

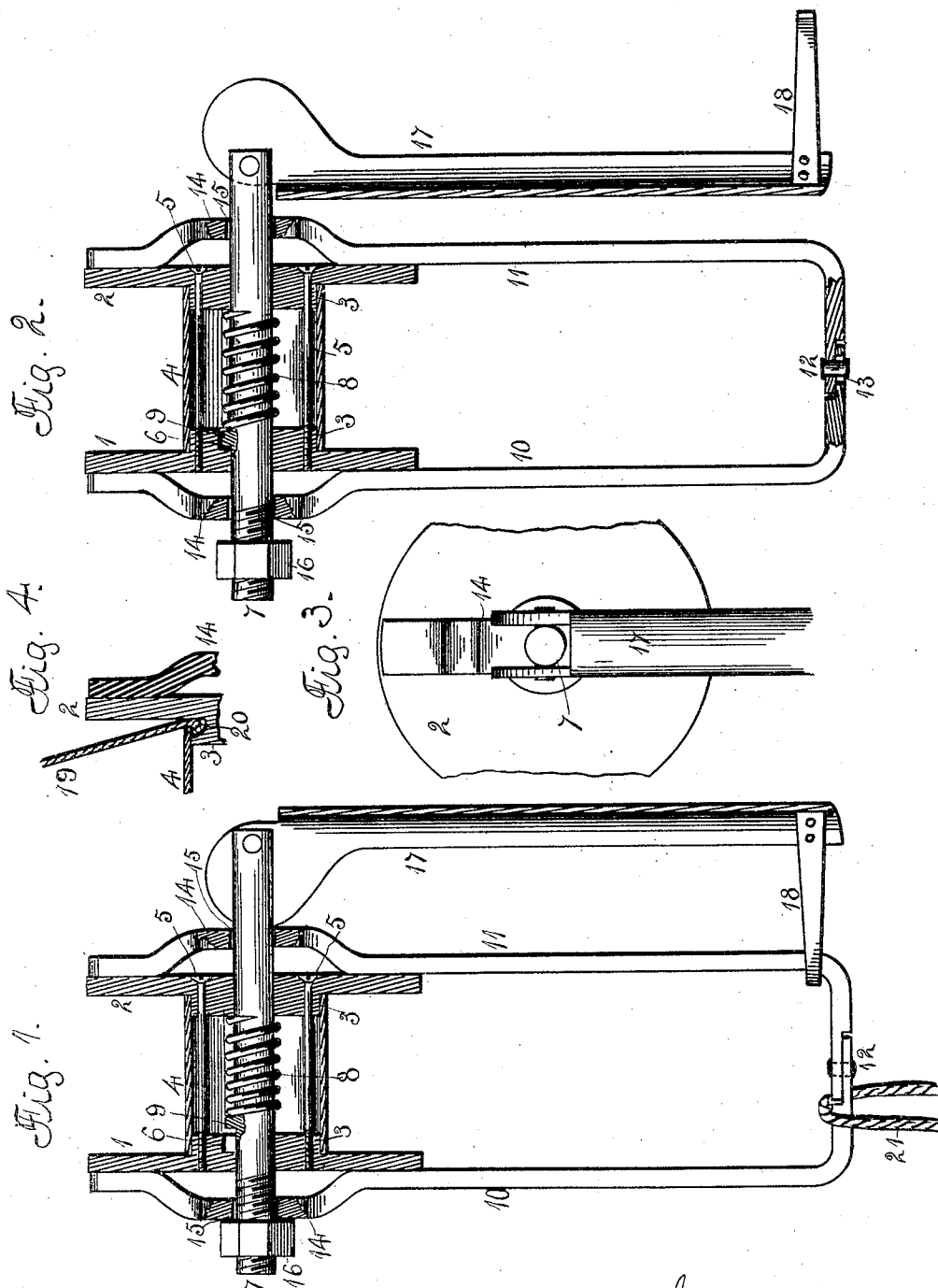
No. 775,704.

PATENTED NOV. 22, 1904.

O. B. HOWE.
FIRE ESCAPE.

APPLICATION FILED OCT. 16, 1903.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

ORLANDO B. HOWE, OF LANARK, ILLINOIS.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 775,704, dated November 22, 1904.

Application filed October 16, 1903. Serial No. 177,352. (No model.)

To all whom it may concern:

Be it known that I, ORLANDO B. HOWE, a citizen of the United States, residing at Lanark, in the county of Carroll and State of Illinois, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification.

The object of this invention is to construct a fire-escape comprising a rotatable drum against the outer surfaces of which is applied friction in order that the drum may be allowed to rotate with more or less rapidity, according to the will of the operator.

In the accompanying drawings, Figure 1 is an elevation, partly in section, in which friction is applied to the drum. Fig. 2 is a similar elevation in which a positive connection is formed between the drum and cam-lever. Fig. 3 is a face representation of the drum. Fig. 4 is a section of the drum, showing the connection of the cable therewith.

The drum is composed of two heads 1 and 2, having central projections 3. A shell 4 is located outside of the projections and between the heads and is held in place by the screws 5, connecting the heads. The projection of the head 1 has a recess 6 for a purpose to appear hereinafter. Each head of the drum has a central opening, within which is located a shaft 7. A coiled spring 8 surrounds the shaft 7, one end resting against the projection 3 of the head 2 and its other end against a stud 9, extending from the shaft 7. A yoke comprises the sections 10 and 11, having a movable connection by means of the pin 12 and slot 13. The free end of the section of the yoke has a portion 14 bent out of a direct line with the side bars and has a hole 15 through said portion. The sections of the yoke are placed in connection with the shaft 7 before they are connected together. One end of the shaft 7 has a screw-threaded section, upon which is placed a nut 16. To the end of the shaft 7 is pivoted a cam-lever 17, having a hook 18 connected to its free end.

At Fig. 4 is shown the method of attaching the cable 19 to the drum. The projection 3 of the head 2 has a recess 20 therein, which is partly covered by the shell 4, and the knotted end of the cable is placed in the recess and

held from being drawn out by the shell. In use the hook of the cam-lever is placed in engagement with the branch 11 of the yoke, which will hold the cam-surface in contact with branch 11. By advancing the nut 16 on the shaft 7 the branches of the yoke will be held in contact with the outer faces of the drum, and the pressure applied can be varied by the nut, when the parts will appear as shown at Fig. 1. It will be noticed that the stud 9 on the shaft 7 is free of the recess 6. The fire-escape is now ready for use. The end of the cable 19 is fastened to the building and the rope 21 passed around the body of the person to be lowered. If the way is clear, no attention need be paid to the apparatus, as it was previously adjusted to the weight of the person to be lowered. In the descent the speed can be checked by pressing the free end of the cam-lever toward the yoke, which will increase the force exerted by the cam-surface against the yoke, and consequently against the drum. By moving the free end of the cam-lever away from the yoke the force exerted by the cam will be lessened, which will allow a quicker descent. By disengaging the cam-lever from the yoke it may be turned about into the position shown at Fig. 2, thereby acting as a crank by which the shaft may be revolved. The spring 8 will force the stud 9 into the recess 6, thereby forming a connection between the shaft and drum, and by revolving the shaft the cable can be wound upon the drum, and when the cam-lever is used to exert pressure on the drum the stud will be withdrawn from the recess, thereby breaking the connection between the shaft and drum. It will be noticed that each branch of the yoke bears upon one of the heads of the drum each side of its center, which allows the center portion 14 of the branch to yield, thereby imparting pressure to the drum more evenly.

I claim as my invention—

1. In a fire-escape, the combination of a shaft, a drum mounted on the shaft, a cam-lever pivotally connected to one end of the shaft, a yoke supported by the shaft outside of the drum, the inner face of one of the heads of the drum provided with a recess, a projec-

tion on the shaft capable of entering the recess and a spring surrounding the shaft and located between the projection and the other head of the drum.

- 5 2. In a fire-escape, the combination of a shaft, a drum mounted on the shaft, a cam-lever pivotally connected to one end of the shaft, a nut having a screw-thread connection with the other end of the shaft, a yoke, the
10 arms of which are mounted on the shaft between the cam-lever and drum and between the nut and drum and having points of en-

gagement with the drum near its periphery, leaving its center portion free of the drum, the inner face of one of the heads of the drum 15 provided with a recess, a projection on the shaft capable of entering the recess, and a spring surrounding the shaft and located between the projection and the other head of the drum.

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Witnesses:

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