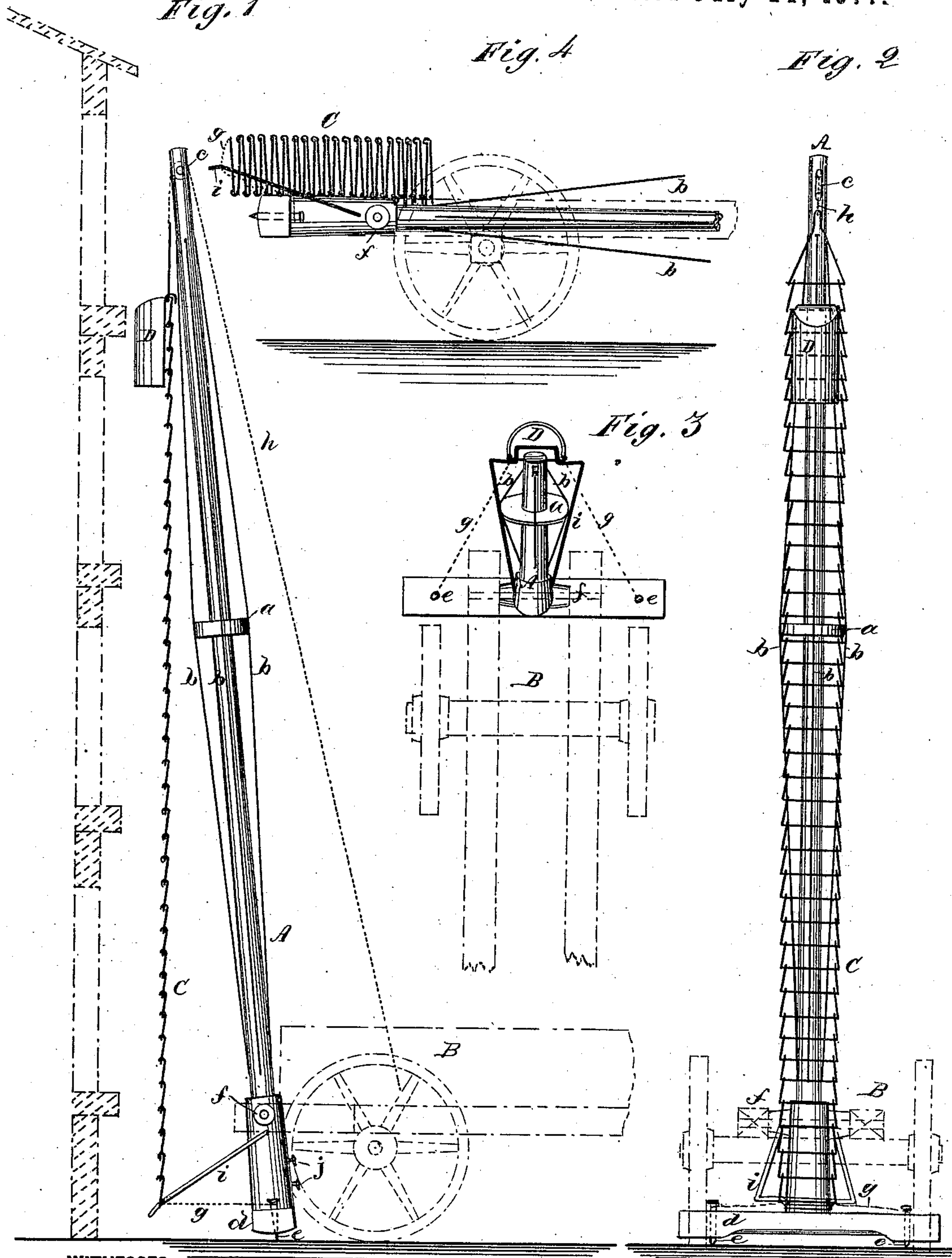


H. B. WALBRIDGE.
FIRE-ESCAPE LADDER.

No. 193,431.

Patented July 24, 1877.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

HENRY B. WALBRIDGE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN FIRE-ESCAPE LADDERS.

Specification forming part of Letters Patent No. **193,431**, dated July 24, 1877; application filed May 28, 1877.

To all whom it may concern:

Be it known that I, HENRY B. WALBRIDGE, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Ladder, of which the following is a specification:

Figure 1 is a side elevation of my improved ladder in position for use. Fig. 2 is a front elevation. Fig. 3 is a plan view. Fig. 4 is a partial side elevation, showing the ladder in position for transportation.

Similar letters of reference indicate corresponding parts.

The object of my invention is to provide a portable and convenient ladder, more particularly designed for use as a fire-escape, but which may be used for other purposes.

In the drawing, A is a pole, having a disk or bridge piece, *a*, at or near its center, over which the stay-rods *b* are stretched, which rods are fastened to the pole near its ends, and serve to stiffen and strengthen it. In one end of this pole there is a pulley, *c*, and to the other end a cross-tree, *d*, is attached, which is provided with two spikes or points, *e*. This pole in the present case is hinged or pivoted to a truck, B, (shown in dotted lines at *f*.)

A jointed or rope ladder, C, is attached to the cross-tree *d* by means of ropes or chains *g*, and to the free end of the said ladder a rope or chain, *h*, is attached, which runs over the pulley *c* and downward toward the foot of the ladder, and is operated by hand or by means of a suitable windlass.

A brace, *i*, is pivoted to the pole A, which is inserted in the first joint of the ladder, to keep it the proper distance from the pole.

When the ladder is folded together for transportation it appears as in Fig. 4, and when the ladder is used its proportions are such that the weight of its base, together with that of the folded ladder, nearly or quite counterbalance that part of the pole lying above the pivot *f*, so that when the ladder is to be used little effort will be required to right the pole, and when righted the jointed ladder may be easily raised by drawing the rope or chain *h*, and sustained by fastening the said rope around the pins *j* at the base of the pole.

In a case of fire, when invalids or timid persons are to be removed from upper parts of buildings, a box or basket, D, is provided, which is secured to the ladder by means of a hook. This box, together with the ladder, may be raised and lowered by means of the rope or chain *h*.

I have described my improved ladder as being used in connection with a truck, and, although it is most conveniently used in this way, it may be used to great advantage without a truck.

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

The pole A, having the cross-tree *d* and pulley *c*, the jointed ladder C, and rope *h*, in combination, substantially as herein shown and described.

HENRY B. WALBRIDGE.

Witnesses:

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