

C. THOMPSON.
Fire-Escape Ladders.

No. 157,889.

Patented Dec. 15, 1874.

Fig: 1.

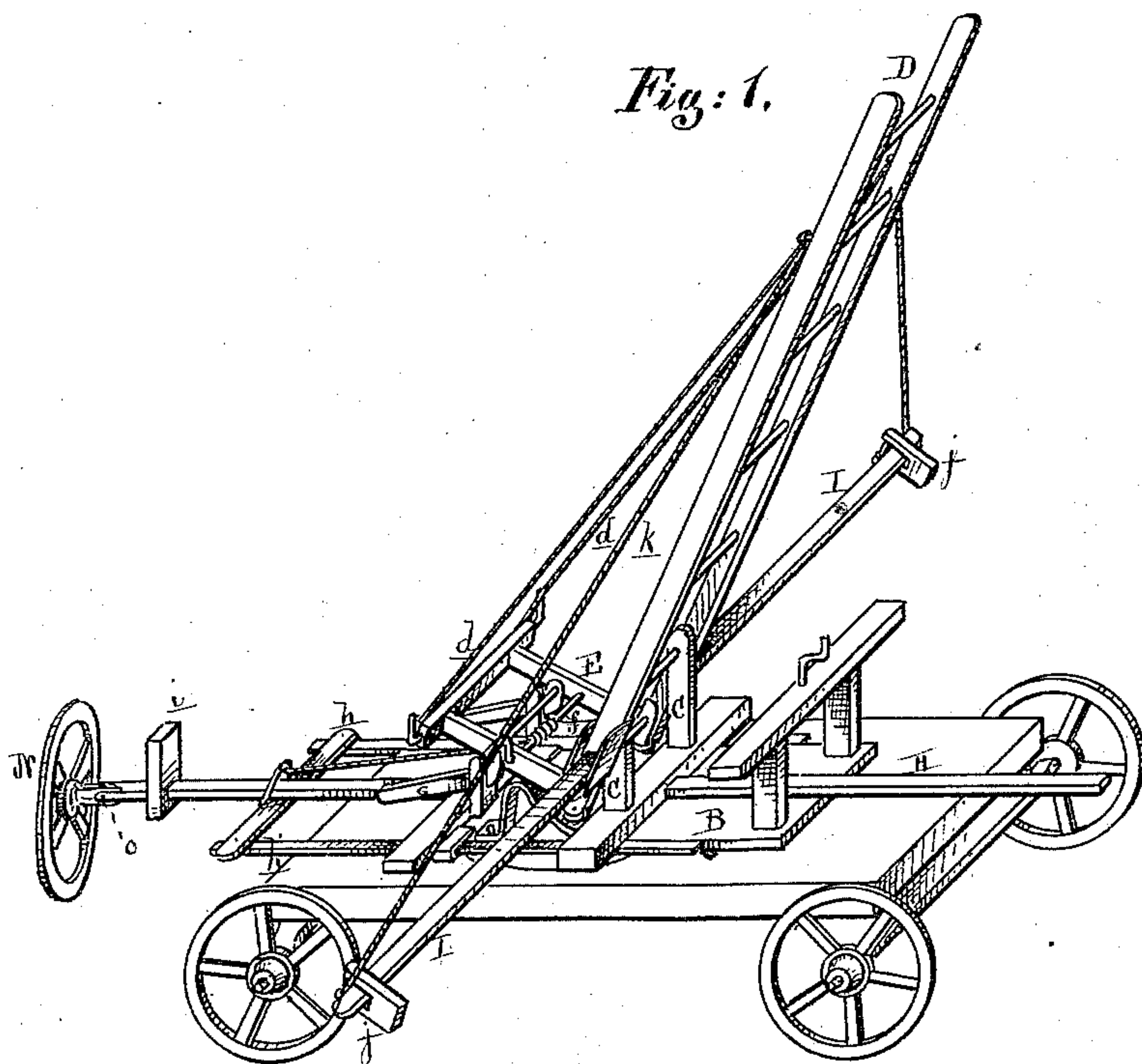
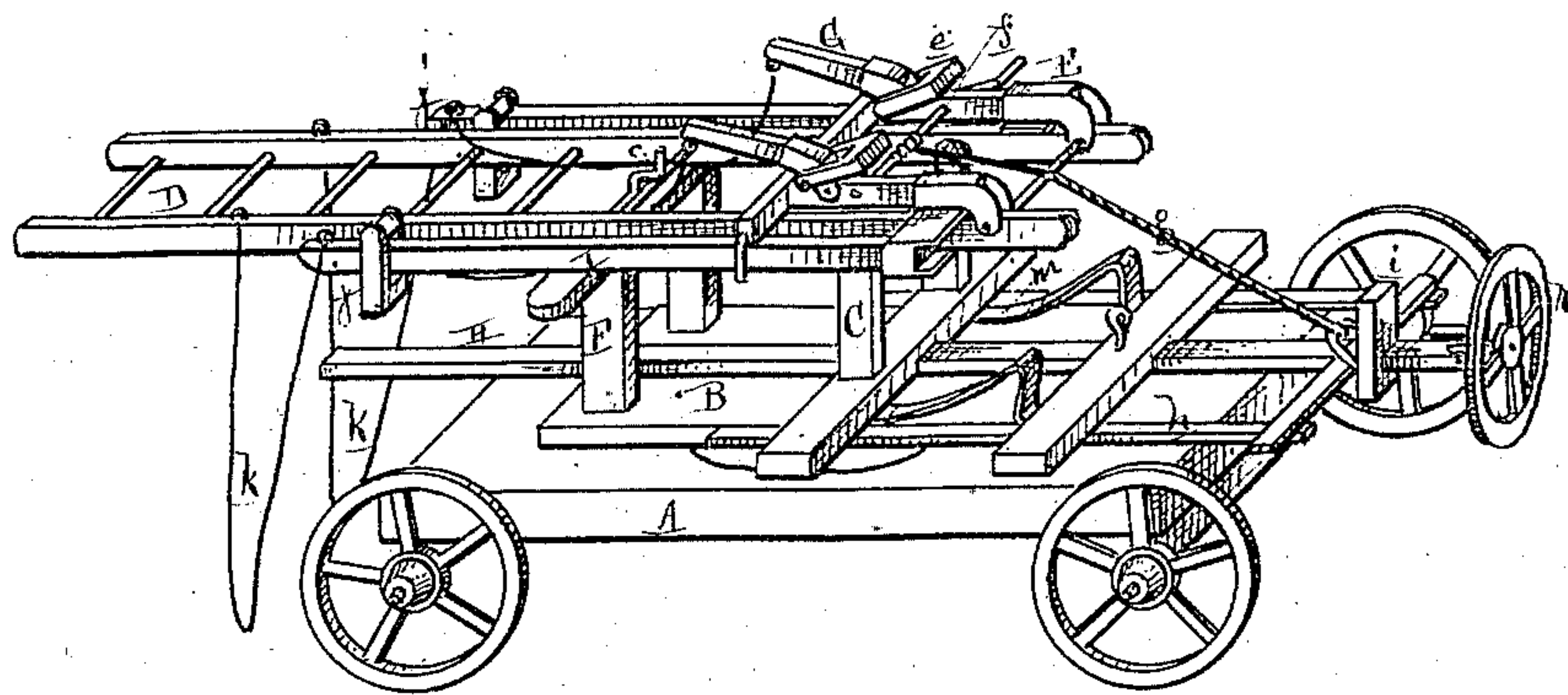


Fig: 2.



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Edward Barthel.

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Fig:3.

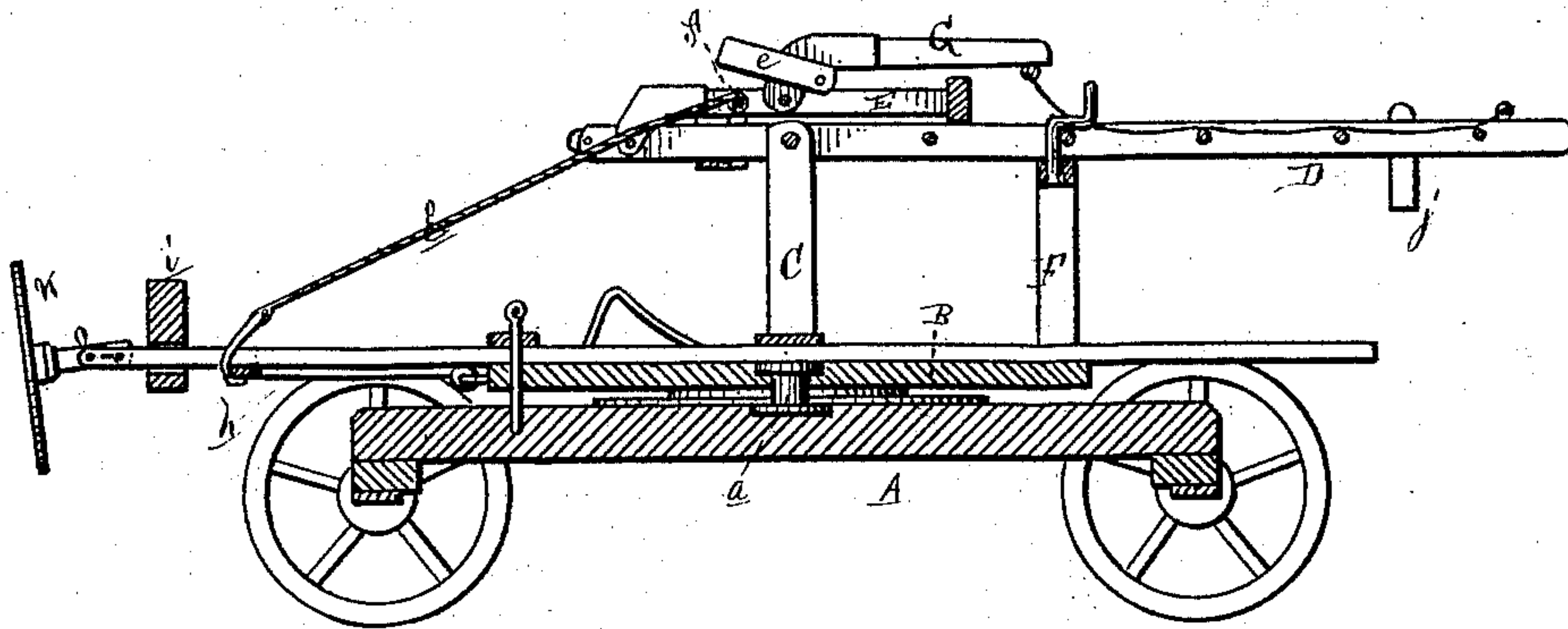
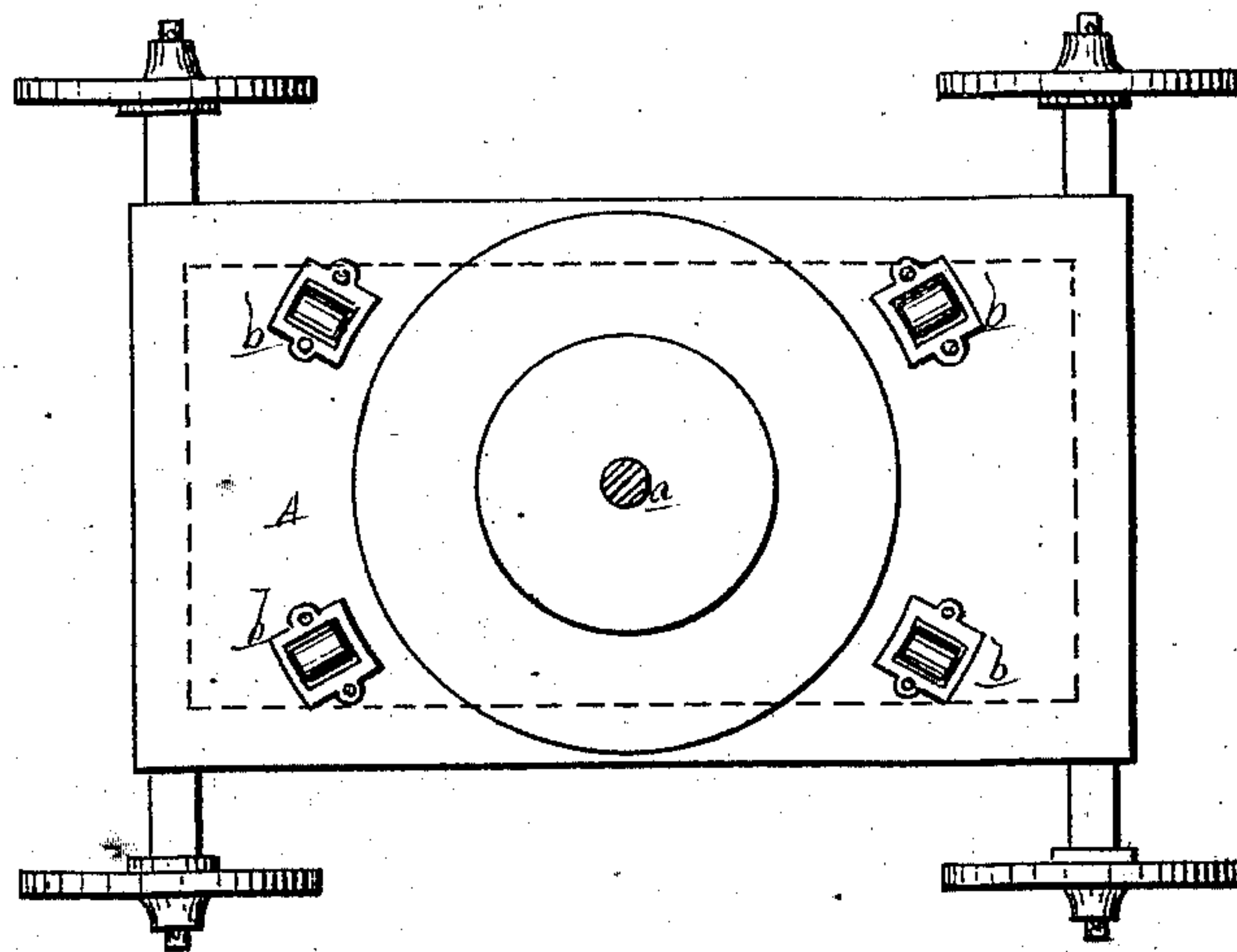


Fig: 4.



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UNITED STATES PATENT OFFICE.

CHARLES THOMPSON, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN FIRE-ESCAPE LADDERS.

Specification forming part of Letters Patent No. 157,889, dated December 15, 1874; application filed October 24, 1874.

To all whom it may concern:

Be it known that I, CHARLES THOMPSON, of Chicago, in the county of Cook and State of Illinois, have invented an Improved Fire-Escape Ladder, of which the following is a specification:

The nature of this invention relates to an improvement in that class of ladders which are mounted on trucks for transportation to the place where required, and are raised to position without removing the ladder from the truck.

The invention consists in the peculiar construction and arrangement of the ladder and its supporting-frames on a turn-table pivoted on the truck, and in the devices for balancing the ladder when raised.

Figure 1, Sheet 1, is a perspective view of the ladder as raised. Fig. 2 is a perspective view of the same folded down for transportation. Fig. 3, Sheet 2, is a longitudinal vertical section through the center of Fig. 2. Fig. 4 is a plan of the vehicle or truck, showing the king-bolt of the turn-table in cross-section.

In the drawing, A represents a truck, mounted on four wheels, and having a solid bed, on which a turn-table, B, is pivoted by a central king-bolt, *a*. The turn-table is supported by and turns upon four friction-rollers, *b*, Fig. 4, journaled in sockets in the bed. C are two standards at the sides of the center of the turn-table, to the tops of which a ladder, D, is pivoted by one of its iron rounds. The foot of the ladder has an open frame, E, pivoted to its foot in such a manner that it can be extended to a right angle therewith, or be folded flat upon it, as seen in Figs. 2 and 3, when the ladder is lowered, in which case it is supported by a frame, F, rising from the fore part of the bed-plate or turn-table B, which frame has a turn-buckle, *c*, on its girt, to turn over a round and secure the ladder.

The frame E is held at a right angle with the ladder, when the ladder is raised, by two check-ropes, *d*; and to each side bar is pivoted a folding leg, G, inclined when opened

out, and carrying a weight, *e*, which slides out to the end of the said leg when opened out. These weights serve to counterbalance the long end of the ladder when raising it, thereby enabling it to be handled by few men.

The ladder is raised up by a windlass, *f*, in the frame E, having a rope, *g*, which connects to a bail on the front end of an extension-frame, *h*, sliding in the sides of the turn-table. The frame *h* is made extensible, in order to give the windlass-rope a proper angle to pull on, which varies with the length of ladder used.

An extensible bar, H, sliding back from the turn-table, and fitted with a sliding weight, *i*, serves as a lever to turn the ladder and turn-table into the direction or position, as well as a counter-balance for the ladder.

A balance-bar, I, is pivoted to the foot of the ladder, at each side, so that it can be folded flat against it, or thrown out to a right angle therewith when the ladder is raised. Each bar I has a sliding weight, *j*, and is fitted with a check-rope, *k*, connecting its outer end with the upper part of the ladder, to guy the ladder and balance it when standing in a gutter or on uneven ground, by shoving out the weight on the bar of the higher side. When these bars are folded in, a hook, *l*, at each end of the frame E drops over them and keeps them in place.

The foot of the ladder has a pair of friction-wheels, which roll upon segments *m* when the ladder is being raised.

The end of the sliding bar H carries a fifth-wheel, *n*, which should be of sufficient diameter to reach to the ground, and its fulcrum-pin is joined to the bar H by a hinge, *o*; thus that the wheel may be folded upon the bar H while the fire-escape ladder is transported.

The ladder, being placed upon a turn-table, is quickly turned to any position, which would otherwise be difficult in a narrow street.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The frame E, legs G G, and weights *e e*, in combination with the ladder D, substantially as and for the purpose described.

2. The combination, with the standards C C and segments *m*, of the ladder D, provided on its lower ends with friction-rollers, substantially as described and shown.

3. The combination of the turn-table B, pivoted to the bed of a truck, A, and carry-

ing the standards C C and frame F, with the ladder D, provided with friction-rollers on its lower ends, and balance-bars I I, sliding weights *j j*, and guy-ropes K K, substantially as and for the purpose set forth.

CHARLES THOMPSON.

Witnesses:

JAS. P. IVES,

HERMAN A. KROESCHELL.