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D. HOLMES

2,145,353

FOLDING PORTABLE BUILDING

Filed June 21, 1937

Fig. 1

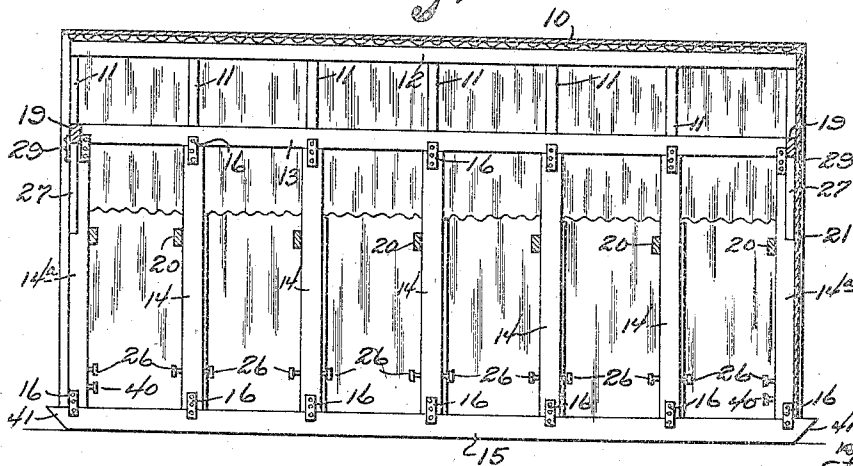


Fig. 3

Fig. 2

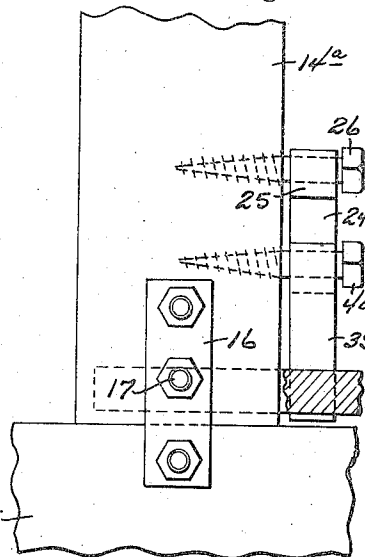
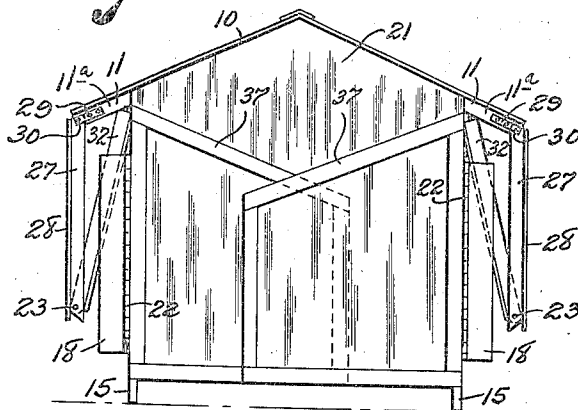
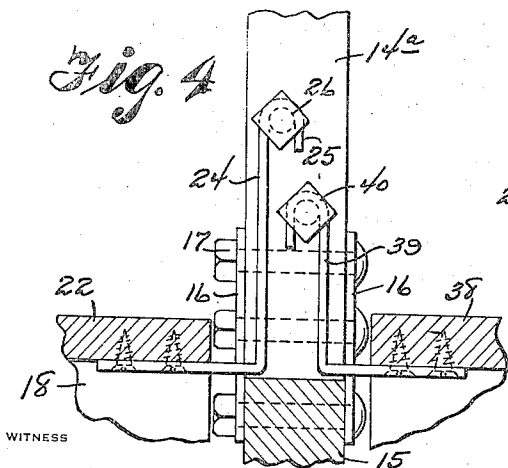


Fig. 4



WITNESS

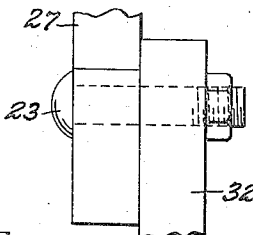


Fig. 5

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UNITED STATES PATENT OFFICE

2,145,353

FOLDING PORTABLE BUILDING

Dewey Holmes, Bloomfield, Ind.

Application June 21, 1937, Serial No. 149,457

1 Claim. (Cl. 20—2)

The object of the invention is to provide a building structure adapted to be moved from one place to another and set up either as a shelter in a field for animals, or alternatively as a completely enclosed building; to provide a structure of the kind indicated in which the floors are removable and replaceable as units; and generally to provide a building construction which is of simple form but at the same time of sturdy construction that will permit its moving from one place to another without damage and will maintain its shape under most exacting conditions of use.

With this object in view, the invention consists in a construction and combination of parts of which a preferred embodiment is illustrated in the accompanying drawing but to which the invention is not to be restricted. Practical application may dictate certain changes or alterations and the right is claimed to make any which fall within the spirit of the invention.

In the drawing:

Figure 1 is a central vertical longitudinal sectional view of a building incorporating the invention.

Figure 2 is an end elevational view with folding parts of the structure shown in folded position.

Figure 3 is a detail elevational view illustrating the method of supporting the floor sections.

Figure 4 is an elevational view of the structure of Figure 3 looking from a position ninety degrees from that in which Figure 3 is viewed.

Figure 5 is a detail plan view of the connection between the combined roof and wall wing and the supporting posts therefor.

The building constituting the invention consists of a central gabled roof structure in which the roof 10 is preferably made from corrugated metal laid on rafters 11 which extend from the ridge piece 12 to the plate members 13, the latter being mounted on the upper ends of stud posts 14 spaced uniformly along skids 15, the stud posts being secured to the plates 13 and the skids by means of coupling plates 16 and bolts 17, the bolts extending through the coupling plates 16 which are positioned on opposite sides of the stud posts 14 and also extending through said stud posts, the skids and the plates 13. The center structure is braced transversely with tie rails 19. At the end, the center structure is closed with a wall 21 and the floor, which is formed in sections having one dimension equal to the spacing between the skids 15 and the other dimension equal to the spacing between the centers of the stud posts 14, consists of floor timbers 22 laid upon

and secured to joist members 18. Each floor section is removably mounted, being provided with angular hanger members 24 of which the upper ends of the vertical legs are of hook shape, as indicated at 25, so that they may hang upon headed studs 26 which consist of lag screws engaged in the stud posts 14 on opposite edges. When it is not desired to use the floor sections, they can obviously be readily removed by lifting the hangers from the supporting studs or lag screws.

The rafters 11 are extended beyond the plates 13, as indicated at 11a, and hingedly connected with the extremities of extending ends are swinging rafters 27 on which a roof section 28, preferably of corrugated metal, is laid. Plates 29, identical with the coupling plates 16, are employed to connect the rafters 27 with the rafters 11 and the single bolt 30 constitutes the hinge pin for these swinging rafters. By means of this construction, the supplemental roof section may be extended in continuation of the main roof section, when the structure is set up, or it may hang vertically, as indicated in Figure 1, when the structure is ready for transportation.

Connected with and to be extended in continuation of the supplemental roof section is a combined roof and wall wing formed by a roof plate 31, preferably of corrugated metal, laid upon bars 32 hingedly connected with the supplemental rafters at the extremities by means of bolts 23. At their extremities, there are detachably connected with the bars 32 suitable supporting posts. When the posts are used, the bars 32 constitute rafters in continuation of the other rafters. When the posts are detached from the bars 32, as they may be, the bars 32 function as wall studs and the covering plate 31 as a side wall.

Hingedly connected with the end stud posts 14a are the swinging end wall sections 37. These may be swung back in overlapping relation against the end wall, as shown in Figure 2, when the structure is to be transported, or they may be swung into the same plane as the end wall to close the structure at the end below the supplemental roof sections. Removable floor sections 38 are provided for use below the supplemental roof sections. These connect with the center section at the end stud posts 14a by means of hangers 39, similar to hangers 24, and are similarly engaged with headed studs in the form of lag screws 40 secured in the end stud posts.

When the structure is to be transported, the swinging end wall sections 37 are first swung back against the end wall of the center house

section, as indicated in Figure 2, the floor sections 38 having been swung up against the stud posts 40, as shown in the same figure. This folding up of the floor sections is possible by reason of the hanger construction 39. The combined roof and wall sections are then folded in against the underside of the supplemental roof sections when the latter may drop to pendent positions, as shown in Figure 2. The whole structure may then be readily moved on the skids 15, the ends of which are cut at an angle, as indicated at 41, so that in elevation the skids are of the form of an inverted isosceles trapezoid.

When the structure is used merely as a shelter, the floor sections will not be necessary and may

be removed, or they may be employed as preference demands.

The invention having been described, what is claimed as new and useful is:

A building structure of the kind specified having stud posts and removable floor sections supported from the stud posts, the stud posts being provided with headed studs and the floor sections being provided with hanger hooks engageable over said headed studs, whereby the floor sections may be removed, supported in horizontal positions, or swung up against the stud posts with the hanger hooks functioning as hinges in such case.

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