Aug. 31, 1926. 1,598,369

D. A. FOSTER

TRANSPORTABLE FIRE ESCAPE

Filed May 25, 1925

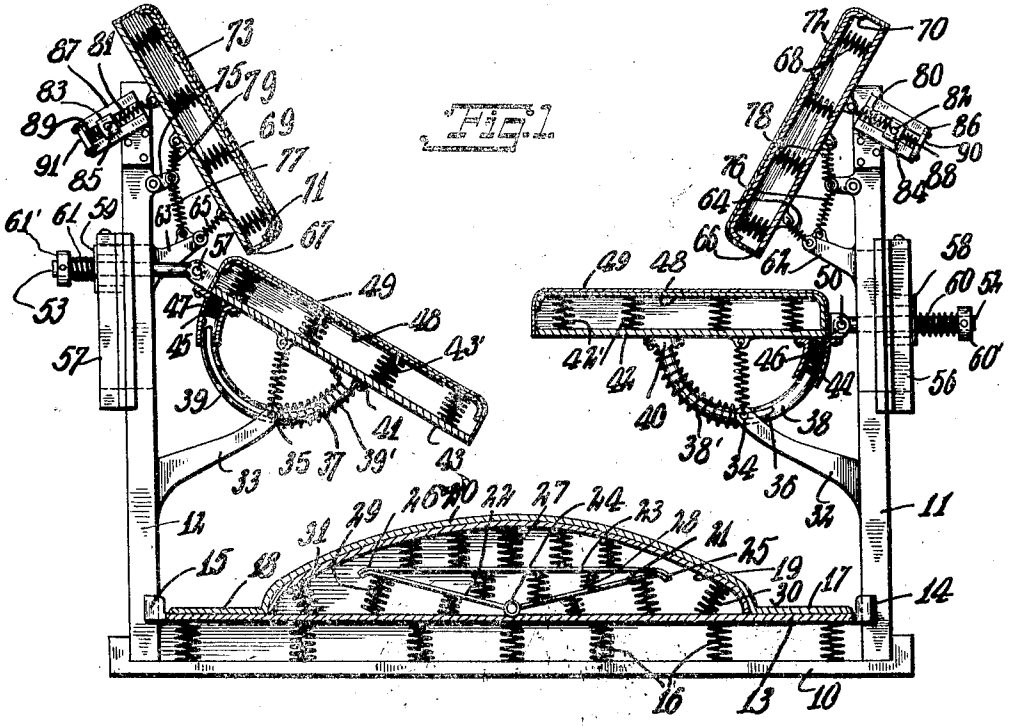


Fig. 1.

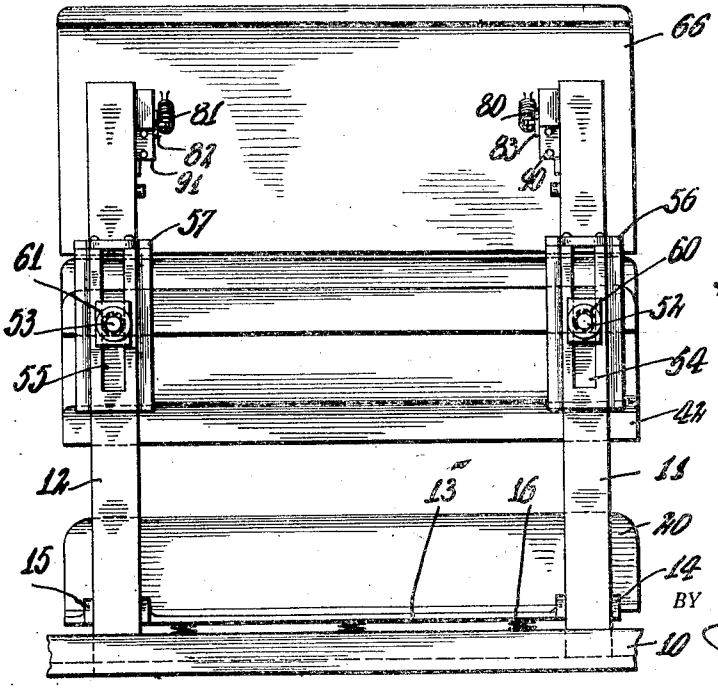


Fig. 2.

INVENTOR.
David A. Foster
BY
Coltan & Bleschke
ATTORNEYS.

Patented Aug. 31, 1926. 1,598,369

# UNITED STATES PATENT OFFICE.

DAVID A. FOSTER, OF CHIPMAN, ALBERTA, CANADA.

## TRANSPORTABLE FIRE ESCAPE.

Application filed May 25, 1925. Serial No. 32,588.

The present invention relates to improvements in fire-escapes, particularly body catchers, or the like, and it is the principal object of the invention to provide a transportable device for catching persons jumping from the windows, etc., of a building on fire and protecting such persons against injury.

Another object of the invention is the provision of a body catcher adapted to be mounted on a motor truck and allowing a ready removal of the persons caught for allowing the greatest possible number of persons to make use of the device within a very short time without injury to one another.

A further object of the invention is the provision of a fire-escape or body catcher of simple and inexpensive construction protected itself against catching fire.

A still further object of the invention is the provision of a body-catcher consisting of a plurality of adjustable, super- and juxtaposed cushioning elements for breaking the fall of a person.

These and other objects and advantages of my invention will become more fully known as the description thereof proceeds, and will then be specifically pointed out in the appended claims.

In the accompanying drawing, forming a material part of this disclosure:

Fig. 1 is a sectional side elevation of a body-catcher constructed according to the present invention.

Fig. 2 is an end view thereof.

The device comprises a base 10 adapted to be bolted or otherwise secured to a motor truck, or the like, allowing a quick transportation of the apparatus from one place to another.

The base carries a plurality of vertical standards or posts 11 and 12, to the inner faces of which, a plurality of cushioning elements are attached, as will hereafter be more fully described.

Between the base 10 and a plate 13 which is slidably guided by means of brackets or flanges 14 and 15, between the posts, a plurality of spiral springs is located. To the plate 13 the end flanges 17 and 18, of a cushion are attached and supported thereon, the central cushion part of which has a certain thickness and comprises a canvas cover, or the like, 19, covered by a fire-proof material 20, as asbestos or the like.

The plate 13 carries in approximately its center a structure, substantially triangular in cross-section and formed by spring plates 21, 22 and 23.

The branch plates 21 and 22 are connected at their inner meeting ends by a loop surrounding a pin 24, while the upper or cover plate 23 has curved ends 25 and 26 adapted to overlap the outer ends of the branch plates, as shown in Fig. 1.

A plurality of spiral springs 27, separates the top plate 23, from the cushion covers 19 and 20, while a plurality of springs 28, separate or cushion the branch plates 21 and 22, from the top plate 23.

Other strong spiral springs 29, cushion the branch plates 21 and 22 against or on plate 13, and springs 30 and 31 obliquely disposed from cushioning means between plate 13 and the cushion covers 19 and 20.

Brackets 32 and 33 are attached to opposite posts 11 and 12, and carry at their upper ends pins 34 and 35, adapted to travel in curved slots 36 and 37 of segmentally shaped rods or bars 38 and 39 carrying upper end brackets 40 and 41 by means of which they are attached to the lower faces of cushioning elements 42 and 43, which carry at their opposite ends sockets 44 and 45 into which the opposite ends of the bars 38 and 39 slide, which are cushioned therein by means of springs 46 and 47. Very obviously the rods 38, and 39 must necessarily be made of springy material in order to have an elastic give to be capable of slightly bending to slide in sockets 44, and 45, when the cushioning elements 42, and 43 are obliquely tilted under stress, as shown on the left hand position of Fig. 1.

Springs 38′ and 39′ surround the bars 38 and 39 between the ends of brackets 32 and 33 and the brackets 40 and 41.

The cushioning elements 42 and 43 have a plurality of spiral springs 42′ and 43′ and a canvas, or the like cover, 48, adapted to be covered by a layer or cover of fire-proof material 49, such as, for instance, asbestos, or the like.

The cushioning elements 42 and 43 are pivotally connected at their outer ends as at 50 and 51 respectively, to the inner ends of stems 52 and 53 extending through posts 11 and 12 and through longitudinal slots 54 and 55 of sliding guide pieces 56 and 57 and the stems are held in their adjusted positions by means of nuts, or the like, 58 and

59. Springs 60 and 61 are wound about the ends of stems 52 and 53 between the nuts 58 and 59 and adjusting collars 60′ and 61′.

Above brackets 32 and 33, other brackets 62 and 63 are attached to the inner faces of the posts or made integrally therewith and to their outer ends, the ends of springs 64 and 65, are attached, the opposite ends of which are attached to eyes located on the underside of cushioning elements 66 and 67 containing a plurality of strong, spiral springs 68 and 69 and having a canvas, or the like cover 70 and 71, under an asbestos cover 72 and 73, or the like.

Links 74 and 75 are attached to posts 11 and 12 above brackets 62 and 63, and have at their outer ends, springs 76 and 77 thereto, the other ends of which are attached to eyes on brackets 62 and 63.

The ends of springs 78 and 79 are also secured to the ends of links 74 and 75 and have their other ends attached to eyes attached at the underside of cushioning elements 66 and 67.

Other eyes, also secured to the bottom plate of cushioning elements 66 and 67, have attached thereto the ends of springs 80 and 81, the other ends of which are attached as at 82 and 83, to blocks 84 and 85, slidably guided in the frames 86 and 87 secured to posts 11 and 12, and springs 88 and 89 are secured with one end to blocks 84 and 85 and at their other ends to the end plates 90 and 91 of frames 86 and 87.

The operation of my device will be entirely clear from the above description, if a motor car on which the device is suitably secured, is brought close to a burning building, persons jumping from the windows, etc., therefore land safely against the cushions and will finally reach the bottom cushion uninjured.

While I have illustrated and described the preferred form of my device, it is to be understood that the same may be subjected to many changes, such as fall within the scope of the appended claims without departure from the spirit and principle of the invention.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. The combination in a body catcher having a cushioned base, and a plurality of vertical posts, supporting at the upper extremities oblique cushioning elements, of brackets extending inwardly from each of said posts, and carrying at their upper ends pins engageable in curved slots of segmentally shaped rods attached to the lower faces of cushioning elements which carry sockets into which the free ends of said rods engage, cushioned by internal springs, cushioning springs surrounding said rods, acting between said brackets, and the lower faces of said cushioning elements, said cushioning elements being pivotally connected at their outer ends to the inner ends of stems extending through said posts, and through longitudinal slots of sliding guide pieces on said stems, which are held in adjusted longitudinal positions by means of nuts, and cushioning springs encircling said stems, acting between adjusting collars on the ends of said stems, and said nuts.

2. In a body catcher, a base, a plurality of vertical posts projecting from said base, brackets extending inwardly from each of said posts, and carrying at their upper ends pins engageable in curved slots of segmentally shaped rods attached to the lower faces of cushioning elements which carry sockets into which the free ends of said rods engage, cushioned by internal springs, cushioning springs surrounding said rods, acting between said brackets, and the lower faces of said cushioning elements, said cushioning elements being pivotally connected at their outer ends to the inner ends of stems extending through said posts, and through longitudinal slots of sliding guide pieces on said stems, which are held in adjusted longitudinal positions by means of nuts, and cushioning springs encircling said stems, acting between adjusting collars on the ends of said stems, and said nuts.

In testimony whereof I have affixed my signature.

DAVID A. FOSTER.