

952,479.

Patented Mar. 22, 1910.
2 SHEETS—SHEET 1.

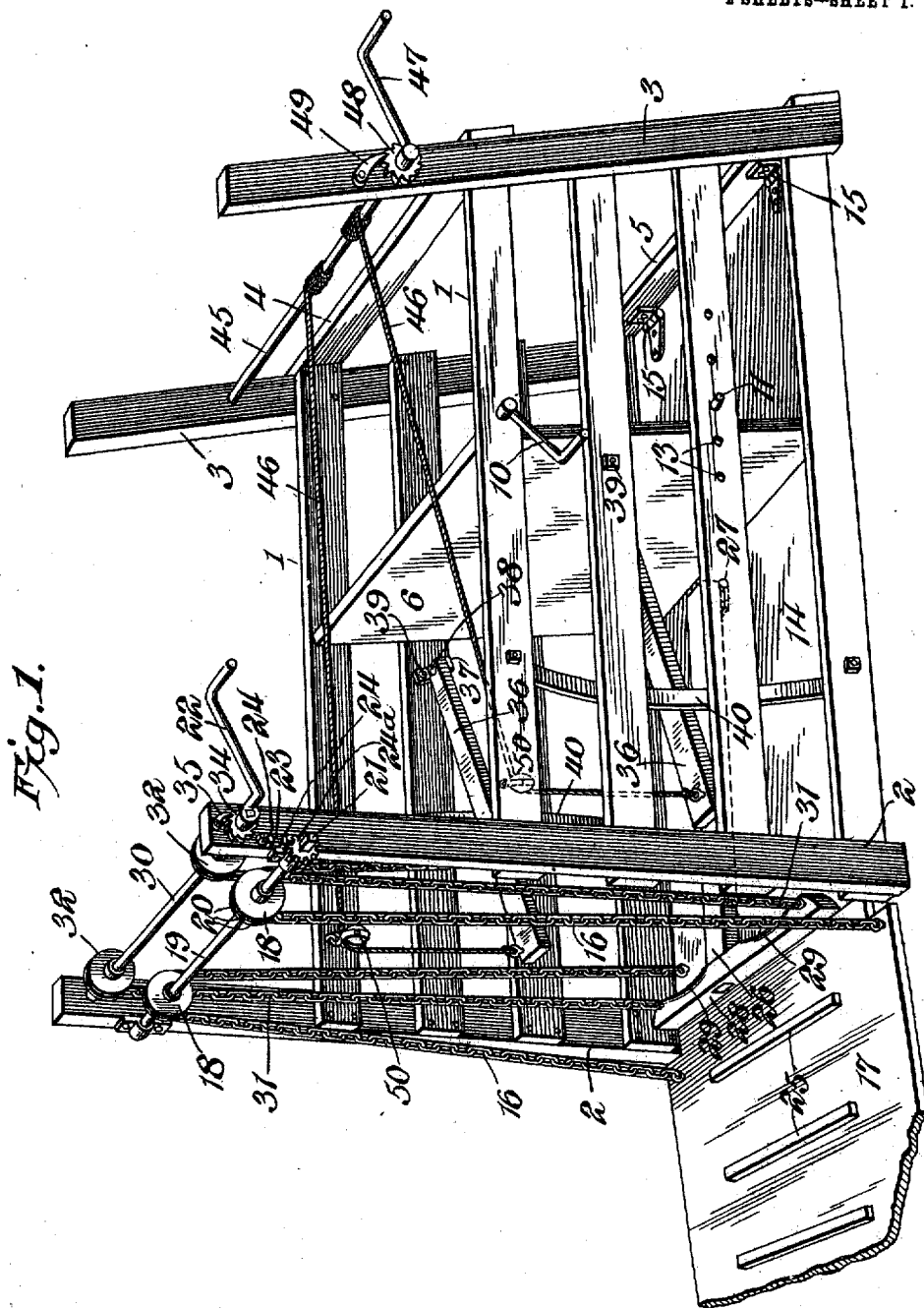


Fig. 1.

Witnesses

Howard D. Orr.
H. J. Riley

Lester Sturm, Inventor,

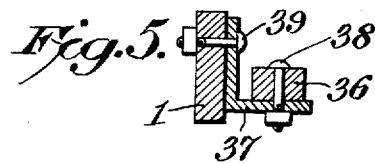
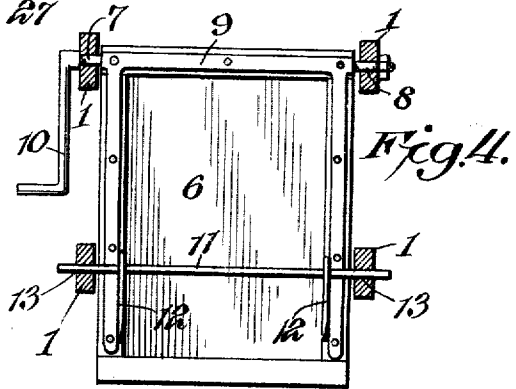
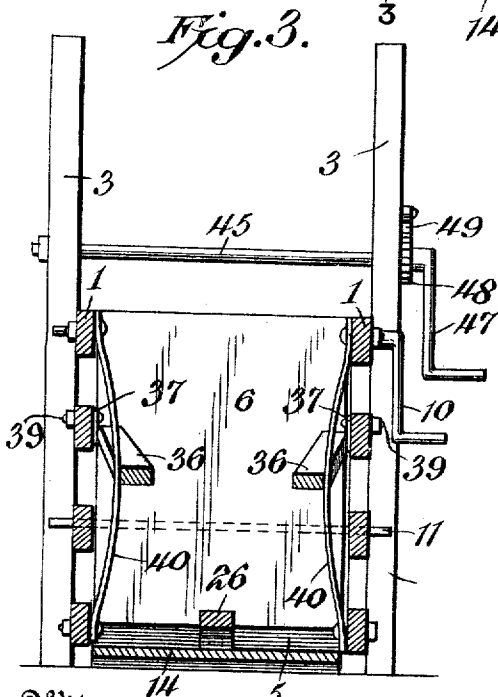
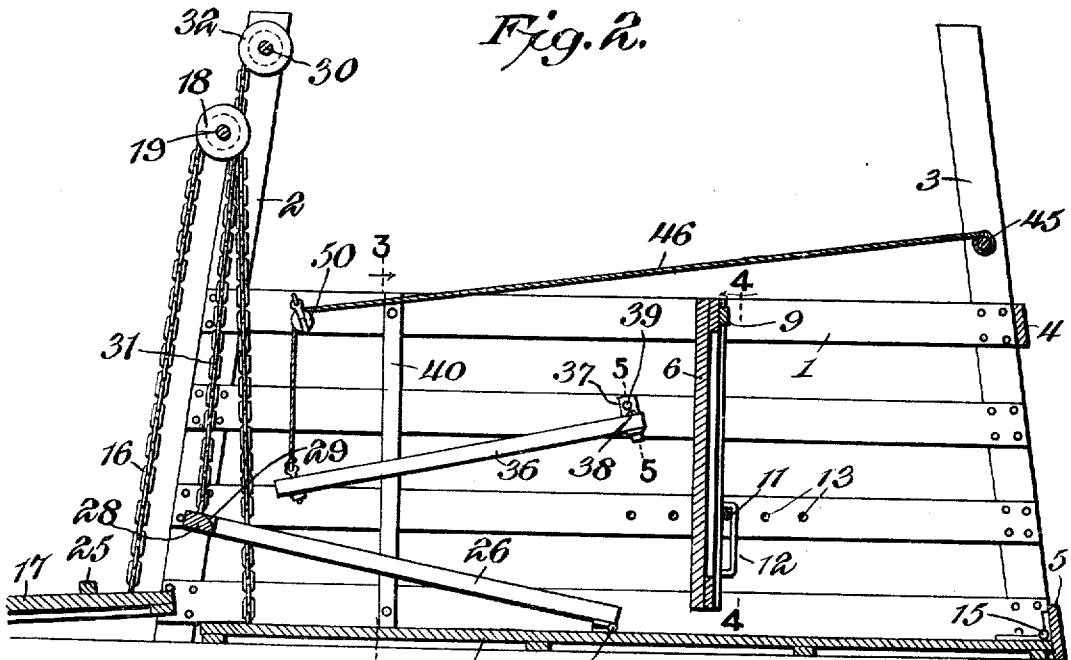
By

E. J. Siggers

Attorney

952,479.

2 SHEETS—SHEET 2.



Lester Sturm, Inventor,

 $\mathbb{B}_Y$

E. G. Liggers.

Attorney

UNITED STATES PATENT OFFICE.

LESTER STURM, OF VANDALIA, ILLINOIS.

HOG-BREEDING CRATE.

952,479.

Specification of Letters Patent. Patented Mar. 22, 1910.

Application filed July 30, 1908. Serial No. 446,157.

To all whom it may concern:

Be it known that I, LESTER STURM, a citizen of the United States, residing at Vandalia, in the county of Fayette and State of Illinois, have invented a new and useful Hog-Breeding Crate, of which the following is a specification.

The invention relates to improvements in hog breeding crates.

The object of the present invention is to improve the construction of hog breeding crates, and to provide a simple and comparatively inexpensive one of great strength and durability, capable of a variety of adjustments to facilitate breeding between relatively large and small animals.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a perspective view of a breeding crate, constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 2. Fig. 4 is a transverse sectional view, taken substantially on the line 4—4 of Fig. 2. Fig. 5 is a detail sectional view on the line 5—5 of Fig. 2.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1—1 designate the sides of the frame of the crate, which is open at the front to permit the entrance of the animals. The sides are composed of horizontal bars arranged at intervals and secured to front and rear corner posts or uprights 2 and 3, preferably converging upwardly at a slight inclination, as clearly illustrated in Figs. 1 and 2 of the drawings. The sides of the crate are connected at the back by upper and lower transverse bars 4 and 5, secured to the rear edges or faces of the rear posts or uprights.

The crate is provided with a transverse partition 6, forming a head board and located at a point intermediate of the ends of the sides of the crate. This partition or head board is hung from the top bars of the

sides of the crate by laterally extending pivots 7 and 8, preferably formed integral with a reinforcing frame 9, constructed of suitable metal and composed of a horizontal top portion and parallel side portions. The horizontal top portion of the reinforcing frame extends across the top of the head board or partition at the rear face thereof, and the sides of the reinforcing frame are secured to the partition or head board adjacent to the side edges thereof. The journal or pivot 7, which is extended beyond the adjacent side of the frame, is equipped with a crank handle 10, by means of which the head board or partition is oscillated backwardly and forwardly to position the same to suit the length of the animal. The head board or partition is locked in its adjustment by means of a transverse rod 11, passing through longitudinal openings of the loops 12 of the head board or partition and through aligned perforations 13 of the sides of the crate. The perforations 13 are arranged at suitable intervals, and the loops, which may be formed by straps, or other suitable means, connect the head board or partition with the transverse rod and prevent the former from moving either backward or forward from its adjusting position.

The sow is supported within the crate upon an adjustable bottom or platform 14, secured at the back with the lower transverse bar 5 by suitable hinges 15, which permit the platform 14 to be raised and lowered. The free front end of the platform is connected by side chains 16 with a tread board 17, located in advance of the platform 14 for the accommodation of the boar. The chains 16, which may be of any desired construction, extend upward from the platform 14 and the tread board 17 and pass over grooved pulleys 18 of a transverse shaft 19, journaled in suitable bearings of the front uprights or corner posts 2. The terminals of the chains are secured to the platform and the tread board by eye bolts, or any other suitable means, and the pulleys 18, which may be constructed of any suitable material, are provided in their grooves with recesses 20, conforming to the configuration of the links of the chains and adapted to prevent the same from slipping. The shaft 19, which is squared at the end 21 to receive a crank handle 22, is adapted to be rotated to adjust the tread board and the platform, which are simultaneously movable in opposite direc-

tions, the tread board being raised when the platform is lowered, and the platform being elevated when the tread board is lowered.

By this adjustment the animal support may be readily arranged in proper relative position to compensate for any difference in the size of the animals. The transverse shaft and the grooved pulleys, which are interlocked with the chains, are also adapted to adjust either the platform or the tread board independently should an excessive adjustment be necessary. A continuous rotation of the transverse shaft 19 to the right operates to lower the platform and raise the tread board, and after the platform has been lowered to the ground, or other supporting surface, this forward rotation of the shaft 19 will raise the tread board, which can be elevated any desired distance within the limits of the apparatus. A reverse rotation of the shaft 19 will lower the tread board and raise the platform, which may be elevated even after the tread board has reached the limit of its downward movement. The platform and the tread board are secured in their adjustment by means of a gravity acting dog or pawl 23, mounted in suitable guides 24 of the adjacent front post or upright 2 and engaging a spur pinion 24^a, whereby the shaft 19 is locked against movement in either direction. The tread board is provided at its front face with transverse cleats 25 to afford a firm foot hold.

The breeding crate is equipped with a straddle bar 26, arranged at an inclination and connected at its lower end to the platform 14 near the center thereof by means of a hinge 27 and provided at its upper end with rigid laterally extending arms, formed by a transverse bar 28. The arms are provided with concave inner faces 29 and besides confining the sow within the crate are adapted to provide a rest or support for the animal. The straddle bar is adjusted by means of a windlass including a transverse shaft 30 and side chains 31, secured at their lower ends to the terminals of the transverse bar 28 and connected at their upper ends by grooved pulleys 32, which are fixed to the shaft 30. The pulleys 32 are provided in their grooves with recesses conforming to the configuration of the links of the chains to prevent the same from slipping. The windlass 30, which is squared at one end to receive the crank handle 22, is secured in its adjustment by means of a ratchet wheel 34 and a pivoted pawl 35. The ratchet wheel, which is arranged at one side of the frame, is fixed to the transverse shaft 30 and is engaged by the pawl 35, which is mounted on the adjacent corner post or upright 2. The windlass shaft is adapted to be rotated to raise and lower the straddle bar. The breeding crate is equipped at opposite sides with foot

rests 36, extending longitudinally of the crate at the inner faces of the sides and hinged to the latter adjacent to the head board by means of approximately L-shaped hinge elements 37 and vertical and horizontal bolts 38 and 39, forming pivots or pintles. The vertical bolts pierce the inner ends of the foot rests and the approximate portions of the L-shaped hinge elements. The horizontal bolts pierce vertical portions of the hinge elements and the adjacent sides of the crate. By this construction the foot rests are adapted to be raised and lowered and are also capable of inward and outward movement, which is effected simultaneously with the raising and lowering of the foot rests by means of upright cams 40, designed to be constructed either of wood or metal and mounted on the inner faces of the sides of the crate at points intermediate of the ends of the foot rest and presenting convex faces to the foot rests. The convex faces of the cams are composed of inclined upper and lower portions, and they are adapted to cause the foot rests to move inwardly toward each other. The foot rests preferably consist of wooden bars and they are adjusted by means of a windlass consisting of a transverse windlass shaft 45 and ropes or cables 46, connected to the free end of the foot rest and to the windlass shaft, and adapted to be wound thereon and unwound therefrom. The windlass is journaled in suitable bearings of the rear corner posts or uprights 3, and is provided with a suitable crank handle 47. It is secured in its adjustment by means of a ratchet wheel 48 and a pivoted pawl 49, mounted on the adjacent rear corner post or upright 3. The ropes or cables extend forwardly from the rear windlass shaft to the guide pulleys 50, located above the front ends of the foot rest and designed to be secured to the sides of the crate in any suitable manner. The foot rests are simultaneously adjusted by means of the rear windlass to arrange them in proper position to suit the size of the animals.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A breeding crate including a vertically adjustable platform, a vertically adjustable tread board, and manually operable means connected with the platform and the tread board for simultaneously moving the same in opposite directions and for locking the said parts in their adjustment.

2. A breeding crate comprising a vertically adjustable platform, a vertically adjustable tread board, and manually operable means including hoisting mechanism connected with the platform and the tread board for simultaneously moving the same in opposite directions, said hoisting mech-

anism being also arranged to permit an independent adjustment of one of the boards when the other is at the limit of its downward movement, and means for locking the parts in their adjustment.

3. A breeding crate including a vertically adjustable platform, a vertically adjustable tread board, a shaft located above the platform and the tread board, flexible connections extending from the shaft to the platform and the tread board for simultaneously adjusting the same, and means for locking the shaft to secure the platform and the tread board in their adjustment.

4. A breeding crate including a vertically adjustable platform, a vertically adjustable tread board, continuous flexible connections extending upward from the platform and the tread board, a shaft provided with means for supporting and engaging the flexible connections at an intermediate point between the ends of the same, whereby the platform and the tread boards are simultaneously adjusted and one of such parts is independently adjustable when the other is at the limit of its downward movement, and means for locking the shaft to secure the platform and the tread board in their adjustment.

5. A breeding crate including a head board permanently pivoted at the top and terminating short of the bottom of the crate and arranged to swing longitudinally thereof, operating means located exteriorly of the crate for swinging the head board backwardly and forwardly, and means for connecting the lower portion of the head board with the sides of the crate for securing the said head board in its adjustment.

6. A breeding crate including a head board provided with a reinforcing metallic frame having integral laterally extending pivots journaled in bearings on the sides of the crate, and a crank connected with one of the pivots for adjusting the head board.

7. A breeding crate including a transverse partition or head board pivoted to the sides of the crate and arranged to swing longitudinally thereof, a crank connected with the partition or head board for adjusting the same, and a transverse bar adjustably

mounted on the sides of the crate for securing the partition or head board in its adjustment.

8. A breeding crate including a straddle bar hinged at one end and provided at the other end with arms rigidly connected at their inner ends with the straddle bar and forming rests for supporting an animal, and adjusting means connected with the outer ends of the arms and supporting the straddle bar.

9. A breeding crate including foot rests located at opposite sides of the crate and movable upwardly and downwardly and inwardly and outwardly, means for raising and lowering the foot rests, and means for automatically moving the foot rests inward as the same are raised.

10. A breeding crate including foot rests located at opposite sides of the crate and movable upwardly and downwardly and inwardly and outwardly, means for raising and lowering the foot rests, and cams arranged to engage the foot rests for forcing the same inwardly simultaneously with the vertical adjustment of the foot rests.

11. A breeding crate including foot rests located at opposite sides of the crate and movable upwardly and downwardly and inwardly and outwardly, means for raising and lowering the foot rests, and upright cams mounted on the sides of the crate and presenting convex edges to the foot rests, said edges having inclined upper and lower portions.

12. A breeding crate including opposite foot rests, substantially L-shaped hinge elements arranged at one end of and supporting the foot rests, approximately vertical pivots piercing the foot rests and the said hinge elements, horizontal pivots piercing the hinge elements and the sides of the crate, and means for adjusting the foot rests.

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

LESTER STURM.

Witnesses:

G. G. COUNCIL,
C. W. LONG.