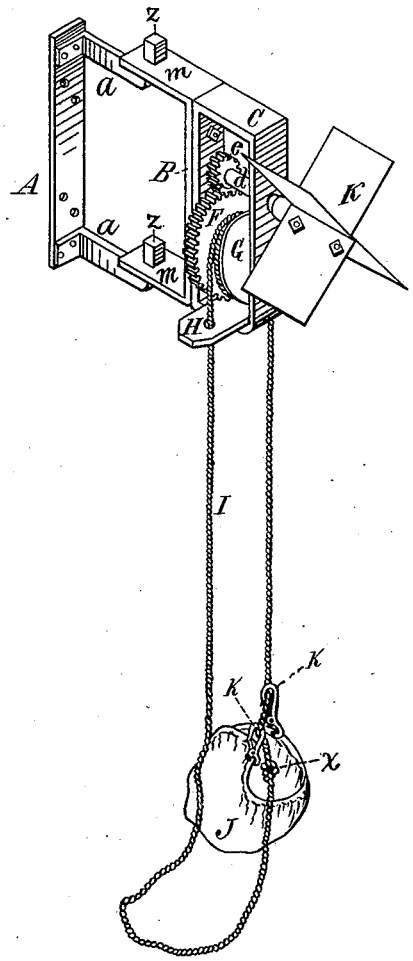
M. NEVILLE.

FIRE-ESCAPE.

No. 184,978. Patented Dec. 5, 1876.



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UNITED STATES PATENT OFFICE.

MICHAEL NEVILLE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **184,978**, dated December 5, 1876; application filed February 7, 1876.

To all whom it may concern:

Be it known that I, MICHAEL NEVILLE, of Boston, in the county of Suffolk and State of Massachusetts, have invented a certain new and useful Improvement in Fire-Escapes, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is an isometrical perspective view.

My invention relates to that class of fire-escapes which are portable; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a more effective device of this character is produced than is now in ordinary use.

The nature and operation of my invention will be readily obvious to all conversant with such matters from the following description:

In the drawing, A represents a bar or plate, which is designed to be attached permanently to the building, near the outer side of a window, but may be secured in any other convenient place or manner for ready use. This plate is provided with two horizontally-projecting arms, *a a*, having the hooks *z z*. Journaled in the frame B C there is a gear, F, intersecting with a smaller gear, *e*, disposed on the shaft *d*. This shaft extends beyond the frame, and is provided at its outer end with the fan K. A fast pulley, G, is disposed on the same shaft with the gear F, and provided with an endless rope, I, passing through holes in the guide-plate H. A canvas sack or carriage, J, provided with two hooks, K K, is secured to one section of the rope, being prevented from slipping downwardly on the same by means of the knot *x*. The frame B C is provided with two arms, *m m*, having holes in their outer ends, into which hooks *z z* are inserted, as shown.

In the use of my invention the frame-work B C is first securely fastened, either by attaching it to the plate A, as described, or in some other convenient manner. The sack J is then attached to the rope by the hooks K K, the knot *x* being arranged for this purpose near the plate H. If, now, a person is placed in the sack, it will be obvious that the cord, acting upon the pulley, will cause the gears F *e* to be revolved, permitting the sack to descend, the fan K, by the resistance of the atmosphere, operating to retard the movements of the gears and pulley, and thus regulate the fall of the sack in a manner which will be readily understood from the foregoing description.

It will also be obvious that the movements of the sack may be partially regulated by means of that section of the rope to which it is not attached, either by the person in the sack, or by others stationed on the ground or in the vicinity of the frame-work B C.

Two sacks may be used, one being attached to each of the ropes.

Having thus explained my invention, what I claim is—

The improved fire-escape described, consisting of the frame B C, provided with the arms *m m*, the shaft *d*, provided with the gear *e* and fan K, the gear F, pulley G, cord I, and sack J, provided with the hooks K K, combined and arranged to operate substantially as set forth and specified.

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