

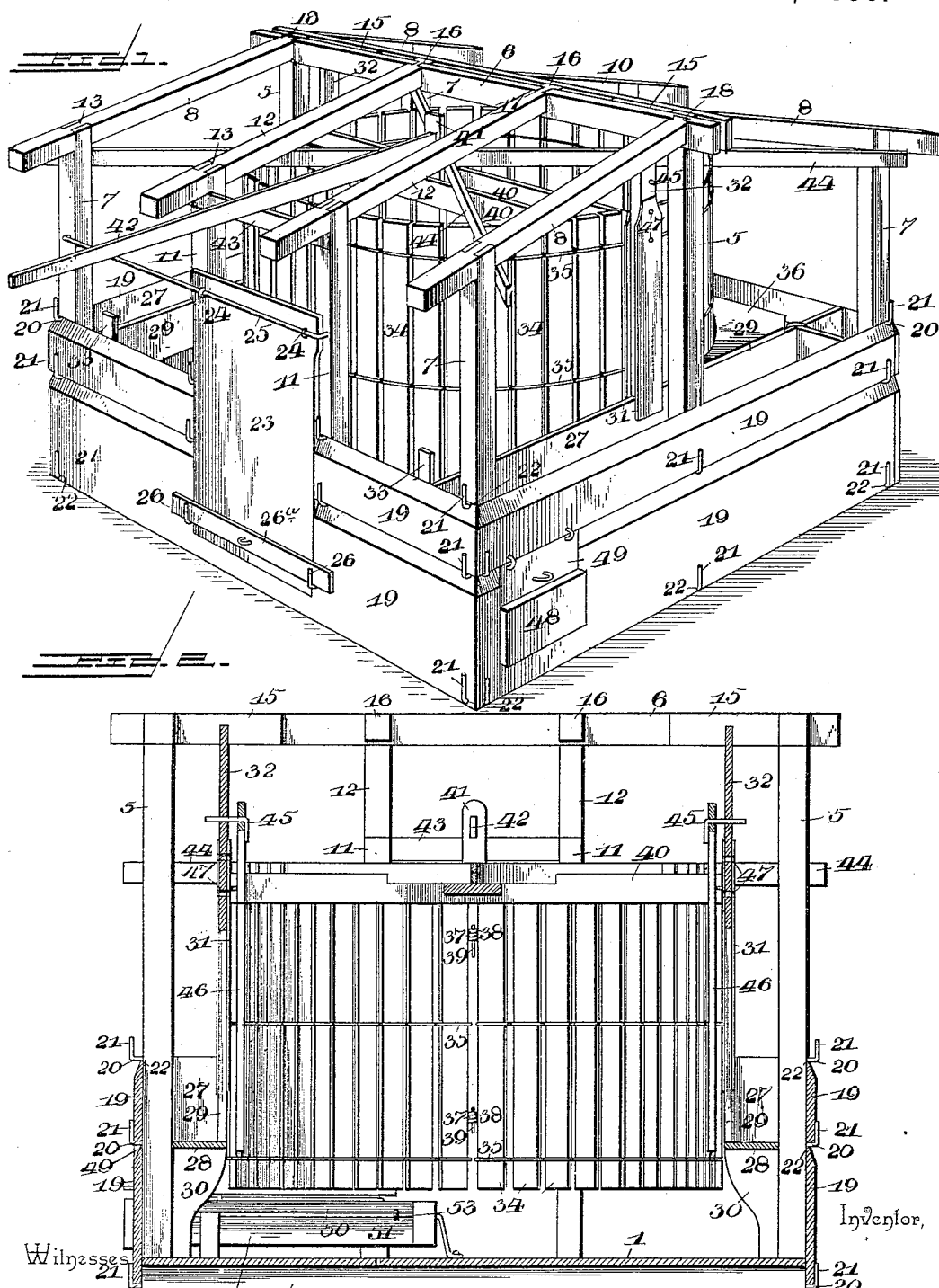
(No Model.)

2 Sheets—Sheet 1.

E. POWERS.
FARROWING PEN.

No. 569,516.

Patented Oct. 13, 1896.



Witnesses
W. H. Doyle
[Signature]

By his Attorneys, Edward Powers,

Chas. Snow & Co.

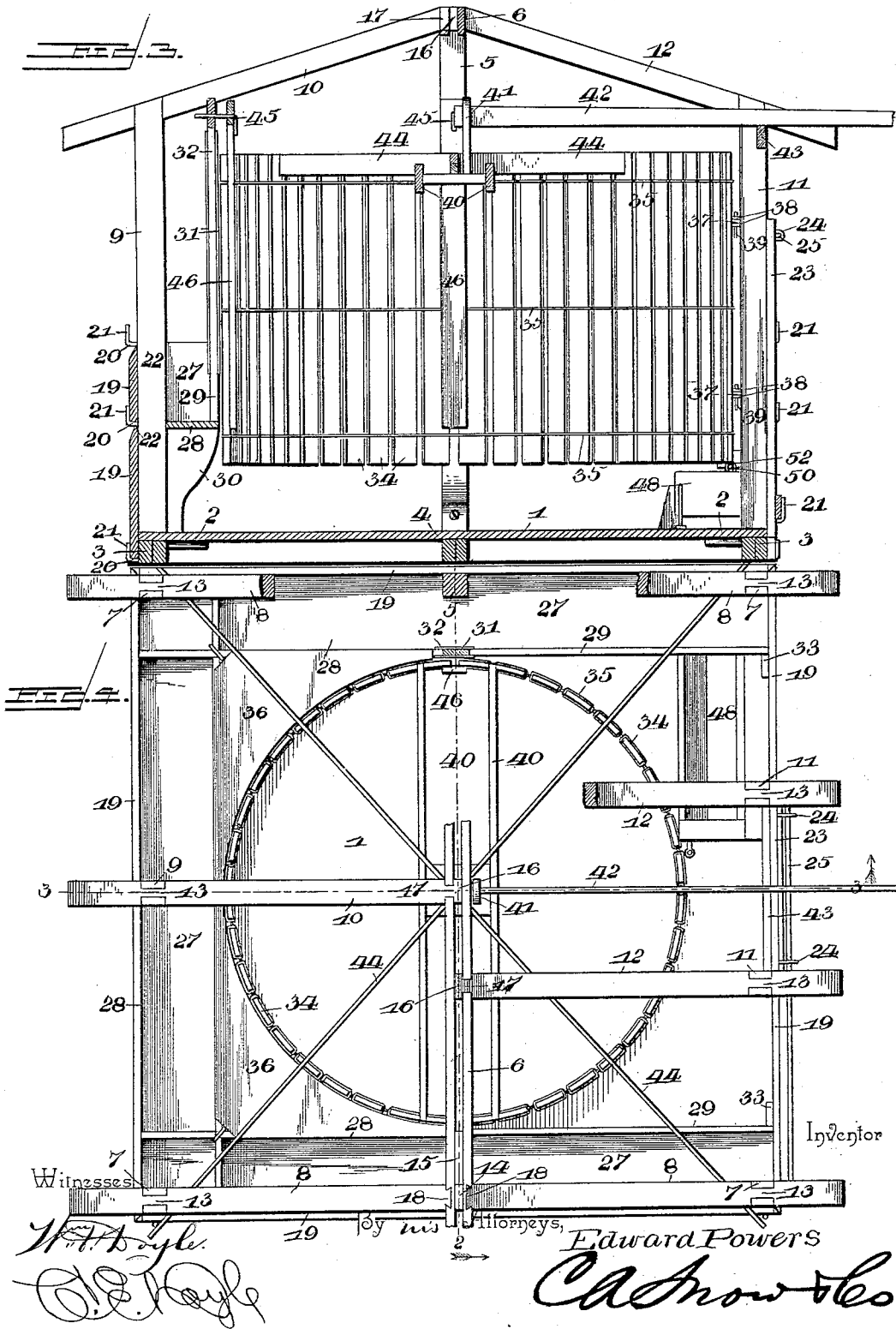
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UNITED STATES PATENT OFFICE,

EDWARD POWERS, OF ARKANSAS CITY, KANSAS, ASSIGNOR OF ONE-HALF
TO SAMUEL J. SMITH AND JOHN H. SMITH, OF SAME PLACE.

FARROWING-PEN.

SPECIFICATION forming part of Letters Patent No. 569,516, dated October 13, 1896.

Application filed October 10, 1895. Serial No. 565,241. (No model.)

To all whom it may concern:

Be it known that I, EDWARD POWERS, a citizen of the United States, residing at Arkansas City, in the county of Cowley and State of Kansas, have invented a new and useful Farrowing-Pen, of which the following is a specification.

My invention relates to a farrowing-pen for brood-sows; and the object in view is to provide a knockdown construction of pen wherein means are employed to give access to all parts of the interior pen without exposing the occupants to dampness and cold; to provide simple and efficient means for confining the sow while permitting the pigs to escape to parts of the pen provided especially for their occupation; to provide means whereby either the sow or the pigs may be liberated without allowing both to leave the pen, and, furthermore, to provide efficient means for applying packing to exclude cold.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a pen constructed in accordance with my invention. Fig. 2 is a vertical central longitudinal section on line 2 2 of Fig. 4. Fig. 3 is a vertical central transverse section on line 3 3 of Fig. 4. Fig. 4 is a plan view, partly in section.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The floor 1 of the pen is of sectional construction, strengthened at the ends of its sections by transverse cleats 2 and supported by the front and rear sills 3 and the central parallel sill 4. These sills are provided with mortises for the reception of tongues on the lower extremities of corner-posts, which support the superstructure of the building, central uprights 5, rising from the extremities of the central beam 4 to support the ridge-pole 6, and corner-posts 7, rising from the extremities of the front and rear sills 3 to support the outer ends of the terminal rafters 8. Between the rear corner-posts and also rising from the rear sill is an intermediate post 9 to

support the outer end of an intermediate rafter 10, and rising from the front sill between the front corner-posts are the spaced door-posts 11, which also support the outer ends of intermediate rafters 12. The upper extremities of the posts 7, 9, and 11, which rise, respectively, from the front and rear sills 3, are mortised at their upper extremities to receive the reduced neck portions 13 of the several rafters, and the upper extremities of the central uprights 5 are provided with tongues 14 to fit in mortises in the extremities of the ridge-pole 6. In the construction illustrated this ridge-pole consists of parallel spaced bars held at the desired interval by interposed spacing-blocks 15, arranged near the extremities of the bars, and the inner extremities of the intermediate rafters 10 and 12 are provided with T-heads 16, arranged in the interval between the bars forming the ridge-pole, the reduced or neck portion 17 of said T-heads fitting in mortises formed, respectively, in the bars comprising the ridge-pole. The inner extremities of the terminal rafters 8 have dovetailed heads 18, which fit in correspondingly-shaped seats formed in the exposed surfaces of the bars forming the ridge-pole.

The frame thus described is adapted for supporting a roof of tarpaulin or any other suitable material, which, however, I have deemed it unnecessary to illustrate in the drawings, and the sides or walls which are supported by the upright timbers are preferably constructed of weather-boarding or siding 19, arranged in contact with the outer surfaces of the uprights of the frame and held in place by means of turn-buttons 20, said turn-buttons consisting of a shank mounted for rotation in a timber and having an arm 21 arranged approximately parallel with the surface of the timber and adapted to bear against the outer surface of the weather-boarding or siding. The siding-boards are beveled at their upper edges to form watersheds and are notched, as shown at 22, to receive the shanks of the turn-buttons. The advantage of this construction of side walls resides in the fact that any or all of the sections or boards thereof may be removed to secure the necessary ventilation or give access for cleaning the parts by simply turning the but-

tons to disengage the desired number of parts or sections. The door 23, which closes the space between the door-posts 11, is provided with eyes 24, which are mounted to slide upon a guide-rod 25, arranged horizontally between one of the door-posts and one of the corner-posts, as clearly shown in Fig. 1, the lower end of the door being held in place when in its closed position by means of turn-buttons 26, similar in construction to those above described, and a locking-bar 26^a.

Arranged within the space bounded by the walls of the structure and parallel with the floor are arranged packing-troughs 27, formed by horizontal strips 28 and upright strips 29, the former being supported by brackets 30, secured to the uprights of the structure. The upright boards 29 are held in place at their inner ends by their insertion in vertical guides formed by sheet-metal plates 31, secured to the side surfaces of upright guide-timbers 32. The outer ends of said upright boards 29 are preferably secured together at the rear corners of the pen and at the front corners are arranged in contact with suitable cleats 33, secured to the inner surfaces of the siding-boards. The object of these packing-troughs is to contain hay or other packing material to exclude cold, and the construction of the troughs is such that they may be extended upward, if necessary, to the rafters, although in the drawings I have shown the same only of sufficient height to protect the spaces below the same, or between the packing-troughs and the floor, in which are adapted to be arranged the beds for the use of the pigs.

Arranged within the space surrounded by the packing-troughs, as above described, is a central inclosure designed to be occupied by the sow and constructed of a continuous flexible wall. This wall, in the construction illustrated in the drawings, consists of vertical slats 34, spaced apart at their edges and held in place by continuous flexible bands 35, formed of wire or its equivalent, twisted between the edges of the slats to hold the latter at the desired intervals. This flexible wall is adapted to be arranged in a circular form at the center of the pen, and the angular spaces between the same and the inner walls of the packing-troughs may be covered to protect the pigs by means of angular platforms 36. The free ends of the wall of the central pen are fitted with eyes 37 to register with pairs of eyes 38 on the door-posts, the eyes on the extremities of the flexible wall being adapted to be arranged between said pairs of eyes when the pen is raised to arrange its lower edge above the plane of the floor. This raised position is the normal arrangement of the central pen in that it provides for the escape of the pigs from the central pen to avoid their injury by the sow, and said free ends of the flexible wall may be secured to the door-posts by means of pins 39, engaging the registering eyes.

The pen is spanned diametrically by cross-

bars 40, arranged in parallel planes and secured at their extremities between contiguous slats, and supported by said cross-bars at their centers is a loop 41 for engagement by the extremity of a lever 42, adapted to be fulcrumed upon the cross-piece or lintel 43 of the door-opening to provide for raising and lowering the central pen. The upward movement of this pen is limited by the radial stop-bars 44, intersecting at the center and projecting at their extremities under the terminal rafters of the roof structure, and the pen is secured at the desired vertical adjustment by means of pins 45, engaging registering openings in supporting straps or ears 46, and the upright guides 32, said guides being provided with a plurality of perforations 47, whereby the pen may be arranged in different planes.

Arranged in an opening in one side of the walls of the exterior pen is a trough 48, which projects at its outer end through an opening in said wall and is closed by a hinged door or flap 49. This trough is mounted to slide in the pen by means of guide-rods 50 and 51, the former being carried by the trough and operating in a way 52, arranged parallel with the front wall of the structure, and the latter being stationary and traversed by an eye 53 on the trough, the extremities of the guide-rod 51 being secured to the floor of the main or exterior pen.

From the above description it will be seen that by arranging the central or interior pen at such an elevation as to allow the pigs to escape from the interior thereof to the stalls or spaces formed near the walls of the main or exterior pen the injury caused to a litter under ordinary conditions by crowding and crushing is avoided. It will be seen, furthermore, that by connecting the free ends of the flexible wall together the sow may be confined, while the litter is allowed to pass out through the door-opening in the main or exterior pen, if the door 23 has been opened for that purpose. In the same way, by securing the extremities of the flexible wall to the door-posts, the pigs may be confined and retained, while the sow is allowed to pass out through the door-opening; or by arranging the flexible wall with its lower edge above the plane of the floor and securing the extremities thereof to the door-posts both the sow and litter may be allowed to pass out of the pen by opening the door 23.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. In a farrowing-pen, the combination with a skeleton frame and siding-boards detachably secured thereto and adapted to be removed to ventilate the interior, of packing-troughs arranged within the pen above its

floor to form subjacent retreats and contiguous to the side walls thereof to receive packing material, said troughs being accessible by removing the contiguous siding-boards without entering the pen, substantially as specified.

2. In a farrowing-booth, the combination with a main or exterior pen, of a movable interior pen constructed of a continuous flexible wall having free extremities adapted to be secured together to cut off, or separated to establish, communication with the surrounding portion of the main or exterior pen, said exterior pen having a door-opening for communication with the interior pen when the extremities of the latter are separated, substantially as specified.

3. In a farrowing-booth, the combination with a main or exterior pen having a side door-opening, and means for closing the same, of an interior pen constructed of a continuous flexible wall supported at its lower edge by the floor of the pen, and complementary securing devices on the extremities of said flexible wall and also on the wall of the main or exterior pen upon opposite sides of the door-opening, substantially as and for the purpose specified.

4. In a farrowing-booth, the combination with a main or exterior pen, of a central or interior pen constructed of a continuous flexible wall provided at its free extremities with duplicate eyes adapted to register for engagement by pins, and corresponding eyes arranged upon opposite sides of a door-opening in the main or exterior pen to provide for securing the extremities of the flexible wall to the wall of the main or exterior pen upon opposite sides of its door-opening, substantially as specified.

5. In a farrowing-booth, the combination with a main or exterior pen, of a movable interior pen having a flexible wall constructed of spaced vertical slats and connecting transverse bands and adapted to be expanded and contracted laterally, and means for vertically adjusting the interior pen and securing it at the desired adjustment, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EDWARD POWERS.

Witnesses:

LAURA DUFF-STANLEY,
JAS. C. STANLEY.