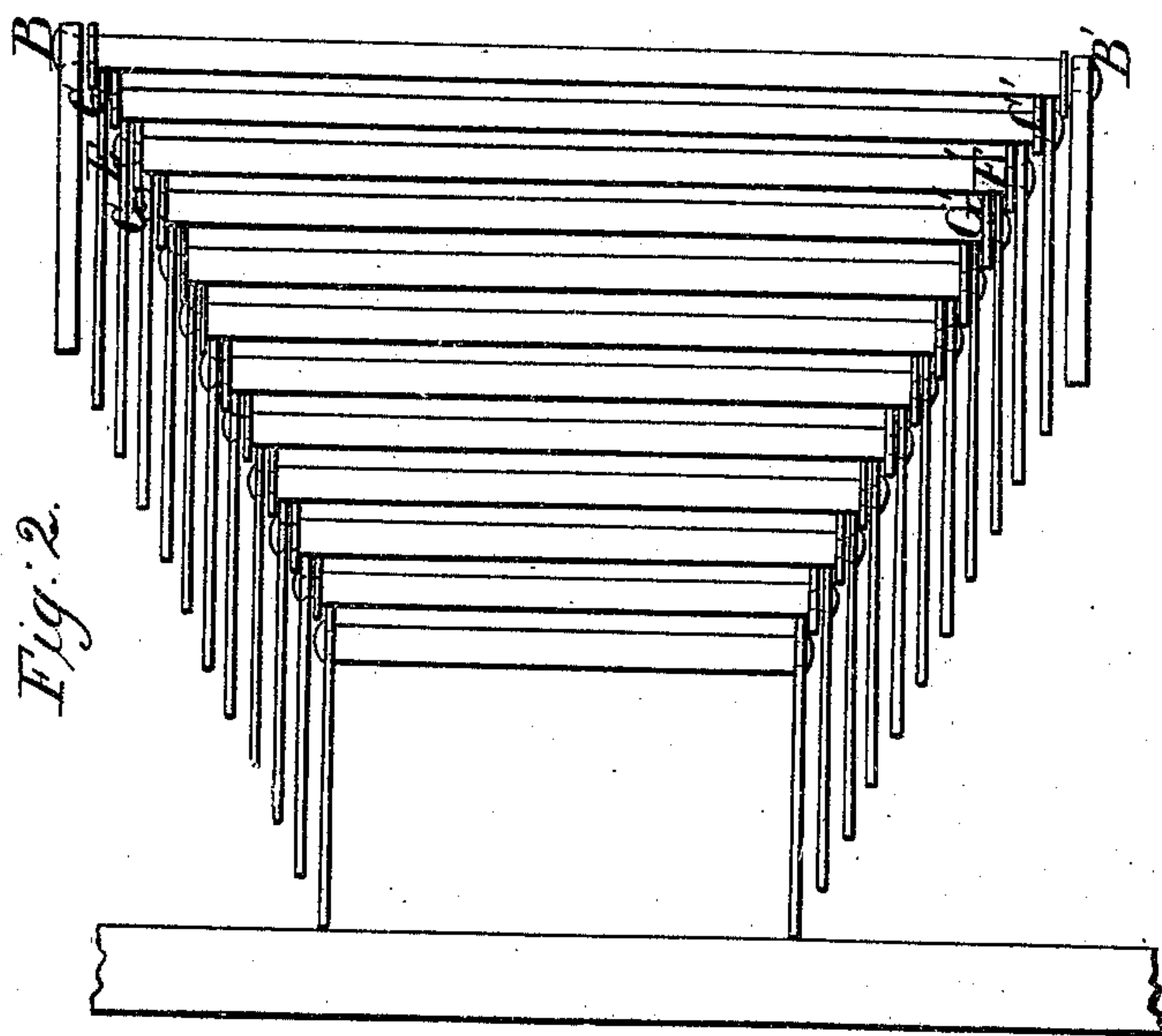
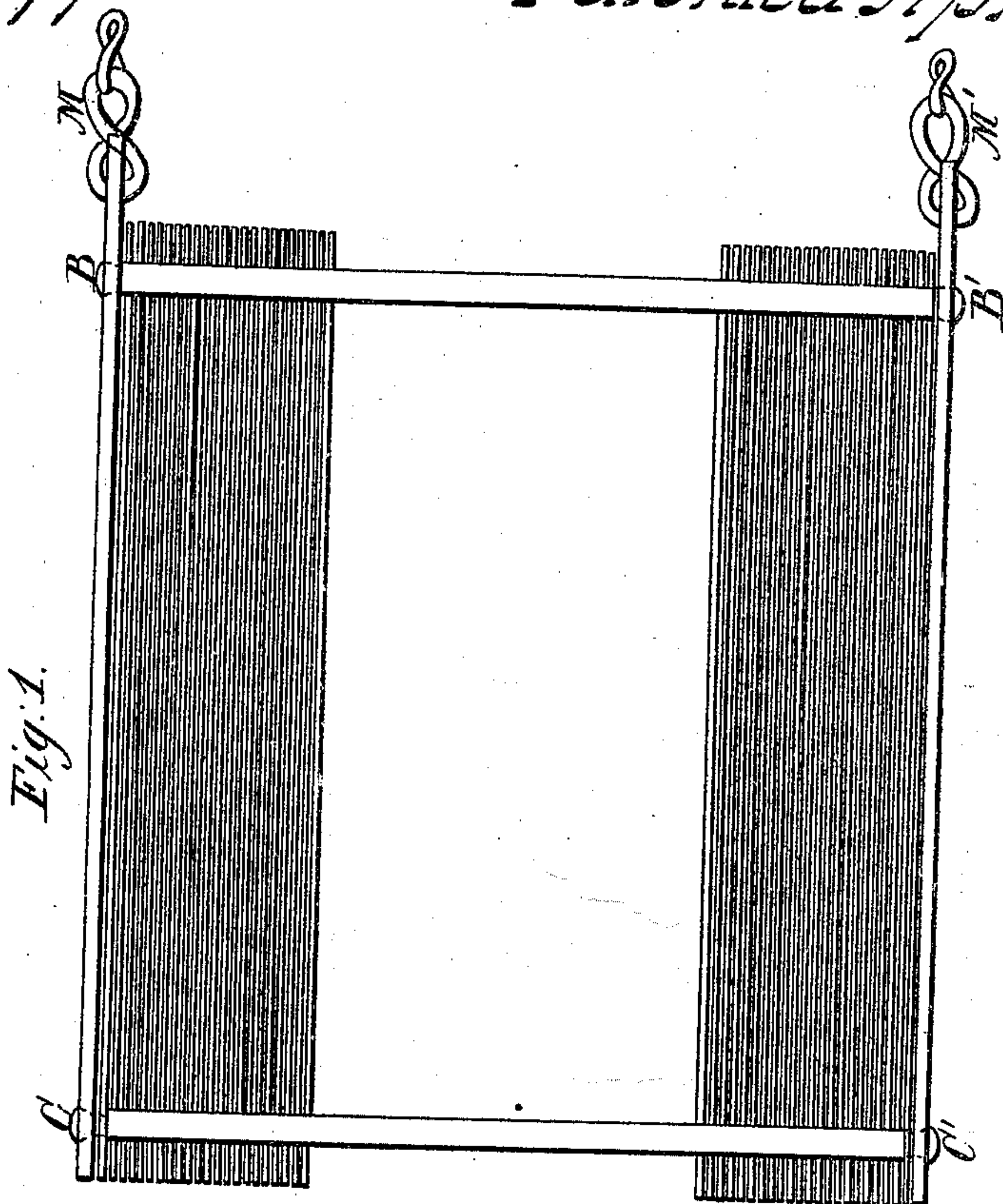


T. Armitage
Fire Escape.

Sheet 1, 3 Sheets.

Nº 10,797.

Patented Apr. 18, 1854.



T. Armitage.
Fire Escape.

Sheet 2, 3 Sheets.

No. 10,797.

Patented Apr. 18, 1854.

Fig. 3.

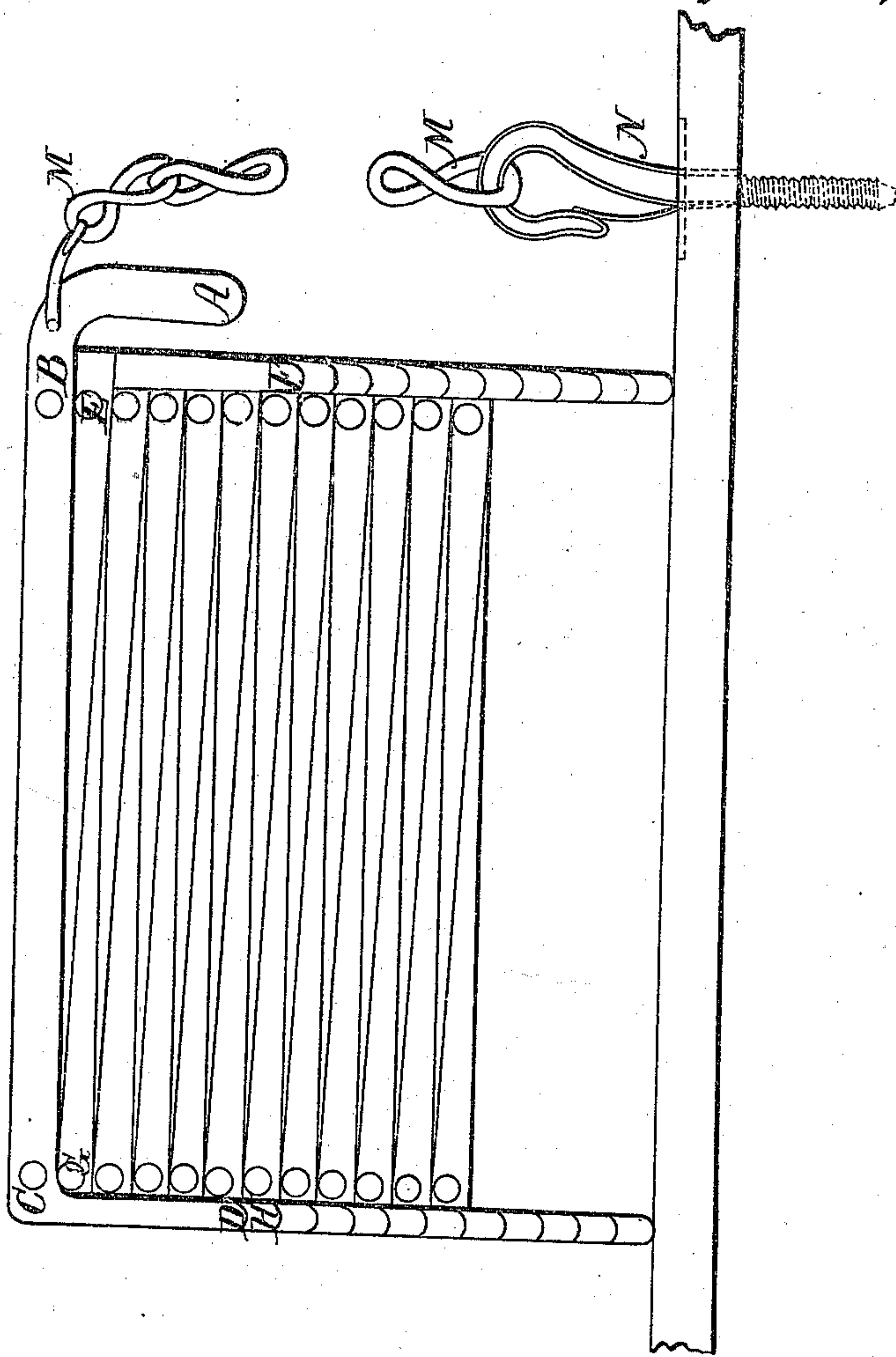
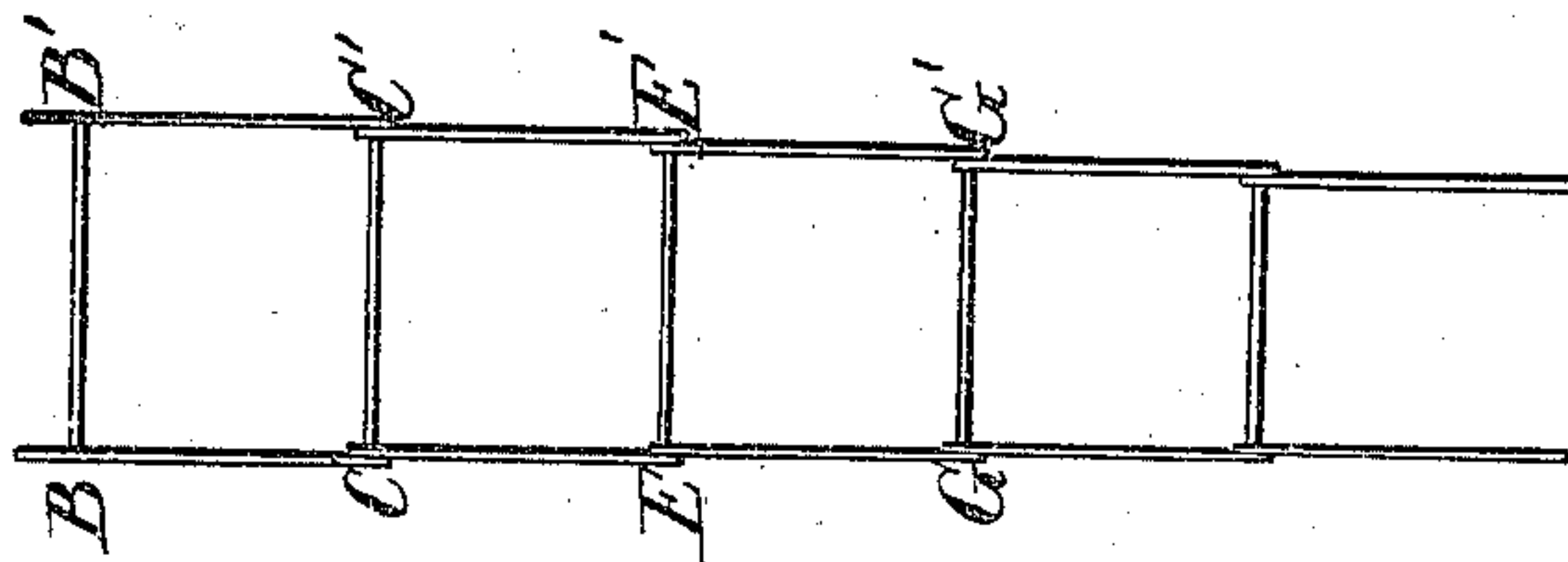


Fig. 5.



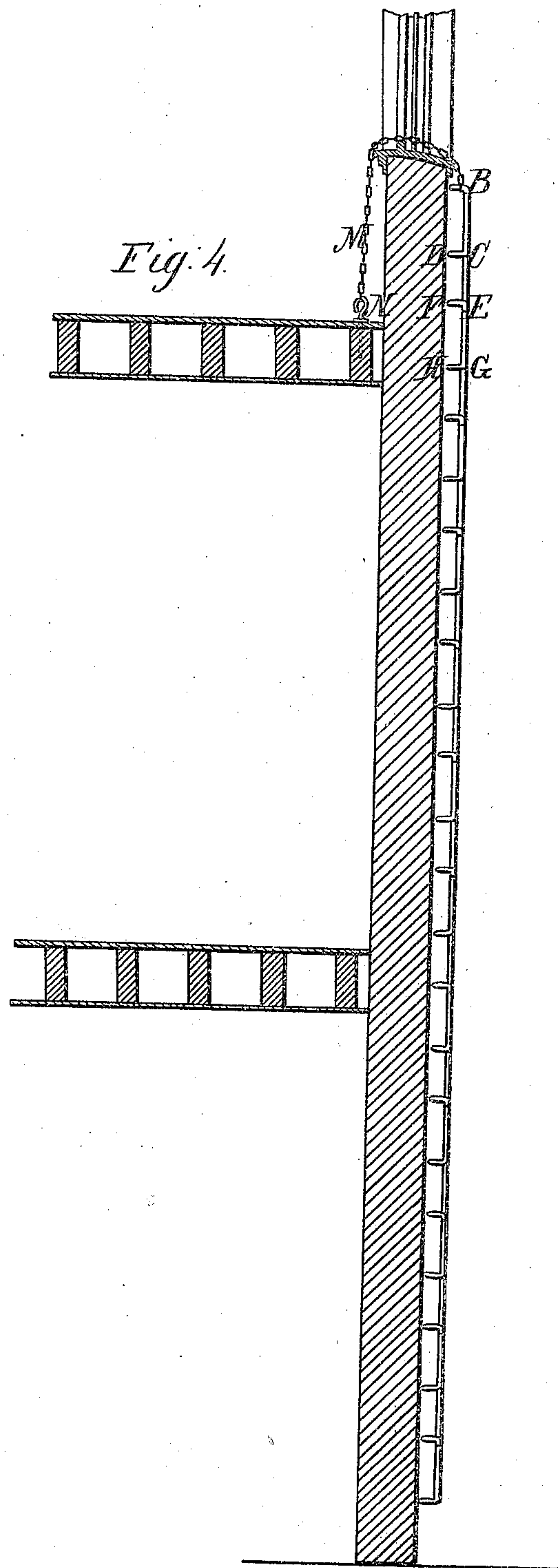
Sheet 3, 3 Sheets.

T. Armitage.

Fire Escape.

No 10,497.

Patented Apr. 18, 1854.



UNITED STATES PATENT OFFICE.

THOMAS ARMITAGE, OF PHILADELPHIA, PENNSYLVANIA.

PORTABLE LADDER OR FIRE-ESCAPE.

Specification of Letters Patent No. 10,797, dated April 18, 1854.

To all whom it may concern:

Be it known that I, THOMAS ARMITAGE, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in the Construction of Rescues in the Case of Fire in Buildings, which I denominate my improved "Rescue;" 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.

The nature of my improvement consists in the construction of an extension ladder which may be folded up within an extremely small compass and in case of fire may be rapidly extended so as to afford a safe and reliable means of escape from the upper rooms of edifices.

To enable others skilled in the art to make and use my improvement I proceed to describe its construction and mode of operation.

In the accompanying drawing Figure 1 represents a view of my rescue when folded up, taken from above. Fig. 2, represents an end view of my rescue folded up. Fig. 3 is a side view of same. Fig. 4 is a section of a house and window showing a side view of my rescue when extended. Fig. 5 is a front view of a portion of my rescue when extended.

My rescue is constructed of a series of pieces A, B, C, D Fig. 4 of narrow strips of wrought iron about $\frac{1}{4}$ inch thick and about 1 inch wide and about 18 or 20 inches long. These strips are of uniform length and are bent into the form shown at B C D, C E F, E G H, &c., Figs. 3 and 4. These pieces when put together form the sides of the ladder or rescue when extended. The parts C D, E F form projections which keep the ladder from the wall so as to allow a foot-hold. Two similar series of pieces of iron being prepared of the form and size above described, holes are drilled at the elbows of each piece C, E, G, &c., and pieces of rod iron about $\frac{1}{2}$ inch diameter are passed through each pair of these holes as shown at C C', E E', G G', Fig. 5, forming at the same time a series of rungs when the ladder

is extended and a series of pivots upon which the parts B, C, D, C, E, F turn when the ladder is folded together. These rungs B B', C C' are of unequal lengths, the shortest or lower rung being about 6 inches long and the length of each rung increasing by a regular increment of about $\frac{1}{2}$ inch as shown in Figs. 2 and 5. This gradation in the length of rungs is to enable the joints B C D, C E F, E G H to fold up into a small space.

The ladder thus constructed may be readily folded together into the form of a truncated wedge, and will occupy but a small space. The upper extremities of the rescue B and B' are to be secured permanently by chains M M' to a hook N driven or screwed into the floor or joist immediately under any upper window in the hall or entry of the house where it is desired to place the rescue. The rescue on ordinary occasions is folded up and stands as represented by the top, end and side views shown in Figs. 1, 2, and 3 respectively; the chains M M' being always attached to their respective hooks N. In case of fire when it may be desired to escape from the upper story of the building the folded rescue is to be thrown out of the window. It immediately and of itself assumes its proper position as shown in Figs. 4 and 5 no matter in what manner or by whom it is thrown out of the window. A ladder or rescue capable of supporting a ton and sufficient to enable 30 to 50 persons per minute to escape is thus instantly formed.

A rescue may be constructed on this plan which will answer for a room 30 feet high (as high as most 3 story houses) and which will not occupy more than one and a half cubic feet when folded up.

The advantages of my rescue are its compactness when not in use for it can be placed under an ottoman, or settee in the upper hall of a house and be entirely out of sight; the rapidity and ease with which it can be brought into action as it must always fall into its proper position; the economy of its manufacture and its strength.

My improved rescue may be used not only as a fire escape but may be used to aid in the

apprehension of thieves, and on ship board to form a convenient and portable ladder for ship's sides.

Having thus described my improvement,
5 what I claim as my invention and desire to secure by Letters Patent is—

The mode herein described of constructing an extension rescue or ladder by means of a series of knee shaped pieces B C D &c,

and a series of rungs of unequal and graduated length, combined and operating in the manner substantially as hereinbefore described. 10

THOS. ARMITAGE.

Witnesses:

J. G. SHAW,
STEPHEN H. SIMMONS.