April 9, 1929. J. J. KARLEY 1,708,098

FARROWING HOUSE

Filed June 27, 1927 3 Sheets-Sheet 1

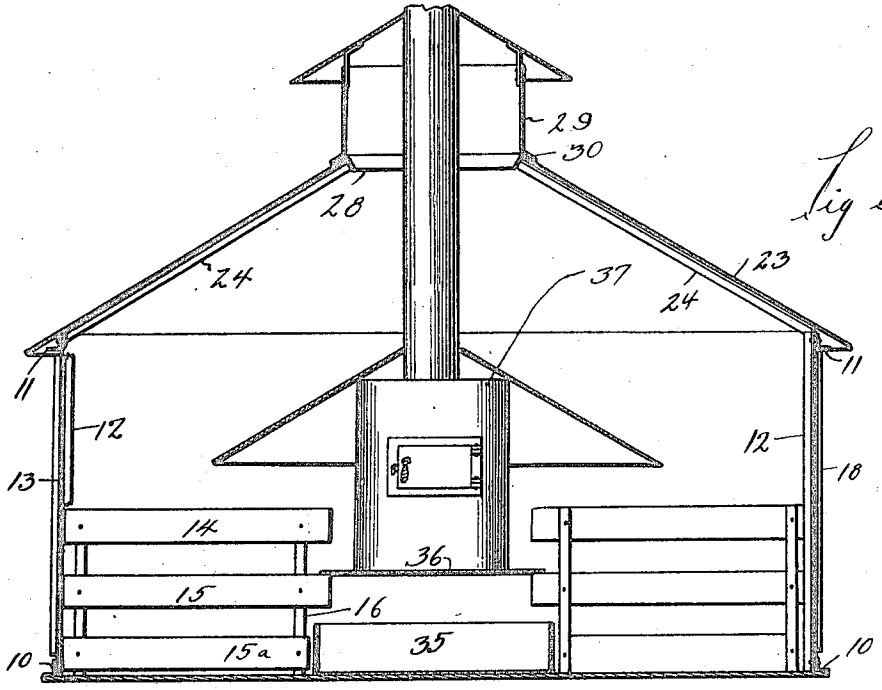


Fig 1

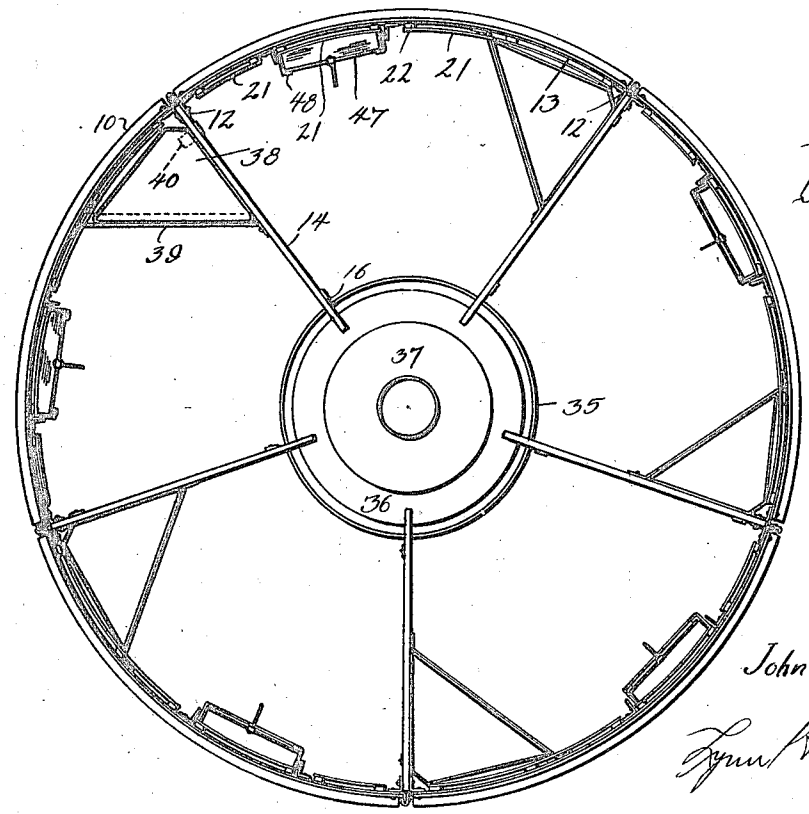


Fig 2

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FARROWING HOUSE

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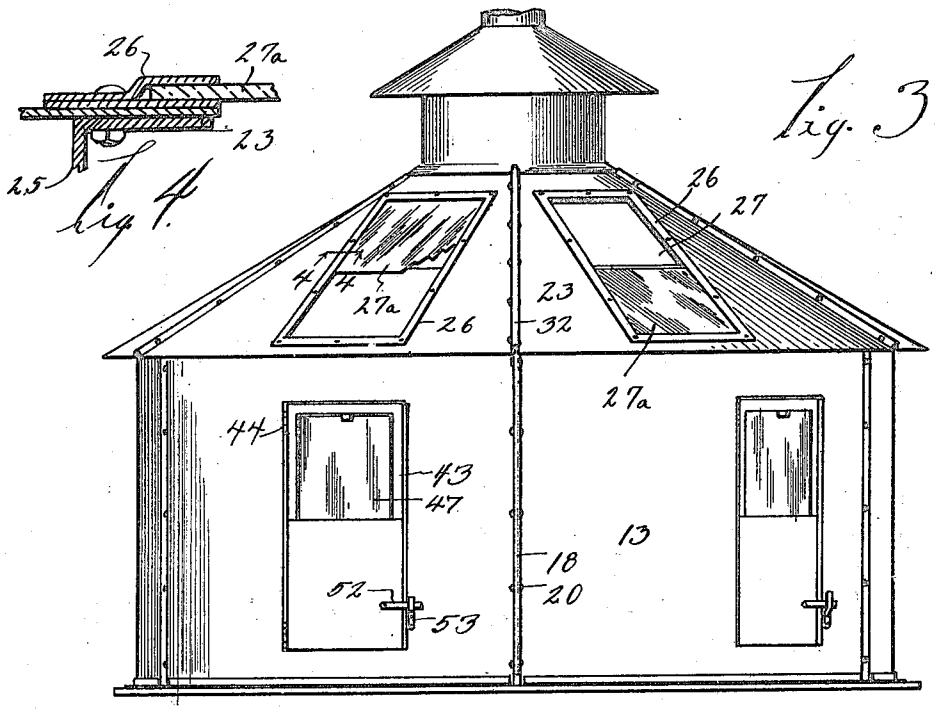


Fig. 4.

Fig. 3

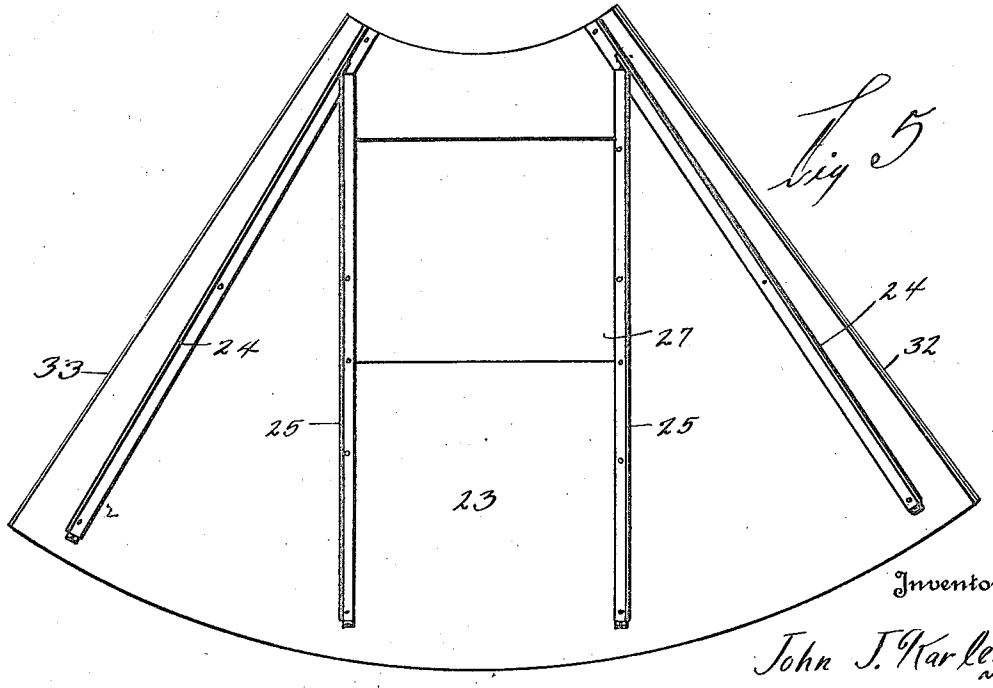


Fig. 5

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FARROWING HOUSE

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Fig. 7

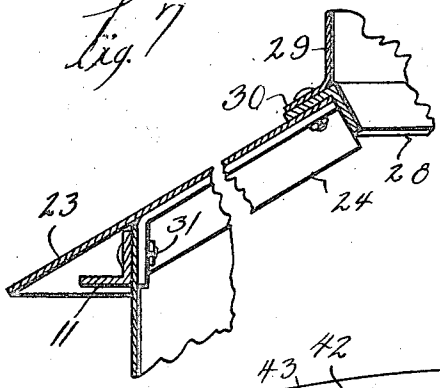


Fig. 6

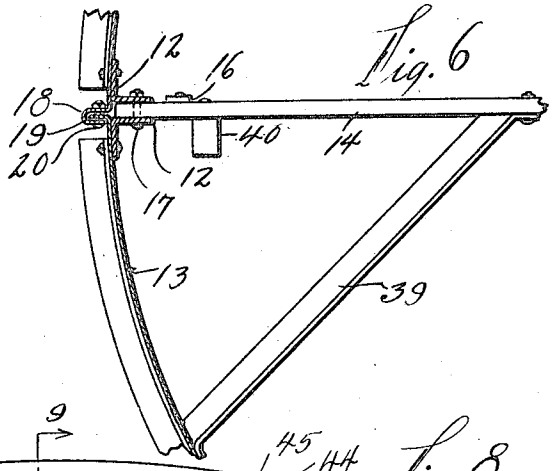


Fig. 8

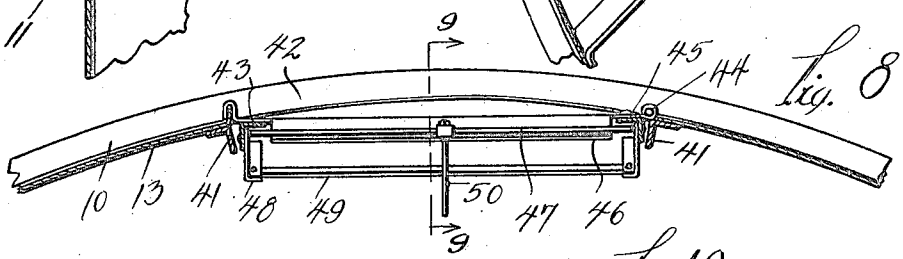


Fig. 10

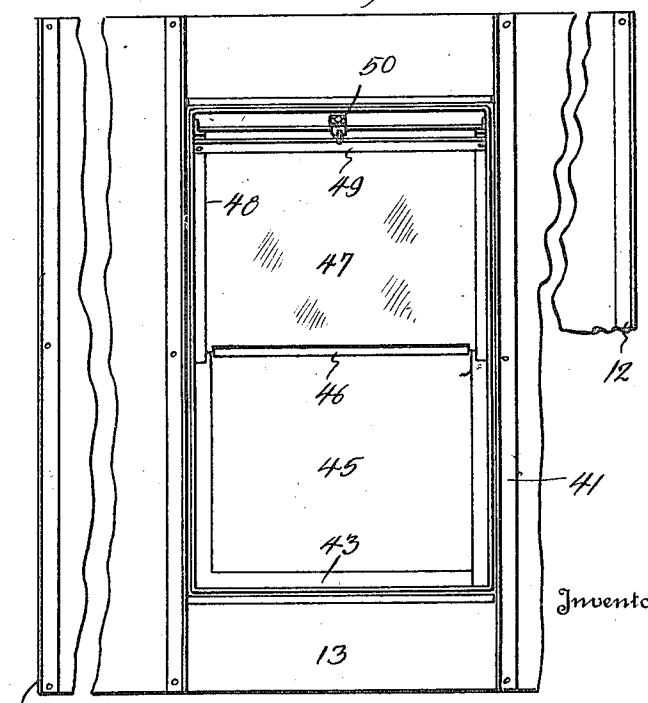
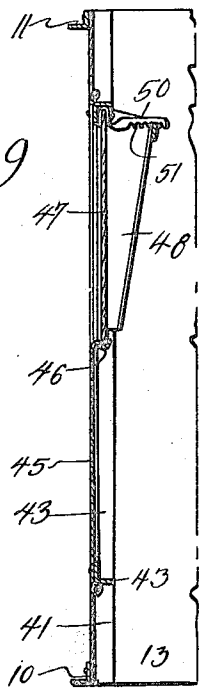


Fig. 9



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Patented Apr. 9, 1929. 1,708,098

UNITED STATES PATENT OFFICE.

JOHN J. KARLEY, OF LE MARS, IOWA.

FARROWING HOUSE.

Application filed June 27, 1927. Serial No. 201,747.

My invention relates to a farrowing house and it is my primary object to provide an individual farrowing house of all metal construction.

A further object is to provide a multiple, individual farrowing house having individual pens for a number of hogs.

A further object is to provide such a farrowing house which is so constructed as to be readily assembled or disassembled, the side walls being formed in a plurality of units numbering the same as the compartments within the house and the roof being divided in the same manner.

Another object of my invention is to provide a novel joint construction between the side walls, serving not only to secure them together, but also to secure the partition members which define the individual compartments within the house.

A still further object is to provide a novel door construction which is simple and yet affords adjustable ventilation facilities.

A further object is to provide a novel method of supporting a heating stove in conjunction with a centrally located water pan, open to all of the compartments whereby neither the pan nor stove interfere with each other.

With these and other objects in view, my invention consists in the construction, arrangement and combination of the various parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:

Fig. 1 is a central, vertical, sectional view through the house.

Fig. 2 is a plan view of the house with the roof removed.

Fig. 3 is a side elevation of the house.

Fig. 4 is a detail, sectional view taken on the line 4—4 of Fig. 3.

Fig. 5 is an inverted plan view of the roof section.

Fig. 6 is an enlarged sectional view taken horizontally through the connected ends of two wall sections, the corresponding partition member and combined brace and feed troughs support being shown in combination therewith.

Fig. 7 is a detail, sectional view through portions of the roof.

Fig. 8 is a detail, sectional view through one of the side wall sections, illustrating a door in plan.

Fig. 9 is a vertical, sectional view taken on the line 9—9 of Fig. 8.

Fig. 10 is an interior elevation of the parts shown in Figs. 8 and 9.

My hog house comprises generally a plurality of side wall and roof sections and I have shown five sections, although it will be understood that any greater number of sections may as well be employed. Each side wall section comprises generally a curved sill member 10, a curved eave member 11, a pair of upright posts 12 and a sheet metal wall member 13, which, although shown integral in the drawings, may be made of several sections, arranged with their side edges connected. The frame members and wall member are secured together with the horizontal pieces 10 and 11 on the outer side of the wall and the vertical posts 12 on the inner side thereof. The posts 12 are of angle iron, one leg of each iron being secured to the wall member and the other leg projecting inwardly substantially flush with the side extremity of the wall member. It may now be noted that when the plurality of wall sections are arranged with their edges adjacent to form a complete cylindrical wall that the inwardly extending flanges of the posts 12 of adjacent wall members may be spaced apart in substantially parallel positions. (See Fig. 6.)

The partition members each comprise a plurality of horizontal rails 14, 15 and 15ª and vertical struts 16, the outer strut 16 being spaced from the ends of the rails, as shown in Fig. 1. The projecting ends of the rails, which are thus left, are inserted between the spaced flanges of the posts 12, as shown in Fig. 6 and bolts 17 are inserted through suitable openings in the flanges 12 to draw the flanges together into gripping engagement with these projecting ends. In this way the bolts 17 serve the double function of securing the wall sections together and of securing the partition members in place properly spaced apart.

In order to close the gap between the posts 12, the ends of the wall members 13 are bent to form a channel 18 on one wall member and a corresponding flange 19 on the other wall member which is received within the channel 18. Stove bolts 20 are then inserted through flanges and channel and

are tightened to bring these members into contact with each other, thus effectively excluding air currents and the like. In order to insulate the walls more thoroughly against the passage of heat, they may be lined with wall board or the like, as indicated at 21 in Fig. 2. The wall board sections 21 may be spaced from the sheet metal walls 13 by means of upright slats 22. This insulation has not been shown in any of the other figures in order not to confuse the showings in those figures.

Each roof section is wedge-shaped, as shown in Fig. 5 and comprises the roof plate 23, the side reinforcing members 24 and the central reinforcing members 25. The object of the reinforcing members 25 is to provide a solid support for the window casing 26, which is secured to the outer surface of the plate directly above the frame members 25. A window opening 27 is provided in the plate 23 and registers with the upper half of the casing 26. The casing 26 is shown in section in Fig. 4 and comprises a channel-shaped member which receives a pane of glass 27.

The pane of glass 27 is slidable within the casing 26 and is held by friction in any position desired. Thus a very cheap and simple window construction is provided.

Although the horizontal frame members of the side walls are fastened rigidly therewith in sections, the roof is not provided with horizontal frame members. The inner extremities of the roof sections are curved, as shown in Fig. 5, to fit a ring 28 which is secured to the upper surface of the roof plate. A cupola 29 is provided with an annular flange 30, which registers with the ring 28 and is secured therein.

The lower extremities of the frame members 24 and 25 are secured to the eave members 11 by bolts 31, which are passed through the eave members and through the side wall members 13, as shown in Fig. 7. It may be noted by inspection of Fig. 5 that the reinforcing members 24 are spaced inwardly sufficiently from the edges of the plate 23 so as to embrace the vertical posts 12 of the side sections. The plates 23 are secured together edge to edge in the same manner as the side wall members 13, being provided with registering channels 32 and flanges 33 for this purpose.

The partition members are so spaced at their ends as to leave an open space in the center of the house. The lower rails 15^a are cut short so as to just make room for a water pan 35. The intermediate rails 15 are extended further inwardly so as to cover the water pan 35 and thereby to prevent tipping of the water pan. The upper members 14 are spaced inwardly a sufficient distance to receive a plate 36, upon which the stove 37 is supported. Thus the partition members serve not only to divide the space within the house but also to hold the water pan in place against both lateral and tipping movement and to support the stove away from interference with the pan and yet located centrally of the house. A heat reflector is carried above the stove and serves to reflect heat downwardly into the compartments.

An individual feed pan is provided for each hog and is triangular shaped, as shown at 38. The feed pan is supported in one corner of each compartment by an angle iron 39, which is secured to the side wall member 13 and to the partition member 14, as shown in Fig. 6. The angle iron 39 serves not only to support the feed pan but also to brace the partition member 14 against lateral movement in either direction. One corner of the feed pan is supported by a bracket 40, secured to the partition member 14.

The door construction includes a pair of vertical posts 41 (Fig. 8), secured on either side of the door opening 32 to the side wall member 13. The door proper includes a frame 43 which is hinged at one side as at 44 to one of the posts 41. A door plate 45 covers the lower half of the frame and the upper half is open. The upper extremity of the plate 45 is provided with a horizontal channel 46, which supports the lower edge of a pane of glass 47 forming a window for the door. A window casing is constructed with a pair of side members 48, L shaped in cross section and secured to the frame 43 and a cross member 49, secured to the upper ends of the side members 48. The glass is thereby retained between the door frame 43 and the window frame and due to the triangular shape of the side members 48, the glass 47 may be swung inwardly at its upper extremity so as to leave a ventilation space in the door. An adjusting latch 50 is rigidly secured to the upper edge of the glass and has a series of teeth 51 engaging the cross member 49 to retain the glass in any adjusted position desired.

A door latch 52 is pivoted to each door and coacts with the keeper 53, secured to the wall. The entire house may be placed upon a floor 54, to which it may be screwed if desired, the horizontal flanges of the sills 10 serving to allow such attachment.

It has been my object to provide a knock-down construction which could be assembled by any unskilled person and in which the parts are so arranged that it would be impossible to make a mistake in assembling. Together with the advantages of the knock-down and assembly features I have secured a simplicity of construction which will render the house fairly cheap to manufacture and at the same time a durability not found in the ordinary wooden house construction.

Some changes may be made in the con-

struction and arrangement of the parts of my invention without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of mechanical equivalents, which may be reasonably included within their scope.

I claim as my invention:

1. In a farrowing house, a plurality of wall sections, each including end flanges projected radially inwardly, a numer of partition members provided with projecting portions received between said flanges, elements securing the flanges together in engagement with said partition members, the inner ends of the partition members being undercut to receive and hold down a central water pan and serving also to support a stove above said pan.

2. In a farrowing house, a plurality of wall sections, each including end flanges projected radially inwardly, a number of partition members provided with projecting portions received between said flanges and elements securing the flanges together in engagement with said partition members, the inner ends of the partition members being undercut to receive and hold down a central water pan.

3. In a farrowing house, a plurality of wall sections, each including wall members of sheet metal and vertical posts having inwardly extended, radial flanges, coacting channels and flanges on the wall members, the channels receiving the flanges, securing elements extended through said coacting channels and flanges, and securing elements extended through the post flanges.

4. In a farrowing house, a plurality of wall sections, each including wall members of sheet metal and vertical posts having inwardly extended, radial flanges, coacting channels and flanges on the wall members, the channels receiving the flanges, securing elements extended through said coacting channels and flanges, securing elements extended through the post flanges, and radial partition members secured between said post flanges.

5. In a house, a plurality of wall sections, each including wall members of sheet metal and vertical posts having inwardly extended, radial flanges, coacting channels and flanges on the wall members, the channels receiving the flanges, securing elements extended through said coacting channels and flanges, and securing elements extended through the post flanges and roof sections, each comprising a roof plate, radial reinforcing elements secured thereto and attached at their lower ends to the upper extremity of a respective wall section, and coacting radial channels and flanges at the sides of the roof plates, the latter flanges being received within their respective channels.

6. In a house, a plurality of wall sections, each including wall members of sheet metal and vertical posts having inwardly extended, radial flanges, coacting channels and flanges on the wall members, the channels receiving the flanges, securing elements extended through said coacting channels and flanges, and securing elements extended through the post flanges and roof sections, each comprising a roof plate, radial reinforcing elements secured thereto and attached at their lower ends to the upper extremity of a respective wall section, coacting radial channels and flanges at the sides of the roof plates, the latter flanges being received within their respective channels, and an integral ring to which the upper ends of the reinforcing elements are secured.

7. In a hog house, a plurality of wall sections, a number of partition members positioned radially, the inner ends of the partition members being undercut to receive and hold down a central water pan.

8. In a hog house, a plurality of wall sections, a number of partition members positioned radially and spaced from each other at their inner ends to form a central space, a water pan received in said central space and a stove supported above the water pan upon the ends of the partition members.

Signed this 31 day of May, 1927, in the county of Plymouth and State of Iowa.

JOHN J. KARLEY.