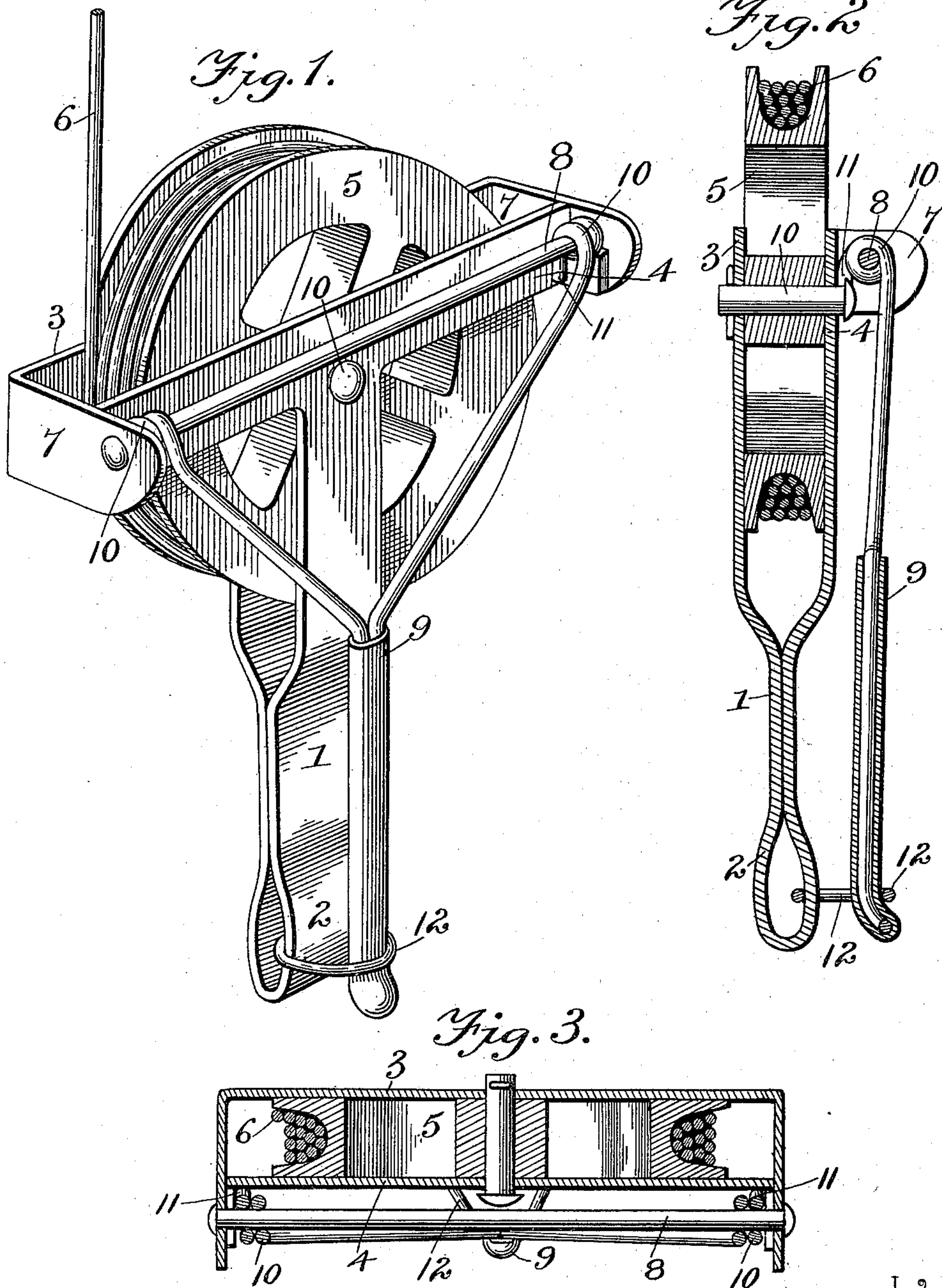


(No Model.)

F. UNDERWOOD.
FIRE ESCAPE.

No. 604,096.

Patented May 17, 1898.



Witnesses
Edwin G. McKee
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By his Attorneys,

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UNITED STATES PATENT OFFICE.

FRANKLIN UNDERWOOD, OF BURR'S MILLS, NEW YORK.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 604,096, dated May 17, 1898.

Application filed April 26, 1897. Serial No. 634,033. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN UNDERWOOD, a citizen of the United States, residing at Burr's Mills, in the county of Jefferson and State of New York, have invented a new and useful Fire-Escape, of which the following is a specification.

The invention relates to improvements in fire-escapes.

10 The object of the present invention is to improve the construction of fire-escapes and to provide a simple, inexpensive, and efficient one which will be capable of enabling a person to lower himself readily from a building
15 to the ground and to provide an effective brake adapted to be controlled by the person descending and capable of rendering his descent easy.

20 The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and pointed out in the claims hereto appended.

25 In the drawings, Figure 1 is a perspective view of a fire-escape constructed in accordance with this invention. Fig. 2 is a vertical sectional view. Fig. 3 is a horizontal sectional view.

30 Like numerals of reference designate corresponding parts in the several figures of the drawings.

1 designates a frame provided at its bottom with a loop 2 and composed of substantially T-shaped sides 3 and 4, between which
35 is journaled a wheel 5, forming a drum and receiving a line 6. The sides of the frame are arranged substantially vertical, being permanently connected at their lower ends and having their upper portions or ends compressible for engaging the wheel. By arranging the frame in this manner the weight supported by it does not affect the application of the brake hereinafter described. The side
40 3 has the terminals 7 of its horizontal portion bent at right angles and extended across the periphery of the wheel beyond the side 4 to form bearings for a rod 8, upon which a brake-lever 9 is fulcrumed. The terminals 7 are perforated for the reception of the rod 8, and
45 the ends of the horizontal or top portion of the side 4 are bent at an angle and fit against

the inner faces of the terminals 7 and are recessed to clear the rod 8.

The wheel, which is mounted on a pivot or axle 10, has its periphery grooved to receive 55 the line 6, which preferably consists of a wire or cable, and the rotation of the wheel and the consequent unwinding of the line is regulated by the lever 9, which consists of a stem or handle and diverging arms. The terminals 60 of the arms are coiled around the rod to form springs 10 and are extended beyond the same to provide lugs 11, which engage the outer face of the side 4 and force the latter against the adjacent side of the wheel. The lever also 65 operates to draw the other side of the frame against the wheel, which is clamped and retarded in its rotation. The springs 10 cause the sides of the frame to engage the wheel yieldingly and to apply the pressure gradually to avoid any abrupt stopping of the wheel, and thereby eliminate any jerky motion. 70

The loop 2 at the lower end of the frame is adapted to receive a belt or strap whereby the 75 device is attached to a person. The handle of the lever is within easy reach of the person, who can readily manipulate the brake, and when desired the lever may be locked against the bottom of the frame by a sliding ring or 80 loop 12, mounted on one side of the loop of the frame and adapted to be engaged over the handle of a brake-lever.

It will be seen that the fire-escape is simple and inexpensive in construction, that the free 85 end of the line may be readily secured to a building, and that the device, which may be quickly attached to a person, will enable him to lower himself readily to the ground, and that the descent will be easy and devoid of 90 any jerking motions.

What I claim is—

1. In a device of the class described, the combination of a wheel, a frame composed of two substantially T-shaped sides permanently connected at the bottom and receiving the wheel between their upper portions, one of the sides having the terminals of its top portion extended across the periphery of the wheel, a rod mounted on the extended terminals of the said side and extending across the outer face of the other side, 95 100

and a lever fulcrumed on the rod and engaging the outer face of the adjacent side of the frame, substantially as and for the purpose described.

5 2. In a device of the class described, the combination of a wheel forming a drum and adapted to receive the line, a frame composed of two substantially vertically disposed sides permanently connected at the bottom and
10 having the wheel journaled between their upper ends, the latter being compressible to clamp and release the wheel, a rod carried by one of the sides, and a lever fulcrumed on the rod, provided with a spring-coil to receive
15 the same and engaging the other side of the frame yieldingly, whereby the two sides of the frame are caused to engage the wheel yieldingly, substantially as described.

3. In a device of the class described, the
20 combination of a wheel, a frame provided at its bottom with a loop, and composed of two substantially T-shaped sides having the wheel arranged between them, one of the sides having the terminals of its top portion extended
25 across the periphery of the wheel, a rod jour-

naled on the extended ends, a substantially Y-shaped brake-lever fulcrumed on the rod, having its arms coiled around the same to form springs and extended to provide lugs, and a ring mounted on one side of said loop
30 and arranged to engage the handle of the lever, substantially as described.

4. In a device of the class described, the combination of a wheel, a frame composed of two sides having the wheel journaled between them, one of the sides being extended
35 across the periphery of the wheel at opposite sides thereof, a rod carried by the extended portions of the frame, and a lever having diverging arms coiled around the rod and extended to engage the frame, substantially as
40 and for the purpose described.

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

FRANKLIN UNDERWOOD.

Witnesses:

W. W. KELLEY,
W. U. ARCHER.