July 18, 1961 J. C. McINTOSH 2,992,709

AIRPLANE HANGAR

Filed May 16, 1957 2 Sheets-Sheet 1

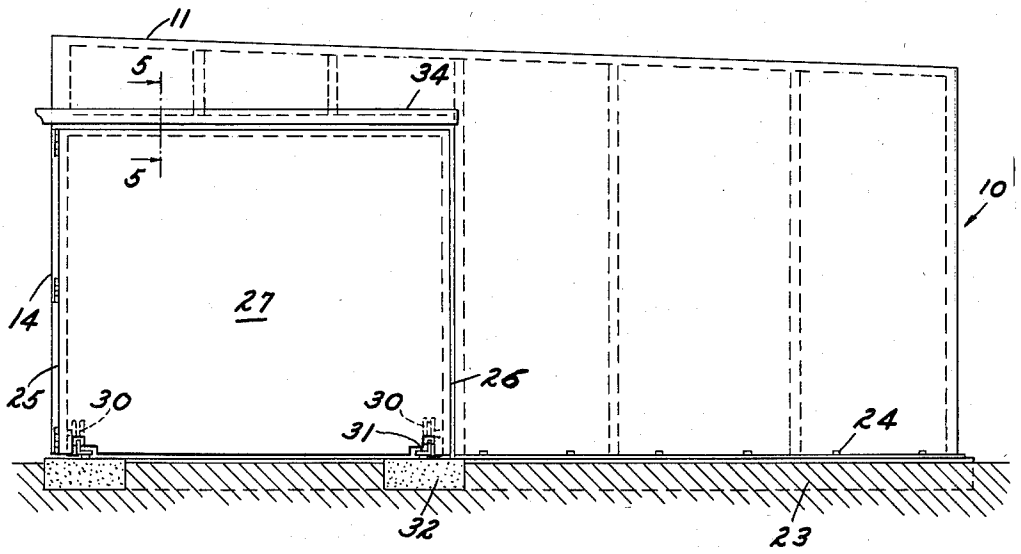


FIG. 1

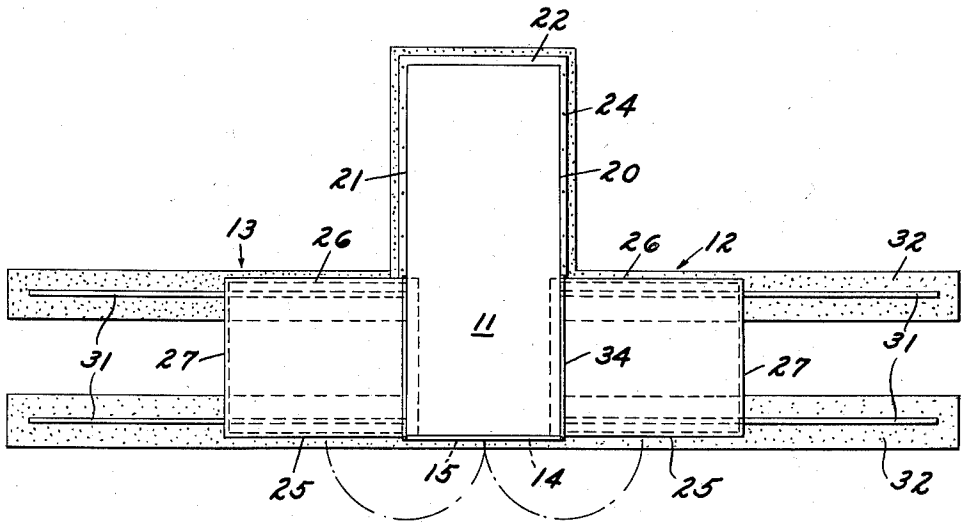


FIG. 2

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2 Sheets-Sheet 2

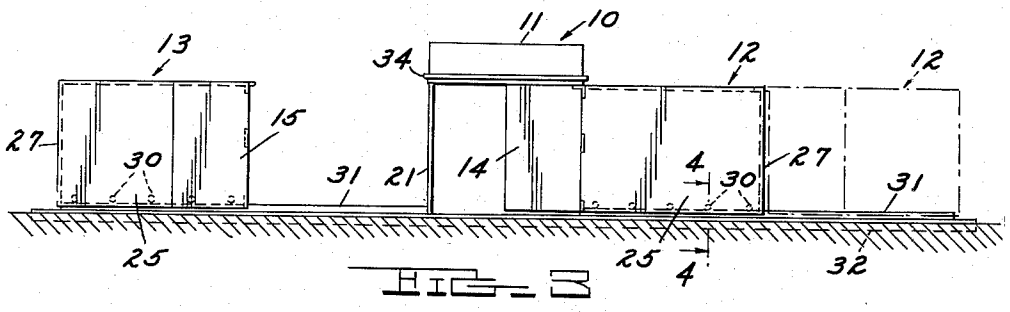


FIG. 3

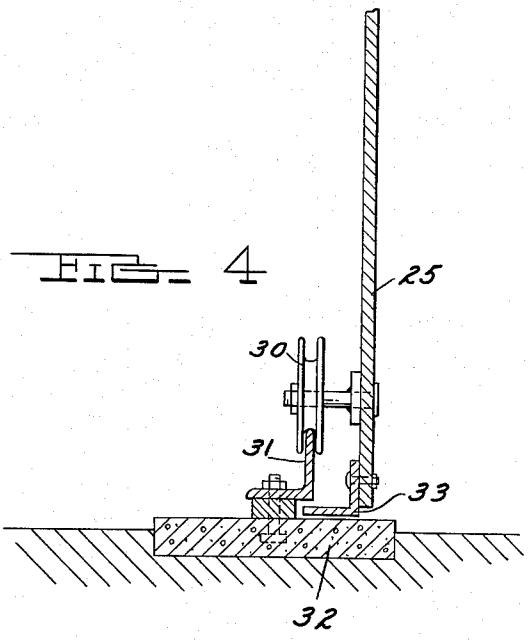


FIG. 4

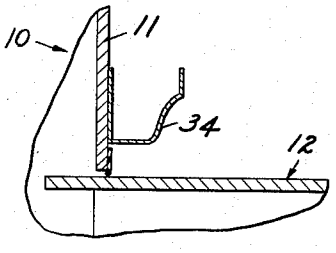


FIG. 5

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AIRPLANE HANGAR

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This invention relates to an airplane hangar and more particularly pertains to a hangar having outwardly slidable wing sections and a center section having a cantilevered roof portion covering the main wing area and motor portion of the fuselage between the wing sections.

Airplane hangars with slidable wing sections have been employed heretofore to house airplanes, however, the several devices of the prior art have not proven entirely satisfactory inasmuch as they are complicated in design and construction, expensive to manufacture, difficult to use, and require too much movement in the slidable portions to clear the plane for movement out of the stationary portions and do not provide shelter for the motor area in the open position.

With the foregoing in view, the primary object of the invention is to provide an airplane hangar which is simple in design and construction, inexpensive to manufacture, easy to use, and which has a shortened travel for the movable sections to clear the airplane wings.

An object of the invention is to provide a center section of the hangar which has a projecting or cantilevered roof portion for occupying the space between the movable side sections and so as to overlie the airplane fuselage in the main wing area and motor area.

An object of the invention is to provide movable side sections mounted on tracks having doors swingable into the area below the cantilevered roof portions so as to provide an end closure beneath the cantilevered roof area.

An object of the invention is to provide a track and wheel arrangement for moving the wing sections outwardly of the main section, and a flange on the track and a flange on the movable wing sections which interlock so as to anchor the slidable or movable wing sections against wind displacement.

An object of the invention is to provide concrete footings under the tracks and body portion so as to anchor the tracks and body portion to the ground.

These and other objects of the invention will become apparent by reference to the following description of an airplane hangar embodying the invention taken in connection with the accompanying drawing in which:

FIG. 1 is a side-elevational view of the inventive hangar.

FIG. 2 is a top plan view of the inventive hangar.

FIG. 3 is a front elevational view of the inventive hangar showing one side in the open position with the door folded back thereon and the other side in the closed position with the door folded out therefrom.

FIG. 4 is an enlarged cross-sectional view of FIG. 3 taken on the line 4—4 thereof showing the wheel and track construction and the interlocking flange construction; and

FIG. 5 is a cross-sectional view of FIG. 1 taken on the line 5—5 thereof showing the side section and center section integration and guttering.

Referring now to the drawings wherein like numerals refer to like and corresponding parts throughout the several views, the airplane hangar disclosed therein to illustrate the invention comprises a fixed center section **10** having a cantilevered roof portion **11** and transversely movable wing covering sections **12** and **13** disposed normal to the fixed section **10** and in the area of the projecting roof **11** so as to close the sides under the roof and doors **14** and **15** hingedly mounted on the sections **12** and **13** respectively which close the front of the roof section **10** under the roof **11** and fold back against the wing sections **12** and **13** respectively.

More particularly, the inventive airplane hangar comprises the fixed airplane body or fuselage covering center section **10** which has paired side walls **20** and **21** adapted to extend from an airplane main wing area rearwardly to the inter-connecting end wall **22**; the roof **11** is mounted on the side walls **20** and **21** and end wall **22** and the cantilevered portion **11** extends forwardly from the center section **10** so as to cover the airplane fuselage in the main wing area and also to cover the motor and propeller area. The walls **20—22** are mounted on concrete footings **23** and are anchored thereto by bolts **24** to prevent wind displacement.

The like wing covering movable side sections **12** and **13** are comprised of side walls **25** and **26** and end walls **27** which are adapted to cover the airplane main wings on either side of the fuselage exteriorly of the roof area **11**.

The sections **12** and **13** are equipped with wheels or rollers **30** which ride on the tracks **31** bolted to the concrete footings **32** and it is to be noted that the tracks and footings are disposed normal to the fixed sections **10** and lie beneath the movable sections **12** and **13** so that the sections **12** and **13** can be moved from a closed position slightly under the roof **11** to an open position remote from the roof **11** so as to uncover the wings. The side walls **25** and **26** are provided with a projecting flange **33** which lies under the track rail **31** flange so as to prevent wind displacement; the projecting portion of the roof **11** is provided with a rain water gutter **34** over the doors and side sections **12** and **13** to eliminate water dripping in that area and it will be understood that the gutter also prevents the drip from the roof when the sections **12** and **13** are moved outwardly to the positions seen in FIG. 3 such as when work is being done on the plane.

In operation, the movable side sections **12** and **13** are moved outwardly on the tracks **31** to the ends thereof so as to permit the user to move an airplane into the fixed section **10** tail first until the main wing is substantially midway located between the tracks **31**. Upon the airplane being so disposed the movable wing covering sections **12** and **13** are moved inwardly on the tracks **31** so as to envelop the wing tips until the movable sections **12** and **13** slightly telescope with the fixed center section **10** in the area of the cantilevered roof **11**; the doors **14** and **15** are then closed and locked such as by a padlock on the doors **14** and **15** which would thereby prevent outward movement of the sections **12** and **13** and completely enclose the plane. It is to be further noted that due to the doors **14** and **15** folding backwardly against the movable sections **12** and **13** that the tracks and side sections **12** and **13** can be substantially shorter than if the side sections met intermediately of the fixed portion **10**.

To remove the airplane from the hangar, it is only necessary to unlock the doors **14** and **15** and fold them back against the side sections and move them outwardly a short distance so as to clear the wing tips and the airplane is then ready to emerge from the hangar.

The projecting or cantilevered roof portion **11** enables the side sections **12** and **13** to be made substantially shorter than if they connected over the airplane fuselage and the provision of the doors **14** and **15** which fold back also enables shorter tracks and movable sections to be used than otherwise would be feasible.

The inventive hangar with the features described constitutes a compact, durable, inexpensive, and neat appearing hangar easily erected and operated.

Although but a single embodiment of the invention has been shown and described in detail, it is obvious that many changes may be made in the size, shape, detail, and arrangement of the various elements of the invention within the scope of the appended claims.

I claim:

1. An airplane hangar comprising an airplane body covering fixed section including sidewalls in the fuselage area from the tail to the main wing, a back wall interconnecting said side walls, and a roof mounted on said side and back walls; said roof having a cantilevered portion extending forwardly beyond said side walls so as to cover the airplane body in the main wing and motor area; like airplane wing covering sections wing-wise axially movably disposed normal to said fixed section in the area of said cantilevered roof including side walls leading outwardly from said fixed section, end walls inter-connecting said side walls, a roof mounted on said side and end walls; and a paired projecting door hingedly mounted on each said wing covering sections extending into the area below said cantilevered roof portion so as to close the front of said fixed section in said cantilevered roof area; said doors being swingable back over said wing covering portion side walls; said fixed section cantilevered roof portion having sides overlying said wing covering sections; and means on said sides, such as eavetroughs, for preventing water from running between said cantilevered roof portion and said wing covering sections.

2. In a device as set forth in claim 1, tracks under said wing sections lying normal to said fixed body section and extending outwardly beyond said wing sections a distance substantially equal to said wing sections, and wheels on said wing sections riding said tracks.

3. An airplane hangar comprising a center section including side walls in an airplane fuselage area from the tail to the main wing and a roof having a cantilevered portion extending forwardly beyond said side walls so as to cover an airplane body in the main wing and motor area; like airplane wing covering sections wing-wise axially movable disposed normal to said center section in the area of said cantilevered roof, and a paired projecting door hingedly mounted on each said wing covering section extending into the area below said cantilevered roof portion so as to close the front of said center section in said cantilevered roof area; said doors being swingable back over said wing covering portion side walls; said center section cantilevered roof portion having sides overlapping said wing covering sections providing means preventing water running between said cantilevered roof portion and said wing covering sections.

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