The present invention relates to new and useful improvements in ladders for use particularly by firemen and has for its primary object to provide, in a manner as hereinafter set forth, a ladder of this type comprising novel escape means whereby occupants trapped in burning buildings may be rapidly and safely rescued therefrom.

Other objects of the invention are to provide a combination ladder and fire escape of the character described which will be comparatively simple in construction, strong, durable, compact, of lightweight and which may be manufactured at low cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is an elevational view, looking at one side of a ladder embodying the present invention;

Figure 2 is an elevational view looking at the other side of the device;

Figure 3 is an enlarged view in vertical section through the upper portion of the ladder, taken substantially on the line 3--3 of Figure 1; and

Figure 4 is a view in horizontal section, taken substantially on the line 4--4 of Figure 2.

Referring now to the drawing in detail, it will be seen that the embodiment of the invention which has been illustrated comprises a straight ladder of suitable material which is designated generally by reference character 5.

The ladder 5, which may be of any desired dimensions, includes a pair of rails 6 having extending therebetween adjacent one of the longitudinal edges thereof, runs 7.

Mounted on the upper ends of the rails 6 is a bar 8.

Headed rods 9 are mounted vertically on the bar 8. Sleeves 10 are rotatably and slidably mounted on the rods 9. Fixed on the sleeves 10 and rising therefrom are hooks 11. Upward sliding movement of the sleeves 10 on the rods 9 is yieldingly resisted by coil springs 12 between the heads 13 of said rods and said sleeves.

Mounted between the rails 6 adjacent the other longitudinal edges thereof is a trough or chute 14 of metal or other suitable material. The chute 14 comprises a bottom 15 and integral sides or flanges 16 which are apertured to accommodate securing screws 17. It will be observed that the trough 14 extends substantially the length of the ladder 5.

Mounted on the upper and lower portions of one of the rails 6 are brackets 18. The brackets 18 extend adjacent the trough 14 and have mounted thereon pulleys 19. A rope 20 is operable on the pulleys 19 and has connected to its upper end a body belt 21.

The lower end portions of the sleeves 10 have formed therein grooves or notches 22. The grooves or notches 22 are for the reception of upstanding teeth or lugs 23 on the bar 8 for positively securing the sleeves 10 with the hooks 11 thereon in rotatably adjusted position.

It is thought that the use of the device will be readily apparent from a consideration of the foregoing. Briefly, with the hooks 11 in the position shown in Figure 1 of the drawing, the fireman erects the device, engaging said hooks with a window sill, for example, of the burning building. The fireman then ascends the ladder 5 and enters the building through the window beneath which the device has been erected. The device is then turned over to bring the chute 14 into position for use and the hooks 11 are reversed, as seen in Figure 3 of the drawing, and reengaged with the window sill. With one or more firemen holding the lower end of the rope 20, the person to be rescued is placed in the upper end portion of the chute 14 and the belt 21 is secured around his or her body. The rope 20 is then paid out to lower the person being rescued to the ground in the chute 14. The belt 21 is removed and returned to the upper end portion of the device where the operation may be quickly repeated. As hereinafter stated, the teeth or lugs 23, engaged in the notches or grooves 22 positively secure the sleeves 10 with the hooks 11 thereon in either operative position. To disengage the sleeves 10 from the teeth or lugs 23 said sleeves are elevated on the rods 9 against the tension of the coil springs 12.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

A device of the class described comprising a pair of laterally spaced longitudinal rails, transverse members connecting said rails together in parallel relation, an elongated fire escape chute fixed to and between said rails longitudinally thereof for positioning in upright position and having a solid bottom and outwardly longitudinally extending side flanges for guiding a person sliding down the chute and fixed to said rails to secure the chute to the rails, a belt for attachment to a person sliding down the chute, a pair of pulleys mounted on one side rail adjacent opposite ends thereof, respectively, to dispose the same outwardly of one side flange of the chute, and a cable trained around said pulleys and connected to said belt for lowering the belt down and in front of the chute to lower a person down the chute.

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