March 25, 1969 F. M. HATCHER 3,434,253

FOLDABLE UTILITY BUILDING

Filed Jan. 15, 1968 Sheet 1 of 2

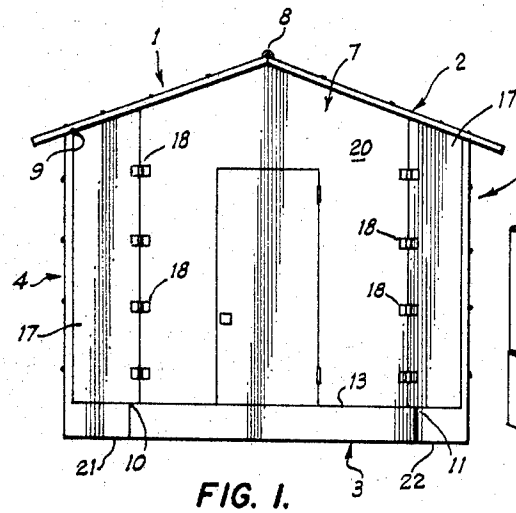


FIG. 1.

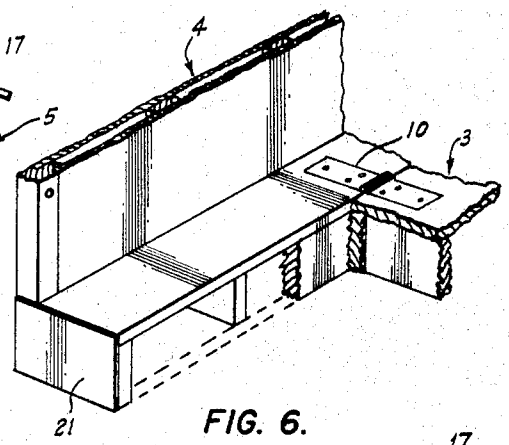


FIG. 6.

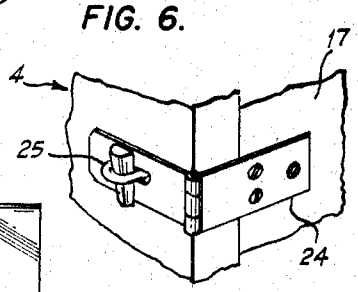


FIG. 9.

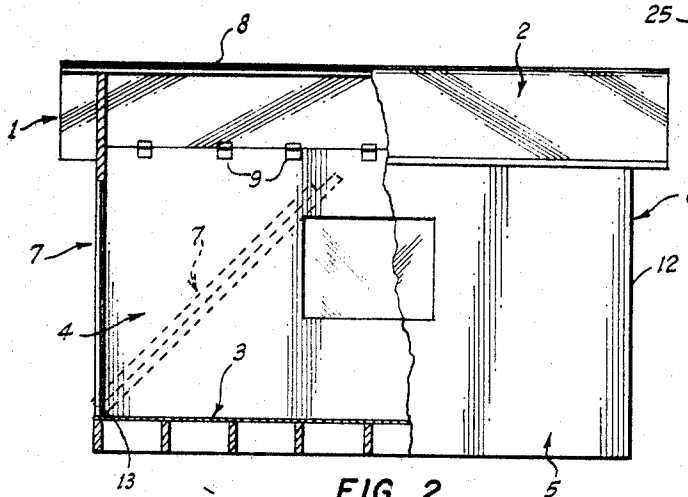


FIG. 2.

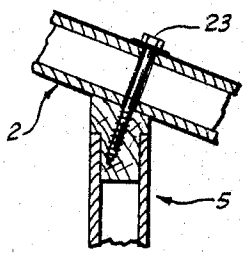


FIG. 7.

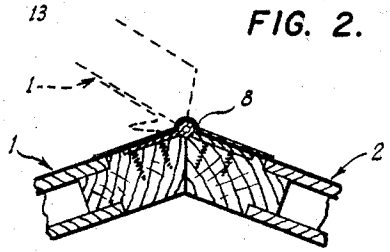


FIG. 8.

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FOLDABLE UTILITY BUILDING

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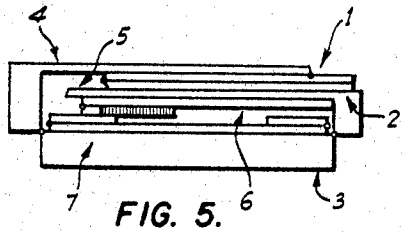


FIG. 5.

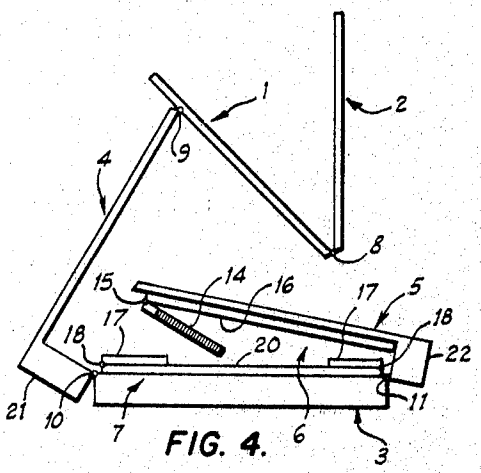


FIG. 4.

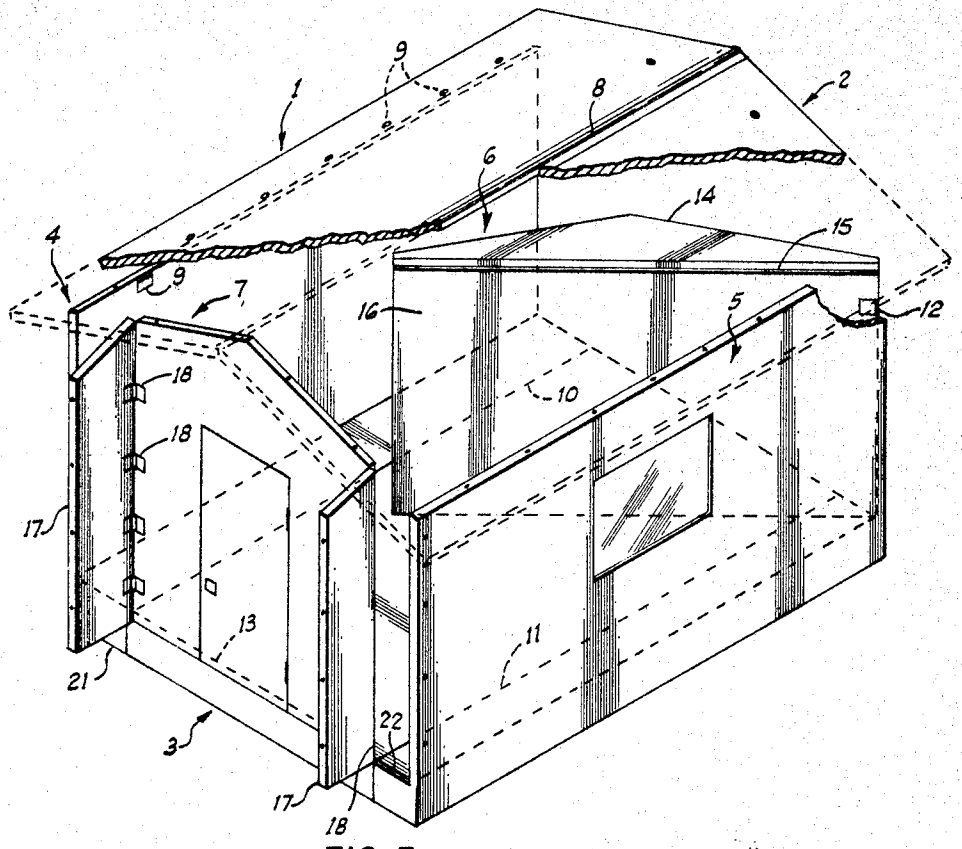


FIG. 3.

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United States Patent Office 3,434,253 Patented Mar. 25, 1969

3,434,253

FOLDABLE UTILITY BUILDING

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Filed Jan. 15, 1968, Ser. No. 697,975
Int. Cl. E04b 7/16, 1/343
U.S. Cl. 52—69 2 Claims

ABSTRACT OF THE DISCLOSURE

Certain specific improvements in a foldable building structure having a pair of oppositely inclined roof portions and having bottom, side, and end portions, said portions being connected one to another by hinges whereby they may be folded compactly one upon another about said hinges in the folded positions thereof, for convenience in transporting and storing.

This invention relates to a foldable utility building, and it concerns more particularly certain specific improvements in a foldable building structure having a pair of oppositely inclined roof portions and having bottom, side, and end portions, said portions being connected one to another by hinges whereby they may be folded compactly one upon another about said hinges in the folded positions thereof, for convenience in transporting and storing.

In my Patent No. 3,280,796, dated Oct. 25, 1966, I have shown a folding dog house having incorporated therein a foldable building structure as described in which one of said hinges connects the adjacent edges of the roof portions, another of said hinges connects the upper edges of one of the side portions to the under side of one of the roof portions, a third hinge connects the bottom portion to said one of the side portions, a fourth hinge connects the bottom portion to the side portion opposite said one of the side portions, and two other hinges connect the two opposite ends of the last mentioned side portion to the adjacent edges of the adjoining end portions.

The building structure shown in the patent further includes fastening means whereby said portions are adapted to be further connected one to another, in the erected positions thereof, to form a rigid, fully enclosed unitary structure characterized by its strength.

This invention concerns four specific improvements, as hereinafter described, in the foldable building structure shown in the above mentioned patent whereby the several portions which comprise the structure may be arranged more compactly, one upon another, in their folded positions, to form a folded unit which is generally rectangular and characterized by its reduced length, width, and height dimensions. The improved unit requires a minimum of space for transporting and storing, and several such units may be conveniently stacked one upon another.

(1) Only one of the end portions has one of its side edges connected by a hinge to the adjacent end of the last mentioned side portion. The other of the end portions is connected by a hinge to the adjacent end of the floor portion and overlies the floor portion in the folded positions thereof.

(2) Said one of the end portions has a triangular upper section, immediately below the roof portions, which is connected by a hinge to an adjoining lower section and is folded downwardly and inwardly thereon in the folded positions thereof.

(3) Said other of the end portions has a pair of comparatively narrow marginal sections along opposite sides thereof which are connected by hinges to an adjoining middle section and overlies said middle section in the folded positions thereof.

(4) The two opposite side portions have integral right angular extensions, of unequal widths, along their lower edges which extend laterally inwardly in opposing relation to the adjacent side edges of the floor portion, to which they are connected by the third and fourth hinges above mentioned, forming continuations thereof.

The invention will be readily understood by referring to the following description and the accompanying drawing, in which:

FIG. 1 is a front elevational view of a foldable building structure embodying the invention;

FIG. 2 is a side elevational view, partly broken away to show details of construction;

FIG. 3 is a perspective view, partly broken away;

FIG. 4 is an elevational view showing the structure in a partly folded condition;

FIG. 5 is a view similar to FIG. 4 showing the structure completely folded; and

FIGS. 6 to 9 are fragmentary views on an enlarged scale showing details of construction.

Referring to FIGS. 1 to 3 of the drawing, the foldable building structure of the invention has a pair of oppositely inclined roof portions, designated by the numerals **1** and **2**, and has a bottom portion **3**, two opposite side portions **4**, **5**, and two opposite end portions **6**, **7**.

The above-mentioned portions are connected one to another by hinges as hereinafter described whereby they may be folded compactly one upon another about said hinges in the folded positions thereof, for convenience in transporting and storing.

One or more hinges, designated by the numeral **8**, connect the adjacent edges of the roof portions **1**, **2**. Another set of hinges **9** connect the upper edge of one of the side portions **4** to the under side of one of the roof portions **1**. A third set of hinges **10** connect the bottom portion **3** to said one of the side portions **4**. A fourth set of hinges connect the bottom portion **3** to the side portion **5** opposite said one of the side portions **4**. Another set of hinges **12** connect one end of the last mentioned side portion **5** to the adjacent edge of the adjoining end portion **6**. Still another set of hinges **13** connect the other of the end portions **7** to the adjacent end of the bottom portion **3**.

Said first mentioned end portion **6** has a triangular upper section **14**, immediately below the roof portions **1**, **2**, which is connected by one or more hinges **15** to an adjoining lower section **16**, and said other of the end portions **7** has a pair of comparatively narrow marginal sections **17** along opposite sides thereof connected by hinges **18** to an adjoining middle section **20**.

The two opposite side portions **4**, **5** have integral right angular extensions **21**, **22**, of unequal widths, along their lower edges extending laterally inwardly in opposing relation to the adjacent side edges of the bottom portion **3**, to which they are connected by said third and fourth hinges **10**, **11** above mentioned, forming continuations thereof.

The invention further includes fastening means as desired whereby said portions are adapted to be further connected one to another, in the erected positions thereof, to form a rigid, fully enclosed unitary structure characterized by its strength.

The screw **23** shown in FIG. 7 and the hasp **24** and staple **25** shown in FIG. 9 are optional forms of fastening devices which may or may not be used in the structure of this invention. Suitable latch means advantageously may be substituted for the screw **23**, and the fastening means preferably is located on the inside of the building whereby it is not accessible from the outside, so that the building may be secured.

Referring now to FIGS. 4 and 5 of the drawing, said other of the end portions **7** overlies the bottom portion **3**, and the marginal sections **17** of said other of the end portions **7** overlie its middle section **20**, in the folded positions thereof. Said one of the end portions **6** is folded inwardly on said last mentioned side portion **5**, the triangular upper section **14** of said one of the end portions **6** is folded downwardly and inwardly on the lower section **16**, and said last mentioned side portion **5** is folded inwardly with said one of the end portions **6** upon the bottom portion **3** and said other end of the end portions **7**. The roof portions **1, 2** together are folded inwardly upon the first mentioned side portion **4**, and finally the first mentioned side portion **4** is folded downwardly and inwardly with said roof portions **1, 2**.

The invention may be modified in various ways without departing from the spirit and scope thereof.

I claim:

1. A foldable building structure having a pair of oppositely inclined roof portions and having bottom, side, and end portions, said portions being connected one to another by hinges whereby they may be folded compactly one upon another about said hinges in the folded positions thereof, for convenience in transporting and storing, one of said hinges connecting the adjacent edges of the roof portions, another of said hinges connecting the upper edge of one of the side portions to the underside of one of the roof portions, a third hinge connecting the bottom portion to said one of the side portions, a fourth hinge connecting the bottom portion to the side portion opposite said one of the side portions, another hinge connecting one end of the last mentioned side portion to the adjacent edge of the adjoining end portion, and another hinge connecting the other of the end portions to the adjacent end of the bottom portion, said first mentioned end portion having a triangular upper section, immediately below the roof portions, connected by a hinge to an adjoining lower section, and said other of the end portions having a pair of comparatively narrow marginal sections along opposite sides thereof connected by hinges to an adjoining middle section, and the two opposite side portions having integral right angular extensions, of unequal widths, along their lower edges extending laterally inwardly in opposing relation to the adjacent side edges of the bottom portion, to which they are connected by said third and fourth hinges above mentioned, forming continuations thereof, and fastening means whereby said portions are adapted to be further connected one to another, in the erected positions thereof, to form a rigid, fully enclosed unitary structure characterized by its strength.

2. The structure of claim **1**, said other of the end portions overlying the bottom portion and the marginal sections of said other of the end portions overlying its middle section, in the folded positions thereof, said one of the end portions being folded inwardly on said last mentioned side portion, the triangular upper section of said one of the end portions being folded downwardly and inwardly on the lower section thereof, and said last mentioned side portion being folded inwardly with said one of the end portions upon the bottom portion and said other of the end portions, the roof portions together being folded inwardly upon the first mentioned side portion, and finally the first mentioned side portion being folded downwardly and inwardly with said roof portions.

References Cited

UNITED STATES PATENTS

3,280,796	10/1966	Hatcher	52—70
2,670,986	3/1954	Presnell	52—71

JOHN E. MURTAGH, *Primary Examiner.*

U.S. Cl. X.R.

52—70