# United States Patent [19]

**Zamorski**

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[54] **LIFE SAVING ESCAPE CHUTE**


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[52] **U.S. Cl.** ..... **182/48;** 182/48

[51] **Int. Cl.²** ..... **A62B 1/20**

[58] **Field of Search** ..... 182/47, 48, 49; 138/157, 138/177, 163; 193/7, 8, 2 R



[56] **References Cited**

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|---|---|---|---|
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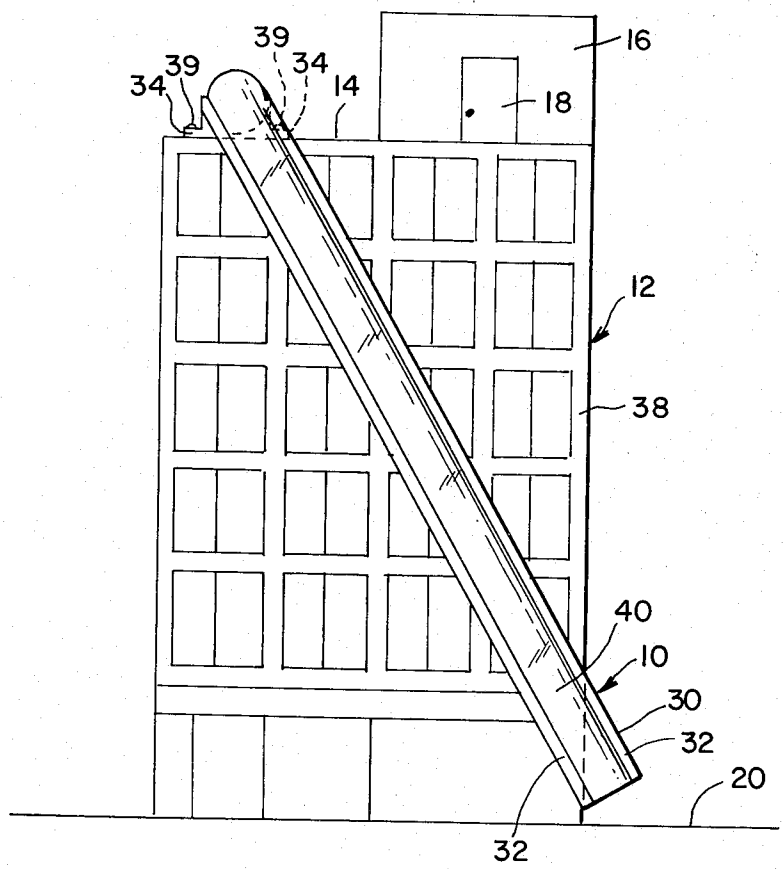
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[57] **ABSTRACT**

The fire escape chute for a building comprising an elongated metal chute having a plastic covering curved over top thereof. The plastic covering engages the metal chute along the edges thereof to prevent entrance of smoke.


**6 Claims, 3 Drawing Figures**



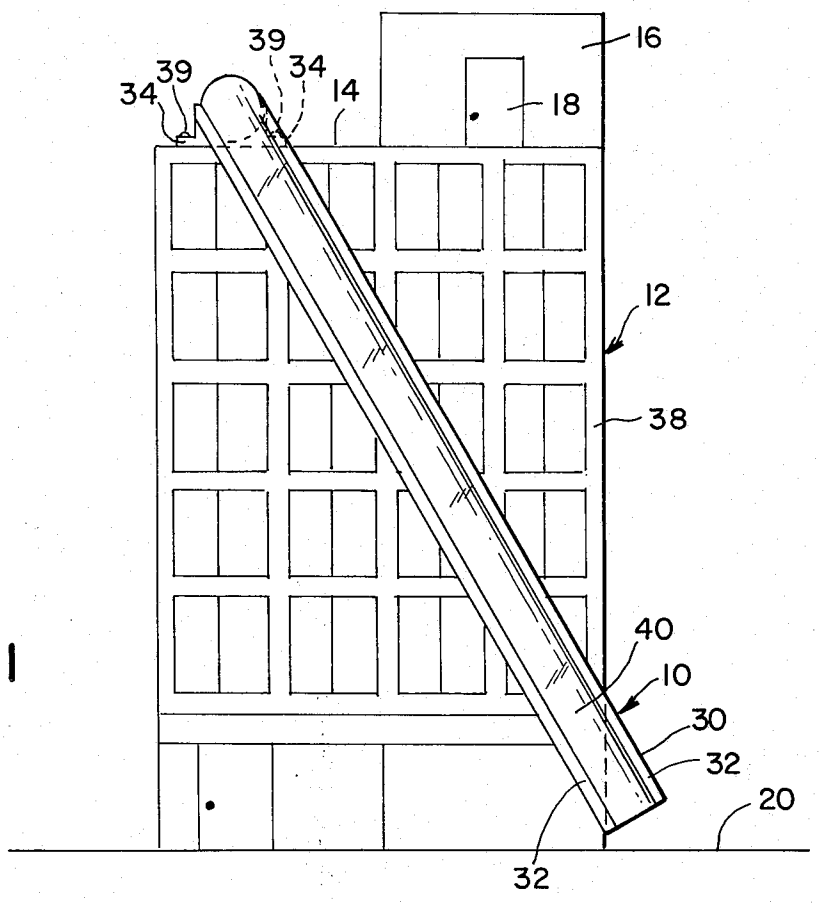



Fig. 1

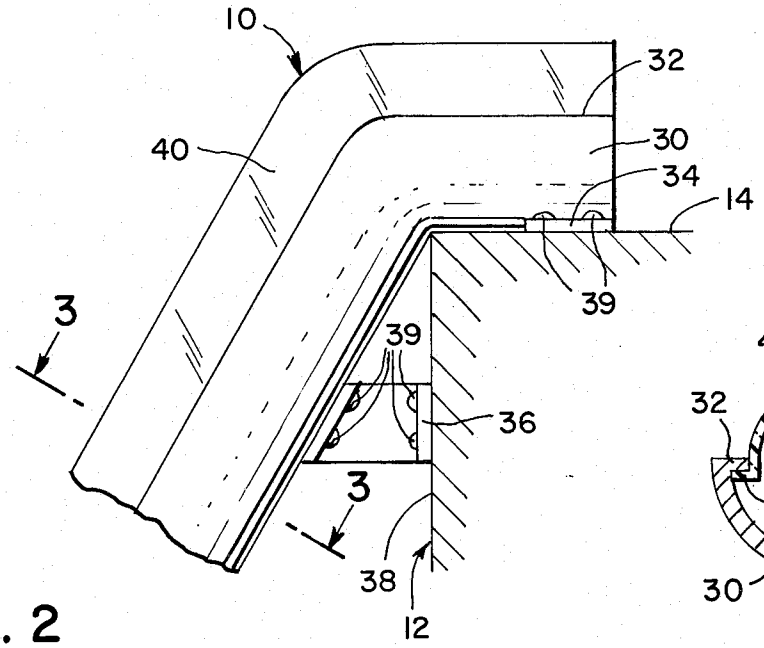



Fig. 2

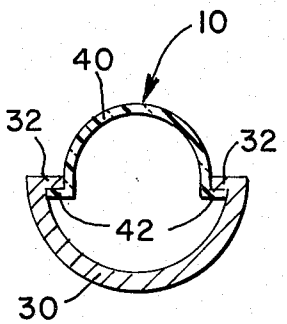



Fig. 3

# LIFE SAVING ESCAPE CHUTE

## BACKGROUND OF THE INVENTION

The field of the invention relates to fire escapes and particularly the chute type which are very often tubular in construction. The background of the invention includes apparatus such as shown in Potter, U.S. Pat. No. 1,950,996 issued Mar. 13, 1934. The apparatus disclosed therein includes a fire escape having at least two main tubular sections with means connecting them to form a tubular chute. The problem with such prior art structures known heretofore concerns the use either of open chutes which were prone to collect a substantial amount of dirt that impeded the normal use thereof and which were alarming to the user who found it difficult to feel confident that he would not be ejected over the top thereof. Covered chutes that have been known heretofore have been ugly in appearance and presented a dark forboding aspect to the person contemplating the use thereof.

Accordingly, it is the primary object of the invention to provide apparatus which is aesthetically pleasing, which will contain the user thereof, and which allows the entrance of light.

Still another object of the invention is to provide apparatus which is simple and inexpensive to manufacture and also to assemble at the location where the chute will be installed.

## SUMMARY OF THE INVENTION

In accordance with the invention in one form a building escape chute is provided comprising an elongated metal chute having a plastic covering over the top thereof. The plastic covering engages the metal chute along the edges thereof in sealing engagement to prevent the entrance of smoke.

Normally the chute will be arcuate and the plastic cover will be transluscent and also arcuate. The chute and the cover may be disposed to form a generally tubular apparatus. In one form the cover may have a radius which is smaller than that of the chute and have a flange extending radially out from the center of curvature thereof. Normally the chute will have in that case a flange along each edge extending radially toward the center of curvature thereof for engagement with the flange of the cover.

The chute may be disposed with the axis thereof forming a 60° angle with respect to the side of the building on which it is mounted.

## BRIEF DESCRIPTION OF THE DRAWING

While the specifications concludes with claims particularly pointing out and distinctly claiming the subject matter which I claim as my invention, it is believed the invention will be better understood from the following description taken in conjunction with the accompanying drawing in which:

FIG. **1** is a front elevational view of a novel apparatus in accordance with the invention;

FIG. **2** is a side elevational partly broken away view to enlarge scale of the apparatus shown in FIG. **1**; and

FIG. **3** is a sectional view taken through the line 3—3 of FIG. **2.**

## DESCRIPTION OF A PREFERRED EMBODIMENT

Referring now to FIGS. **1, 2** and **3** there is shown a chute **10** disposed on the side of building **12** and particularly extending from the roof **14.** In accordance with the invention the chute may be positioned adjacent to a window or other surface of the building. In the application shown the roof **14** has a structure **16** disposed thereon which includes a doorway **18** which is accessible from the interior of the building **12.** As shown in this view the chute **10** extends from the roof **14** to the ground **20** at an angle to approximately 60°. This angle may be used in the preferred form but is not essential to the invention.

The chute **10** has an arcuate metal slide **30.** The metal chosen ordinarily would be either steel or aluminum. In those applications where ease of assembly at the site is particularly important and also resistance to corrosion aluminum would be the preferred metal. In other applications steel will normally be used. The slide **30** has in the preferred embodiment flanges **32** extending radially inwardly toward the center curvature of the side **30.**

The slide **30** is carried on the building **12** by a roof bracket **34** and a plurality of wall brackets **36.** The brackets **34, 36** are secured to the slide **30** and the roof **14** and wall **38** by suitable fasteners **39** which may be bolts, wood screws or other well known fasteners.

The slide **30** is provided with a cover or a dome **40** which is in the preferred form a transluscent or transparent plastic material and normally is arcuate and has flanges **40** extending radially along the edges of the dome **40** in a direction away from the center of curvature thereof. The flanges **42** of the dome **40** are dimensioned and configured for engagement with the flanges **32** of the slide **30.** Normally the dome **40** will be of a relatively rigid plastic material which will have a natural spring action tending to urge the dome outward into close fitting engagement with the flanges **32** of the slide **30.** The surface there between normally will have a sealing material disposed thereon and fasteners (not shown) will be provided for sealing engagement therebetween. The sealing is important since it prevents the entrance of smoke. The material for the dome should be non-flammable. Ordinarily the fire will be within the building and therefore will not impinge directly on the chute **10.** The plastic is accordingly preferable to metal in that it will insulate from any heat in the area. It is obviously important to select a material having a relatively high elastic limit because there may be substantial heat present. Various other alternatives will be apparent to those skilled in the art without departing from the spirit of the invention.

Having thus described the invention, what is claimed as new is:

**1.** A fire escape chute for a building comprising an elongated metal slide having an elongated solid transluscent plastic covering carried over substantially the entire length of the slide, said plastic covering engaging said metal slide along the edges thereof in sealing engagement to prevent entrance of smoke.

**2.** The apparatus as described in claim **1** wherein said slide has an arcuate cross-section and has a flange on each side extending radially toward the center of curvature of said slide.

**3.** The apparatus as described in claim **2** wherein said plastic covering has an arcuate cross-section and has a flange on each edge thereof extending radially away from the center of curvature thereof and interlocking under the flanges of the slide, the covering being flexed

by said interlocking of flanges to urge the interlocking flanges into sealing engagement.

**4.** The apparatus as described in claim **3** wherein said chute is disposed with the geometric axis thereof forming a 60° angle with respect to the side of the building on which it is mounted.

**5.** The apparatus describing claim **3** wherein the radius of curvature of the slide is greater than the radius of curvature of the cover.



**6.** The apparatus as described in claim **1** wherein radially extending flanges join said plastic covering and said slide.

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