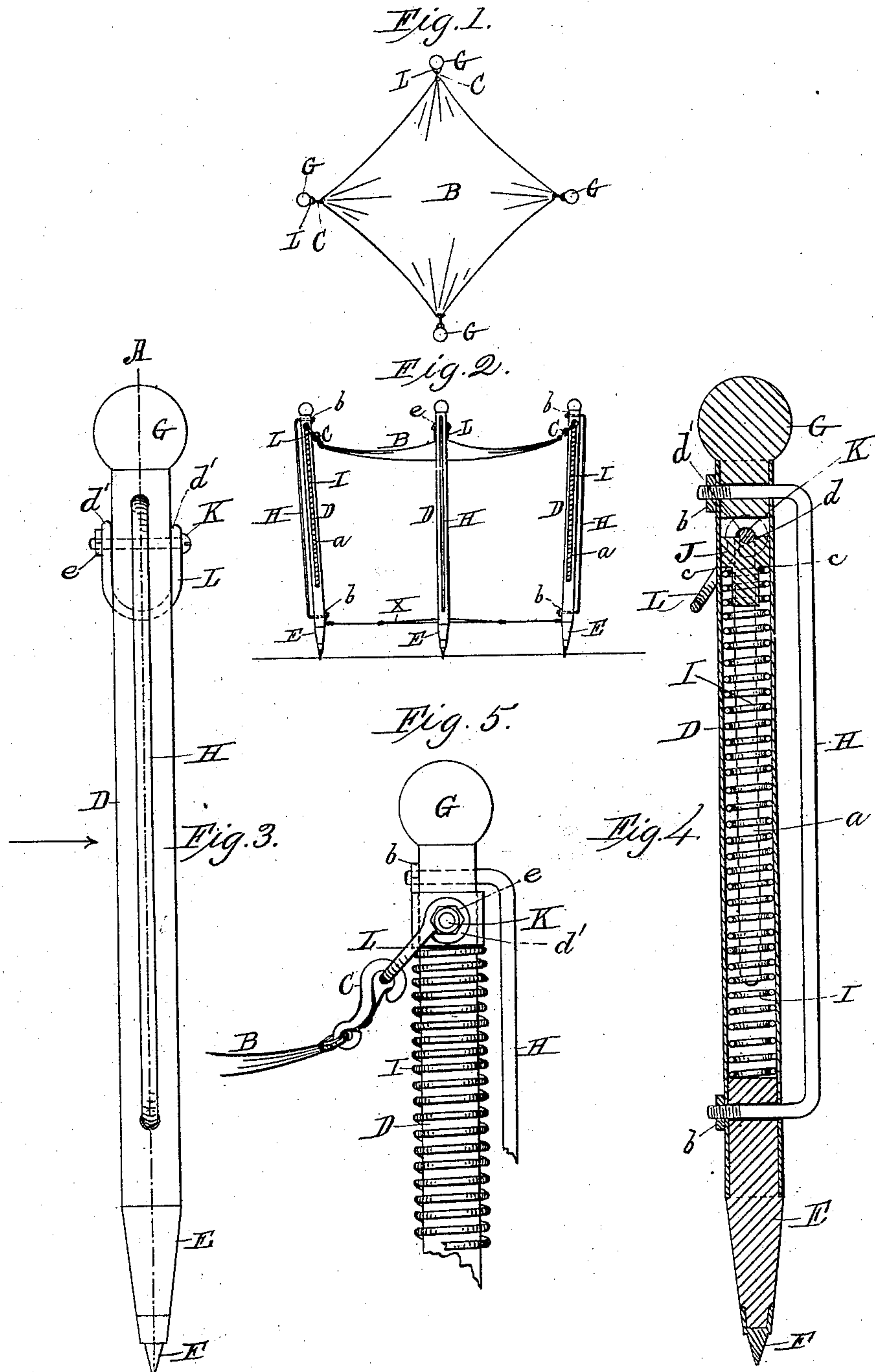


(No Model.)

W. LAWRENCE.
FIRE ESCAPE.

No. 300,091.

Patented June 10, 1884.



Witnesses;
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UNITED STATES PATENT OFFICE.

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 300,091, dated June 10, 1884.

Application filed May 9, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM LAWRENCE, of the city and county of Worcester, and Commonwealth of Massachusetts, have invented a certain new and Improved Fire-Escape; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents a top or plan view of my improved fire-escape, showing the blanket or canvas attached to the standards or posts. Fig. 2 represents a perspective view of my improved fire-escape when ready for use. Fig. 3 represents, on an enlarged scale, one of the standards or posts shown in Fig. 2. Fig. 4 represents a longitudinal sectional view on line A, Fig. 3, looking in the direction of the arrow same figure; and Fig. 5 represents a modification of the standard or post shown in Figs. 2, 3, and 4, the coiled spring being on the outside of the standard, as will be hereinafter fully described. It also shows the manner of attachment of the blanket or canvas to the standard.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it more in detail.

My invention relates to a fire-escape or a device to be used at fires in cases where persons in a burning building are forced to jump from the building in order to save their lives, and in which is employed a blanket or canvas of any desired size attached to standards or posts constructed in a peculiar manner, so as to allow the blanket or canvas to yield and give under the weight of a person jumping upon it, and thus prevent injury to the person.

In the drawings, the part marked B represents a blanket, which may be made of any strong material, preferably of canvas. It may be made of any desired shape, either square, as shown in Fig. 1, or round or of any other shape desired, and provided with eyelets at suitable distances apart on the edges thereof, in which snap-hooks C are fastened, by means of which hooks the blanket is attached to and removed from the posts or standards.

D represents the standard or post, which is

intended to be about six feet in length and four inches in diameter, and made of metal tubing or other suitable material with longitudinal slots *a* on opposite sides of the tube or cylinder, for the purposes hereinafter to be described, and provided with a wooden base, E, which is inserted a short distance into the tube or cylinder, said base E having a steel spur, F, attached to its lower end, for the purposes to be hereinafter described. The top G of the post D is made of wood or other suitable material, the lower part thereof being inserted in the upper part of the tube or cylinder. (See Fig. 3.)

The part H represents the handle by which the post D is held in the proper position. In this instance it is made of metal, in the form shown in Fig. 4, the ends being bent and inserted through the post D, and being held in place by nuts *b*. If desired, the handle may be made of a different form from that shown in the drawings and of any suitable material, and attached to the post D in any suitable and well-known manner.

The part I represents a spiral spring, which is placed inside the tube or cylinder before the top G is inserted, the lower end of the spring resting and bearing upon the top of the base E, and a rounded piece of wood, J, being inserted in the upper end of the spring, having an enlarged head, so as to form shoulders *c*, against which the spring bears, and a groove, *d*, in its upper part, in which the bolt or pin K rests, to which the clevis L is attached, said pin K passing through eyes *d'* of clevis L, and being secured in place by nut *e*, said clevis L and bolt or pin K being allowed to move up and down the post D in the slots *a* as the spring I is compressed or expanded.

In Fig. 5 the spring I is shown upon the outside of the tube or cylinder, the clevis L being attached to a ring to slide up and down on the outside of the tube, and against which the top of the spring bears, and to which it is fastened in any suitable manner. This is a modification of the device shown in the other figures of the drawings, but the operation thereof is substantially the same as the other device.

The operation of my improved fire-escape is as follows: A blanket of any desired size or

shape is attached to the posts or standards D in the manner above described, the number of posts or standards used depending somewhat upon the size of the blanket. Each post is then planted firmly in the ground at the side of the burning building at suitable distances apart, the steel spur F entering sufficiently into the ground to prevent any movement of the posts at their base. In case the fire-escape is to be used where there is stone or other pavement, into which the spurs F will not enter, I intend to use couplings X, (see Fig. 2,) to couple together the posts D at their base, and thus hold them firmly and securely in their proper relative positions, said couplings X being attached to the standards or posts D with hooks and eyes, or in any other suitable manner, and being removable and adjustable at will.

It is intended that a man shall be stationed at each post or standard D to hold it in the proper position, which will be about the position shown in Fig. 2 of the drawings, though I prefer to have the posts a little more inclined, so that the blanket may be drawn tighter, and the posts may be more easily held in position and prevented from being drawn together at the top by a person jumping into the blanket, and also for the reason that there would be less liability of the person striking against the top of the posts. The weight of a person jumping into the blanket causes the springs I to be compressed in the tube or cylinder, allowing the blanket to yield to the weight of the person, and when the force of the weight has expended itself the springs will recoil and expand, carrying with them the blanket and the person in it, thus preventing any serious injury to a person jumping onto the blanket even from a considerable height.

It will be readily seen by those skilled in the art to which my invention belongs that my improved fire-escape possesses many advantages over others heretofore used. First, the height of the blanket from the ground will be only about six feet, so that a person can alight from the blanket onto the ground very quickly and easily, thus allowing a large number of persons to jump into the blanket one after the other in quick succession without injuring each other; second, each post or standard being in charge of a different person, the escape can be

moved from place to place very quickly, and almost instantly set up under the different windows of a burning building; third, after a person has jumped, by varying the angle or inclination of the posts, the blanket can be brought under the person so he will fall into it, where otherwise he would have fallen outside of it, and, further, there is no hard substance for the person to strike against, except the tops of the posts, which can be moved slightly in any direction to prevent this ever happening; fourth, blankets of any size may be used as the case may require, as it is but the work of a moment to attach the blanket to a suitable number of posts or standards, according to the size of the blanket, it being possible to use any number of posts desired.

It is intended that my improved fire-escape should be used in connection with the fire department of a city, a special truck being provided for carrying the standards or posts with the blankets, and that men be detailed to take charge of the same. The standards or posts and blankets may be carried on the regular ladder-trucks.

Having described my improved fire-escape, what I claim therein as new and of my invention, and desire to secure by Letters Patent, is—

1. The combination, with canvas B, of the hollow posts D, provided with handles H, and having spiral springs I within said posts, or upon the outside thereof, and clevises L, or other suitable devices, as a means of attaching to the upper ends of said springs I said canvas B, all constructed and arranged substantially as shown and described.

2. The hollow post D, provided with a suitable handle, in combination with a spiral spring, I, and clevis L at the upper end of said spring, for attaching a canvas to said spring, substantially as shown and described.

3. The post D, provided with longitudinal slots a, and handle H, in combination with spiral spring I, bolt K, and clevis L, arranged and operated substantially as shown and described.

WILLIAM LAWRENCE.

Witnesses:

JOHN C. DEWEY,
HENRY L. MILLER.