July 1, 1969 D. B. GABRIELSON ET AL 3,452,838

PORTABLE COMBINATION TABLE AND FIRE ESCAPE

Filed March 14, 1967 Sheet 1 of 2

FIG. 1.

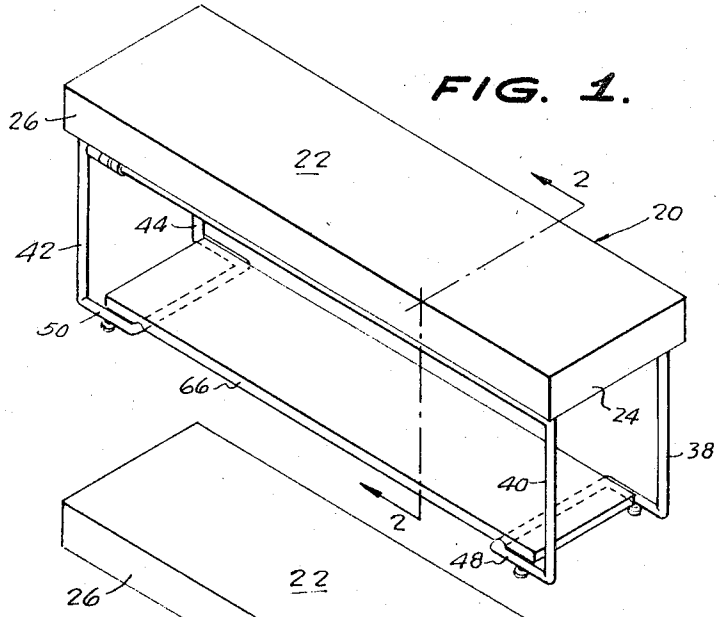
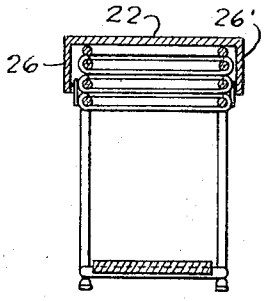


FIG. 2.



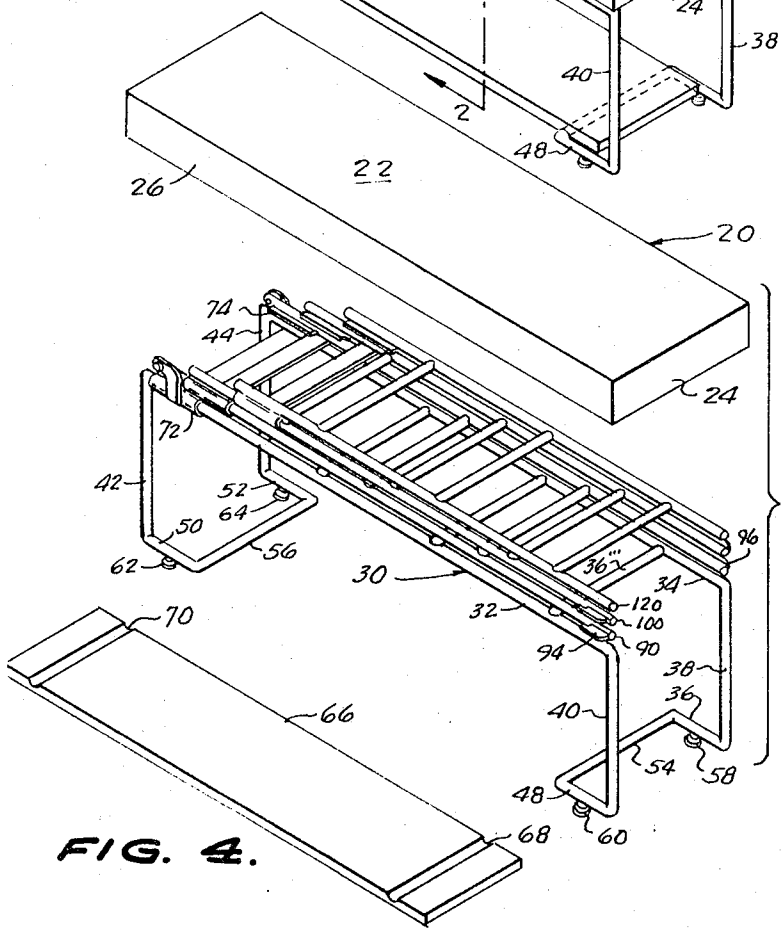


FIG. 3.

FIG. 4.

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Filed March 14, 1967 Sheet 2 of 2

FIG. 5.

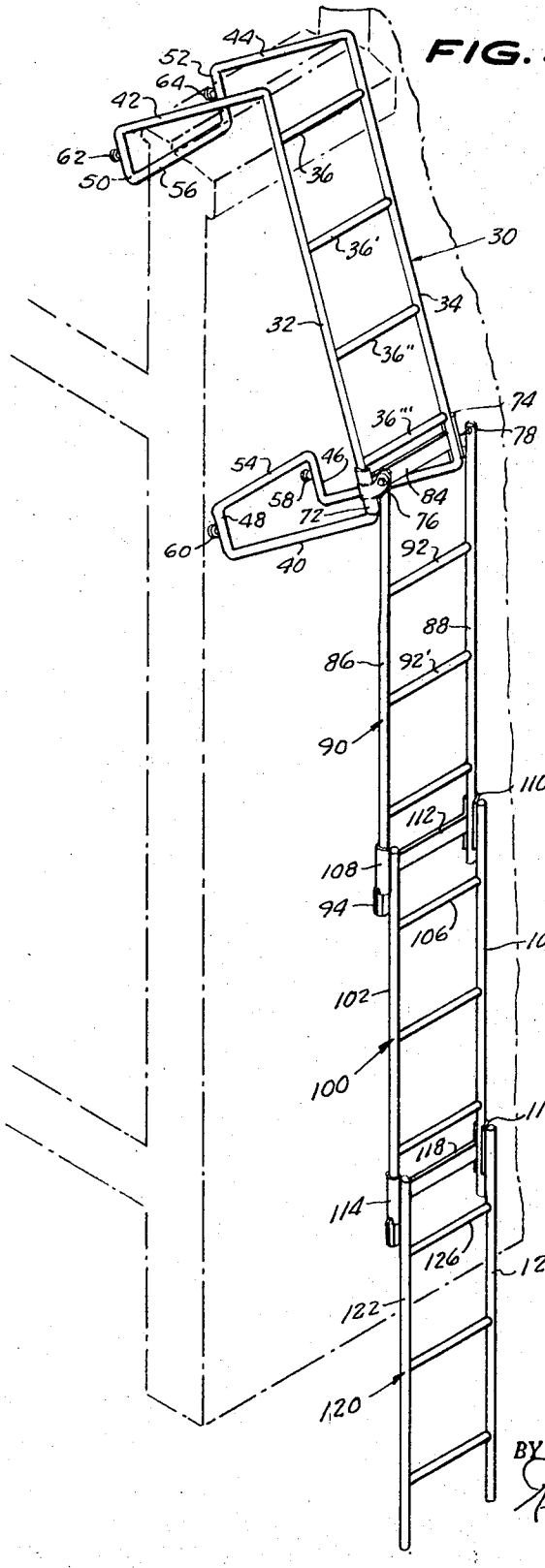


FIG. 6.

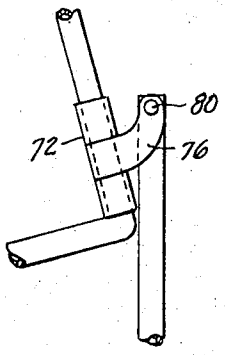


FIG. 7.

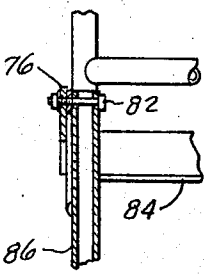


FIG. 8.

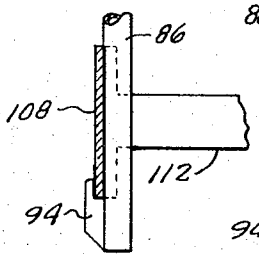
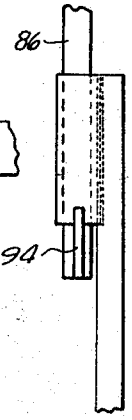


FIG. 9.



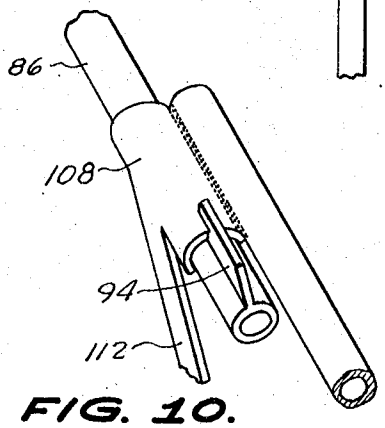


FIG. 10.

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PORTABLE COMBINATION TABLE AND FIRE ESCAPE

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9 Claims

ABSTRACT OF THE DISCLOSURE

A table base including a plurality of leg members forming hooking means for engaging a window sill and a plurality of telescopingly extensible ladder members of substantially the same length as the table base secured to the table base is disclosed.

BACKGROUND OF THE INVENTION

Field of the invention

This invention relates to fire escapes generally and more particularly to portable fire escapes which may normally be used for other purposes, for example, as a table.

Description of the prior art

Portable fire escapes which may normally be used as a table are known in the prior art, for example, Patent No. 738,998, discloses one such fire escape. Extensible fire escapes are also known in the prior art. For example, Patent Nos. 819,929, 3,061,042 and 3,265,155 disclose such fire escapes.

To our knowledge however, a truly portable fire escape is unknown. The fire escape shown in Patent No. 738,998 to Heath, is generally directed to the same problem which the present invention solves but, as there shown, fire escapes generally have to be secured to the floor, the walls, or to some other portion of the building. In addition, fire escapes such as are known and which serve dual purposes generally are very heavy, cumbersome, and unsightly and require special means for covering the entire construction of the table in order to avoid the unsightly mechanical linkages and constructions necessary in providing the fire escape mechanism. The present invention obviates these difficulties and disadvantages.

SUMMARY

The present invention is directed to a combination table, of the type having a removable top, which is extensible to form a fire escape ladder. The table includes a table base which has a plurality of leg members, at least one of which is constructed to form a hooking means, and a plurality of ladder members extensibly secured to the table base for being suspended therefrom. The ladder members are relatively extensible and are preferably relatively telescopic from an extended position for use as a fire escape to a length substantially the same as the length of the table base for use as a table. The leg members, in the preferred embodiment, include inward extensions directed toward the center of the table at the foot of each leg. These extensions form hook members which engage a window sill for supporting the table and the extensible ladder members outside a building wherein the table and the ladder members serve as the fire escape. Cross bracing between the inward extensions is normally provided.

Viewed as a fire escape, an elongate frame having cross members and leg extensions forming means for supporting the frame and one or more telescopic ladder units pivotally and telescopingly secured to the frame is disclosed.

The central object of the invention is to provide a truly portable, lightweight, table having means for engaging the window sill for supporting the table and an extensible ladder secured thereto outside the window as a fire escape. The specific construction of the table and the highly important constructional details also comprise objects of the invention.

BRIEF DESCRIPTION OF THE DRAWING

FIGURE 1 is a perspective view of the present invention collapsed to form a table.

FIGURE 2 is an end view taken substantially along lines 2—2 of FIGURE 1 showing the collapsed construction of the table.

FIGURE 3 is an expanded perspective view of the table in its collapsed position showing the relation of the fire escape construction and the table components.

FIGURE 4 is a view of an elongate base brace member shown inverted.

FIGURE 5 is a perspective view of the fire escape construction of the table shown in its extended position secured in a window sill in the position in which it serves as a fire escape.

FIGURES 6 through 10 show detail views of the pivotal and telescopic mechanisms of the extensible ladder construction of the fire escape.

DESCRIPTION OF THE PREFERRED EMBODIMENT

With reference now to the figures, primarily FIGURES 1 through 5, wherein like elements have like numerals, the table of this invention is of the type having a removable top **20** which has a top surface **22**, end aprons **24** and side aprons **26**.

The table **30** comprises an elongate frame consisting of side bars **32** and **34** which are secured together by a plurality of cross members **36** which form steps when the invention is in use as a fire escape.

Leg members **38**, **40**, **42** and **44** extend downwardly from the respective ends of side bars **32** and **34** for supporting the table. Inward extensions **46**, **48**, **50** and **52** are secured to the lower ends of the leg members and extend inwardly to the central portion of the table and, in the preferred embodiment, extensions **46** and **48** are secured together by a cross brace **54** and inward extensions **50** and **52** are secured together by a cross brace **56**. In cooperation with the legs, the inward extensions and, in the preferred embodiment, the cross braces form hooking means for engaging a window sill when the table is substantially extended from a window as shown in FIGURE 5, for suspending the table from the window sill.

It is also desirable to provide feet **58**, **60**, **62** and **64** which are preferably secured to the inward extensions.

An elongate brace member **66** having grooves **68** and **70**, as shown in FIGURE 4, may conveniently be provided, as shown in FIGURE 1, running longitudinally of the table and engaging the cross braces **54** and **56**.

A pair of slidable brackets **72** and **74** having upwardly extending arms **76** and **78** through which bolts **80** and **82** extend are slidably received on side bars **32** and **34** and, preferably, are secured together by a cross support brace **84**. Bolts **80** and **82** are connected to the ends of ladder member side bars **86** and **88** of ladder member **90** which also includes cross members **92** which form steps in the fire escape. Stops **94** and **96** are secured at the distal end of ladder member side bars **86** and **88**. Ladder member **100** having side bars and **104** and cross members **106**, which form steps, is telescopingly slidably secured to ladder member **90** by slidable brackets **108** and **110** which are, preferably, secured together by cross support brace **112**. Slidable brackets **108** and **110** are engaged, in their lowermost position, by stops **94** and **96**.

Detailed views of the construction of brackets **72** and **74** which secure ladder member **90** to the table base are shown in FIGURES 6 and 7, and the detailed construction of brackets **108** and **110** and the engagement of stop **94** with bracket **108** is shown in detail in FIGURES 8, 9 and 10. In a similar manner, brackets **114** and **116** which are secured together by a cross support brace member **118** secure ladder member **120**, which comprises side bars **122** and **124** and cross members **126** to ladder member **100**.

It will be apparent from FIGURES 3 and 5 that the telescoping fire escape may be extended through the telescoping relation of the table frame **30**, and ladder members **90**, **100** and **120**, from the fully collapsed position, as shown in FIGURE 3, wherein the ladder members are telescoped to a length substantially equal to the length of the table base to a length as shown in FIGURE 5, which is more than twice the length of the table base and where the table base, and the ladder members, comprise a continuous fire escape ladder extending from a window sill downwardly to the ground. Obviously, more or less ladder members may be provided.

One of the important features of the invention resides in the novel telescoping relation of the ladder members and the table base which utilizes the length of the table, in its collapsed position, to the greatest possible extent in the extended position as a fire escape. It should be noted that not only do the ladder members serve as fire escape ladders, but the table itself serves as a portion of the fire escape.

Another important feature resides in the relation of the legs and the hook means formed thereon to the table base and to the extensible ladder members. While it is necessary only to have a hooking means on one end of the table, it is convenient to provide such means on both ends of the table, and, as shown in FIGURE 5, one of the hooking means may serve its conventional function of engaging the window sill in a window for supporting the table frame and the extensible ladder members downwardly from the window toward the earth while the other of the hooking members engages the wall below the window sill and holds the fire escape outwardly away from the wall. In this latter regard, it frequently is desirable to support the fire escape a distance away from the wall for two important reasons. First, if a fire should start in the lower part of the building, the wall may become uncomfortably warm and may become so hot as to discourage or prevent the use of the fire escape which is attached to the wall or which is suspended very near the wall. Secondly, where a ladder is secured to a wall or supported very close to a wall there is often insufficient space for convenient climbing. Thus, it is desirable to provide a ladder a spaced distance away from the wall, as shown in FIGURE 5.

It will also be noted that the table is fully portable. That is, it need not be secured to the wall or to the floor of the building and may be placed in a convenient location in a room which has a window through which escape may be made. The table may be placed near a window for convenience or it may be conveniently placed anywhere in the room for example, it may serve as a center table, a corner table or even a small dining table. It may be transported from room to room and from building to building. Unlike the fire escapes of the prior art, it does not become a fixture of the building in which it is to be used.

Another important feature is shown in FIGURE 5. Unlike some of the telescoping tables of the prior art, the ladder of the fire escape formed by the table base and by the ladder members in the extended position is substantially of the same width throughout its length. Extensible fire escapes are known in the prior art which are telescoping but which have decreasingly wide segments or members therein. This construction results in undue wastage of material in the most narrow part of the ladder is made of a convenient usable width since the wider part must be considerably wider with the attendant disadvantages of weight and increased usage of materials. Such problems are entirely obviated by the present invention. As shown in FIGURE 3, the increase in dimension which results from telescoping of the ladder members is compactly utilized under the cover of the table. It is well known that a table of a comfortable height for writing, for eating or for other uses, provides several inches of space below the upper surface thereof which may be utilized as drawers or may be not utilized at all. It is an important facet of the present invention to utilize this space, which may otherwise be wasted, for storing the collapsed fire escape ladder members.

It should also be noted that the fire escape may be made of any desirable length. If, as indicated in FIGURE 5, the distance of the window above the ground is of a predetermined height the table may be constructed to provide engagement of the bottom ladder member with the ground when the ladder is fully extended. On the other hand, standard table sizes may be made which may reach a distance greater than that required to engage the ground. In this case, the ladder simply does not telescope to its fullest length. Alternatively, if the distance to the ground is greater than the length of the extended ladder and table, the fire escape may still be quite usable since the ladder will extend to a distance above the ground from which it is safe to jump. In the latter case, the entire fire escape is supported by the table frame.

It should now be apparent that a novel, light, easily stored fire escape which is collapsed into the form of a table has been provided and which has numerous advantages over the fire escapes of the prior art. And while the invention has been abstracted, summarized, and described with reference to a highly specific embodiment to enable those skilled in the art to practice the invention, it is intended that the construction shown, equivalents thereof, and obvious variations thereof will be included within the spirit of the claims which follow.

We claim:

1. In a table, of the type having a removable top, which is extensible to form a fire escape ladder, the combination comprising:

a table base, including

a plurality of leg members, at least one of which is constructed to form a hooking means for engaging a window sill when said table is substantially extended from a window for suspending said table from the window sill; and

at least one ladder member extensibly secured to the table base for being suspended therefrom, said table base and ladder member forming a fire escape ladder from the window.

2. The table of claim **1** further comprising:

a plurality of relatively extensible ladder members, one of which is said ladder extensibly secured to the table base.

3. The table of claim **2** wherein:

the ladder members are relatively telescoping from an extended position to a length substantially the same as the length of the table base.

4. The table of claim **1** wherein:

the leg members at one end of the table further comprise,

an inward extension directed centrally of the table on the foot of each leg, said extensions forming hook members.

5. The table of claim **4** further comprising:

a cross-brace secured to the distal ends of the inward extensions.

6. The table of claim **5** wherein:

both ends of the table are provided with leg members, inward extensions and cross-braces of like construction;

and further comprising,

a removable brace member engaging said cross-braces, said brace member extending longitudinally of the table.

7. The table of claim 5 further comprising:

a plurality of relatively telescopingly extensible ladders, one of which is said ladder telescopingly secured to the table base for extending from a collapsed position substantially the same length as the table base to an extended position of more than twice the length of the table base.

8. A portable fire escape comprising:

an elongate frame;

cross members on the frame forming ladder steps;

leg extensions at the ends of the frame, for normally supporting the frame;

a ladder unit pivotally secured at one of its ends on and adjacent one end of the frame, said ladder unit being pivotal from a first position in lateral and substantially parallel juxtaposition relative to said frame to a second position forming a longitudinal extension of said frame; and

a plurality of ladder members of substantially the same width mounted for telescopic movement relative to one another and with one of said ladder members being telescopically mounted and supported on said unit.

9. The invention of claim 8 further comprising:

means forming hook members secured to at least one of said leg extensions, for engaging a window sill and supporting said fire escape.

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U.S. Cl. X.R.

182—195, 206