

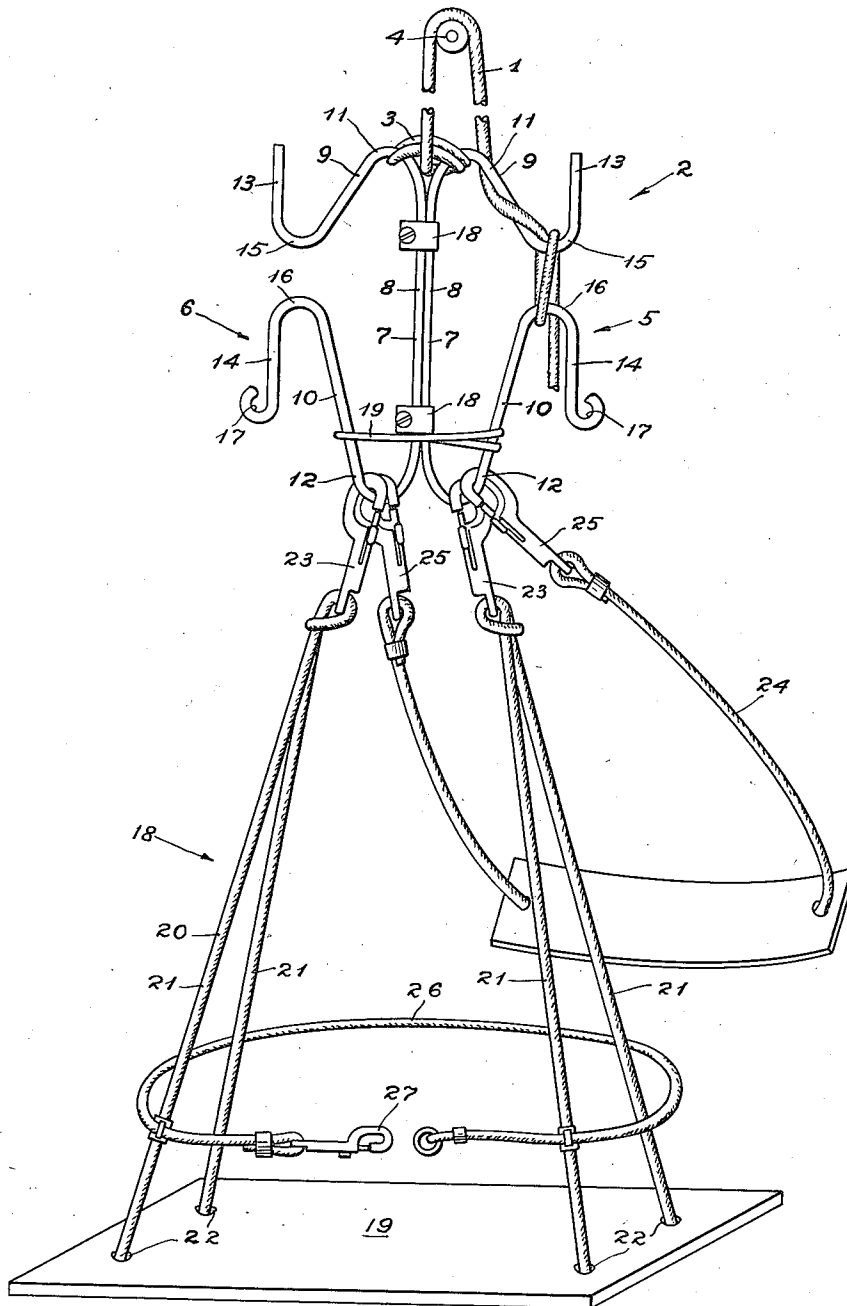
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FIRE ESCAPE

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FIRE ESCAPE

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2 Claims. (Cl. 304-16)

The present invention relates to improvements in fire escapes and similar apparatus and its principal object is to provide a means whereby a person caught in a fire in any one of the upper stories of a building may lower himself from the window to the ground and have absolute control over the speed with which he moves.

More particularly it is proposed to provide a rope that may be properly suspended and a brake with a harness for seating a person, the brake being arranged so that the person seated in the harness may engage the rope with the brake whereby the speed of the descent may be controlled and arrested altogether.

It is further proposed to provide a harness that is particularly effective in properly supporting a person, without danger of slipping out of the harness so that the person may devote his entire attention to the control of the rope.

It is further proposed to provide a brake which allows two or more persons to be supported thereby and to independently feed their rope through the brake if such independent control is desired.

Further objects and advantages of my invention will appear as the specification proceeds.

The preferred form of my invention is illustrated in the accompanying drawing which illustrates my fire escape in perspective view.

While I have shown only the preferred form of my invention I wish to have it understood that various changes and modifications may be made within the scope of the claims hereto attached without departing from the spirit of the invention. Particularly I wish to point out that while I have described my invention as a fire escape it may be used for many different purposes as for supporting painters, window washers, repair men in operative relation to their respective work on buildings or other high structures etc.

Referring to the drawing in detail, the rope 1 may be of any suitable construction but should be strong and should preferably have metallic strands therein. One end of the rope may be fastened to a fixed point, as to the radiator of a room from which a person wishes to lower himself or it may be fastened to the brake 2 as shown at 3, an intermediate section of the rope being guided over the sheave 4 suspended from an elevated point to give more perfect control to the operator. The latter arrangement is preferred where extreme speed is not an immediate object as in a painting or washing job, while in case of fire the former fastening means is preferred.

The brake, as illustrated in the drawing, con-

sists of two sections 5 and 6 which may be used conjointly as shown in the drawing but either one of which may be used by itself. Each of the sections comprises a rod 7, the intermediate portion 8 of which is preferably straight while its ends 9 and 10 are turned over to form two hooks 11 and 12 which are arranged in opposed relation in the same plane. The extremities 13 and 14 of each end are bent in the opposite direction to form reverse hooks 15 and 16 and the lower extremities are also preferably provided with eyes 17.

The two sections may be secured to one another at their intermediate portions by suitable clamps 18 and braces 19 may be employed to give added rigidity to the structure.

The lower hooks 12 are preferably used to suspend the harness 18 therefrom. The latter comprises a seat 19, a sling 20 by means of which the seat is supported and suitable body securing means. The sling 20 consists preferably of strands 21 passing through spaced holes 22 in the board and having snap-fasteners 23 for securing the same to the hooks 12. Body securing means are provided in the back strap 24 which has snap-fasteners 25 for securing the strap to the hooks 12, and in the band 26 intended to go around the waist of the person and secured to the strands 21 at the waist region of a person sitting on the seat. The band opens and closes in front by means of a snap-fastener 27.

The manner of using my invention is apparent from the foregoing description. One end of the rope may be permanently fastened to the brake as at 3. In case of fire the person faced with the necessity of escaping from a higher floor guides an intermediate portion of the rope over the sheave 4 and then spirals it around the rod portion 9 between the hook 11 and the reverse hook 15. He then winds an adjacent portion of the rope over the two opposing reverse hooks 15 and 16 until the rope is firmly secured. He then seats himself on the seat 19, with the straps 24 across his back in the region of the arm pits and secures the band 26 over his waist region. He is now prepared to jump out of the window and his downward progress will be arrested when the rope becomes tight. The operator then carefully unwinds the rope from the reverse hooks 15 and 16 and slowly feeds the rope in spiral form around the rod portion 9 whereby he is gradually lowered to the ground surface.

If at any time the speed increases to an alarming extent it is merely necessary for the opera-

tor to use a second spiral around the rod portion 9. It will be noted that the latter section is disposed on an incline to give the desired freedom to the spiral of the rope and is confined 5 between the two hooks to prevent the rope from slipping off. The two reverse hooks 15 and 16 are disposed in the immediate proximity of the spiral and in line with the spiral feed so that the braking action of the two reverse hooks may 10 be called into play instantaneously and without any intermediate slacking of the rope. In fact, braking action in addition to that caused by the spiral may be applied immediately by merely urging the free end of the rope against the re- 15 verse hook 16, and the action may be increased by turning the rope over the upper reverse hook 15 and back again. For arresting the downward motion altogether, an additional turn or two may be required, depending upon the weight of the 20 person.

It will be noted that the snap-fastener 23 may be secured to the fastener 25 to allow the two fasteners to be used as a unit. It is also apparent that all the fasteners 23 and 25 may be secured 25 to a single hook 12 so as to leave the other hook 12 free for a second harness to support a second person. If desired the eyes 17 may also be used to give support to one or more snap-fasteners.

Instead of using the sheave 4 the user may 30 secure one end of the rope to a fixed point in the room as for instance the heat radiator, spiral an intermediate portion around the rod 9 and proceed as previously described.

I claim:

1. A brake for a fire escape or the like comprising a rod having a central section and having one end turned to form a reverse arm terminating in a reverse hook, the other end of the 5 rod being bent upon the central section and terminating in a reverse hook disposed in spaced and opposing relation to the first reverse hook so as to allow a rope to be wound on the two 10 reverse hooks, the space between the reverse hooks being clear so as to allow an intermediate portion of the rope to be passed therebetween for spiralling on the reverse arm prior to winding on the hook.

2. A brake for a fire escape comprising a pair 15 of rods having intermediate sections secured to one another in adjacent relation, each rod having its ends turned over to form hooks and arms pointing toward one another, the extremities of the arms being turned backwards to form a 20 pair of spaced reverse hooks having hook sections disposed in opposing relation for allowing a rope to be wound thereon, the space between the reverse hooks being clear to allow an intermediate 25 portion of the rope to be passed therebetween for spiralling on the arm prior to winding on the hooks and the hooks and arms of the two rods being arranged in the same plane with the intermediate sections.

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