SECONDARY ROOF STRUCTURE FOR INSULATING, COOLING AND PROTECTING A HOUSE

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The secondary roof structure of the present invention provides a supplemental house cover, including an independent roof structure spanning and effectively covering the building structure to be protected. The independent roof structure preferably includes a plurality of vertical support members positioned at least some horizontal distance outside the perimeter or footprint of the building structure to be protected, supporting an oversize roof portion separated from and at least some vertical distance over the building structure. The independent roof structure may be constructed before, simultaneously, or after the construction of the building structure being protected. The independent roof structure provides shade, shelter, and supplemental environmental protection to the building structure.
SECONDARY ROOF STRUCTURE FOR INSULATING, COOLING AND PROTECTING A HOUSE

CROSS REFERENCE TO RELATED APPLICATIONS

The present application claims the benefit of the filing date of U.S. Provisional Application Ser. No. 60/577,950, filed Jun. 7, 2004 (Jun. 7, 2004).

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

Not applicable.

REFERENCE TO A MICROFICHE APPENDIX

Not applicable.

TECHNICAL FIELD

The present invention relates generally to protective house covers and methods of cooling houses, and more specifically to a method for insulating, cooling, and protecting a house through the use of a secondary roof structure, cover or “house port.” The secondary roof structure of the present invention provide insulation from weather elements, shade, a breezeway, and useable living space outside the interior walls of the house.

BACKGROUND INFORMATION AND DISCUSSION OF RELATED ART

Seasonal weather patterns, temperature extremes, and meteorologic phenomena create deleterious conditions for home structures and the inhabitants of those structures. Intense heat, copious precipitation and wind all contribute to excessive wear on construction materials and landscape features, as well as contributing to increased energy costs associated with heating and cooling the structure. It is the object of the present invention to provide a method for protecting a house or building from the environmental extremes, while at the same time insulating the house in cold conditions, cooling the house in hot conditions, and creating a useable living space outside the perimeter of the building.

Several devices and structures have been proposed in the art to achieve similar objects and advantages, including: U.S. Pat. No. 5,608,992, to Floyd, which discloses a fire isolation device for a free standing structure comprising fire-resistant fabric materials.

U.S. Pat. No. 5,794,389, to Vysma, describes a sheltering form of encapsulation with a mechanism to the place the house into safety and means of covering the house during the threat of destruction by violent winds.

U.S. Pat. No. 6,422,253, to Glynn et al, describes a mechanized fumigation tent with a composite closing structure.

U.S. Pat. No. 6,505,638, to Powell, et al., discloses a canopy structure with a rigid light weight internal frame structure, and a waterproof fabric cover. This structure is intended to house vehicles in a sheltered environment.

While the aforementioned patents describe protective enclosures for buildings in the event of disaster, provide a means to enclose a structure for chemical treatment or provide supplemental cover for vehicles, none of the references teaches a method for providing a permanent secondary structural shelter providing protection from the elements, or means of insulating and cooling a building such as a house.

BRIEF SUMMARY OF THE INVENTION

The present invention is an improved method and apparatus for providing secondary or supplemental protection from the elements for a building structure such as a house, insulation for the house, means for cooling the house, and aesthetic enhancements. The protective house cover provides an independent roof structure spanning and effectively covering the building structure to be protected. The independent roof structure preferably includes a plurality of vertical support members positioned at least some horizontal distance outside the perimeter or footprint of the building structure to be protected, supporting an over sized roof portion separated from and at least some vertical distance outside the building structure. The independent roof structure may be constructed before, simultaneously, or after the construction of the building structure being protected. The independent roof structure provides shade, shelter, a breezeway between the space-apart independent roof structure and the roof of the house, and supplemental environmental protection to the building structure.

It is an object of the present invention to provide a new and improved method for protecting building structures.

A further object of the present invention is to provide a method of protecting a house or building from the environmental extremes, while at the same time, creating a useable living space outside the perimeter of the building.

A further object or feature of the present invention is a new and improved apparatus providing shade, shelter, and supplemental environmental protection to a building structure.

An even further object of the present invention is to provide slidably attached side curtains made from a pliable material to allow the structure to provide shade or shelter with the changing angle of the sun or other meteorological phenomena.

A still further object of the present invention is to provide a structural breezeway for cooling the house in extremely hot weather conditions.

To achieve these and other objects and advantages, the present invention is an improved method and apparatus for providing supplemental protection from the elements for a building structure such as a house. The protective house cover apparatus provides an independent roof structure spanning and effectively covering the building structure to be protected. The independent roof structure preferably includes a plurality of vertical support members having a top, a bottom, a left side, a right side, a front side and a back side, positioned at least some horizontal distance outside the perimeter or footprint of the building structure to be protected. A plurality of horizontal supports having a left end, a right end, a top side a bottom side, a front side and a back side are attached to the tops of the vertical support members, forming a perimeter of the apparatus and supplying rigidity to the apparatus. A plurality of roofing support beams,
having a left end, a right end, a top side a bottom side, a front side and a back side are of a length sufficient to span the width of the protective house cover. The roofing support beams are symmetrically angular, with the apex of the roofing support beams in an upward position. The roofing support beams are affixed to the tops or the sides of the horizontal supports. The roofing support beams support an oversize roof comprised of rigid waterproof material, separated or spaced-apart from, and at least some vertical distance over, the roof of the building structure. A plurality of horizontal rails are interconnected to the vertical support members in close proximity to the upper end of the vertical support members, around the perimeter of the protective house cover. Pliable material is slidably attached to the horizontal rails on at least one side of the perimeter of the protective house cover, forming a movable vertical barrier that may be expanded across the perimeter of the protective house cover or retracted for storage. The independent roof structure may be constructed before, simultaneously, or after the construction of the building structure being protected. The independent roof structure provides shade, shelter, and supplemental environmental protection to the building structure.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

- FIG. 1 is a perspective view of the protective house cover standing alone.
- FIG. 2 is a perspective view of the protective house cover covering a house.
- FIG. 3 is a front view in elevation of the protective house cover covering a house.

DRAWING REFERENCE NUMERALS

- 100 protective house cover
- 105 vertical support member
- 110 horizontal support
- 115 roofing support beam
- 120 roof
- 125 horizontal rail
- 130 movable vertical barrier
- 135 slidable attachment means
- 200 house

DETAILED DESCRIPTION OF THE INVENTION

Referring to FIGS. 1 through 3, wherein like reference numerals refer to like components in the various views, FIG. 1 is a perspective view of the protective house cover 100 standing alone. Vertical support members 105 having a top, a bottom, a left side, a right side, a front side and a back side, are positioned at least some horizontal distance outside the perimeter or footprint of the building structure to be protected. A plurality of horizontal supports 110 having a left end, a right end, a top side a bottom side, a front side and a back side are attached to the tops of the vertical support members 105, forming a perimeter of the apparatus and supplying rigidity to the apparatus. A plurality of roofing support beams 115, having a left end, a right end, a top side a bottom side, a front side and a back side are of a length sufficient to span the width of the protective house cover 100. The roofing support beams 115 are symmetrically angular, with the apex an upward position. The roofing support beams 115 support a roof 120 comprised of rigid waterproof material, separated from and at least some vertical distance over a building structure. A plurality of horizontal rails 125 are attached near the tops of the vertical support members 105 effectively forming the perimeter of the protective house cover 100. A movable vertical barrier 130, such as a curtain, constructed of pliable material, is slidably attached to the horizontal rails 125 with a plurality of slidable attachment means 135 such as rings.

FIG. 2 is a perspective view of the protective house cover 100 covering a house 200. The roof 120 is separated vertically from the roof of the house 200. The movable barrier 130 is retracted in the front of the protective house cover 100, and the movable barrier 130 expanded on the side of the protective house cover 100.

FIG. 3 is a front view in elevation of the protective house cover 100 covering a house 200. The orientation of the vertical support members 105 in relationship to the roofing support beams 115. The roof 120 is affixed to the top of the roofing support beams 115. The horizontal rail 125 is attached near the top of the vertical support members 105. The movable barrier 130 is retracted on the left side of the protective house cover 100 and the movable barrier 130 expanded on the right side of the protective house cover 100. The movable barrier 130 is slidably attached to the horizontal rail 125 by a slidable means 135.

While the present invention has been shown in the drawings and fully described above with particularity and detail in connection with what is presently deemed to be the most practical and preferred embodiment(s) of the invention, it will be apparent to those of ordinary skill in the art that many modifications thereof may be made without departing from the principles and concepts set forth herein, including, not limited to, variations in size, materials, shape, form, function and manner of operation, assembly and use.

Accordingly, the proper scope of the present invention should be determined only by the broadest interpretation of the appended claims so as to encompass all such modifications as well as all relationships equivalent to those illustrated in the drawings and described in the specification.

Finally, it will be appreciated that the purpose of the foregoing Abstract provided at the beginning of this specification is to enable the U.S. Patent and Trademark Office and the public generally, and especially the scientists, engineers and practitioners in the art who are not familiar with patent or legal terms or phraseology, to determine quickly from a cursory inspection the nature and essence of the technical disclosure of the application. Accordingly, the Abstract is neither intended to define the invention or the application, which is measured by the claims only, nor is it intended to be limiting as to the scope of the invention in any way.
What is claimed as invention is:

1. A method for providing supplemental shelter for a building comprising:
   erecting a plurality of vertical support members around the perimeter of said building;
   interconnecting a plurality of horizontal supports proximate the upper ends of the vertical supports;
   affixing a plurality of roofing support beams to the horizontal supports to form a roof pitch sufficient to shed water; and
   connecting rigid, waterproof roofing materials to the roofing support beams, forming a barrier to elemental conditions.

2. The method of claim 1, further including the steps of:
   attaching a plurality of horizontal rails to the vertical structural supports in close proximity to the upper ends of the vertical support members, around the perimeter of the supplemental shelter; and
   attaching a pliable material having slidable attachment means to the horizontal rails to form a moveable vertical barrier on the perimeter of the supplemental shelter.

3. A supplemental shelter for a building comprising:
   a plurality of vertical support members disposed around the perimeter of the building, each of said vertical supports having an upper end;
   a plurality of horizontal supports attached perpendicularly proximate the upper ends of at least two of said vertical support members;
   a plurality of roofing support beams interconnected to said horizontal supports to form a roof pitch; and
   rigid, waterproof roofing materials affixed to said roofing support beams, forming a barrier to elemental conditions.

4. The apparatus of claim 3, further including:
   a plurality of horizontal rails disposed between each pair of adjacent vertical support members in close proximity to said upper ends of said vertical support members; and
   pliable material slidably attached to said horizontal rails to form a moveable vertical barrier around said supplemental shelter.

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