

No. 620,099.

Patented Feb. 28, 1899.

O. BRUTON.  
CATTLE CHUTE.

(Application filed Dec. 11, 1897.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

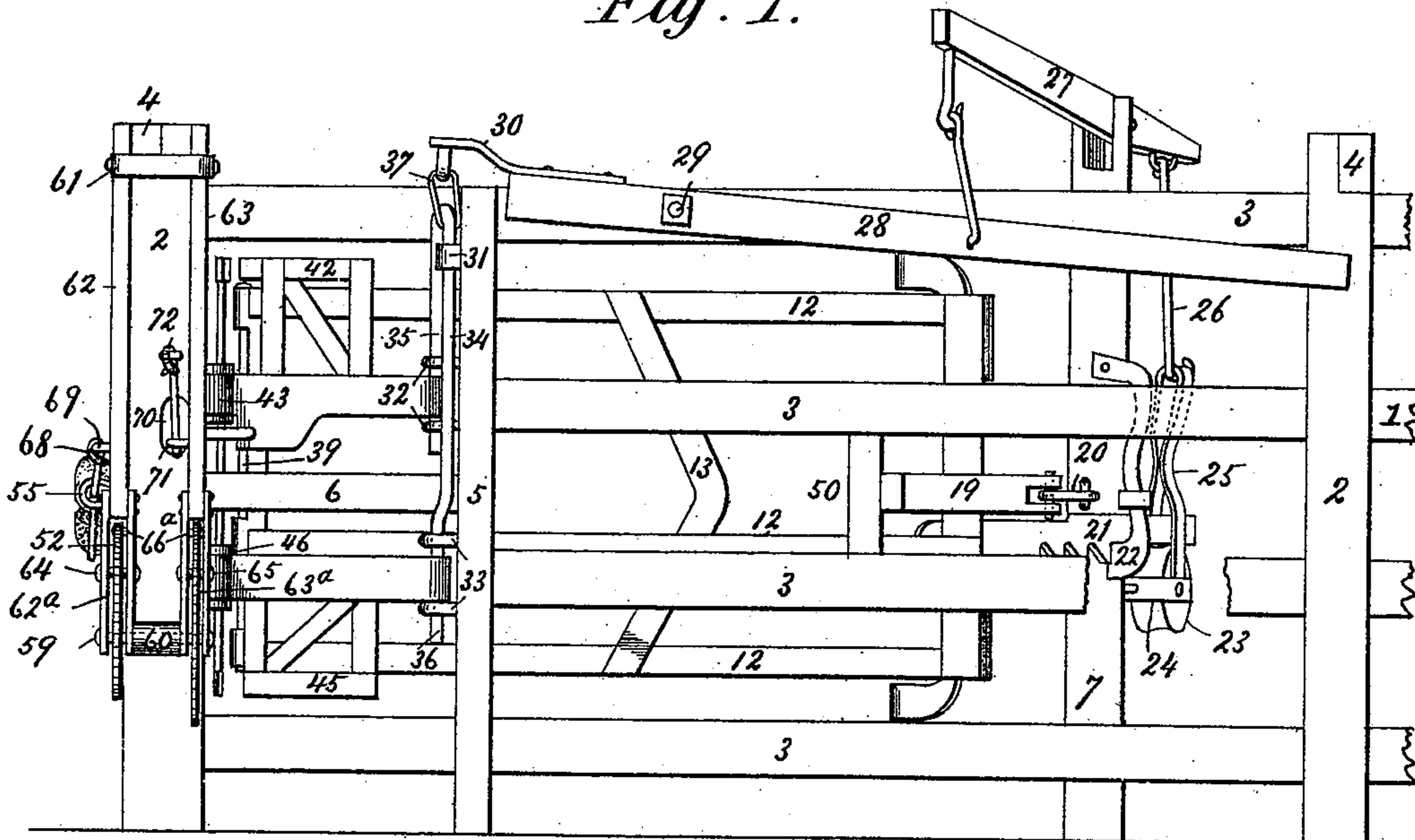
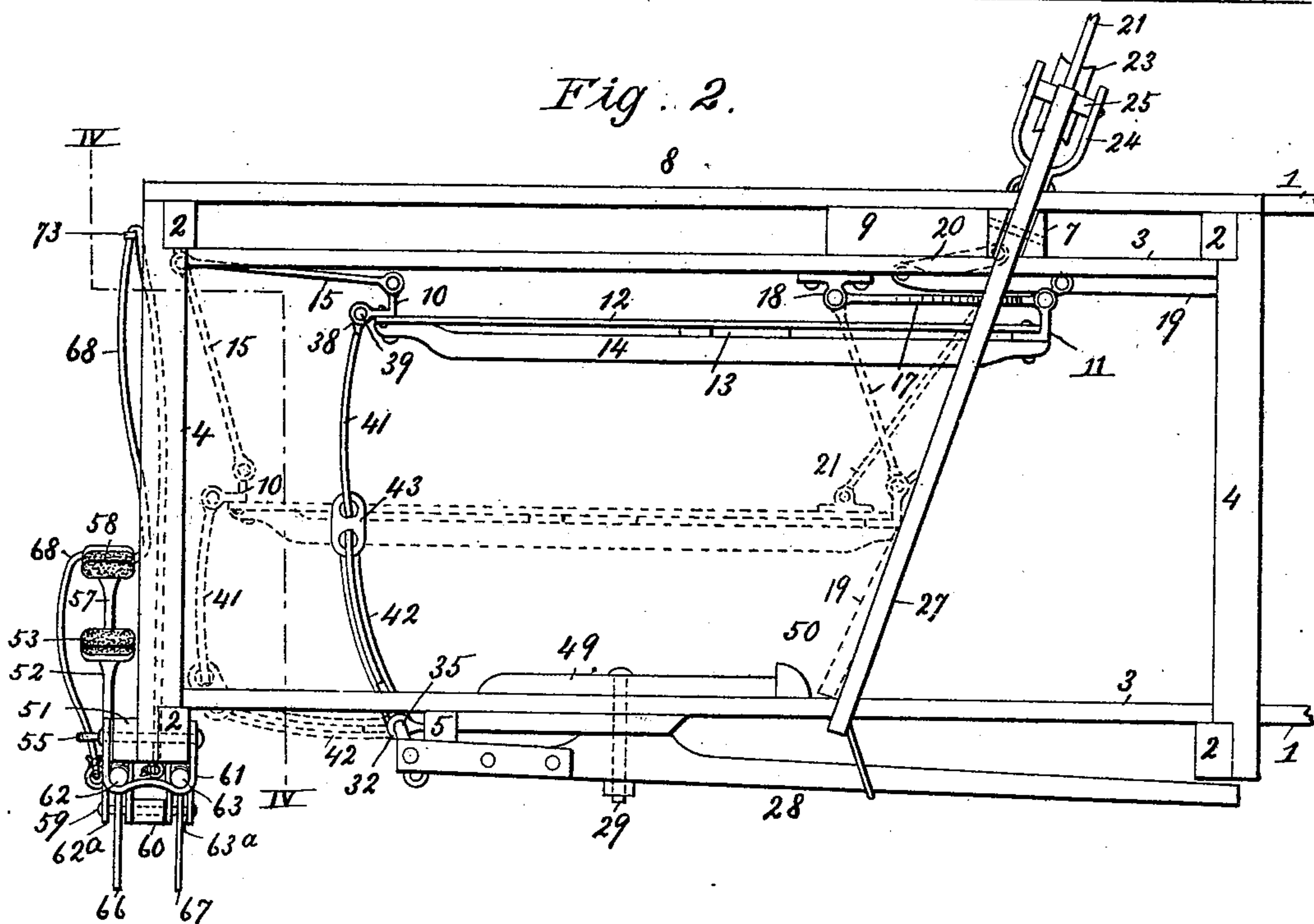


Fig. 2.



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Q. BRUTON.  
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2 Sheets—Sheet 2.

Fig. 3.

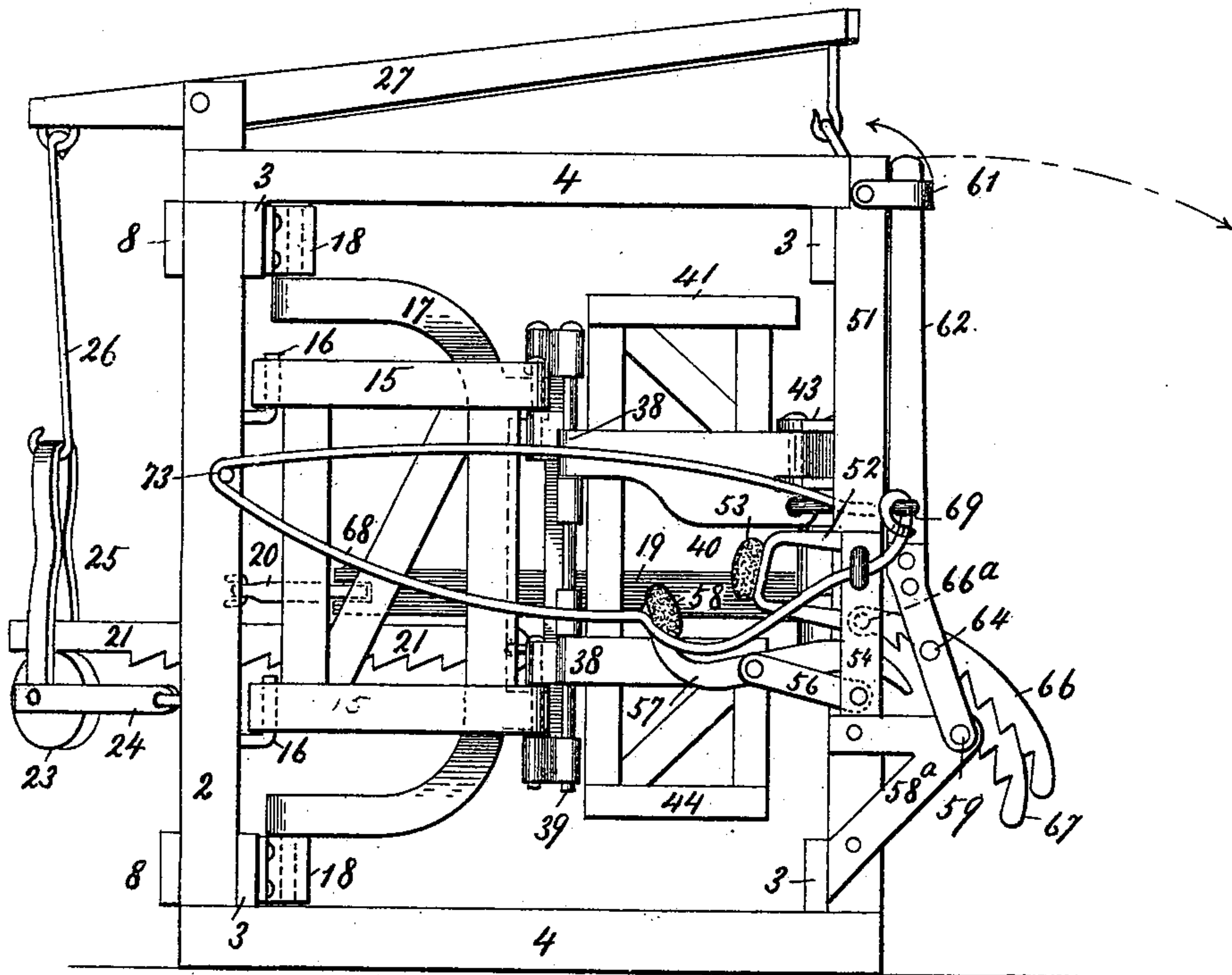


Fig. 4.

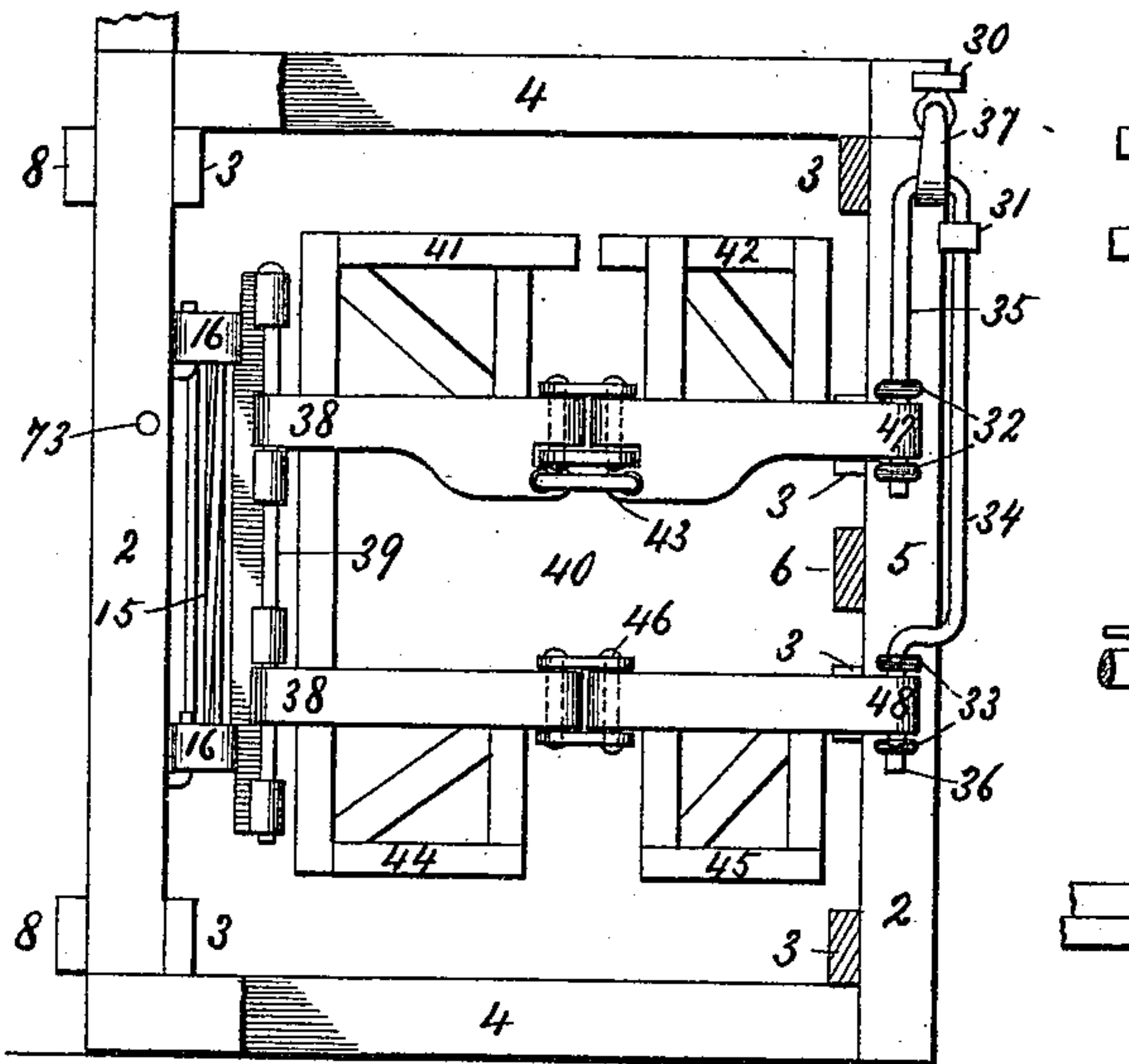
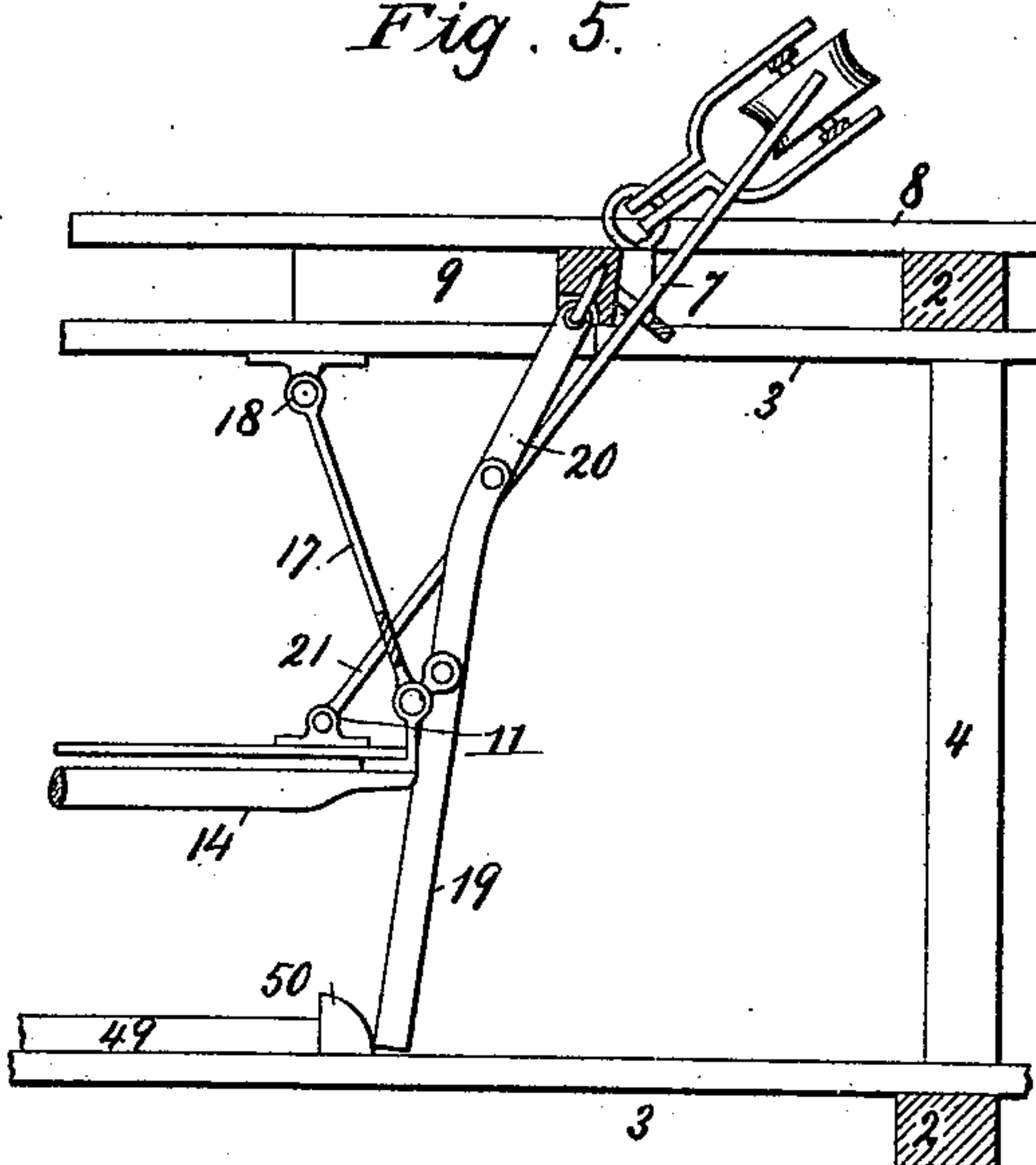


Fig. 5.



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# UNITED STATES PATENT OFFICE.

QUALLS BRUTON, OF KANSAS CITY, KANSAS.

## CATTLE-CHUTE.

SPECIFICATION forming part of Letters Patent No. 620,099, dated February 28, 1899.

Application filed December 11, 1897. Serial No. 661,507. (No model.)

*To all whom it may concern:*

Be it known that I, QUALLS BRUTON, of Kansas City, Wyandotte county, Kansas, have invented certain new and useful Improvements in Branding and Dehorning Cattle-Chutes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to branding and dehorning cattle-chutes, and more particularly to structural improvements in the device of like character on which a patent was issued to me on November 17, 1896, numbered 571,428.

The invention consists in certain novel and peculiar features of construction and combinations of parts, as will be hereinafter described and claimed.

In order that the invention may be fully understood, reference is to be had to the accompanying drawings, in which—

Figure 1 is a side elevation of a branding and dehorning cattle-chute embodying my invention. Fig. 2 is a plan view of the same. Fig. 3 is a front view of the same. Fig. 4 is a view taken on the line IV IV of Fig. 2. Fig. 5 is a plan view of a part of the chute to illustrate more clearly the bar for preventing the animal from backing once he is secured in the required position.

In the said drawings, 1 designates a cattle-chute of the usual form, comprising the customary posts 2 and longitudinal rails 3, connecting the same. The posts 2 are also preferably connected at their upper ends by the transverse brace-bars 4. At one side and near its outlet end the chute is preferably formed with an opening by cutting away the intermediate rails 3 and securing them to a vertical post 5, also secured to the top and bottom rails in any suitable manner. The opening between the post 5 and the adjacent corner or end post of the chute is divided horizontally by the bar 6, so that certain parts hereinafter described may occupy said openings. Near the inlet or opposite end and at the opposite side of the chute a post 7 is erected, and secured to said post and at their opposite ends to the aligned posts 2 at the same side of the chute are a pair of rails 8, which serve not only to brace said post, but also to strengthen that side of the chute, as the intermediate

rails at said side of the chute are very short, extending only from the adjacent post 2 at the inlet end of the chute to said post 7, (see Fig. 5,) and consequently leave an opening in that side of the chute bounded by the post 7 and the post 2 at the opposite end of the chute and by the top rails 3 8 and the bottom rails 3 8, this opening corresponding to the opening 6 in the aforesaid patent, but being of much greater length. As the size of this opening has no bearing on the merits of the case it is not specially illustrated. In order to still further solidify and strengthen the parallel top rails 3 8 and bottom rails 3 8, I secure between them blocks 9, only one of which is shown.

A swinging frame corresponding to the frame 11 in my patent referred to comprises the vertical angle-irons 10 11, the connecting-rails 12, and the brace-bar 13, connecting said rails near their middle. A rod 14, preferably of gas-pipe, also connects the angle-irons near the lower end of the frame and in conjunction with a bar, hereinafter referred to, is adapted to prevent an animal caught in the chute from falling down or from getting down on his knees, and consequently for obviating any chance of his getting his legs broken. This longitudinal frame is hinged by a link 15 to the hinge-rods 16, secured at the opposite end of the chute to the posts 2 at the same side as the post 7. A link 17 is pivotally connected to the opposite end of the frame and is hinged, as at 18, to the top and bottom rails 3, bounding the upper and lower sides of the large opening hereinbefore referred to. The pivotal connection at 18 to the bars preferably will be like the pivotal connection 16 in order that the links may be removed bodily without first requiring the removal of the bearing caps or brackets shown at 18 in the drawings.

19 designates a bar corresponding to the gate 9 of the patent aforesaid, which is pivoted near its middle to the rear end of the longitudinal frame, hereinafter termed the "clamp-frame," and at one end to a link 20, pivotally connected to the post 7, and this bar and link, when the chute is arranged to receive a steer, occupy the position shown in Fig. 2, and when the steer has been caught between the opposite side of the chute and



the clamp-frame, when thrown to the position shown in dotted lines, Fig. 2, and full lines, Fig. 5, occupy the position shown in the last-mentioned figure, where it will be noticed the free end of the bar 19 projects across the space between the clamp-frame and said opposite side of the chute, and therefore prevents the steer backing or working backward if from any cause he is not clamped tight enough to hold him.

21 designates a rack-bar secured at its inner end to the adjacent end of the clamp-frame and having one of its teeth located at its under side adapted to engage the bar 22, which is of inverted-U shape and is secured at its opposite ends to the post 7, thereby providing a vertical slot within which the rack-bar may rise and fall or be longitudinally adjusted. The outer end of the rack-bar is not provided with teeth, to the end that it may normally rest lightly upon the roller 23 while engaged with the bar 22. Said roller is arranged in a pivoted frame 24, carried by the post 7, in order that it may be raised when it is desired to disconnect the rack-bar 21 and bar 22 or lowered to permit such bars to be engaged. The roller and the outer end of said frame are normally supported in a horizontal position by means of a bail 25, carried by a pendent link 26 of a lever 27, pivoted in the upper end of the post 7 and extending transversely across the chute. The opposite end of said lever is linked to the lever 28, pivoted, as at 29, to the chute, so that by the depression of said lever the roller may be elevated and the rack-bar 21 disengaged from the bar 22 for a purpose hereinafter explained, and 30 designates a bar secured to lever 28 and overhanging the post 5.

31 designates a vertical guide eye or sleeve secured to post 5 near its upper end, and inward of said guide eye or sleeve and in vertical alinement with each other are two sets of eyes, one set 32 being arranged some distance above the other set 33 for a purpose which will presently appear.

34 designates a sliding bolt which extends through the guide eye or sleeve 31 and is provided at its upper end with a depending arm 35 and at its lower end with a longitudinally-alined arm 36, the former being adapted to engage the eyes 32 and the latter the eyes 33, and said sliding bolt is linked at its upper end, as shown at 37, to the bar 30 of the lever 28 or in any other suitable manner.

A gate for closing the outlet end of the chute is hinged, as shown at 38, to the rod 39, carried by the angle-bar 10 of the clamping-frame and is bifurcated centrally or provided with an opening, as shown at 40, through which the head of the steer may and is adapted to protrude. That portion of the gate above said bifurcation or opening 40 consists of two sections 41 and 42, hinged together at their middle, as shown at 43, or in any other suitable manner. The lower portion of the gate, comprising the parts 44 and 45, are also hinged

together at their middle, as shown at 46, or in an equivalent manner. The member 42 is formed with a lateral extension 47, having a vertical eye or opening, and the member 45 is provided with a similar extension 48, having an eye or opening, and these extensions are adapted to fit between the guide-eyes 32 and 33, respectively, to the end that the arms 35 and 36 of the sliding bolt 34 may extend through them, and thus lock or secure the gate at its free end.

49 designates a longitudinal bar secured internally to the chute at the side against which the steer is clamped by the clamp-frame and adapted to operate, as hereinbefore stated, in conjunction with the rod 14 for keeping the animal upon his feet. At the rear end of this bar is a short vertical bar 50, which is adapted to prevent the free end of the bar 19 swinging too far forward, as the relation between the bars 19 and 20 should always be such that there will be no opposition from this quarter to the return movement of the clamp-frame to its normal or inoperative position.

The parts now to be described relate to means for securing the steer's head as it protrudes between the opening or bifurcation 40 from moving laterally and is entirely different from the means by which I accomplish the same purpose in my patent hereinbefore referred to.

51 designates a bar which is secured to the post 2 at the outlet end of the machine and at the side against which the animal is clamped, though this bar is not absolutely necessary.

52 designates a frame, preferably of inverted-U shape, which is secured to the bar 51 opposite the opening or bifurcation 40 and projects inwardly therefrom, and 53 a jaw-pad secured to said frame. 54 designates a plate which overlaps said frame and may be secured thereto in any suitable manner and to the post 51, also serving to form between said bar and said plate a vertical guide-slot to receive certain parts hereinafter described, and projecting from the upper end of said plate is a guide-eye 55. 56 is a link which pivotally connects said plate and a substantially S-shaped lever 57, said lever being provided with a jaw-pad 58, adapted to cooperate with the pad 53 in securing the animal's head in the required position, one pad being adapted to engage one side of the head and the other the opposite side. 58<sup>a</sup> designates a pair of brackets which are secured to the opposite faces of the posts 2 and 51, if the latter are employed, and project outwardly therefrom. One of these frames only appears in the drawings, and they are connected at their outer ends by a rod 59, upon which is mounted the separating-sleeve 60. 61 designates a pivoted bail which is mounted at the upper end of said post 2 and bar 51 and is adapted to engage and hold snugly against the outer sides of said posts the levers 62 and 63, the lower portions of said levers being in the form of forks 62<sup>a</sup> and 63<sup>a</sup>, the arms of



which are connected by cross-pins 64 and 65, respectively.

66 and 67 designate segment-shaped rack-bars which extend through the bifurcated portions 62<sup>a</sup> and 63<sup>a</sup>, respectively, and are pivoted, as shown in dotted lines at 66<sup>a</sup> in Fig. 3, to pins projecting from posts 2 and 51. The gravitative tendency of these pivoted rack-bars cause them to engage the cross-pins 64 and 65 of the levers 62 and 63, said teeth being of ratchet-tooth formation, in order that said levers may be pivotally operated in the direction indicated by the arrow, Fig. 3, without impediment, but not in the opposite direction unless said rack-bars are lifted and held in such position until the levers can be thrown back to their original position, in which they are normally held by the bail 61, in order to hold them out of danger of breakage by contact with passing vehicles.

68 designates a rope which is secured in any suitable manner to the lever 57 adjacent to the pad 58 and then extends through the guide-eye 55 and is secured to the lever 62, as shown at 69, or in any other suitable manner. The opposite end of said rope extends through an opening 70 of the post 2 and is attached, as at 72, to said post. The rope is of sufficient length to form a loop, which may extend clear across the chute inclosing the opening 40 and hang upon a pin or hook 73, to the end that when the steer sticks his head through the opening or bifurcation 40 of the gate he will also project it through said loop and incidentally between the jaw-pads 53 and 58.

In practice the loop is preferably supported, for the purpose explained, as shown in Fig. 3 or in an equivalent manner, the free ends of the bifurcated gate being secured or locked by the bolt 34 and the clamp-frame occupying the position shown in full lines, Fig. 2. A steer is then driven in the customary manner through the chute, and as he reaches the front end attempts to escape through the opening or bifurcation 40, as seen in Fig. 4. The force with which he rushes against said gate causes the clamp-frame to swing to the position shown in dotted lines and press him tightly against the opposite side of the chute, so that his head will project not only through the loop, but also between the jaw-pads hereinbefore referred to, it being understood, of course, that as the clamp-frame swings to such position the rack-bar is pulled inwardly and by engagement with the bar 22 automatically locks the frame in its new position, the bar 19 preventing the steer from backing, as hereinbefore explained. The operator, the bail 61 being previously disengaged from the levers, grasps the lever 63 and throws it in the direction indicated by the arrow, Fig. 3, until the loop (first disengaged from the pin 73) encircles tightly his neck or head just behind the horns and presses it against the pad 53, the automatic engagement of the

rack-bar 67 holding the lever in such position when released. He then manipulates the lever 62 in the same way, thereby causing the pad 58 to press firmly against the opposite side of the jaw. As the manipulation of the lever 62 naturally loosens the rope slightly, due to the new position of the lever 57, he immediately thereafter or at the same time throws the lever 63 a little farther, so that the rope shall be clamped tightly around the animal's head or neck. The steer being thus firmly secured, the horns can now be removed or he may be branded or otherwise operated upon in the customary manner, the large opening in the chute permitting the operator access to the flank or other point where the brand is to be applied due to the fact that the clamp-frame is of skeleton form and permits the body of the animal to bulge or protrude slightly through it. When the animal is clamped in position, it will be noticed that the members 42 and 45 of the gate occupy a position almost at right angles to the parts 41 and 44 and protrude through the openings formed above and below the partition-bar 6, hereinbefore referred to. After the animal is operated upon as desired the operator grasps and throws the levers 62 and 63 to their original position, first, however, throwing the loop off the animal's head and to one side—that is, to the side occupied by said lever. He then manipulates the lever 28, so as to simultaneously disengage the rack 21 and bar 22 and the bolt 34 from the extensions 47 48 of the bifurcated gate, and immediately this takes place the clamp-frame under the pressure exerted by the animal's body in its confined position swings outwardly and to the rear. The animal instinctively as he feels himself free pushes forward and thereby causes the said gate to swing to the opposite side of the chute and out of his path. As he escapes the parts are reassembled, as shown in full lines in Figs. 1, 2, and 4 and in part of Fig. 3, and the chute is ready to receive the next steer.

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

1. In a branding and dehorning cattle-chute, a jaw or head clamp, consisting of a fixed member to engage one side of the jaw or head of the animal, a removable member to engage the opposite side of the jaw or head, a lever to operate said movable member, and means to secure said lever at the required point of adjustment.

2. In a branding and dehorning cattle-chute, a jaw or head clamp, consisting of a fixed member to engage one side of the jaw or head of the animal, a movable member to engage the opposite side of the jaw or head, a lever to operate said movable member, and a pawl-and-ratchet mechanism to secure said lever at the required point of adjustment.

3. In a branding and dehorning cattle-chute, a jaw or head clamp consisting of a fixed mem-



ber to engage one side of the jaw or head of the animal, a movable member to engage the opposite side of the jaw or head, a lever suitably mounted and provided with a slot or bifurcation, a pin bridging said bifurcation, and a segmental rack-bar, suitably pivoted, extending through the slot or bifurcation of said lever and automatically engaging said pin, substantially as and for the purpose described.

4. In a branding and dehorning cattle-chute, a jaw or head clamp, consisting of a fixed member to engage one side of the jaw or head of the animal, a movable member to engage the opposite side of the jaw or head, a rope secured to the operative end of the movable member and to a fixed part of the chute, and arranged between said fixed point and the movable member in the form of a loop to inclose the space between the members of said jaw or head clamp, a pair of levers, one of them secured to the opposite end of the rope,

and the other provided with an eye through which said rope extends between its point of engagement with the chute and said movable member, and means to secure said levers at the required points of adjustment, substantially as described.

5. The combination, in a branding and dehorning cattle-chute, of a swinging clamp-frame, a hinged gate at its outlet end, and means to secure the free end of the gate to the opposite side of the chute, of a bar pivoted near its middle to the opposite end of said frame, and a link pivotally connecting said bar with a fixed point at the side of the chute corresponding to that to which the gate is hinged, substantially as described.

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

QUALLS BRUTON.

Witnesses:

G. Y. THORPE,  
M. R. REMLEY.