3 Sheets—Sheet I.

W. McALLISTER.

FIRE-ESCAPE.

No. 176,799. Patented May 2, 1876.

Fig. 1.

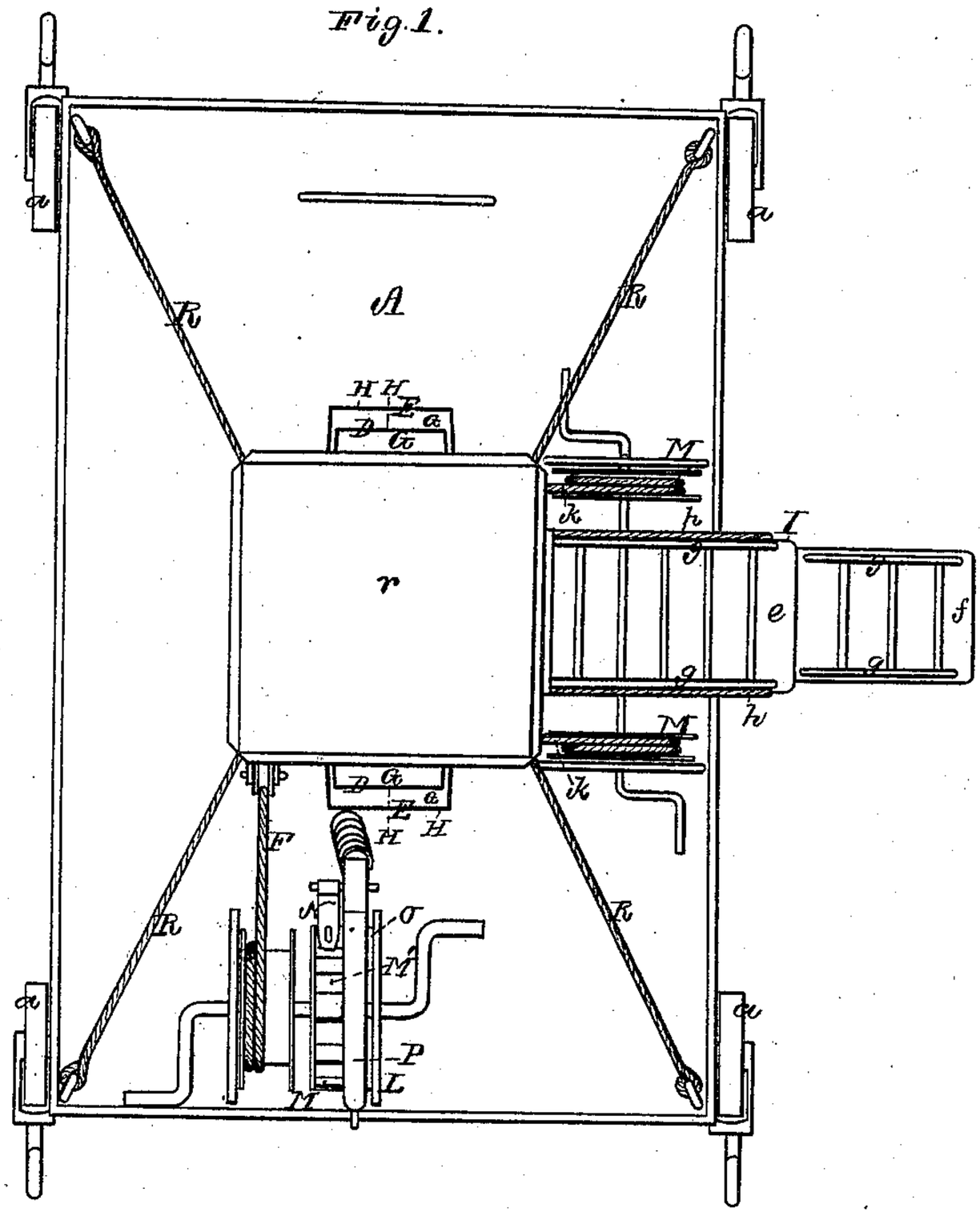

Fig. 4.

Witnesses.

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3 Sheets—Sheet 2.

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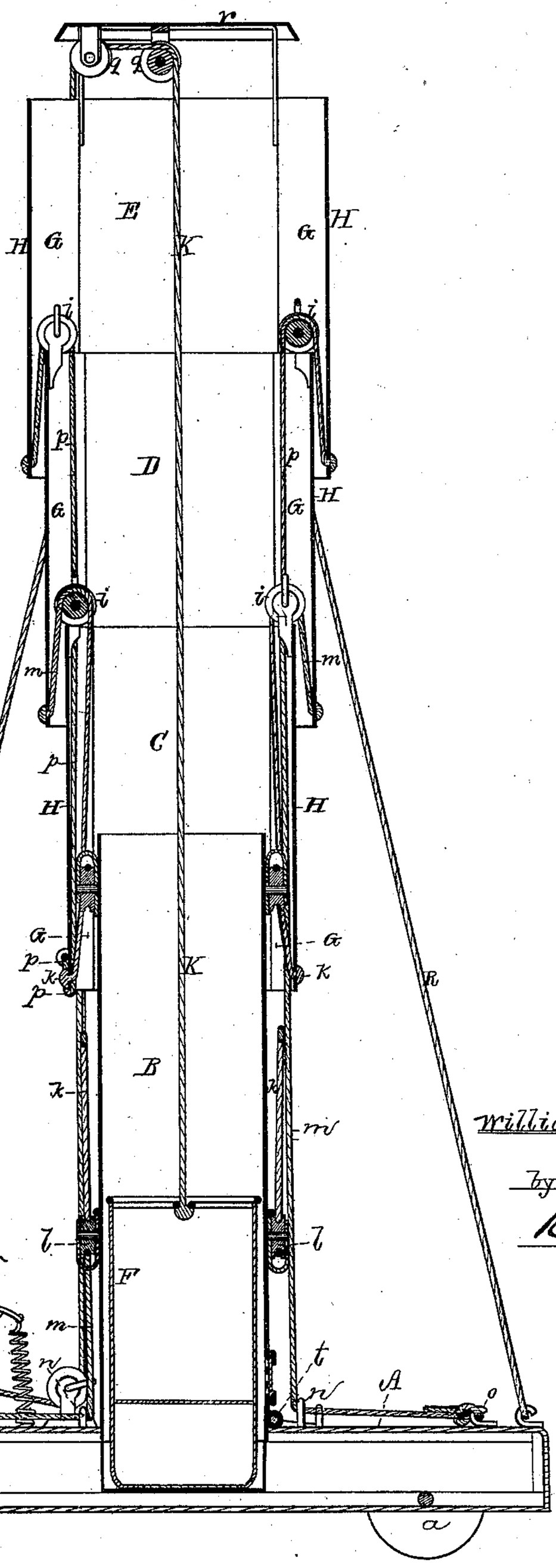
FIRE-ESCAPE.

No. 176,799. Patented May 2, 1876.

Fig. 2.



Witnesses

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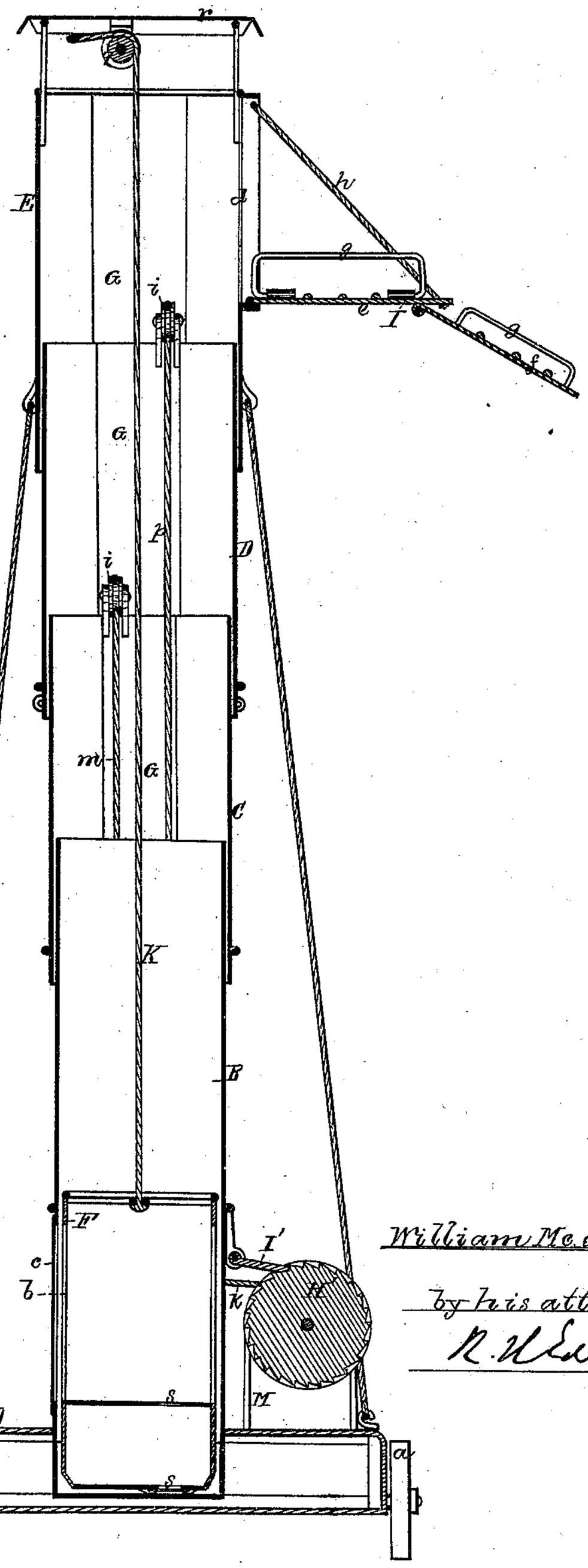
FIRE-ESCAPE.

No. 176,799. Patented May 2, 1876.

Fig 3.



Witnesses

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R. H. Eddy

UNITED STATES PATENT OFFICE.

WILLIAM McALLISTER, OF LAWRENCE, MASSACHUSETTS.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **176,799**, dated May 2, 1876; application filed April 5, 1876.

To all whom it may concern:

Be it known that I, WILLIAM MCALLISTER, of Lawrence, of the county of Essex and State of Massachusetts, have invented a new and useful or Improved Fire-Escape; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view, Figs. 2 and 3 vertical sections in planes at right angles to each other, of the said fire-escape. Fig. 4 is a horizontal section of one of the auxiliary tubes of the telescopic column.

In the said drawings, A denotes a platform, mounted on four wheels, *a a a a*, and having hinged to it at its middle the main tube of the telescopic column, such column being composed of such main tube B and a series of additional tubes, C D E. Each of the said tubes C D E has two rope-chambers, G G, on two of its opposite sides. The lowest of the said auxiliary tubes encompasses and slides freely up and down upon the main tube B. Each of the other auxiliary tubes is applied in a similar manner to the tube next below it, each rope-chamber projection H being made to encompass and slide on that next below it, all being as shown. A doorway, *b*, arranged in the main tube, as represented, has a door, *c*, hinged to it. Furthermore, there is to the upper tube E an opening, *d*, provided with a draw or folding bridge, I, which is hinged at one end to the tube E, and is composed of two platforms, *e f*, hinged together, each of them having two side guards or rails, *g g*, applied to it at its opposite edges, those of the larger platform being hinged to it, so as to be capable of being turned from a vertical position down upon it, or vice versa. Support chains or ropes *h h* extend from the upper part of the opening *d* down to the outer end of the platform *e*. They serve to sustain the bridge when down with its outer platform resting on the window-sill or other part of a building. Each of the movable tubes C D E has applied to it near its lower end two raising-ropes, which pass over and partly around guide-wheels *i i*, arranged on the upper parts of the rope-chambers of the tube next below. The raising-ropes *k k* of the tube C pass partly around guide-wheels *l l*, arranged on opposite sides of the tube B. Thence such ropes extend to a windlass, M, provided with a ratchet-wheel, H′, to receive a stop-pawl, I′, hinged to the tube B, all being arranged as shown. The raising-ropes *m m* of the tube D pass down through the rope-chambers of the tube C to and through guides *n n*, fastened to the platform, from whence they extend, and are secured to hooks *o o* fixed to the platform at or near its corners. The raising-ropes *p p* of the upper section or tube E pass down through the rope-chambers of the next two tubes, D C, and are fastened to the hollow of the tube C. By revolving the windlass M, so as to wind upon it the ropes *k k*, the tubes or sectors C D E will be simultaneously moved upward, in a manner to cause each to move upward on the tube next below it, the whole being converted into a tall and hollow column. Within the said column or system of tubes is an elevator, F, supported by a rope, K, passing around two guide-wheels, *q q*, arranged, as shown, with respect to the roof or cap *r* of the upper tube E. The said rope passes to an auxiliary windlass, L, provided with a ratchet-wheel, M′, stop-pawl N, a brake-wheel, O, and a friction-brake, P, all as represented. Through the bottom of the elevator there is a hole, *s*, for a hose to be passed through to a fireman when within the said elevator. The lower tube B is hinged, as shown at *t*, to the platform A, in order that the whole telescopic column may be turned from a vertical down into an inclined or nearly horizontal position, as occasion may require for any purpose. Guys or ropes R R R R, fastened to the upper section E, may be used to steady the column.

In the place of the ropes, as described, which, when used, should be of wire, or some proper incombustible material, chains may be employed.

The rope-chambers of the movable tubes are to receive the raising-ropes, in order that there may be a clear space for the elevator to travel up and down between them without obstruction from or wear of them.

The tubes of the system are to be made of metal, in order that they may protect from fire persons or matters when within them, and the fire-escape may be set up in front of a building on fire.

The operation of the aforesaid apparatus as

a fire-escape will readily be understood by persons skilled in the use of others of like nature.

I claim—

1. The telescopic fire-escape column, substantially as described, composed of the main tube B and one or more additional tubes, C D E, provided with rope-chambers G G, all arranged and applied as set forth.

2. In combination with the telescopic fire-escape column composed of the tube B and one or more tubes, C D E, arranged and provided with rope-chambers, as specified, the raising-lines and guide-wheels applied to them, and arranged with their rope-chambers, substantially as set forth.

3. The combination of the elevator F and its lifting-rope K with the telescopic column, composed of the tube B and one or more auxiliary tubes, C D E, provided with rope-chambers, and raising-ropes applied to them, all being substantially as specified.

WILLIAM McALLISTER.

Witnesses:

R. H. EDDY,

J. R. SNOW.