Oct. 5, 1943. A. FAURE ET AL 2,330,819

PORTABLE BUILDING STRUCTURE

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Fig. 2

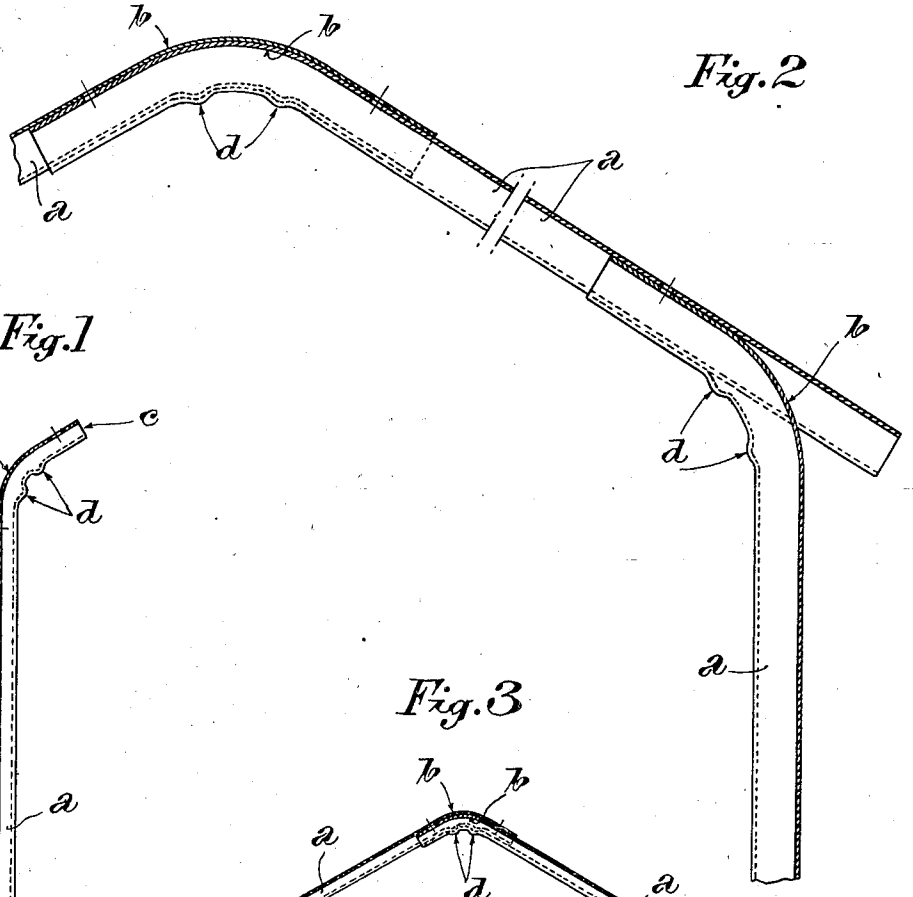


Fig. 1

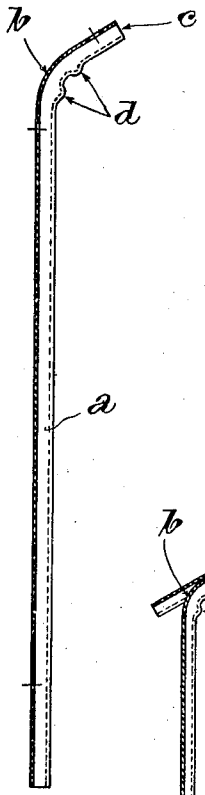


Fig. 3

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Fig. 6

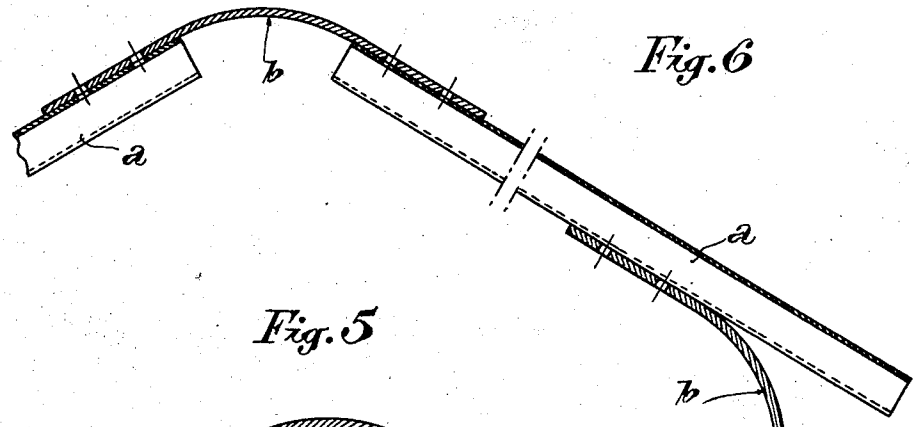


Fig. 4

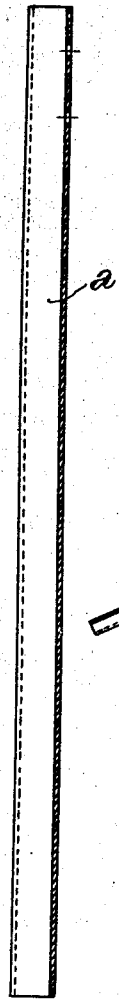


Fig. 5

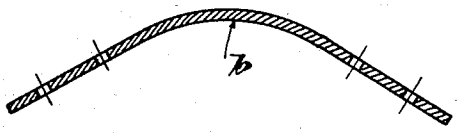


Fig. 8

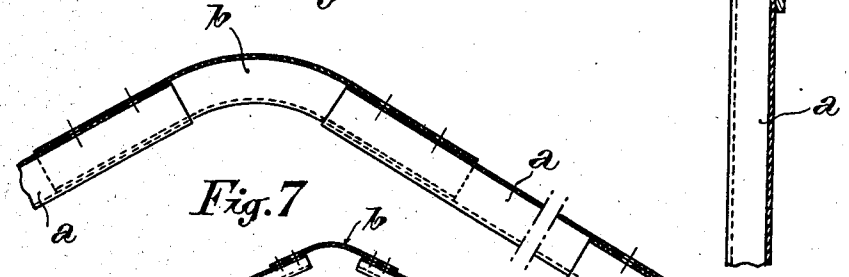
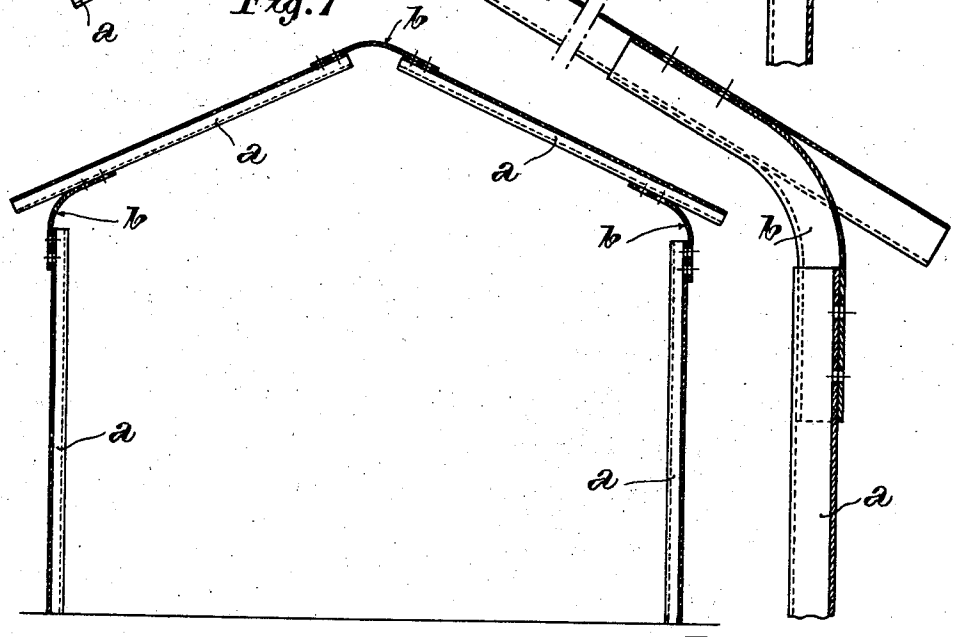


Fig. 7



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PORTABLE BUILDING STRUCTURE

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Application February 15, 1940, Serial No. 319,098
In France March 10, 1939

4 Claims. (Cl. 189—2)

The present invention relates to small building structures which are called upon to be frequently erected and dismantled.

It has for its object to render these erections and dismantlings very easy and of avoiding the necessity of any but simple elements which when not assembled have a very small bulk which is of particular value for transport.

To this end the invention is characterised by the feature that these building structures are constituted of but a single type of element for both the roof and walls, in the form of a panel extended on one side by a bent portion serving for the attachment both of the walls to the roof and of the two slopes of the roof together, these bent portions fitting one within the other at the ridge, while the opposite extremities of the roof panels form watersheds—or overhanging caves.

One or more transverse ribs, that is ribs which lie horizontally when the structure is erected, can be provided in the bent portion of each element, the purpose of which is to form as many supplementary interfittings at the ridge, and in the case of pressed sheet metal elements to facilitate the pressing operations.

The elements are preferably of pressed sheet metal but can instead be of moulded material such as fibro-cement; they can be of any suitable section, plane or ribbed, in particular corrugated.

By way of modification, the elements can each be made in two parts, one being constituted by a panel whose general form is plane, which can serve equally well for the walls or the roof slopes of the structure, and the other being constituted by a band bent along its middle and serving for the attachment of the said panels to one another, whether the walls to the slopes of the roof or the abutting slopes to one another at the ridge.

The invention will be clearly understood by reference to the accompanying diagrammatic drawings, in which by way of example corrugated panels are shown.

Figure 1 is a side view of one of the elements of the single type used.

Figure 2 is a detail view on a larger scale showing the assembly of the elements.

Figure 3 is a view of the erected structure.

Figures 4 and 5 are side views of the two separate parts constituting an element, namely a corrugated panel and a bent member of plain material, in the case of a modified embodiment of the invention.

Figure 6 is a detail of the assembly of this type of two-part element.

Figure 7 is a view of the assembled structure using this same two-part type of element and

Figure 8 is a detail of the assembly using an alternative form of bent member to that of Figures 4 to 7.

According to one form of the invention to erect the building a number of elements are assembled, all of the one type shown in Figure 1, that is to say each formed of a panel *a* plane or ribbed, of rectangular shape, one margin of which is bent over as at *b*.

Those elements used for the walls of the structure are set with the bend at the top and with their edges *c* on the inside of the building.

Those elements used in the roof are assembled by their bends *b* which are fitted one closely on the other thus forming a reinforced ridge.

The bends of the walls are then secured to the roof panels and the erection thus completed. But the attachment of the walls to the roof might equally be made before the ridge is assembled.

The attachment of the elements one to another may be made with bolts and nuts or with pins and cotters.

The bent end *b* of each element may have in addition one or more ribs *d* (two in the example shown in the drawings) which not only facilitates the shaping of the element in the case of pressed sheet metal, but also provides as many supplementary interfittings which facilitates the assembly and reinforces the structure.

It will be apparent that the length of the building only depends on the width of the elements and the members assembled together side by side.

It is also noted that by providing elements of various lengths, by suitably combining them structures of various height and widths can be assembled.

Thus by providing two series of panels of different lengths, four different cross-sectional dimensions of structure can be produced, namely, walls and roof of short elements, walls and roof of long elements, walls of long elements and roof of short elements, and walls of short elements and roof of long elements.

In the modification shown in Figures 4 to 8 the bent part *b* of each element is separate from the panel proper *a*. These bent parts can be plain, i. e. bent from plane material (Figures 4 to 7) or be like the panel *a*, of corrugated section (Figure 8).

When the structure is dismounted these elements can be completely separated or only separated along one edge of the bends so that on

the other edge bolt and nut connections could here be substituted for example by rivets. Again plain bent bands as in Figures 4 to 6 could form a prolongation of the panels.

What we claim is:

1. A pre-fabricated shed structure consisting of side walls and a roof and adapted for rapid assembly and disassembly, comprising a plurality of interconnected identically shaped elements, each element comprising a main portion extending substantially in one plane and a bent portion adjoining said main portion along one edge thereof; the side walls of the shed being formed by a plurality of vertically disposed elements, with the bent portions disposed at the top, the roof of the shed consisting of a plurality of said elements, the straight ends thereof being connected to the bent portions of said side wall elements, and the bent portions of said roof elements being disposed in overlapping relation to form a ridge of inverted V-shape.

2. The device claimed in claim 1, in which each element is provided with a transverse welt-like bend adjacent said bent portion, the transverse bends in said roof elements being superimposed and interlocking the respective elements.

3. The device claimed in claim 1, in which each element consists of a sheet of corrugated material, the corrugations unning from the edge of the bent portion to the opposite edge, whereby, when the side walls of the shed are erected, the corrugations are disposed vertically.

4. The device claimed in claim 1, in which each element includes a straight edge portion adjoining said bent portion along the edge thereof opposite that adjoining said main portion, and two transverse welt-like bends disposed substantially along the imaginary lines of abutment between said main portion and said bent portion, on the one hand, and said bent portion and said straight edge portion, on the other hand, whereby the transverse bends in said roof elements are superimposed and interlock the respective elements along the ridge.

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