

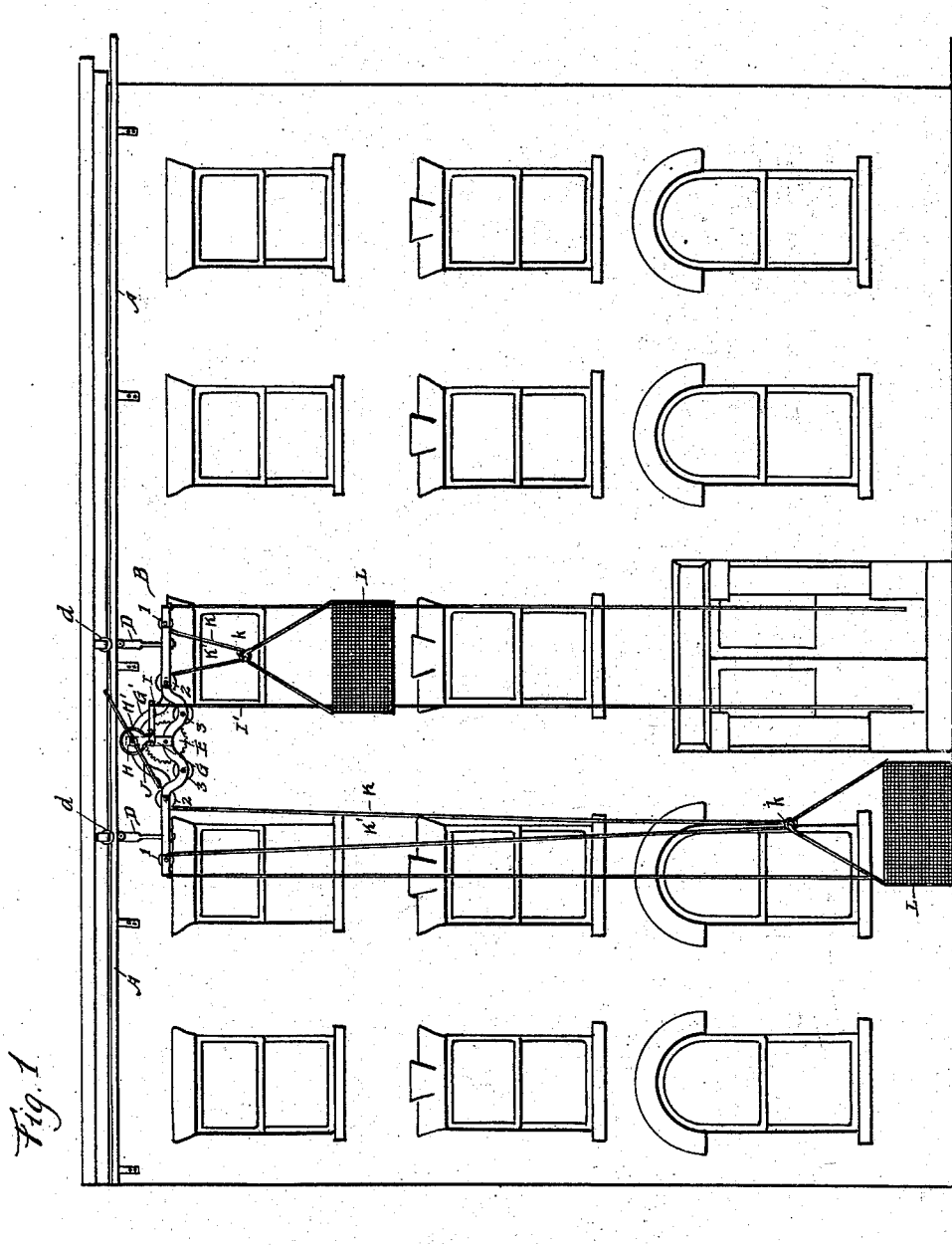
(No Model.)

2 Sheets—Sheet 1.

M. CHURCH.
FIRE ESCAPE.

No. 557,971.

Patented Apr. 7, 1896.



WITNESSES

Geo. M. Anderson
George H. Parnelle.

INVENTOR:

Milton Church
by Edw. Anderson
his Attorney

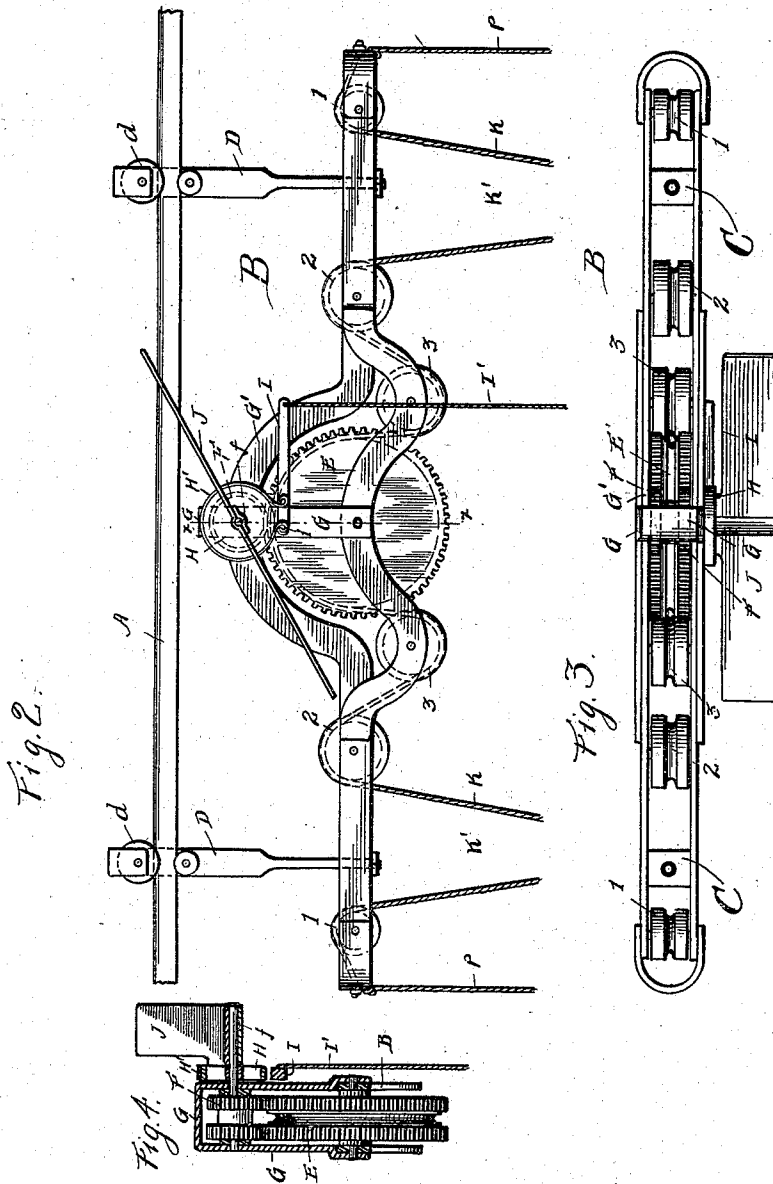
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UNITED STATES PATENT OFFICE.

MILTON CHURCH, OF LITTLE ROCK, ARKANSAS.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 557,971, dated April 7, 1896.

Application filed August 21, 1895. Serial No. 560,011. (No model.)

To all whom it may concern:

Be it known that I, MILTON CHURCH, a citizen of the United States, and a resident of Little Rock, in the county of Pulaski and State of Arkansas, have invented certain new and useful Improvements in Fire-Escapes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters and figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a front view of the invention applied. Fig. 2 is an enlarged front view of carriage. Fig. 3 is a plan view of same, rope K removed.

This invention has relation to fire-escapes of that class which are suspended from a track affixed to the upper portion of a building and are adapted to be moved along said track and brought into use at any desired point on the building; and the invention is designed, mainly, to provide an escape of this character with simple, but efficient and reliable, mechanism for governing the descent of the person or persons escaping.

With this object in view the invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claim.

Referring to the accompanying drawings, the letter A designates an iron track, which is affixed in any suitable manner to the upper portion of a building which it surrounds.

B designates a carriage which comprises a frame, consisting, in the present instance, of two similar parallel lateral portions connected to and spaced from each other by transverse blocks or bars C near each end. Journaled in said blocks or bars are two uprights or posts D, to the upper portions of which are journaled suitable double-flanged travelers d, which embrace the track or engage both its upper and lower surfaces. Journaled centrally in the said carriage, between the two lateral members thereof, is a large double gear-wheel E, between the two gears of which is a sheave portion E'.

Journaled directly over the double gear-wheel E is a double pinion F, the respective

toothed portions of which are in gear with the corresponding portions of the said wheel. To provide bearings for the shaft *f* of this pinion, the frame is provided with the parallel upward extensions G, which are reinforced and strengthened by a stirrup G'. On a lateral extension of the shaft *f* is a flanged brake-wheel H, over which passes a friction-strap H', whose ends are attached to a lever I, pivoted to the frame at *i*. Attached to the free end portion of the said lever is a rope I', by means of which the friction on the brake-wheel may be controlled from the ground or by the person making a descent in the basket presently to be described. Said pinion-shaft extension carries also a fan-governor J, which is provided with two or more broad wings.

K designates a rope or cable, the end portions of which are made fast to the respective end portions of the carriage-frame. From each end the rope passes over a grooved sheave or pulley *l* and is formed with a depending loop K', which passes under a sheave or pulley *k*, attached to a basket L, which is in this manner suspended from the loop. It will be understood that a similar loop is made at both ends of the carriage and that each of these loops suspends a basket. The rope coming up from each of these loops passes over a grooved sheave or pulley 2, then under a second and similar sheave or pulley 3, and thence over the sheave portion of the double gear-wheel E to the other side.

By means of a suitable rope or ropes P, attached to the carriage, it may be moved along the track to any desired point. The feature of journaling the posts D permits the carriage to follow the curvature of the track in moving around an angle or corner of the building. The track must, of course, be set well out from the building in order to permit the carriage to adapt itself in making the turn.

The fan-governor acts automatically to regulate the rate of movement of the double gear-wheel and pinion during the ascent and descent of the basket, and this can be still further controlled by the friction-brake.

The feature of the double pinion and gear-wheel is one of great importance, since it divides and equalizes the strain upon the gear.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

5 In a fire-escape, the combination of a track, a frame formed of two parallel lateral portions connected to and spaced from each other by the end blocks C and having extensions G rising from the central portion thereof, the rotary uprights or posts D journaled one in each of said blocks and carrying flanged travelers at their upper portions which embrace the said track, a large double-toothed wheel E journaled centrally between the said lateral portions and having between its gears a sheave portion E', a double pinion F jour-

naled directly over the said gear-wheel and 15 in mesh therewith, brake mechanism on the shaft of said pinion, a rope or cable passing over said gear-wheel and over bearings of the said frame, and baskets suspended from loops of the said rope or cable, substantially as 20 specified.

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

MILTON CHURCH.

Witnesses:

BEN F. REMBERGER,
P. K. CHURCH.