H. R. ALKIRE & D. O. MABIN.

COLLAPSIBLE HOUSING DEVICE.

APPLICATION FILED OCT. 21, 1913.

1,107,871. Patented Aug. 18, 1914.

Fig. 1.

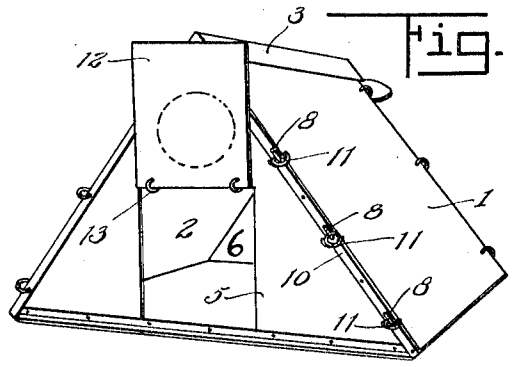


Fig. 2.

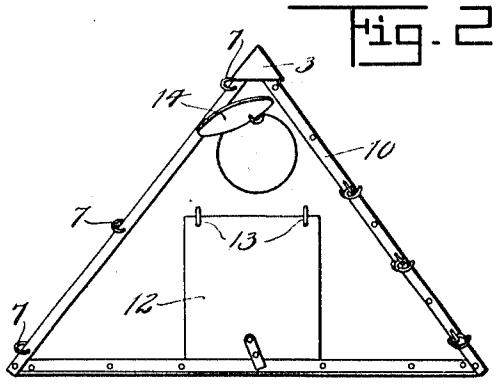


Fig. 4.

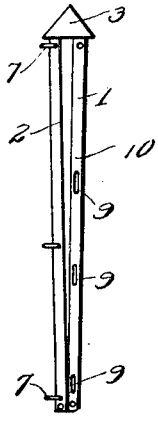


Fig. 3.

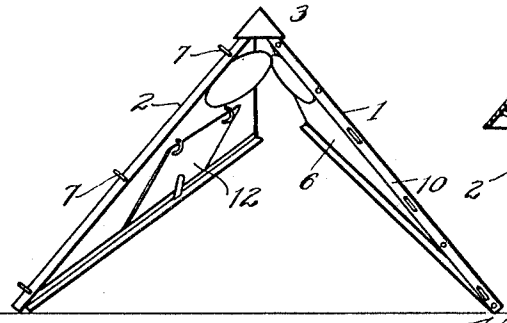
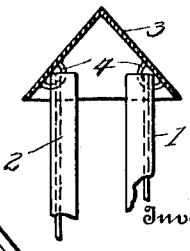


Fig. 5.



Witnesses

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HOMER R. ALKIRE AND DAVID O. MABIN, OF MOUNT STERLING, OHIO.

COLLAPSIBLE HOUSING DEVICE.

1,107,871. Specification of Letters Patent. Patented Aug. 18, 1914.

Application filed October 21, 1913. Serial No. 796,501.

To all whom it may concern:

Be it known that we, HOMER R. ALKIRE and DAVID O. MABIN, citizens of the United States, residing at Mount Sterling, in the county of Madison and State of Ohio, have invented certain new and useful Improvements in Collapsible Housing Devices, of which the following is a specification.

The present invention relates to improvements in housing devices and the object in view is to provide a collapsible structure of this nature comprising elements so connected together that they may be readily knocked down for folding into compact form to facilitate shipping or storage of said devices.

More specifically the invention comprehends the provision of metallic wall members having connection with each other and means for interlocking said wall members when in extended position and other means for limiting movement of the wall members which means also acts so as to make rigid said wall members.

With the above and other objects in view, this invention consists in the construction, combination and arrangement of parts all as hereinafter more fully described, claimed and illustrated in the accompanying drawings wherein:

Figure 1 is a perspective view of a metallic structure showing an embodiment of our invention in position for use; Fig. 2 is a front elevation of the same showing more clearly the ventilating openings; Fig. 3 is an elevation showing the end members of the structure disconnected and folded within the side members for collapsing of the structure; Fig. 4 is an end elevation showing the invention in folded condition; and Fig. 5 is a fragmentary sectional view showing more clearly the method of attaching the side members to the ridge piece.

Throughout the following detail description and on the several figures of the drawings, similar parts are referred to by like reference characters.

Specifically describing the invention the numerals 1 and 2 refer to side members of the housing device embodying our invention, each of which members is connected at its upper edge to a triangularly shaped ridge piece 3, said ridge piece having eyes 4 projecting inwardly from its inner sides and passing through openings in the side members whereby the latter are hingedly connected to the ridge piece.

5 and 6 designate end members each of which is connected at one edge to a side member, it being understood that said end members coöperate with opposite ends of the side members so as to form a complete closing structure as shown in the figures of the drawing. The end members 5 and 6 are thus connected to the side members by means of rings 7 which connection permits of hinge-like movement of the end members against their respective coöperating side member when it is desired to fold or collapse the structure. When in extended position the free edges of the end members are interlocked with the opposing side member by the provision on said free edges of one or more eyes 8 which pass through slots 9 in the angle iron piece 10 secured to the side members. It will be noted, furthermore, that the edges of each of the side members and the bottom edges of the end members are all provided with angle iron strips which are designed to accomplish a dual function in that they make rigid the metallic sheets of which these members are composed, and furthermore, the angle irons on the edges of the side members limit movement of the end members so as to prevent the same from moving outwardly of the structure. When the eyes 8 of the end members are inserted in the slots 9 aforesaid split rings 11 are passed through the eyes so as to interlock the ends and form the complete housing structure. It is also to be noted that the ridge piece 3 acts to prevent the entrance of water or the like into the interior of the housing, and the peculiar connection of the sides 1 and 2 thereof permits this function to be performed even when the structure is collapsed into the folded position shown in Fig. 4. The sides of the triangularly shaped ridge piece 3 also limit the extension of the side members 1 and 2 so that the same will conform exactly to the shape of the end pieces. This arrangement of members greatly facilitates the rapid and accurate setting up of these collapsed structures and it will be appreciated that they may also be quickly knocked down into a very compact form for storage and shipping purposes. One of the end pieces is preferably provided with a door 12 having hinged connection with the end piece through the instrumentality of the rings 13. Each end piece is furthermore provided with a ventilator 14 adjacent its top portion.

What we claim as new and desire to secure by Letters Patent is:

1. In a collapsible structure of the class described, the combination of side members, a ridge piece of triangular form to which said side members are hingedly connected, said ridge piece limiting extension of the side members, eyes projecting from the ridge piece connecting the side members to said ridge piece, end members each connected at one edge to opposite ends of said side members, interlocking members adapted to removably connect the free edges of the end member to the opposite side member, and means on the edges of said side members preventing movement of the end members outwardly.

2. In a collapsible structure of the class described, the combination of side members, a ridge piece of triangular form to which said side members are hingedly connected, angle irons secured to the ends of the side members for making said side members rigid, said angle irons having slots therein, end members each connected at one edge to opposite ends of said side members, eyes formed on the free edges of said side members and adapted to pass through the slots in the angle irons of the side members, and split rings interlocking the eyes in the slots aforesaid, the angle irons of the side members limiting outward movement of said end members.

In testimony whereof we affix our signatures in presence of two witnesses.

HOMER R. ALKIRE.
DAVID O. MABIN.

Witnesses:
DAYTON JUNK,
HENRY C. WILSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."