Sept. 21, 1926. 1,600,647

N. K. TEILBORG

PORTABLE HOUSE

Filed August 19, 1921 2 Sheets-Sheet 1

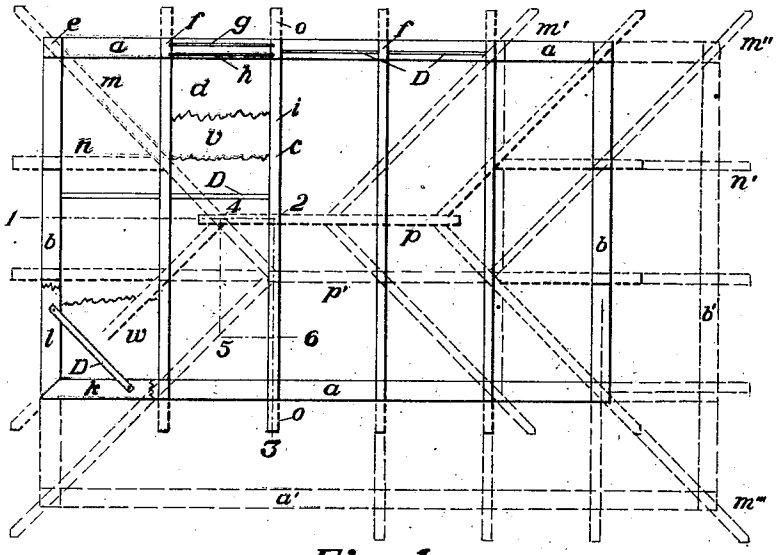


Fig. 1.

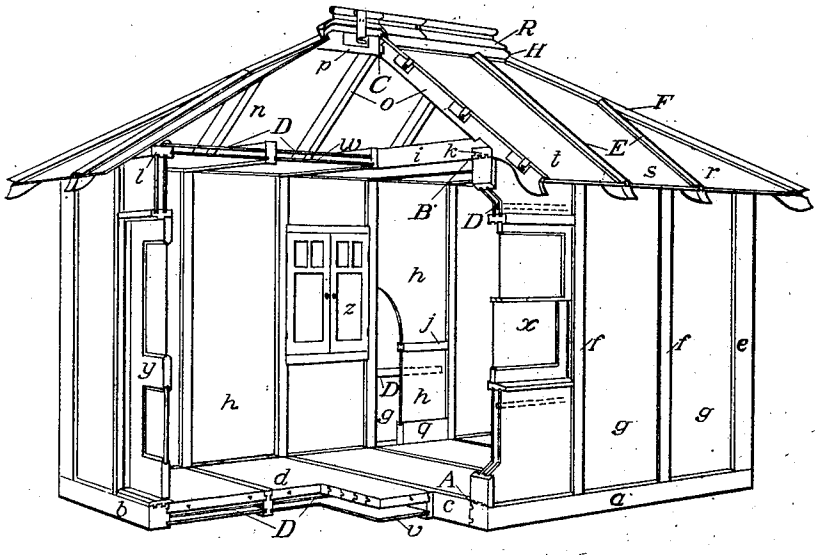


Fig. 2.

INVENTOR.

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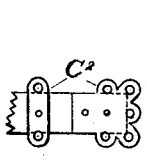


Fig. 7.

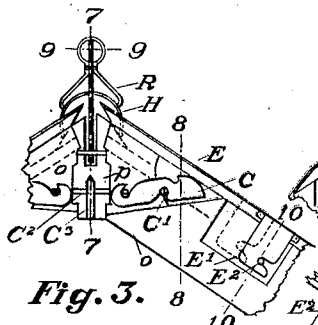


Fig. 3.

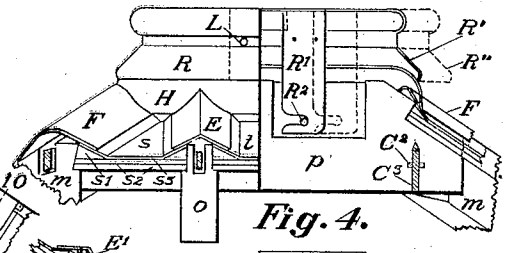


Fig. 4.

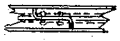


Fig. 5.



Fig. 6.

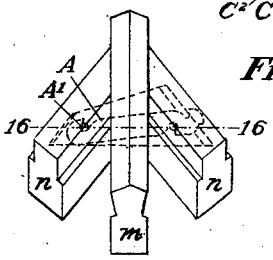


Fig. 15.

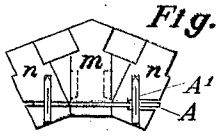


Fig. 16.

Fig. 8.

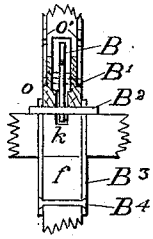


Fig. 9.

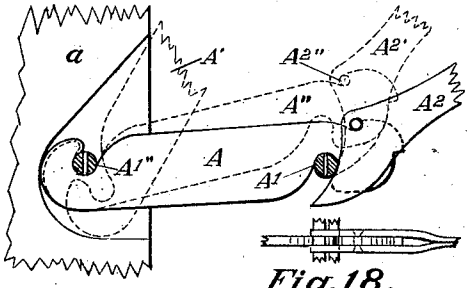


Fig. 17.

Fig. 18.

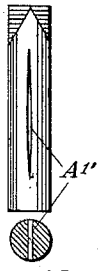


Fig. 19.

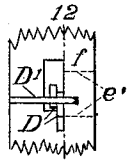


Fig. 10.

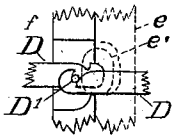


Fig. 11.



Fig. 20.

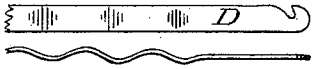


Fig. 21.

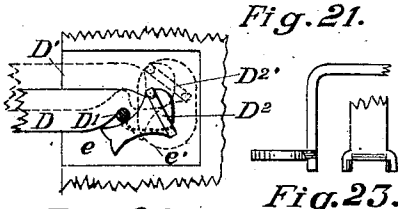


Fig. 22.

Fig. 23.

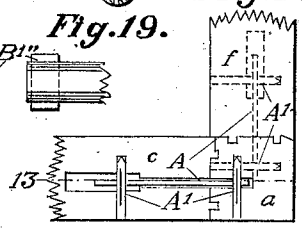


Fig. 12.

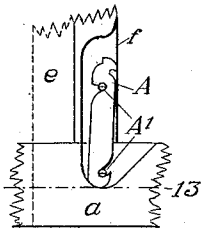
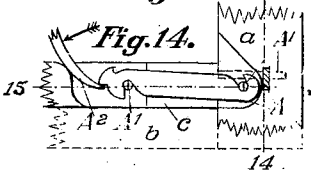


Fig. 13.



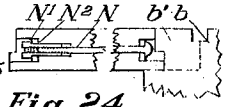


Fig. 24.

INVENTOR.

Niels K. Teilborg

Patented Sept. 21, 1926. 1,600,647

UNITED STATES PATENT OFFICE.

NELS KRISTENSEN TEILBORG, OF DENVER, COLORADO.

PORTABLE HOUSE.

Application filed August 19, 1921. Serial No. 493,743.

My invention relates to improvements in portable houses with a new and novel application of panel work, which is assembled and firmly held together with new and novel hooking devices. The object of my improvements are: first, to provide a portable house that is strong, durable, simple and inexpensive in construction, neat in appearance, sanitary and comfortable for habitation; second, to provide a portable house adapted to manufacturing, being a house with many of its several parts alike and none of too great dimensions to be easily and conveniently handled either in making, moving or erecting; third, a portable house where windows and doors are interchangeable with each other, and with any other panel in the wall, said windows and doors being provided with frames which keep their original form after repeated taking down and setting up of the house, which again insures that doors and windows once fitted in the factory will also fit when the house is erected or re-erected; fourth, an assembling device that is strong, simple and durable, quick to operate and easy to take apart, and when the house is provided with double panels, is entirely concealed from view and protected against tampering with.

I attain these objects by the mode of construction, the contrivances and devices illustrated in the accompanying drawings, in which:—

Figure 1 is a top view of a 3 x 5 panel portable dwelling, showing the supporting framework with all the details and mostly all the panels eliminated. The dotted lines indicate the rafters and the dashed lines show the similarity in the construction of the roofs for larger and smaller houses constructed in accordance with the invention.

Figure 2 is a perspective view of Fig. 1 with one corner removed, showing a sectional view taken on the lines 1—4—5—6—3, through the floor and on the lines 1—2—3, through the ceiling and the roof.

Figure 3 is an enlarged transverse section of the ridge, on the line 2—3, in Fig. 1, showing means for a detachable connection of the roof rafters to the ridgepole, and also showing detachable ridgeroll and cap and rafter covers, and the means for attaching the same.

Figure 4 is a transverse section of Fig. 3, on line 7—7, which is a section along the center of the ridge, and on the line 8—8, which is a vertical section through the roof close to the ridge and parallel to the same.

Figure 5 is a horizontal section of the top of the ridgeroll on the line 9—9 in Fig. 3, showing the manner by which the hook R′ is permanently secured to the ridgeroll R.

Figure 6 is a transverse section through one of the roof rafters, as indicated by the line 10—10 in Fig. 3, showing portions of the roof panels as overlapped with a metal rafter-cover, and in co-operation with Fig. 3 illustrates one of a series of hooks, the said hooks being the means by which the metal rafter-cover is detachably secured to the rafters.

Figure 7 is a top view of the metal plates C^2 as shown in Figs. 3 and 4, the said plates being permanently attached to the ridgepole and being parts of the means by which the rafters are detachably secured to the same.

Figure 8 is an enlarged fragmentary vertical section on line 2—3, in Fig. 1, showing the connection of the wall and the ceiling to the roof.

Figure 9 is a sectional view of Fig. 8 on the line 11—11, and in co-operation with Fig. 8 illustrates permanent and detachable means for removably connecting the studs, wall plates and ceiling joist to the rafters.

Figures 10 and 11 are two fragmentary sections taken at right angles to each other, showing one of the various places in the studs, the ceiling or the floor joist, as the case may be, where the tie-rod D is applied, Fig. 11 being a view of Fig. 10, on the line 12—12, illustrating the manner and the means for applying the detachable tie-rod D.

Figure 12 is an enlarged fragmentary vertical section of the lower part of the wall on the line 2—3 in Fig. 1 and also on the corresponding line 15—15 in Fig. 14.

Figure 13 is a vertical section on the line 14—14 in Fig. 14.

Figure 14 is a horizontal section on the line 13—13 in Figs. 12 and 13, and in co-operation Figures 12, 13 and 14 show the means for removably attaching the studs and the floor joist to the sill —*a*—.

Figure 15 is a fragmentary top view of the frame work of the roof where the jack rafters —*n*— join to the hip rafters —*m*—. This view is seen from a point perpendicular to the hip rafter.

Figure 16 is a sectional view of Fig. 15 taken on line 16—16. The said figure in co-operation with Fig. 15 shows the means for a detachable connection of the said parts.

Figure 17 is a side view detail of a detachable hooking device, as employed to firmly and removably connect the various parts of the framework.

Figure 18 is an underside view of Fig. 17, as seen from the location of Fig. 18.

Figure 19 is two detail views of a steel pin, being one of the several used to receive the hooks A as shown in Fig. 17. The said form of pin is used where the framework is heavy enough to allow ample bearing, without projecting through the wood, as shown in Figs. 12 and 16.

Figure 20 is three detail views of a steel pin used to receive the hooks B and C. The said pin differs from the pin shown in Fig. 19 in that it projects through the framework so as to be given all the bearing possible, as indicated in Fig. 9.

Figure 21 is a detail side and edge view of one end of the tie-rod D.

Figure 22 illustrates the manner in which the tie-rod D is attached, when, as occasionally required, the keyway is at right angles to the tie-rod or strap D.

Figure 23 is two side views of the key D^2 as shown in Fig. 22.

Figure 24 is a fragmentary detail of a floor panel showing the construction of the same in connection with a small portion of the sill —*b*—.

Similar characters of reference refer to similar parts throughout the several views, small letters indicate the wood and the composition, capital letters indicate metal and numerals indicate sections.

As before stated, this building is constructed with a supporting framework in which —*a*— and —*b*— designate the sills, —*c*— the floor joist, —*e*— and —*f*— the studs, —*k*— and —*l*— the wall plates, —*i*— the ceiling joist, —*m*—, —*n*— and —*o*— the rafters, and —*p*— the ridgepole; each and every piece forming the said framework are provided with the proper channels and rabbets to receive the various panels, the windows and the doors, as required, to enclose the building; the said framework is also provided with shallow grains and mating grains and shallow mortises and tenons, as the case requires, to insure perfect alignment and the proper spacing; the said mortises and grains in co-operation with the detachable assembling device, which forms part of this invention and is hereinafter fully described, insures a rigid, close buffing and detachable assembling of the various parts of the framework.

To utilize all the advantages of the invention, it is well to adhere to some standard width of the panels, say 2 ft. 6 in., and have the dimensions of the building so related to the width of the panels that a uniform distance between the studs is maintained at the ends as well as at the sides of the building. The said standardized spacing is also maintained throughout the floor, the ceiling and the roof, as plainly illustrated in Fig. 1.

I prefer to construct the house with a square roof; in other words, a roof sloping from all four sides to an apex or a short ridge in the center. This style of roof will require a level wallplate on all four sides of the building and allow all wall studs to be of equal length and all the wall panels regular and identical in form.

The studs which form part of the supporting framework serve also as side jambs for windows and doors and differ from the regular studs in the manner of grooving and rabbeting, which must conform to the requirement of each particular jamb. The studs prepared for jambs are also provided with shallow mortises to receive corresponding tenons, as provided on the ends of the headers and the sills, as required to complete the frame. In case of the door frame, the sill is a threshold fitting down on the top of the sill —*a*— or —*b*— and on its under side is provided with tongues corresponding to the grooves on the top side of the sill, as shown in Fig. 2. Both sides of the same stud may be prepared as a jamb, thus forming a division jamb between a window and a door, or between two windows or two doors, thus allowing adjacent panels to contain windows and doors, and the limit of windows and doors will be the number of the wall panels. And it is true that with the proper studs each window, door and wall-panel is interchangeable with any other window or door or wall-panel.

For dwellings I prefer to construct the house with double panels, as illustrated in the drawings —*g*— and —*h*— in Fig. 2, leaving an encaged airspace between the inner and the outer panel. Said encaged space and inner panel greatly add to the

comfort and the inside appearance and the sanitary properties of the building, and also entirely conceals the assembling devices.

A baseboard and a chair rail may be produced by inserting pieces in the inner wall panels, as shown in Fig. 2 at —*q*— and —*j*—, —*q*— being the baseboard and is provided with a groove on the top edge to receive the panel —*h*— and a tongue on each end and the lower edge, corresponding and fitting into the grooves in the studs and the sill. —*j*—, as shown in Fig. 2, is applied as a chair-rail. It is provided with a groove on each edge to receive the panels —*h*— and a tongue on each end fitting into the grooves in the studs. Said pieces —*j*— may also be used in the ceiling panels —*w*— and lower floor panels —*v*— for dividing said panels into shorter lengths.

The floor is constructed of a plurality of right-angular panels, which are supported on and between the floor joist —*c*— and the sills —*a*— and —*b*— and detachably fitted into a combination rabbet and groove, as shown in Fig. 24. The rabbet provides bearing for the floor panels, and the groove in the lower part of the rabbet insures perfect alignment between the floor panel and the top of the floor joists and the sills.

The floor panels —*d*— are constructed of ordinary tongued and grooved flooring boards running crosswise of the panel, and are assembled into a semi-permanent panel by means of two light metal rods, one near each end of the flooring boards, as indicated in Fig. 2 and shown in detail in Fig. 24, and extending through the same the full length of the panel. One end of said rod is provided with an ordinary bolthead and the other end is provided with a long tubular screwnut. Each end is provided with countersunk washers, as shown in Fig. 24. N indicates the rod, N^1 the screwnut, and N^2 the washer.

I prefer to make the before stated tubular screwnuts of a metal that does not rust onto the rod, thereby providing a means by which, if the flooring boards shrinks and becomes open in the joints, an extra or wider piece of flooring boards may be inserted in the panel, restoring the same to its original and proper length.

The before stated construction of a floor-panel provides a means for assembling the various pieces of flooring-boards in close contact and perfect alignment into a panel, without the cumbersome and ungainly use of nails and wood-screws and the bulky construction with cleats, and still retaining its full strength.

A double flooring with an encaged airspace may be produced by grooving the floor joist and the sills, as shown in the drawings and inserting the panels —*v*—, Fig. 2. Said encaged airspace and lower panel will add greatly to the protection against cold and dampness coming through the floor.

The construction of the ceiling is similar to the construction of the floor. In fact, the panels —*v*— and the grooves provided for the same are identical to the ceiling panels —*w*—. The end of the ceiling joist is fitted onto the wall plates, as shown in Fig. 8.

The roof is constructed by detachably assembling the rafters to the wall plates and the ridge pole and the jack rafters to the hip rafters, as shown in Figs. 3, 4, 7, 8, 9, 15, and 16, forming a plurality of regular and irregular openings (see Fig. 1) bound on the three sides by the rafters and ridge-pole and left open at the lower ends or the eaves.

Corresponding panels are provided for said opening detachably fitted into a properly prepared rabbet or groove, as the case may require for the various materials which may be used for the roof panels, such as sheet metal, or, as shown in the accompanying drawings, a two-ply veneer covered with roofing paper. All edges of said panels except the eaves are provided with a declivity as shown in Figs. 4 and 6, where s^1 is a triangular strip forming the declivity, s^2 a double-ply veneer and s^3 a roofing paper glued onto the wooden panel with roof cement. For those roof panels rabbets are provided in the rafters as shown in Fig. 8. To secure aforesaid panels from sliding down off of the roof a series of notches are formed along the edges of the panels to receive corresponding blocks provided in the rabbet. One of said blocks is illustrated in Figs. 8 and 9 at *o'*.

The exposed top edges of the rafters and the ridge pole are covered with various detachable metal caps, which overlap the declivity on the edges of the roof panels sufficient to insure the roof against leaking.

The metal cap E, as shown in Figs. 3 and 6, is an angle shaped metal strip extending over the full length of the rafters. It is used to cover all common rafters —*o*— and all hip rafters —*n*—, and is detachably secured to said rafters by means of a series of hooks E^1, Figs. 2, 3, 6, which are permanently attached to E and extends downwards into corresponding apertures prepared in the rafters. Said apertures are transversely penetrated by metal pins E^2, over which the hooks E^1 are hooked by producing a sliding motion of the cap E down towards the eave, thereby forcing the cap E in close contact against the roof panels, which in turn are firmly secured against the rabbets in the rafters, thereby forming a detachable rigid and weather-proof joining of the roof panels and the rafters.

To further the downward sliding motion of the cap E, as being attached to the rafter, a lever, the point of which is shown at E' in

Fig. 8, may be applied against the lower end of the rafter, using an aperture in the lower end of the cap E as a fulcrum.

The cap F, Fig. 4, as required to cover the hip rafters, is similar in form and manner of manipulation to the cap E, the only difference being that it is required to be somewhat larger to allow for overlapping the caps E. (See Fig. 2.)

The covering for the ridge consists of two pieces, namely, a cap H and a ridge roll R, as shown in Figs. 3 and 4. The cap H is fitted over the top ends of caps E and F, bringing the edges of the cap H in close contact against the roof panels.

The ridge roll R is detachably secured to the ridgepole —*p*— by a series of hooks R^1 permanently secured to the ridge roll R and extending down through corresponding apertures in cap H into apertures in the top edge of the ridgepole. Said apertures are transversely penetrated by metal pins R^2 onto which the hook R^1 is secured by a sliding motion of the ridgeroll R (see Figs. 3, 4 and 5).

The ridgeroll R is divided in its center into two pieces, each piece being attached to the ridgepole by a leading motion towards the center, as indicated by dotted lines at R′ and R″, Fig. 4. The combined length of the two pieces of the ridgeroll is some greater than the required length, allowing the joint in the center to overlap and through the webb of the overlapped parts an aperture is provided, as shown at L, Fig. 4. Through said aperture a padlock may be applied, which insures the ridgeroll, as well as the previous parts of the house, against being taken apart without using violent means.

All the framework of this portable house is firmly and detachably assembled by the use of detachable metal hooks, which are applied in corresponding apertures in the framework, and firmly hooked over metal pins transversely penetrating said apertures.

I prefer to carry out this part of my invention in the manner shown in Fig. 17, where A indicates the hook, A^1 a cross section of the pins, A^2 a key for bringing the hook into final position, and —*a*— is a small portion of the sill —*a*— with the aperture required to receive the hook laid open. The hook A is made of a metal plate shaped as shown in the drawings. The hook A is applied to the pin $A^{1''}$ in —*a*— by inserting it into the aperture in the position indicated in the dotted lines and marked A′, then bringing the hook forward until it is properly hooked onto the pin $A^{1''}$. Then with a swinging motion over the pin $A^{1''}$ as a center it is brought down to the position A″ with its lower edge resting against the other pin A^1. It will be seen that in this position the extreme end of the hook is touching the bottom of the aperture in —*a*—, thus preventing the hook from disengaging itself from the pin $A^{1''}$.

After the hook is brought to the position A″ the key A^2 is then applied by straddling if over the hook, in the position shown as A^2, fulcruming the pin in the key $A^{2''}$ into a corresponding notch provided for it in the top edge of the hook A, and the face of the key is fulcrumed against the pin A^1, and with pressure applied to the handle of the key A^2 a leverage is produced with a tendency to shorten the distance over the two pins A^1 and $A^{1''}$. The face of the key is shaped to such an angle that a sliding motion of the key occurs on the pin A^1 as the leverage is applied, which continuously keeps the lower edge of the hook A touching against the pin A^1, thus entering the hook onto the pin A^1 as the distance over the two pins is shortened, and a swinging motion of the key from position $A^{2'}$ to A^2 will force the hook into final position and will form a rigid joint of the pieces thus assembled, as shown in Figs. 12, 13 and 14, which again may easily be released by applying a bar, as shown in Fig. 14.

Fig. 18 is an underside view of the key A^2 applied to the hook A, further illustrating the construction of the key A^2.

To overcome slight variations in the distance over the pins $A^{1''}$ and A^1, Fig. 17, which may originate in the workmanship or come about by shrinking or swelling of the wooden framework, as exposed to various degrees of dampness in the atmosphere and by use and wear, the pins A^1 are provided with a slit through their central parts, as illustrated at $A^{1'}$ in Fig. 19, thus forming a spring on the side of the pin where the pressure of the hook is applied and still leaving the ends of the pin solid and rigid.

The pin A^1 is illustrated in Fig. 19 is used where the framework is heavy enough to secure ample bearing without the pin having to extend through the wood, as shown in Figs. 12, 14 and 15. This pin A^1 is provided with a cross chisel point, which driven into the wood will prevent the pin A^1 from working loose or turning around.

The pins B^1 and C^1, as in Figs. 3, 8 and 9, require to project clear through the framework so as to get all the bearing possible. The details of those pins as illustrated in Fig. 20, where $B^{1'}$ indicates the slit, which is identical for purpose and in construction to the slit in pin A^1, as previously described, to prevent the pins B^1 and C^1 from turning or working loose. A triangular slit is provided in the ends of the pins, corresponding to and to receive a wedge, as shown at $B^{1''}$, Fig. 20. The length of the wedge is somewhat greater than the diameter of the pin and the protruding ends are driven into the surrounding wood. The end of the pin is then slightly riveted over the back of the wedge to prevent the wedge from working

out. This wedge in turn prevents the pin from turning around or working out.

The pins D^1 as used for securing the strap D are solid and elasticity is procured by corrugating the strap D, as illustrated in Fig. 21. The key for applying the strap D is identical in form and manipulation to the key A^2 in Fig. 17, only the handle needs to be at a different angle to the face of the key, as the keyway is at a different angle to the strap D than to the hooks A, B and C.

In some cases, as in the sills and the corner studs, a keyway at right angles to the side of the strap D is required in order to keep the said keyway inside of the building and concealed between the inner and outer panels, and a different key is required, as illustrated in Figs. 11 and 22, where *e'* indicates the keyway. In Fig. 22 is illustrated in detail the key required and the manipulation of the same. The first position is indicated by dotted lines as D' and $D^{2'}$, and with a swinging motion of the key the strap D is secured on the pin D^1, as indicated in full lines. Fig. 23 shows two side views of the key and part of the handle. I prefer to make this key double, as illustrated, so it may be used both right and left.

The hook A with the pins A^1 as illustrated in Fig. 17 is used for detachably assembling the sills —*a*— to the sills —*b*— and the floor joist to the sills —*a*— and the lower ends of the studs —*e*— and —*f*— to the sills —*a*— and —*b*—, as shown in Figs. 12, 13 and 14, and for assembling the jackrafters —*n*— to the hip rafters —*m*— as in Fig. 15.

The hooking device B is employed to detachably assemble the studs, the wallplates and the ceiling joist to the rafters, as shown in Figs. 8 and 9, and differs in construction from the pin $A^{1''}$, as follows: Two metal straps B^3 are permanently secured by a rivet B^4 to the studs —*f*— and —*e*—, Figs. 8 and 9. The straps B^3 are secured one on each side of the studs and extend above the top end of the same sufficiently to penetrate the wall plates —*k*— and —*l*— and to receive a loosepin B^2. The hook B, which is similar in shape and identical in manipulation to the hook A, is applied to the loosepin B^2 and hooked with the key A^2 onto the pin B^1.

The hooking device C, as employed to detachably assemble the rafters to the ridgepole, Figs. 3 and 7, differs from the hook A as follows: Plates C^2, provided with apertures to receive the hooks, are permanently secured to the ridgepole by pins C^3, Figs. 3 and 4. The required shape of the plates C^2 differs as shown at Fig. 7. The plate at the left is used where two rafters meet one on each side of the ridgepole and the plate at the right where five rafters meet at one point at the apex, as indicated on Fig. 1, where two hiprafters and three common rafters meet at the ridge. The hook C, which is similar in shape and identical in manipulation to hook A, is hooked onto the plate C^2 and with the key A^2 is secured on the pin C^1.

The strap D is employed as a tie-rod to secure the center of the spans firmly together and extends continuously through the studs, the floor joist and the ceiling joist, as shown in Figs. 10 and 11, and terminates at the sills —*b*— or the corner studs —*e*—, Figs. 1 and 2. The strap D is also employed as a means for detachably assembling the windows and door frames, as shown at Fig. 2, by applying a strap D directly over the header and below the sill. The strap D is also used as a cornerbrace on top of the wall plates —*k*— and —*l*—, as shown on the lower lefthand corner of Fig. 1.

For the various panels, not otherwise hereinbefore described, and which form no part of my invention, any panel material may be used, such as several-ply veneer, sheet metal, or paper pulp and composition products; for outside wall panels a weather-proof material must be used.

I am also aware that a panel fitted into grooves or rabbets and the use of the mortises and the tenons are well known and also the use of incased airspaces is well known and used for frame houses, portable and otherwise. Likewise, double paneling is well known and is used for various purposes, and none of the before stated features form a part of my invention.

I am also aware that prior to my invention, portable houses have been constructed with detachable assembling devices, panels and double walls, and I do not claim such combination broadly; but

I claim:—

1. In combination an assembling device adapted for detachably assembling abutting framework particularly in a structure of the character described, said assembling device consists of slitlike apertures one in each of the abutting parts of said framework, circular pins having a longitudinal slit in their central parts transversely penetrating said apertures, a detachable hook disposed on said transverse pins, said detachable hook being a stamped metal plate adapted to freely enter said apertures in aforesaid framework and provided with hook-shaped notches at or near each end adapted for hooking engagement on said transverse pins, additional notches are formed near and on one end adapted to receive a handlever.

2. In combination a floor construction adapted for a structure of the character described comprising supporting longitudinal beams and crossbeams, slitlike apertures formed in each end of said crossbeams and corresponding apertures spaced along the inner edges of aforesaid longitudinal beams, pins transversely penetrating each of said apertures, a detachable hook adapted to

freely enter aforesaid slitlike apertures disposed on each pair of said transverse pins, panel disposed in rabbets and grooves as provided on the edges of said supporting beams all substantially as described.

3. A steel pin with a slit along its central part and a triangular slit in one end to receive a wedge, a wedge to conform to the slit in the end of the pin, and attached to the pin by riveting the end of said pin over the back of the wedge, all substantially as set forth.

4. A detachable hook, adapted to be engaged as a supporting stress brace, such as a sectional tierod, corner braces, and a means for assembling window and door frames in a structure of the character described, said detachable hook consisting of a stamped metal plate or strip, provided with hook-shaped notches at each end and a series of lateral corrugates on its central part, as set forth.

5. In combination, a detachable structure comprising a detachable roof, roof panels provided with declined edges disposed on supporting rafters, a series of apertures provided in the upper edges of said rafters and spaced along the same, pins transversely penetrating said apertures, a detachable sheet metal rafter cover extending the full length of each of the various rafters but projecting laterally beyond said rafters thereby overlapping the declined edges of the roof panels, a series of hooks permanently attached on the under side of said rafter cover and spaced to conform to aforesaid pins and apertures in the rafters and attached on the same with a downward sliding motion, all substantially as set forth.

6. In combination a detachable roof having supporting rafters and ridge pole, rabbets in top edges of said rafters and ridge pole, panel disposed in said rabbets between each pair of adjacent rafters, sheet-metal raftercovers disposed on top edge of each of said rafters, a sheet metal ridge cover disposed on top of the ridge extending laterally and longitudinally beyond the sides and ends of aforesaid ridge pole, thus overlapping all upper end of aforesaid panels and rafter covers, slitlike apertures spaced along the center of said ridge cover and corresponding apertures spaced along in the top edge of aforesaid ridge pole, circular pins transversely penetrating said apertures in said ridge pole, a ridgeroll comprising two or more pieces in length with overlapping joints, each piece being provided with a series of downward extending hooks corresponding to the transverse pins in said ridge pole and attached on the same with a sliding motion toward the center, an aperture through the overlapping part of said ridgeroll adapted to receive a padlock or like locking device, all substantially as set forth.

In testimony whereof I have signed my name to this specification.

NELS KRISTENSEN TEILBORG.