Dec. 25, 1928. 1,696,357

W. W. JOHNSON

FIRE ESCAPE

Filed Nov. 2, 1927 2 Sheets-Sheet 1

Fig. 1.

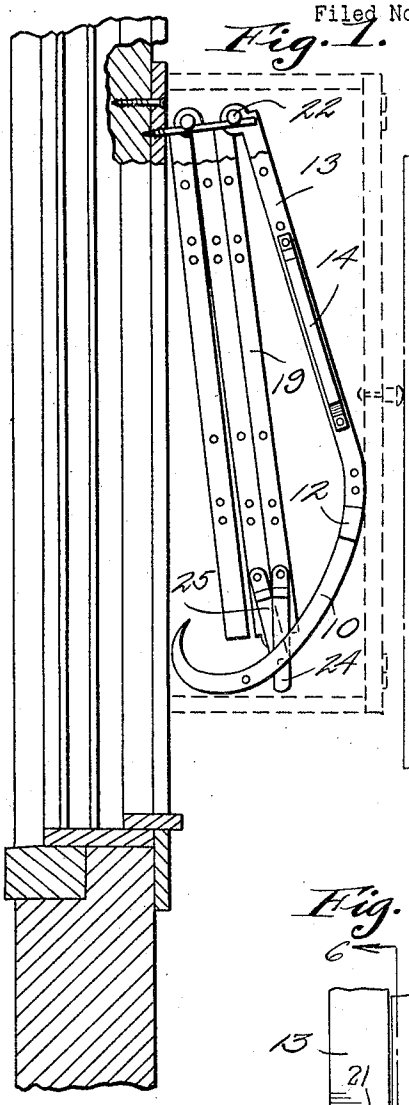


Fig. 2.

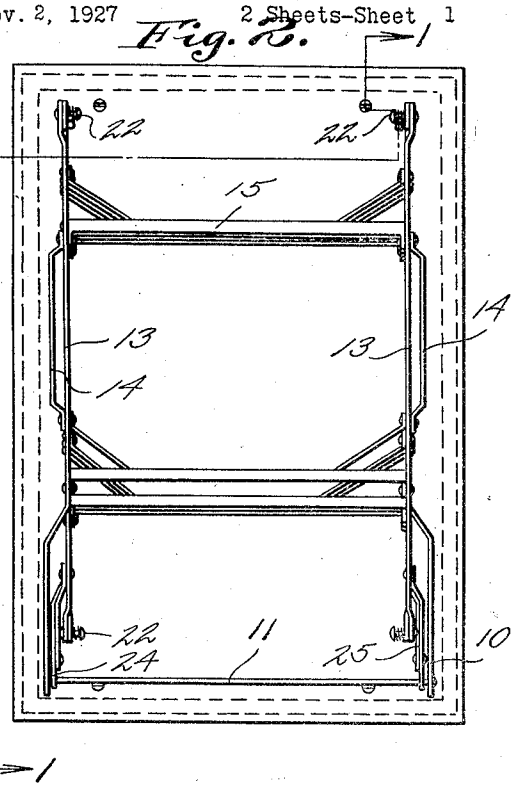


Fig. 5.

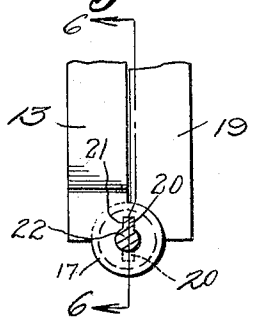
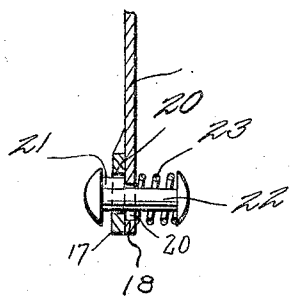


Fig. 6.



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Fig. 3.

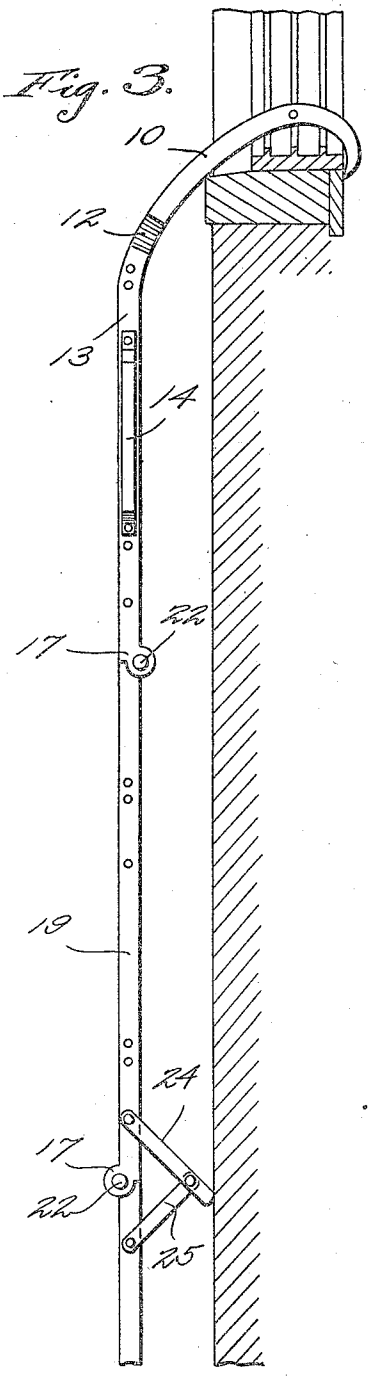
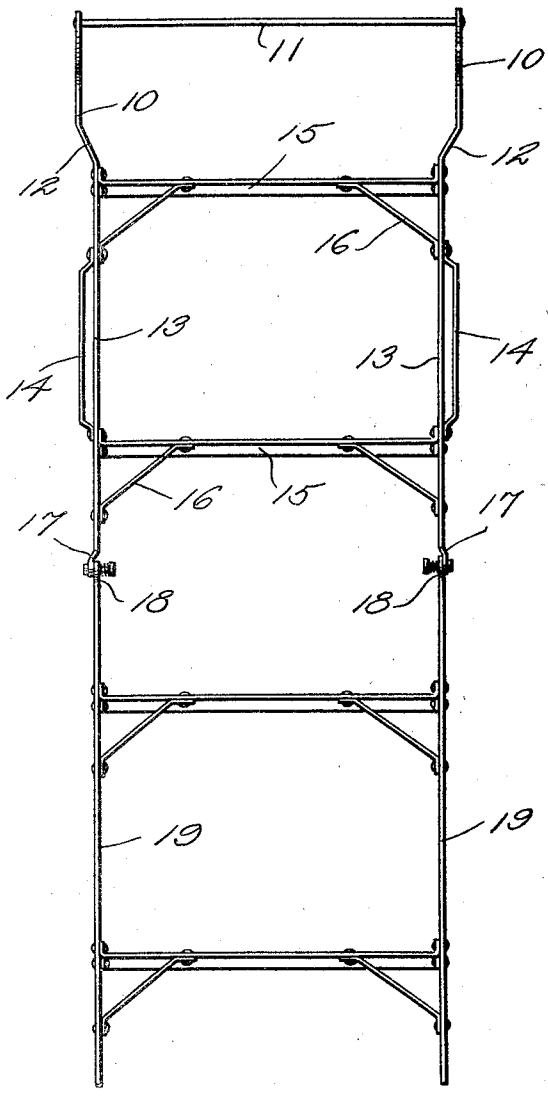


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIS W. JOHNSON, OF DEWITTVILLE, NEW YORK.

FIRE ESCAPE.

Application filed November 2, 1927. Serial No. 230,648.

This invention has particular relation to fire escapes embodying among other characteristics a plurality of folding sections adapted to be readily extended when called into use.

Another object of the invention comprehends a hook portion carried by one of the sections adapted to suspend the sections when called into active use.

A further object contemplates means for spacing the sections from a wall structure to provide ample and sufficient room for the hands and feet upon rungs carried by the sections.

More specifically stated the junctures of association for the respective sections are provided with pivot pins and key-way connections to prevent displacement of the sections when extended.

With the above and other objects in view, the invention further consists of the follow-lowing novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claim.

In the drawings:—

Figure 1 is a fragmentary vertical sectional view taken through a portion of a window frame and a cabinet for the invention folded therein and taken on line 1—1 of Figure 2.

Figure 2 is a front elevation of the device as folded within the cabinet.

Figure 3 is a side elevation of the invention as extended for use.

Figure 4 is a front elevation of the invention, as extended.

Figure 5 is a sectional view taken on line 5—5 of Figure 6.

Figure 6 is a sectional view taken on line 6—6 of Figure 5.

Referring to the drawings in detail, wherein like characters of reference denote corresponding parts, the reference characters 10 indicate companion hook members connected by a spacing bar 11. Said bars are inwardly offset as indicated at 12 and which terminate to provide portions 13 extended in parallel relation.

The outer sides of the portions 13 are provided with handle members 14 by means of which the hook members 10 may be conveniently manipulated. Rungs 15 preferably constructed of angle bars are provided with offset portions upon the extremities thereof and secured to the inner sides of the portions 13. Bracing strips 16 are provided to rigidly support the rungs or treads 15 in position therewith and adapted to withstand the weight of several persons at one time. The extremities of the portions 13 are further provided with offset and apertured portions 17 registering with enlargements 18 carried upon the adjacent ends of sections 19; the latter being provided with rungs constructed after the manner of the rungs 15 carried upon the portions 13 of the hook members 10. The offset extremities 17 of the portions 13 and the enlarged and apertured ends 18 are each provided with key-way slots 20 communicating with the apertured portions thereof. Said key-ways are ordinarily disposed in diametrically opposed relation but when the respective sections are extended for use said key-ways are adapted for registration to receive keys 21 carried by pivot pins 22 forced in one direction by compression springs 23 encircling appropriate portions thereof and abutting the adjacent sides of the portions 18.

It will thus be noted when the hook members 10 and sections 19 are extended for use that the same will be rigidly held against displacement by the keyed connections for the pivot pins. The sections 19, are in addition, provided with long and short link members 24 and 25 respectively, pivotally connected at a point upon the longer link remote from the extremity thereof. Said extremity of the longer link 24 is adapted to engage with the outer surface of a wall structure to sufficiently space the sections and rungs therefrom to permit ease in the employment of the device, especially for the hands and feet upon the rungs 15. Said links 24 and 25 are adapted to fold with the sections, substantially as illustrated in Figure 1 of the drawings.

In order to fold the invention from the extended positions as illustrated in Figures 3 and 4 of the drawings the inner heads of the pins 22 are depressed against the compression springs 23 to release the keys 21 from the key-way slots 20 whereby said sections may be readily swung upon the pivot pins 22 and against the companion sections.

In Figures 1 and 2 of the drawings I have illustrated an arrangement by means of which the invention may be compactly and conveniently stored within a cabinet located adjacent a window frame. Figure 3 clearly

illustrates the application of the hook portions upon a window sill and of the effective engagement of the links 24 with the surface of a building structure to space the respective sections.

It is obviously understood that any number of the sections 19 may be employed to provide an escape of a desired length.

The invention is susceptible of various changes in its form, proportions and minor details of construction, and the right is herein reserved to make such changes as properly fall within the scope of the appended claim.

Having described the invention, what is claimed is:

A fire escape comprising a plurality of pivotally connected sections, rungs carried by the sections, pivot pins for the connections being provided with spring members adapted to normally shift the same in one direction, the connected ends of the sections being provided with key-way slots communicating with the apertured portions thereof, and keys carried by the pivot pins being adapted for reception within the key-way slots to rigidly hold the sections against displacement when called into active use.

In testimony whereof I affix my signature.

WILLIS W. JOHNSON.