G. W. COX.

HOG HOLDING MACHINE.

APPLICATION FILED JULY 28, 1909.

970,187.

Patented Sept. 13, 1910.

3 SHEETS—SHEET 1.

Fig. I

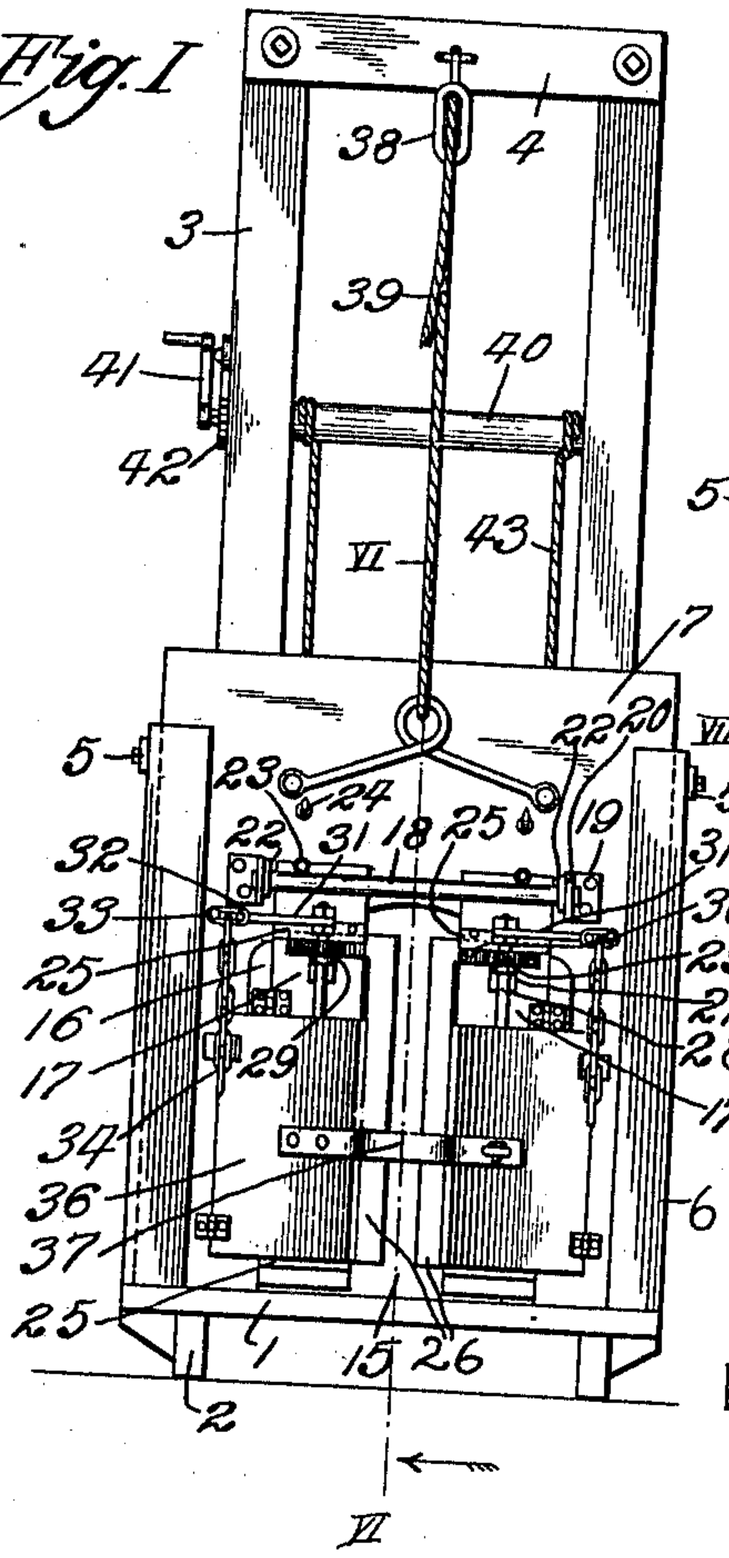


Fig. III.

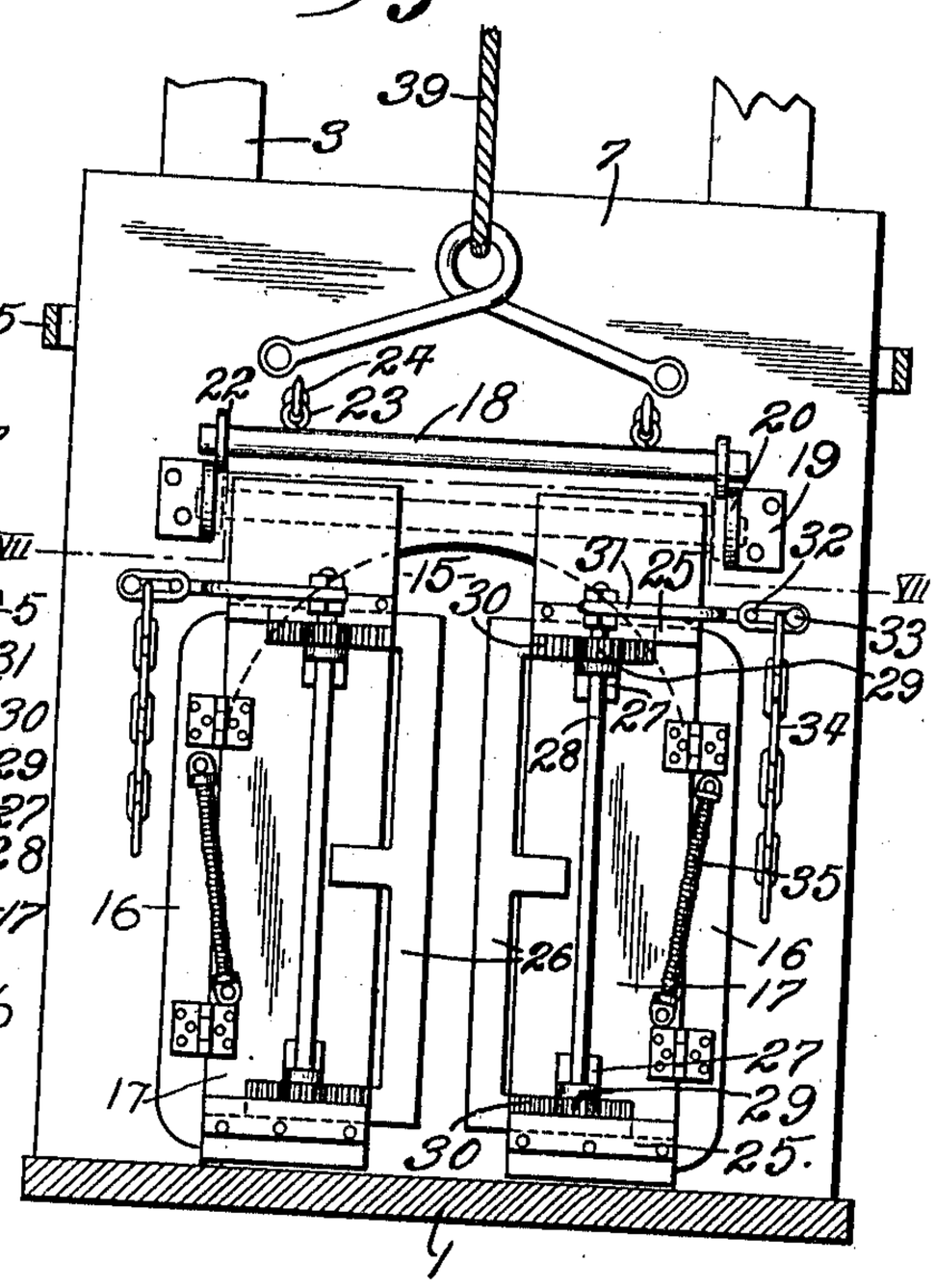
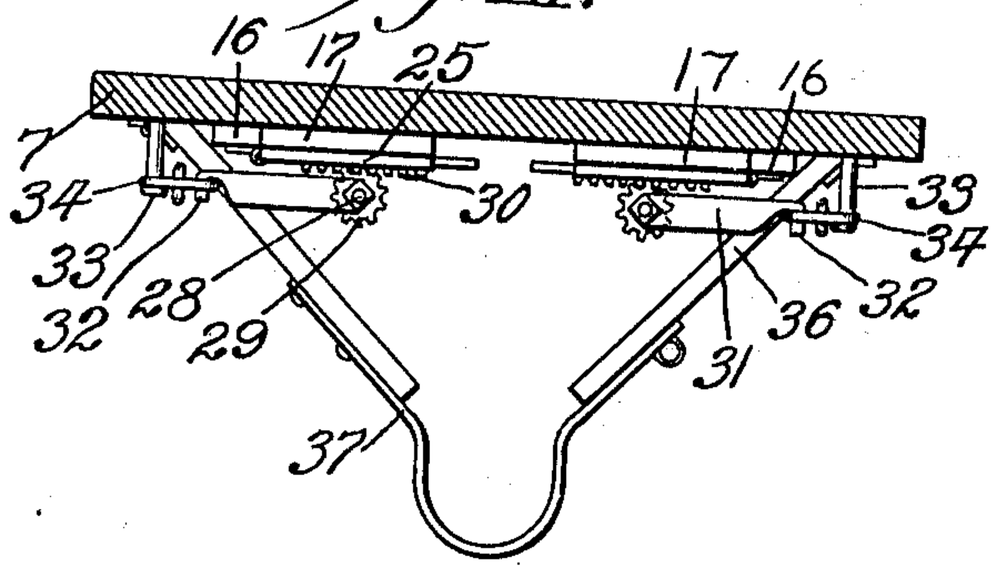


Fig. VII.



WITNESSES:

E. C. Cahill.

Myrtle M. Jackson.

INVENTOR.

George W. Cox.

BY Arthur C. Brown.

ATTORNEY.

G. W. COX.

HOG HOLDING MACHINE.

APPLICATION FILED JULY 28, 1909.

970,187.

Patented Sept. 13, 1910.

3 SHEETS—SHEET 2.

Fig. II.

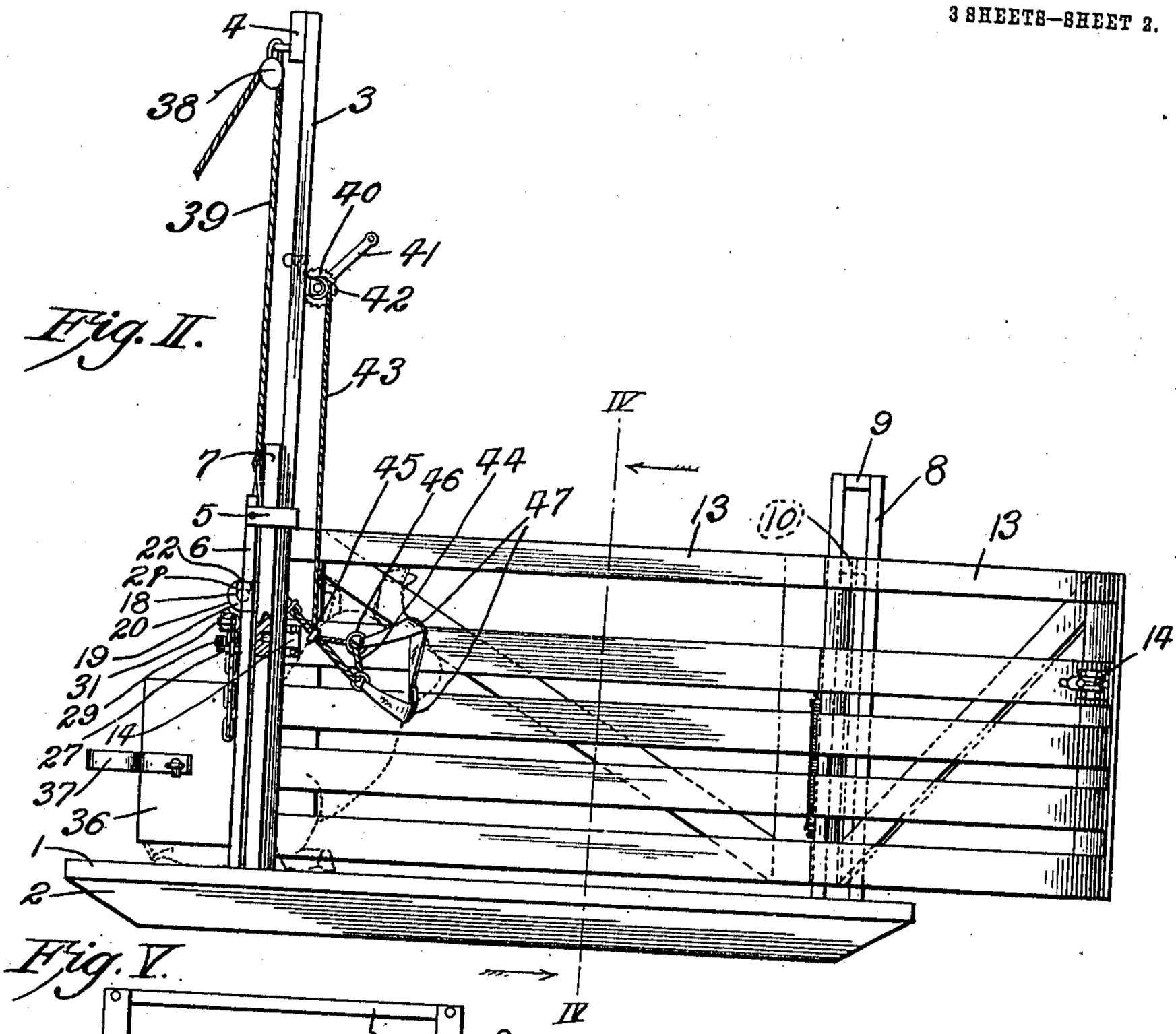


Fig. V.

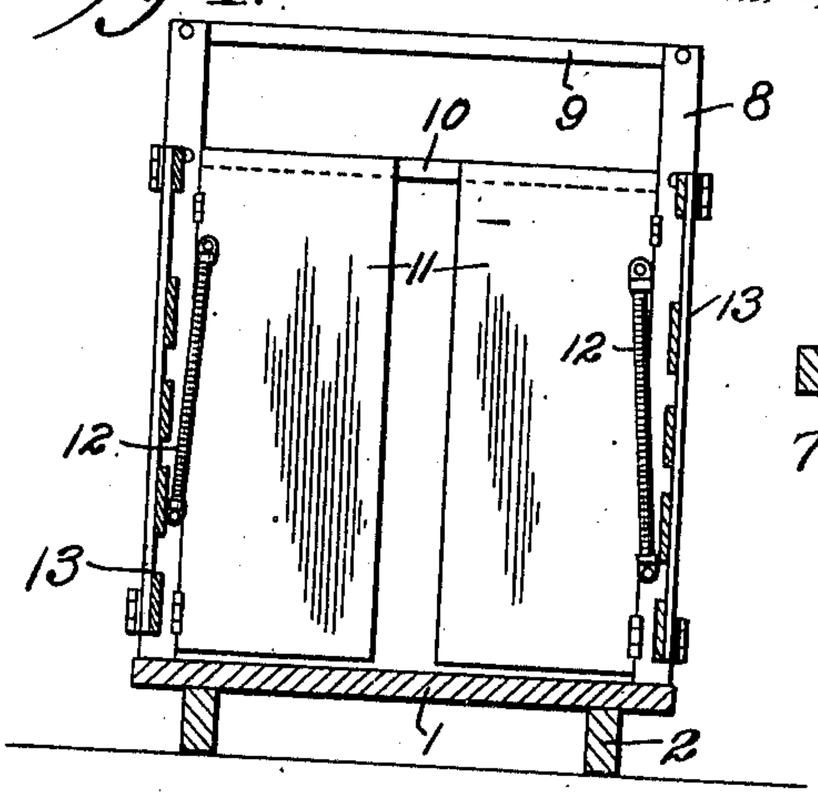
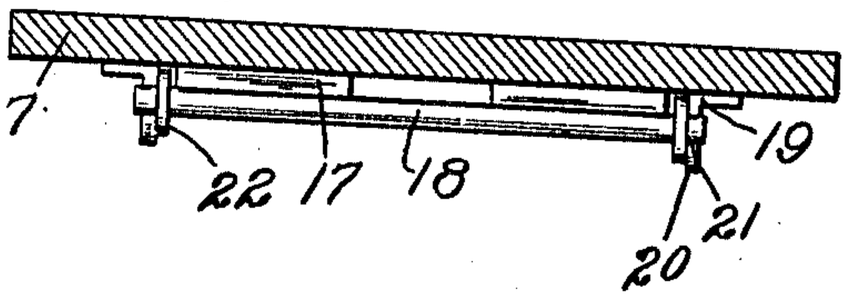


Fig. VIII.



WITNESSES:

E. A. Cahill.

Myrtle M. Jackson.

INVENTOR.

George W. Cox.

BY Arthur C. Brown

ATTORNEY.

G. W. COX.

HOG HOLDING MACHINE.

APPLICATION FILED JULY 28, 1909.

970,187.

Patented Sept. 13, 1910.

3 SHEETS—SHEET 3.

Fig. IV

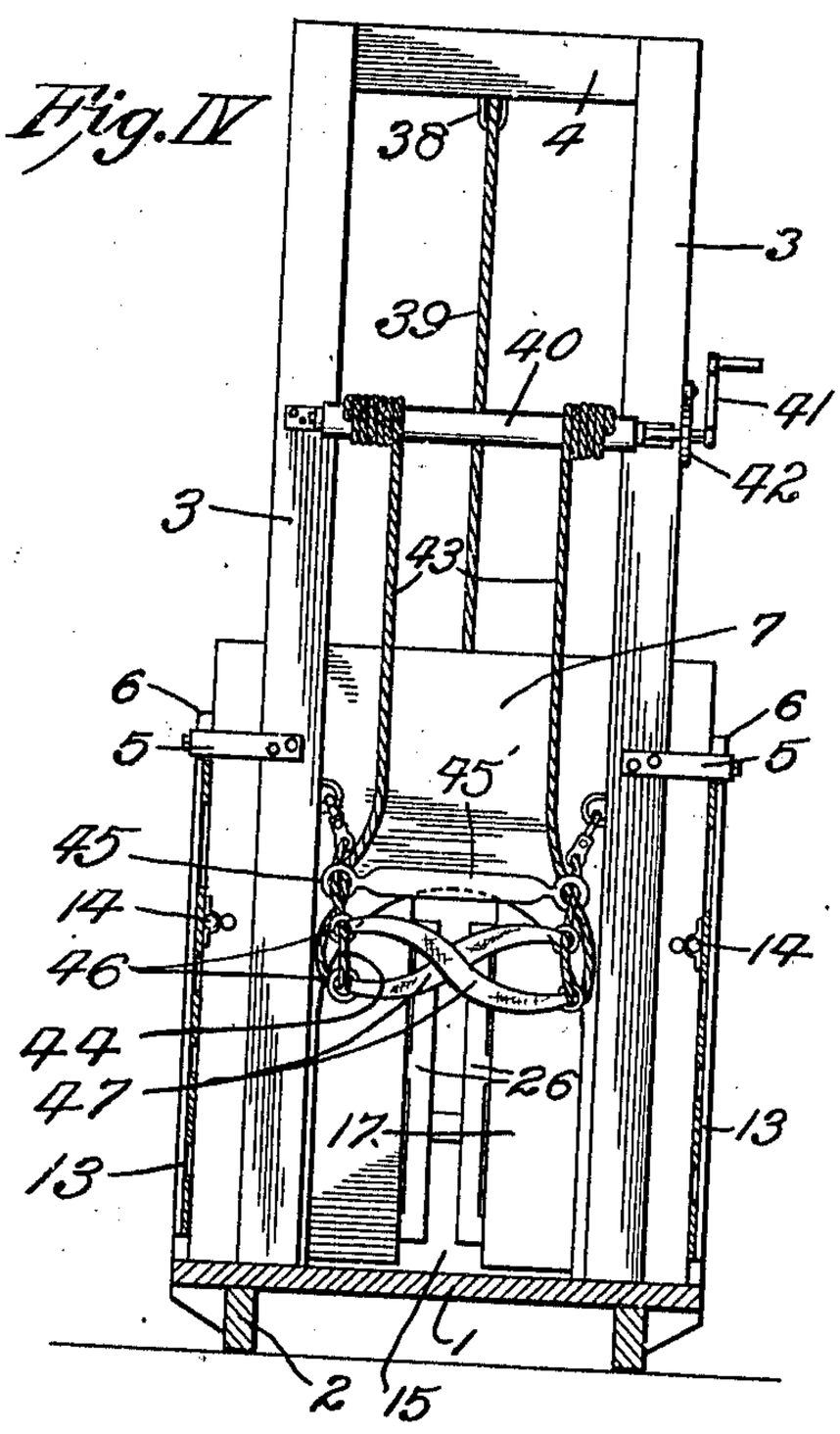


Fig. VI.

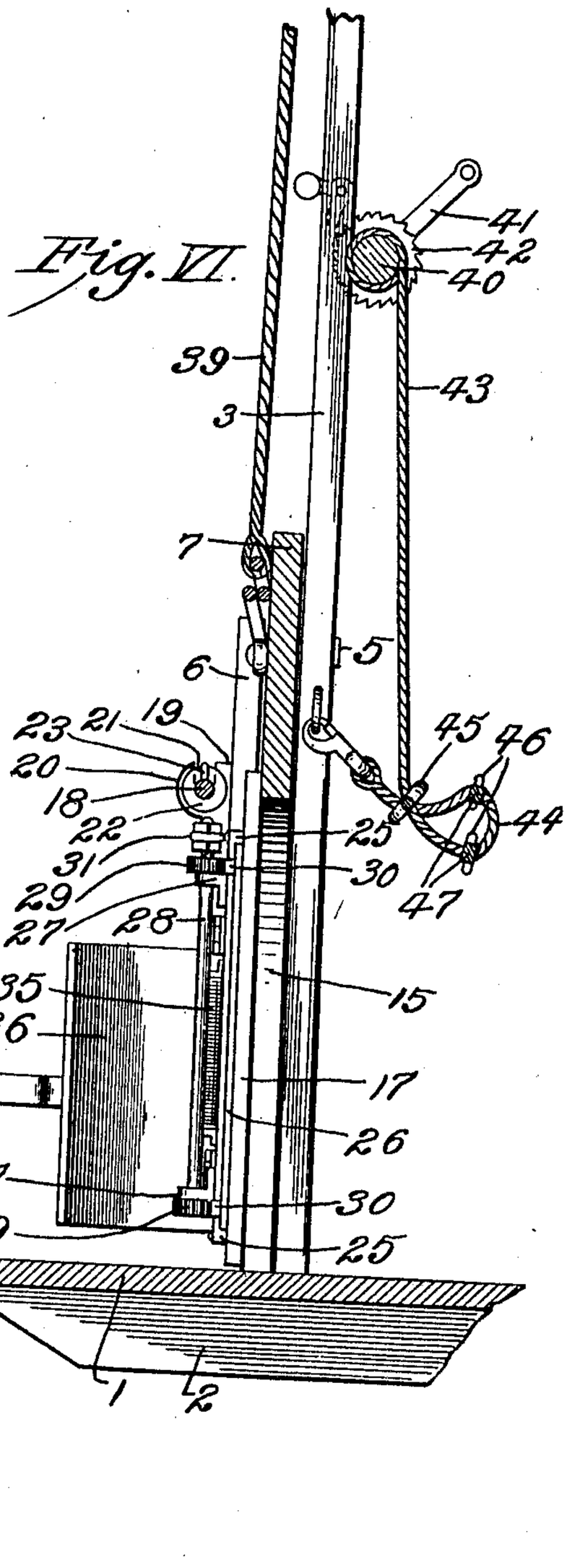
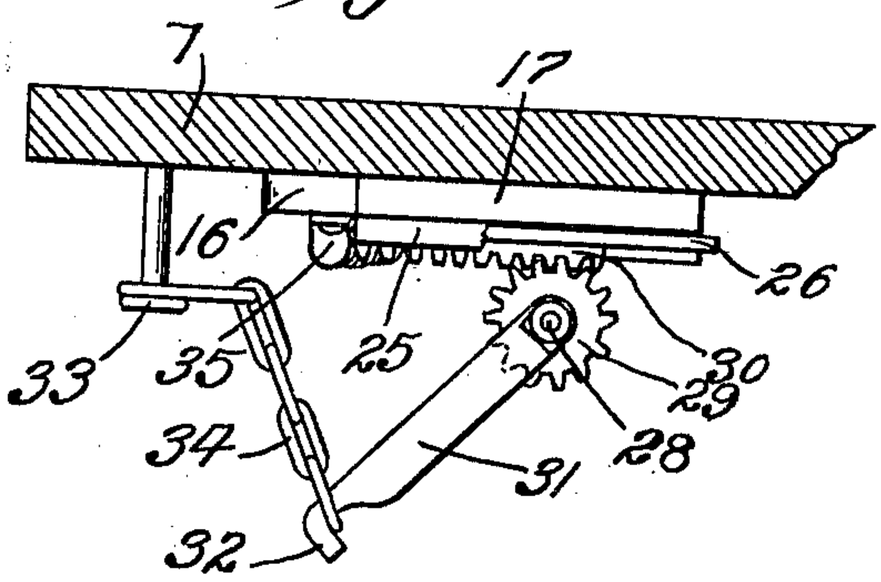


Fig. IX.



WITNESSES:

E. A. Cahill.

Myrtle M. Jackson.

INVENTOR.

George W. Cox.

BY Arthur C. Brown.

ATTORNEY.

UNITED STATES PATENT OFFICE.

GEORGE W. COX, OF EDISON, NEBRASKA.

HOG-HOLDING MACHINE.

970,187. Specification of Letters Patent. **Patented Sept. 13, 1910.**

Application filed July 28, 1909. Serial No. 509,980.

To all whom it may concern:

Be it known that I, GEORGE W. COX, a citizen of the United States, residing at Edison, in the county of Furnas and State of Nebraska, have invented certain new and useful Improvements in Hog-Holding Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to hog holding machines and has for its object to provide a device of that class having adjustable holding doors, by means of which the machine may be adapted for use with animals of different sizes.

A further object is to provide means for holding an animal's rear quarters while it is being operated upon.

Further objects are to provide other improved details of structure which will be disclosed in the following specification and pointed out in the claims, reference being had to the accompanying drawings, in which:—

Figure I is a front view of a hog holding machine constructed according to my invention. Fig. II is a side view of same, one of the side doors being open. Fig. III is an enlarged front view of the door frame and operating mechanism. Fig. IV is a cross sectional view, on the line IV—IV, Fig. II, looking toward the front. Fig. V is a view on the same line looking toward the rear. Fig. VI is a vertical sectional view of the front door frame on the line VI—VI, Fig. I. Fig. VII is a horizontal section on the line VII—VII, Fig. III, omitting springs 35. Fig. VIII is a detail view of the door holding bar and its supports. Fig. IX is an enlarged detail view of one of the pinion levers and coöperating parts.

Referring more in detail to the parts:—

1 designates the base or platform which may be mounted on runners 2. Rising from the front end of the platform are the beams 3 which are joined at the top by a cross brace 4 and form a door frame. Secured to the beam 3, preferably by straps 5, are the battens 6 which, with the beams 3, form slide grooves for a closing member 7. Rising from near the rear of the platform 1 are the standards 8 which are joined at their upper ends by a cross brace 9, and beneath the cross brace by a stop member 10. Hinged to the standards 8 and adapted to swing inwardly therefrom are the doors 11, each of which is provided with a spring 12 for yieldingly retaining it in closed position against the stop 10. Also hinged to each rear standard 8 is a side gate 13 which is adapted to close against the closing member 7 and has a latch 14 by which it may be secured thereto. It is apparent that when the gates 13 are closed they form a chute, through which an animal may pass, or within which it may be confined by the rear doors 11 and the front closing member 7. The front closing member 7 has an aperture 15 of inverted U-shape through which an animal may pass when the front doors are open. At each side of the aperture 15 is a strip 16 to which a door 17 is hinged, the doors being projected into the aperture 15 to close same, except for a small space therebetween. The doors project upwardly above the top of the aperture and are adapted to be retained in their closed position by a bar 18.

19 designates brackets which are secured to the member above the aperture 15 and are provided with forwardly directed flanges 20 having vertical slots 21 therein for receiving the ends of bar 18.

22 designates collars on the bar 18 which are adapted to bear against the inner faces of the flanges 20 to retain the bar in place. Bar 18 is also provided with eyelets 23 which are adapted to fit over the hooks 24 on member 7 for the purpose of suspending the bar when it is not in use as a keeper for the doors 17. Fixed to each of the doors 17 are the upper and lower slide brackets 25 having facing grooves within which a slide 26 is adapted for a horizontal movement. Secured to each of doors 17 are the bearing brackets 27 within which are journaled rock shafts 28. Rigidly mounted on each of shafts 28 are the upper and lower pinions 29 which mesh with racks 30 on the slide 26. Fixed on the upper end of each of said shafts is a lever 31 having an end hook 32. Fixed to the member 7 at each side of the central aperture is a stud 33 to which a chain 34 is attached, the links of said chain being adapted to receive the hook end of

the adjacent lever 31, so that the pinions on the shafts 28 may hold the slide 26 in a desired position.

35 designates springs which are adapted for yieldingly retaining the doors 17 in their closed positions.

Also hinged to the member 7 at opposite sides of the aperture 15 are the auxiliary doors 36. Fixed on one of said doors and adapted for latching engagement with the opposite door is a hasp 37, the middle portion of which is bent outwardly to a U-shape to form a keeper for an animal confined within the chute and for retaining said doors in the partially open position, illustrated in Fig. VII. The hasp is located at about the vertical center of the doors to better adapt it for the purposes described. Suspended from cross brace 4 of the front door frame is a pulley 38 and fixed to the member 7 and run over said pulley is a rope 39 by which the member 7 and the closing parts carried thereby may be lifted to clear the front end of the chute, so that the animal may pass out therefrom.

40 designates a windlass which is mounted on the front frame beams 3 and has a crank 41 and ratchet 42. Secured to the windlass, at one end and to the members 3 at the opposite end, are the ropes 43. Each of said ropes has a loop 44 formed by placing a folded section thereof through a ring 45 on a bar 45′. The loop sections are passed through the rings 46 on the crossed straps 47 of a lifting harness, so that when the ropes 43 are wound on the windlass the straps will be tightened against the animal and the latter lifted toward the fixed ends of the ropes.

Presuming the machine to be properly assembled, I will describe its operation. An animal is driven into the machine through the rear doors which yield inwardly against the tension of the springs 12 to allow the animal to pass, and are then closed by such tension. When the animal has passed the rear doors, it is confined within the chute and may be driven forwardly until its head projects through the opening between the doors 17, the latter doors yielding forwardly against the tension of the springs 35 to enable the animal's head to pass and hold against the animal's neck, should it attempt to retreat. When the animal is caught between the front doors the bar 18 is fitted into its brackets and extends across the front of the doors to prevent further opening thereof. By means of the slides 26 the opening between the doors 17 may be regulated to suit the size of the animal, as by moving the levers 31 outwardly the slides are moved back through the rack and pinion mechanism to enlarge the slide and by moving the levers reversely the slides are moved into the opening to more nearly close same. When the opening has been regulated to the proper width, the hooks on the levers 36 are fitted into one of the links on the chains 34 to hold the slides against outward movement. With the animal confined in this manner the harness is attached to its rear quarters and the windlass operated to lift the ropes and draw the harness toward the rings 43, such action lifting the animal until it is held firmly in the position indicated in dotted lines, Fig. II, when an operation may be performed. To release the animal the ropes 44 are first let out so that it may be relieved of the harness. The auxiliary doors 36 are then opened and the cross bar 18 lifted from its brackets to permit the doors 17 to swing outwardly; the animal will then press forward and open the front doors against the tension of the springs 35 to make its escape.

By providing the gates 13 at the side of the machine, either side may be opened to afford convenient access to the animal after it has been harnessed.

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

1. A hog holding machine comprising a chute inclosing structure, a closing member located at the front of the chute and provided with an aperture, doors hinged on said member and adapted to swing in front of the aperture, guides for said member, and means for lifting the member to open the chute.

2. A hog holding machine comprising a chute inclosing structure, a closing member located at the front of the chute and provided with an aperture, strips fixed to said member at the sides of the aperture, doors hinged to said strips and adapted to swing in front of the aperture, means for barring said doors, and means for elevating the closing member.

3. A hog holding machine comprising a chute inclosing structure, perpendicular beams at the front of the structure, guide strips spaced forwardly from the beams, a closing member located between the strips and beams and adapted for closing the front of the chute and provided with an aperture, doors hinged to the closing member and adapted for closing the aperture, springs yieldingly retaining the doors in closing position, slotted brackets carried on the closing member at the sides of the aperture, a bar adapted to seat in said slots and secure said doors against outward movement, and means for lifting the closing member.

4. In a hog holding machine, a chute inclosing structure, slides mounted at the front of the structure and provided with racks, shafts revolubly mounted adjacent to said racks and having pinions meshing with said racks, chains fixed near said shafts, and levers fixed to said shafts and having hooks

adapted for engagement with the links of said chains.

5. In a hog holding machine, a chute inclosing structure, doors hinged at the front of the structure, slides movably mounted on said doors, and means for actuating said slides.

6. In a hog holding machine, a chute inclosing structure, doors hinged at the front of the structure, guide strips carried by said doors, slides adapted for travel between the guide strips and doors, an actuating mechanism connected with each slide, and means for holding said actuating mechanism.

7. In a hog holding machine, a chute inclosing structure, doors hinged at the front of the structure, slides movably mounted on said doors and provided with racks, shafts revolubly mounted on said doors and having pinions engaging said racks, keeper members, and levers connected with said shafts and adapted for engagement with said keeper members.

8. In a hog holding machine, a chute inclosing structure, an apertured closing member adapted for vertical movement at the front of the chute, doors hinged to said closing member and adapted for movement in front of the aperture therein, slides movably mounted on said doors, racks mounted on said slides, vertical shafts revolubly mounted on said doors, pinions on the shafts meshing with the racks on said slides, levers on said shafts, keepers for said levers, and means for raising and lowering the closing member.

9. In a hog holding machine, a chute inclosing structure, ropes fixed at one end to the structure, means for winding the opposite end of the ropes, and a harness carried by said ropes, said harness comprising a ring bar, and a pair of crossed straps, said ropes passing through rings on the ring-bar and on said straps.

10. In a hog holding machine, a chute inclosing structure, doors adapted for closing the front of the chute, a windlass carried by the structure, ropes connected at one end with the windlass and fixed at the opposite end to the structure, said ropes having ring held loops, and a harness having ring mountings on the looped portions of said ropes, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE W. COX.

Witnesses:
A. A. ERICKSON,
E. M. ZIKE.