

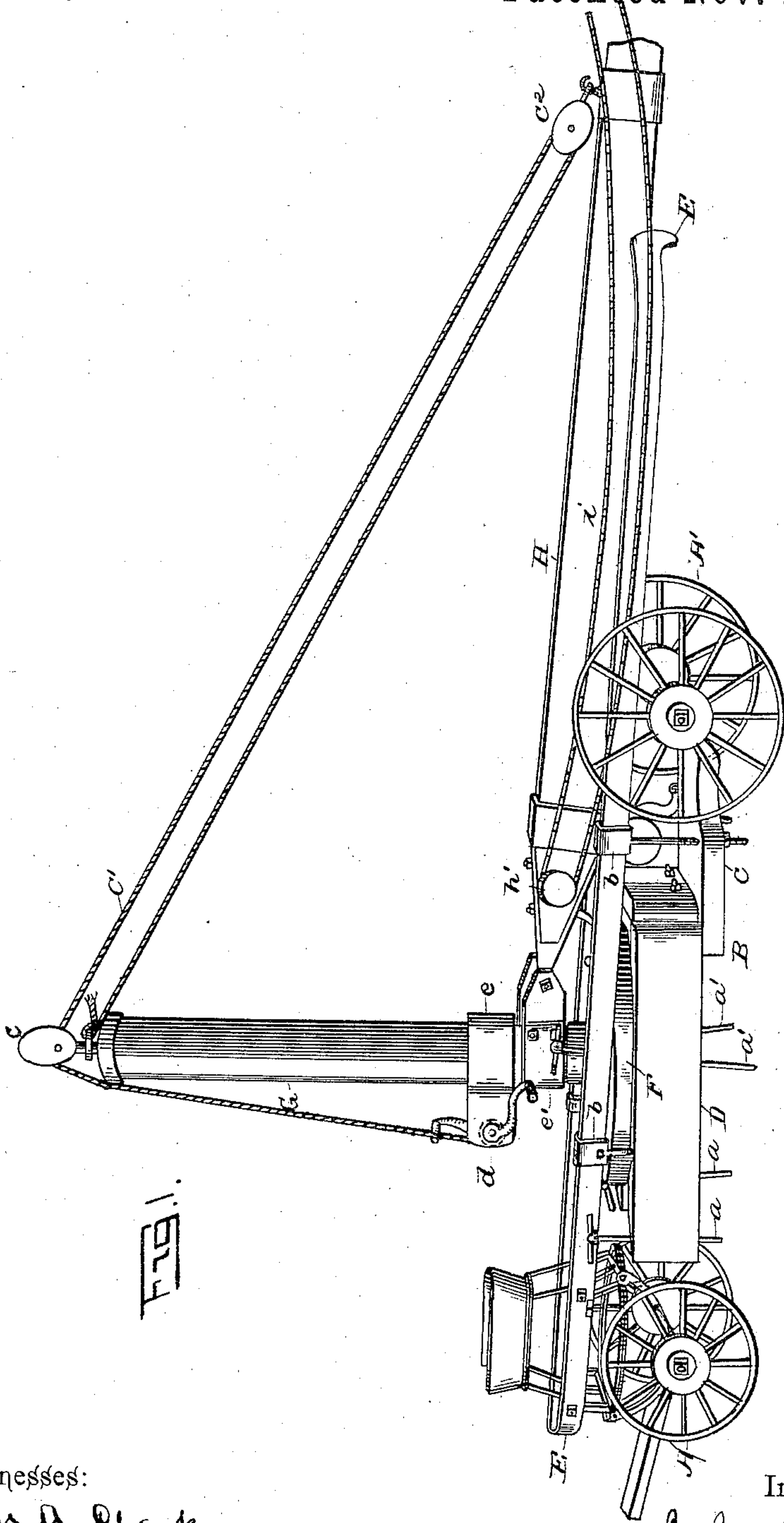
(No Model.)

2 Sheets—Sheet 1.

J. FLEMING.
FIRE ESCAPE.

No. 331,191.

Patented Nov. 24, 1885.



Witnesses:
Morris A. Clark
John Schneider

Inventor, :
John Fleming
by
Geo. W. Lutz Attorney :

(No Model.)

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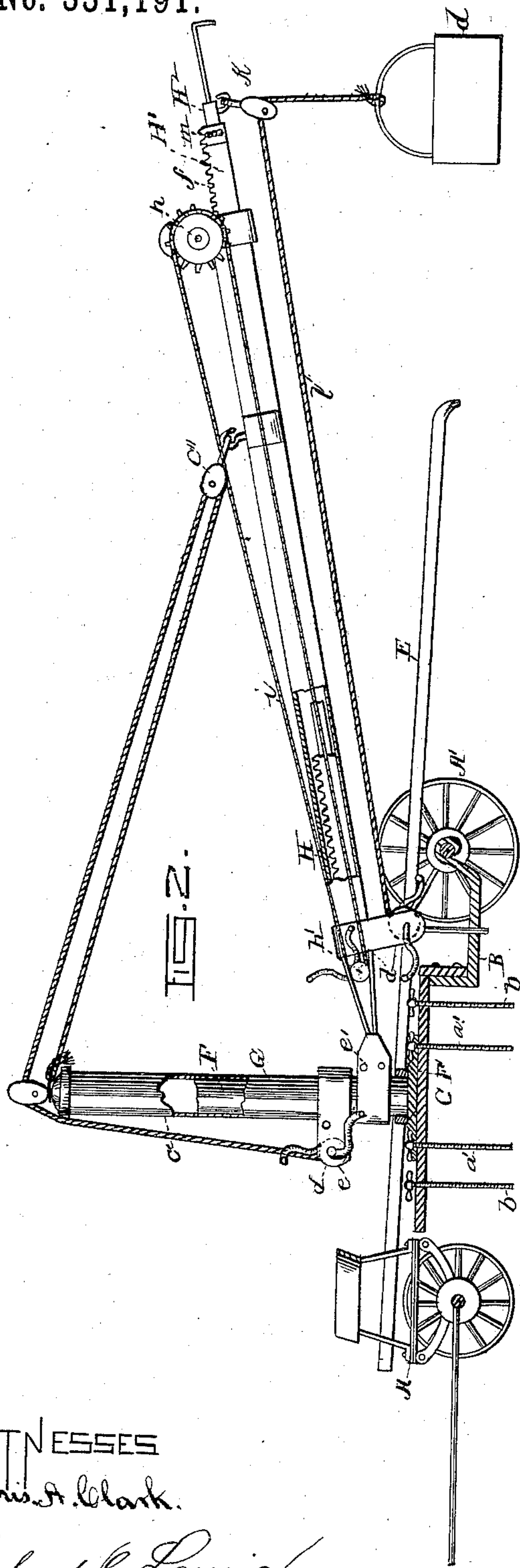
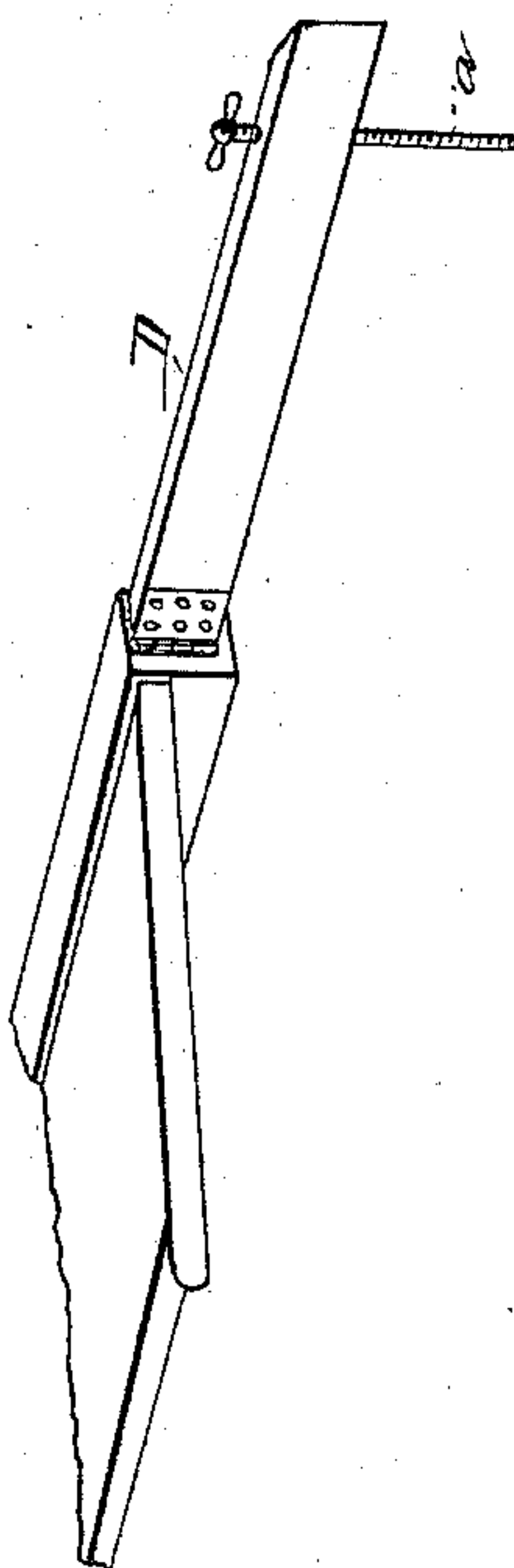


FIG. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN FLEMING, OF CALAIS, MAINE.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 331,191, dated November 24, 1885.

Application filed February 2, 1885. Serial No. 154,613. (No model.)

To all whom it may concern:

Be it known that I, JOHN FLEMING, of Calais, in the county of Washington and State of Maine, have invented a new and useful Improvement in Fire-Escapes; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to improvements in fire-escapes, and more particularly to that class of fire-escapes in which a derrick provided with an extensible telescopic jib is mounted upon a carriage, and is adapted for transportation and elevation upon said carriage in reaching the tops and windows of buildings in case of fire, and affording an easy and effective escape of persons, and, further, the safe and certain removal of property therefrom.

The novelty of these improvements consists in the peculiar construction, arrangement, and combination of the same, all as more specifically hereinafter described, and set forth in the claims.

In order to obtain a more perfect understanding of my invention, reference should be had to the drawings accompanying this specification, wherein is shown a fire-escape embodying my various improvements, and in which—

Figure 1 is a side elevation, in perspective, with the jib partly broken off; Fig. 2, a longitudinal cross-section and side elevation with parts broken away; and Fig. 3, a detail, broken away, of the table and one of its wings.

Similar letters on the drawings indicate corresponding parts in all the views.

The carriage which I employ for my escape consists preferably of a front truck, A, supporting the driver's seat, and a rear truck, A', provided with a platform, B, upon which platform is secured a table, C, to the rear portion of which, and upon each side, is hinged a wing, D D, provided with adjustable screws *a a*, to be used as legs or supports. These wings with their legs or supports, when opened out as shown in Fig. 3, give a steady support to the carriage, and when not in use they are folded up to the sides of the table C, as shown in Fig. 1.

The two trucks of the carriage above men-

tioned are connected preferably by a link-shaped frame, E, the front end of which establishes a foot-rest for the driver, and the rear end of which supports the outer end of the extensible jib when lowered to the position shown in Fig. 1. This frame has intermediate connections with the platform B and table C by means of screw-threaded rods *b b*, which pass through the parts last mentioned. A derrick post, F, secured by a heavy flange, F', to the table C, forms the center bolt for a revolving shell or jacket, G, to which the jib and windlass (to be hereinafter described) are secured. The flange F is provided with screws *a' a'*, which pass through to the ground and give additional support to the carriage when in use. The top of this revolving shell or jacket G is provided with a sheave, *c*, over which passes a chain or rope, *c'*, which is wound at one end upon a windlass, *d*, mounted between the two ears of a stirrup-shaped collar, *e*, which encircles and is secured to the lower portion of the revolving shell or jacket. This windlass has a double crank and a suitable holding ratchet and pawl, and the chain or rope, which is wound upon this windlass by means of a crank or wrench, passes around a sheave, *c''*, secured to the jib of the derrick, (presently to be described,) and from thence passes back to the top of the shell or jacket G, where it is secured.

The jib of the derrick above referred to consists of three telescopic sections, H, H', and H², and the lower end of the section H is shod with metal, preferably iron, and pivoted between the ears of a collar, *e'*, similar in construction to collar *e*, and which encircles and is secured to the shell or jacket G, just below the collar *e*. The telescopic section H' of the jib is provided its entire length on its upper side with a rack, *f*, with which engages a pinion, *g'*, mounted in a bracket, *g*, on the outer end of the section H. The shaft of the pinion *g'* carries on one end a sprocket-wheel, *h*, around which and a similar wheel, *h'*, mounted on the lower end of the section H, passes an endless sprocket-chain, *e*. A crank on the opposite end of the shaft which supports the wheel *h'*, together with a suitable pawl and ratchet, (not shown,) enables the section H' to be extended and secured. The next and last telescopic section, H², of the jib

is provided on its outer end with a hooked extension, whereby when extended out it may be firmly fastened to the sill of a window to prevent lateral movement of the jib or accidental collapse of the sections. This section is to be extended or drawn out by hand before the jib is raised, and is secured at any point of adjustment to prevent collapse by means of the bolt and screw clamp *m* at the outer end of the section *H'*. To this arm or section *H*² is attached a sheave, *k*, over which passes a chain or rope, *l*, which supports at one end the basket or other conveyance, *I*, and at the outer end is wound upon a windlass, *d'*, supported by a bracket, *e''*, similar in construction to the bracket on the outer end of the jib *H*. This windlass has a double crank and suitable ratchet-and-pawl connections, whereby the basket or conveyance may be raised or lowered as desired.

Having thus described my invention, what I desire to protect by Letters Patent is—

1. A carriage for a fire-escape of the character described, consisting of a front truck, *A*, supporting the driver's seat, a rear truck, *A'*, provided with a platform, *B*, a table, *C*, secured to said platform, a pair of wings, *D D'*, hinged to said table and provided with screws *a a*, and a link-frame, *E*, secured to said table

and platform, by means of screw-rods *b b*, all combined and arranged substantially as described.

2. In a fire-escape of the character described, the combination, with the carriage, of the derrick-post *F*, an inclosing shell or jacket, *G*, turning upon said post, a connecting-jib composed of three telescopic sections arranged one within the other, and means for hoisting said jib and extending its sections, substantially as described.

3. In a fire-escape of the character described, the combination of the carriage-table *C*, derrick-post *F*, the revolving shell or jacket *G*, the jib consisting of the sections *H H*² and the rack-section *H'*, the stirrup-shaped collar for attaching the jib to the revolving shell or jacket, and the chain and windlasses, whereby said jib is hoisted and extended, and whereby the means of escape is raised and lowered, the several parts combined, arranged, and operating substantially as described and shown.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN FLEMING.

Witnesses:

FRANK B. DEMING,
FRANK MCKAY.