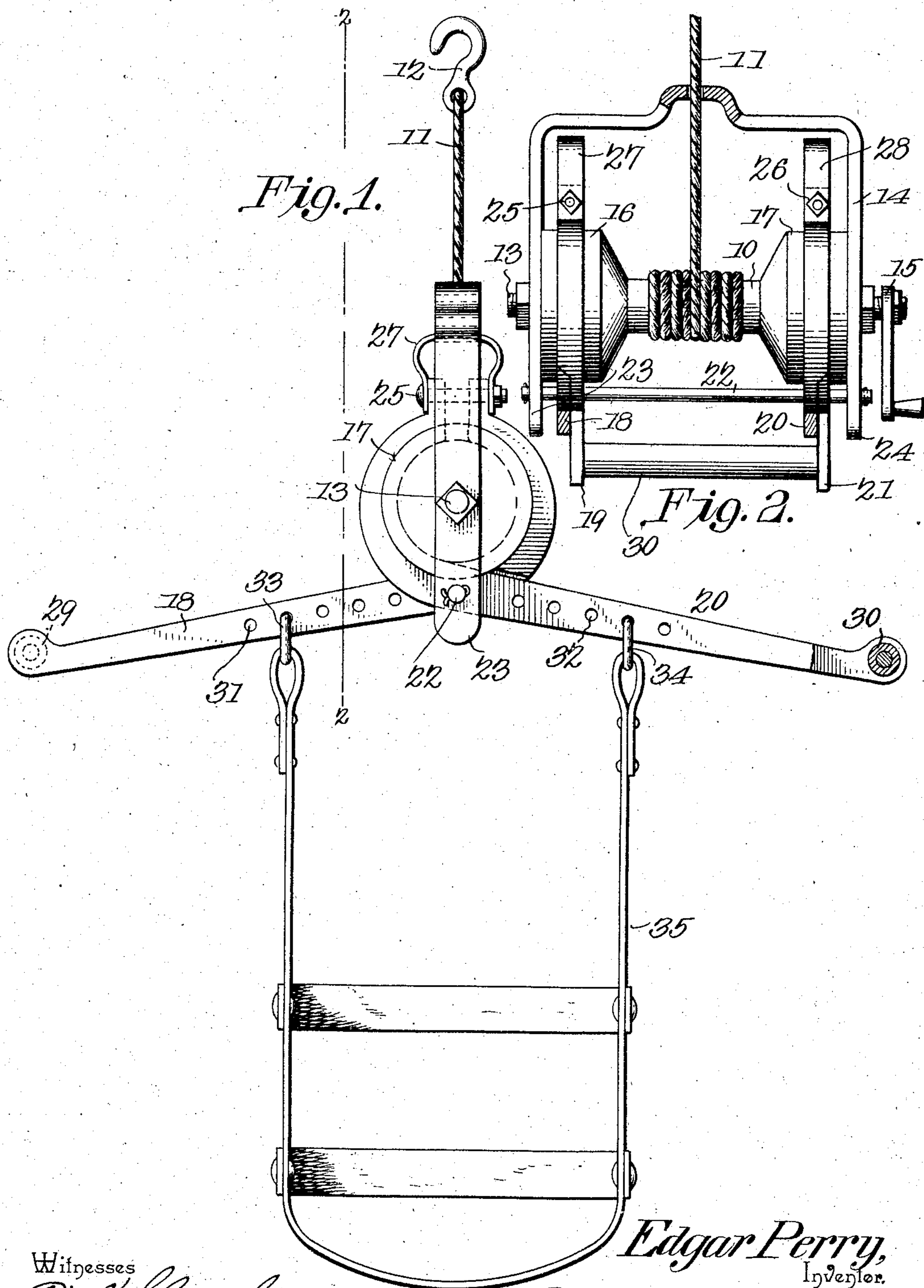


No. 790,001.

PATENTED MAY 16, 1905.

E. PERRY.
FIRE ESCAPE.

APPLICATION FILED FEB. 29, 1904.



UNITED STATES PATENT OFFICE.

EDGAR PERRY, OF CARIBOU, MAINE.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 790,001, dated May 16, 1905.

Application filed February 29, 1904. Serial No. 195,910.

To all whom it may concern:

Be it known that I, EDGAR PERRY, a citizen of the United States, residing at Caribou, in the county of Aroostook and State of Maine, have invented a new and useful Fire-Escape, of which the following is a specification.

This invention relates to devices for enabling persons to escape from burning buildings, and has for its object to simplify and improve the construction and means of operating devices of this character and produce a device which may be adjusted to the weight of the person or persons using the same.

Another object of the invention is to produce a device of this character wherein the weight of the person descending thereby is utilized to automatically regulate the tension, and thus control the speed, while at the same time so under the control of the occupant as to enable him to increase or decrease the speed at will.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage of the parts may be resorted to without departing from the principle of the invention or sacrificing any of its advantages, and the right is therefore reserved of making all the changes and modifications which fairly fall within the scope of the invention and the claims made therefor.

In the drawings thus employed, Figure 1 is a side elevation, and Fig. 2 is a front elevation of a portion of the improved device in section on the line 2 2 of Fig. 1.

In the improved device is embraced a drum 10, upon which a cable 11 of sufficient length to reach the ground from the point of descent

is wound and with a terminal hook 12 or other means for attachment to a window-sill or other portion of the building.

The drum 10 is rigidly mounted upon a shaft 13 and supported for rotation in a hanger-frame 14, which is carried over the drum and provided with a guide-aperture for cable 11. The shaft 13 is provided with a crank 15, by which to wind the cable upon the drum.

The enlarged or flanged ends 16 17 of the drum 10 are provided with annular peripheral channels, and disposed beneath the drum are two pairs of levers 18 19 and 20 21, united intermediately to a pivot-rod 22, the levers 18 19 having curved ends engaging the peripheral channel at one end from opposite sides and the levers 20 21 having curved ends engaging the channel at the other end of the drum from opposite sides. The lower ends 23 24 of the frame 14 are extended to also engage the rod 22. The free ends of the curved ends of the levers are flexibly united, as by link-bolts 25 26, the link-bolts permitting a certain degree of movement between the parts without allowing them to slip from the flanged ends of the drum. The curved ends are also united by springs 27 28 to exert a constant yielding force upon the drum to produce an automatic "brake-pressure" to prevent the fall of the apparatus when not loaded, as hereinafter explained. The longer extended ends of the pairs of levers are united by transverse bars or rounds 29 30, which serve the twofold purpose of means for uniting the spaced levers and likewise as hand-grips for the occupant of the device to control the tension, as hereinafter described. The longer arms of the lever members are provided with spaced apertures 31 32 to provide means, as by suitable hooks 33 34, for the adjustable attachment of a suspension-harness 35 of any approved form. It will be obvious that by adjusting the hooks 33 34 in the apertures 31 32 the leverage exerted upon the flanges 16 17 by the weight of the occupant of the harness 35 may be increased or decreased, as required.

The drum-levers may be of any approved size and of suitable metal to withstand the strains to which they will be subjected and

the harness and cable be likewise of approved material and of suitable strength, the cable being preferably of metal in the ordinary form.

In using the device the hook 12 will be attached to a window-sill or other convenient stationary portion of the building, the harness strapped or otherwise secured to the person, and the occupant suspended from the drum by merely climbing from the window and permitting the weight to bear upon the levers. This weight, as will be obvious, will exert a strong gripping force upon the drum and serve as a brake to control the descent, which will generally be comparatively slow, and the occupant will usually descend to the ground without the necessity for touching or otherwise manipulating the device, especially if the suspension members 33 34 are adjusted to the proper apertures 31 32, as above noted. If, however, it is desired to increase the speed, the operator can relieve the pressure and reduce the tension by merely pushing upward upon the members 29 30, and if, on the contrary, it is desired to reduce the speed of the descent or check the movement entirely a simple pull downward upon the same members will produce the desired effect by increasing the brake action upon the drum.

It will thus be obvious that a very simply-constructed easily applied and operated device is produced, under the complete control of the occupant of the suspending-harness.

If desired, the harness 35 may be so constructed that the occupant cannot fall out, and when thus constructed timid or nervous persons may use the device with perfect success, as it requires no manipulation by the occupant while descending, the action being entirely automatic. Thus persons who may be overcome by fear and who lose consciousness while descending will be rescued just as surely as those possessing all their faculties.

The suspension-frame 14 is an important feature of the invention, as by this means the steadiness of the drum is materially increased and its perfect control assured and the safety of the device correspondingly increased.

The device may be employed by sign-writers when placing signs upon large structures or in otherwise inaccessible localities by painters of steeples and towers, in building and repairing bridges, stacks, tanks, and similar structures, and for many other similar purposes and will be found very convenient for use in such classes of work.

To increase the grip, the curved ends of the levers may be provided with leather, rubber, or other similar material where they engage the drum.

Having thus described the invention, what is claimed is—

1. In a device of the class described, a hanger-frame, a drum-carrying shaft journaled in the same, a rod connecting the sides of the frame below said drum, brake-levers mounted pivotally upon said rod and having outwardly-extending arms and upwardly-extending curved ends engaging the flanges of the drum, and resilient yokes connecting the extremities of said curved ends.

2. In a device of the class described, a hanger-frame, a rope-carrying drum journaled in said frame, drum-engaging brake-levers fulcrumed below said drum, and resilient yokes connecting the extremities of the drum-engaging arms of said levers.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EDGAR PERRY.

Witnesses:

C. C. KING,
R. F. GARDNER