

No. 672,079.

Patented Apr. 16, 1901.

C. W. HINMAN.

HOG SHACKLE.

(Application filed July 25, 1900.)

(No Model.)

2 Sheets—Sheet 1.

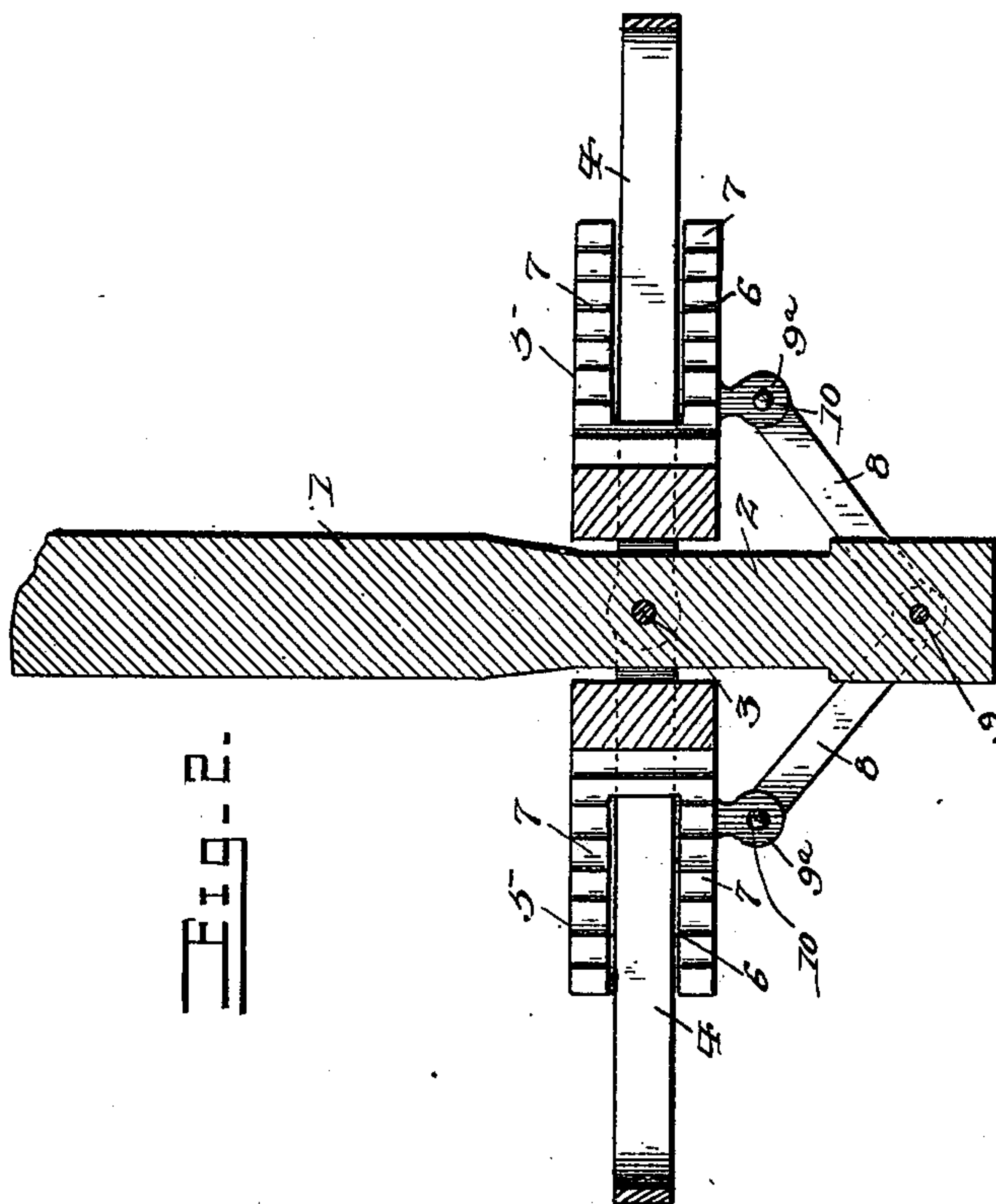


Fig. 2.

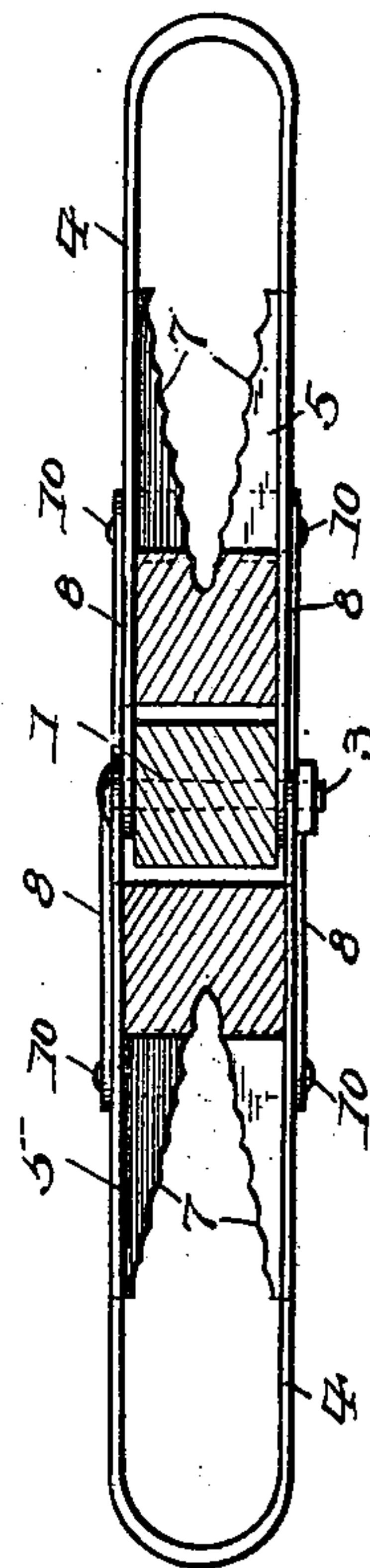


Fig. 3.

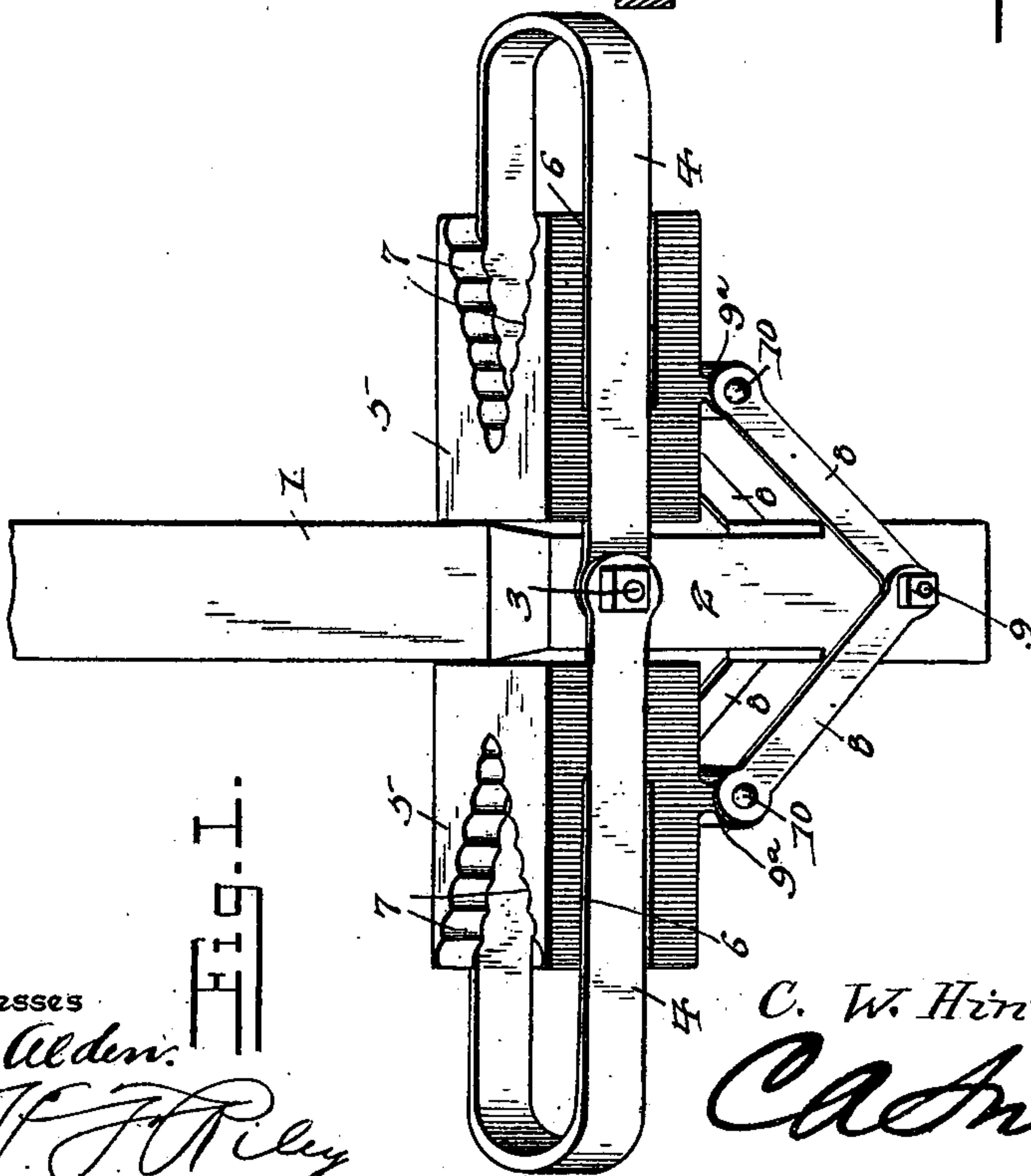


Fig. 1.

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Fig. 4.

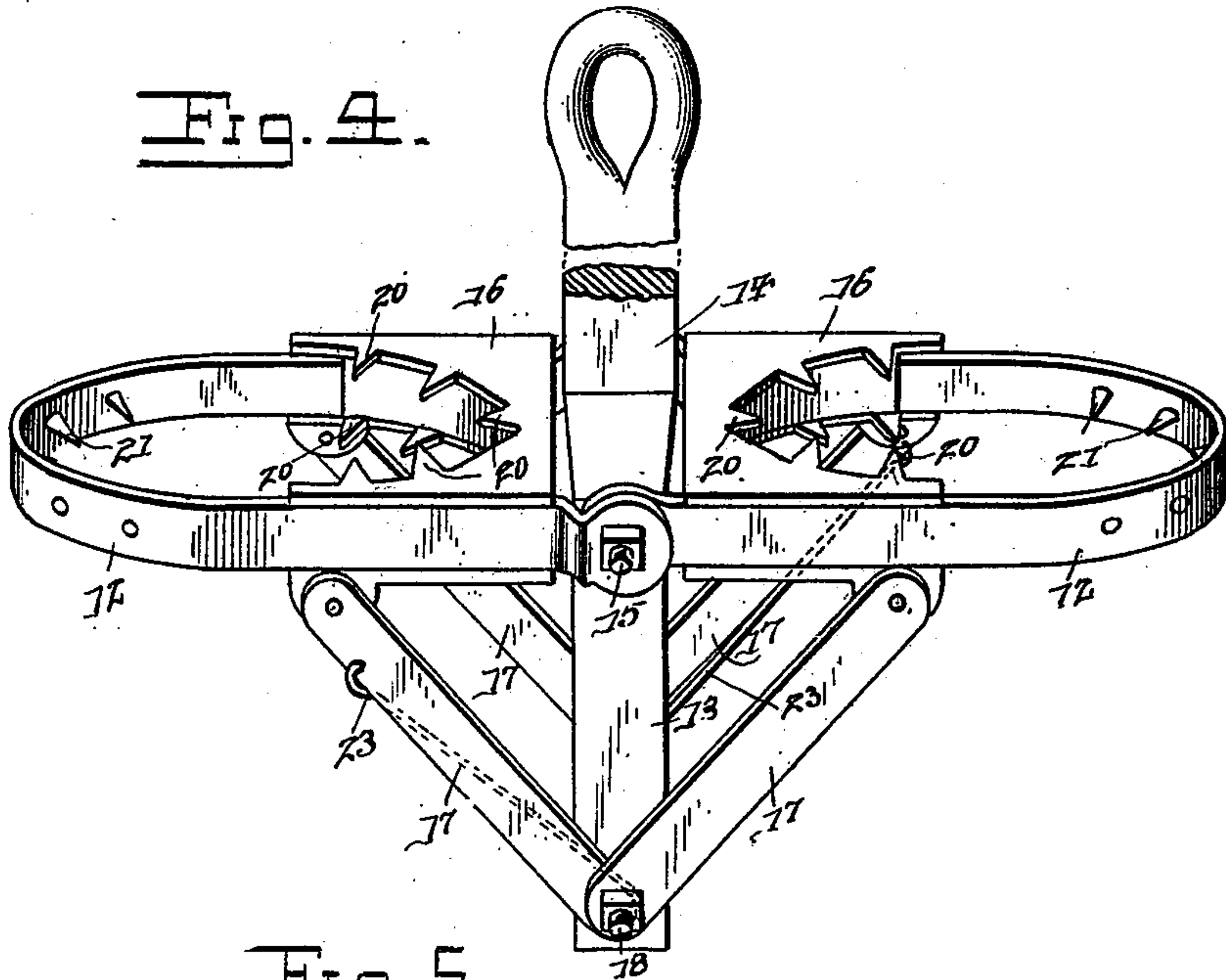


Fig. 5.

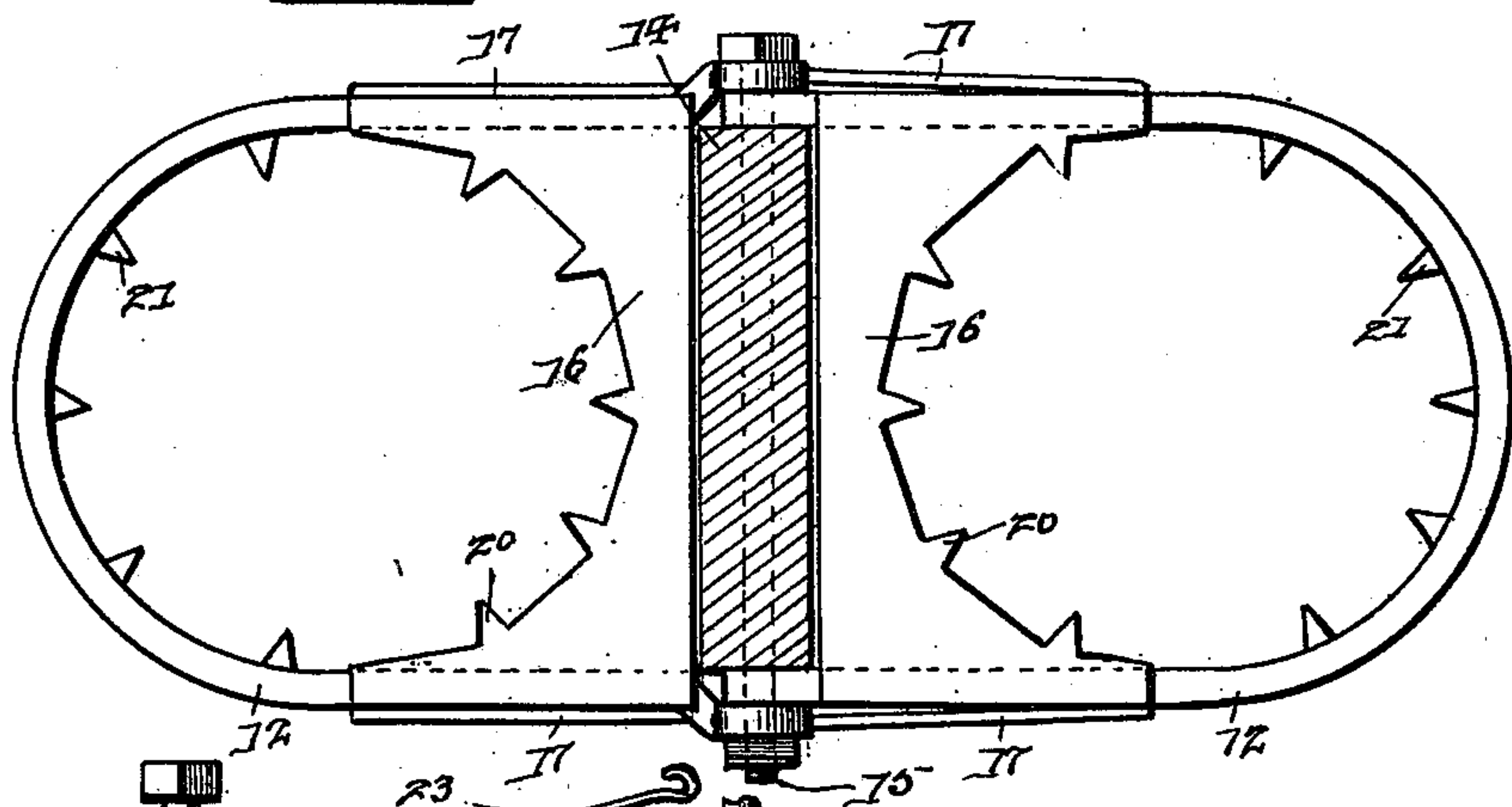
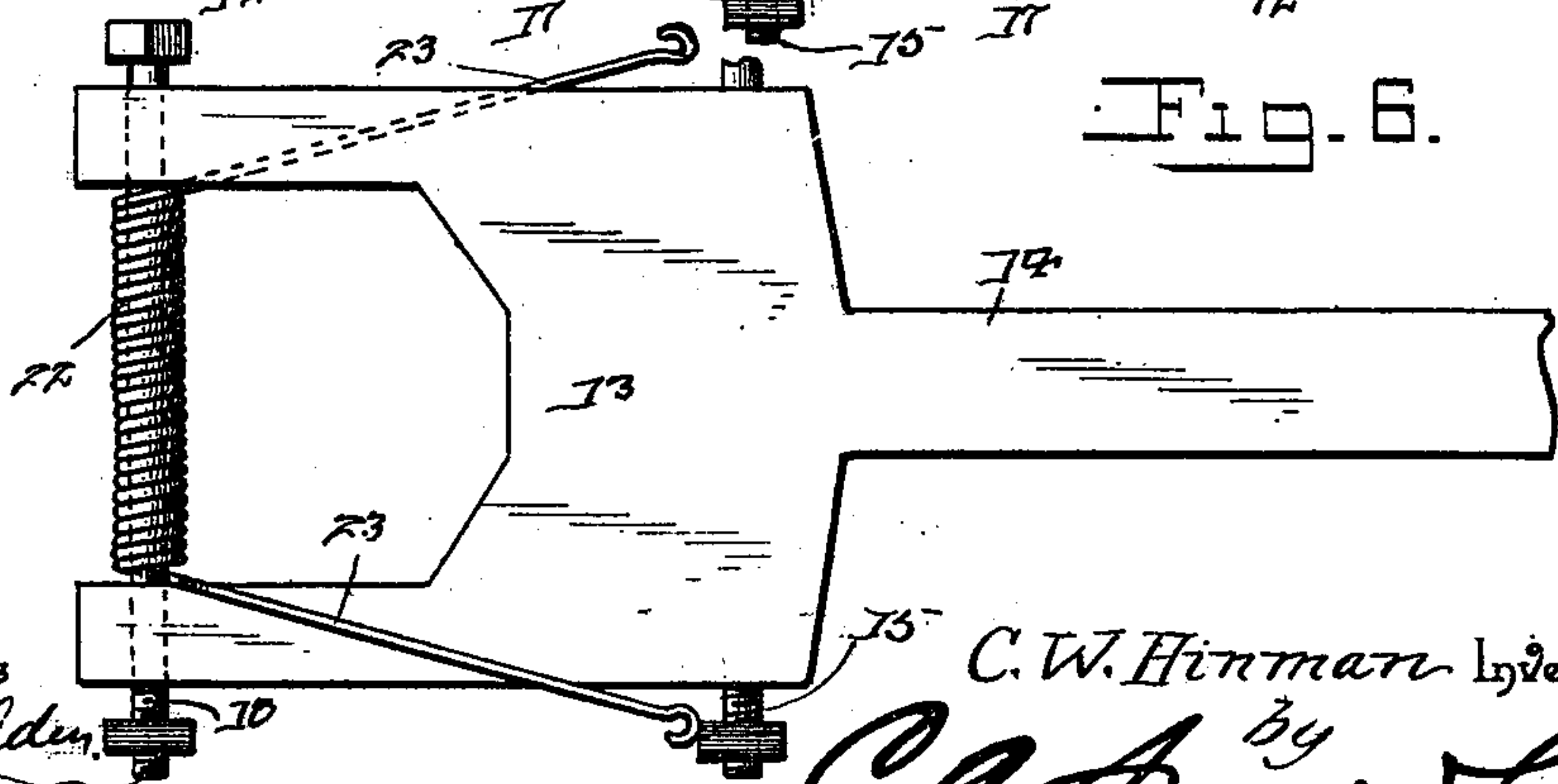


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHAUNCEY WEED HINMAN, OF IOWA CITY, IOWA.

HOG-SHACKLE.

SPECIFICATION forming part of Letters Patent No. 672,079, dated April 16, 1901.

Application filed July 25, 1900. Serial No. 24,833. (No model.)

To all whom it may concern:

Be it known that I, CHAUNCEY WEED HINMAN, a citizen of the United States, residing at Iowa City, in the county of Johnson and State of Iowa, have invented a new and useful Hog-Shackle, of which the following is a specification.

The invention relates to improvements in hog-shackles.

One object of the present invention is to improve the construction of hog-shackles and to provide a simple, inexpensive, and efficient device capable of automatically gripping and firmly clamping the hind legs of the carcass of a hog and of enabling the latter to be conveniently and thoroughly operated on by a scraping or other machine for removing the hair or otherwise affecting the carcass.

Another object of the invention is to provide a device of this character in which the weight of the animal will hold it in engagement with the legs of the same and which may be readily removed as soon as it is relieved of the said weight.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a hog-shackle constructed in accordance with this invention. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a horizontal sectional view. Fig. 4 is a perspective view illustrating a slight modification of the invention. Fig. 5 is a horizontal sectional view of the same. Fig. 6 is a detail view of the shank or bar.

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

1 designates a vertical shank or bar designed to be provided at its upper end with the ordinary swiveled tripping-hook for enabling it to be connected with the endless carrier of a hog-scraping machine and having its lower portion reduced at 2 and provided with a horizontal perforation through which passes a pivot 3, which connects a pair of yokes or frames 4 to the shank or bar. The yokes or frames 4 are substantially U-shaped, and their sides form guides for a pair of approxi-

mately V-shaped jaws 5, which are provided at opposite sides with longitudinal grooves 6, receiving the sides of the yokes or frames, whereby the jaws are slidingly mounted thereon. The sides of the yokes or frames are provided at their inner ends with perforated ears registering with the perforation of the shank or bar and receiving the transverse pivot 3, which preferably consists of a bolt.

The substantially V-shaped jaws, which are adapted to move inward and outward on the sides of the yokes or frames, are provided at the inwardly-converging side walls of their mouths or recesses with corrugations 7, adapted to engage the hind legs of a hog. The hind legs of the animal are placed in the outer portions of the yokes or frames 4, between the bends thereof and the corrugated jaws, and the latter are forced backward by the weight of the animal and by the means hereinafter described, whereby the legs of the animal are firmly held.

The sliding jaws are automatically forced outward by upwardly-diverging links or levers 8, arranged in pairs at opposite sides of the shank or bar and pivoted at their lower ends to the same by a transverse bolt or pivot 9. The upper ends of the links or levers are pivoted by bolts or other suitable fastening devices to the jaws, which are provided with depending ears 9^a for the reception of the pivots 10. The weight of the animal is adapted to swing the yokes or frames downward on the pivot 3, which downward movement is imparted to the pivoted links or levers, and as the upper or outer ends of the latter swing downward and outward they carry the jaws outward on the yokes or frames into engagement with the legs of the animal. The clamping action of the device is in exact proportion to the weight of the animal, and as the legs of the same are forced into the tapering or wedge-shaped openings of the jaws by the action of the yokes there is no liability of the legs slipping through the yokes or frames. When the yokes or frames are swung upward, the jaws will be carried inward to the position illustrated in Fig. 1, and the legs of the animal may be readily removed.

In Figs. 4 to 6, inclusive, is illustrated a slight modification of the invention, wherein the openings formed by the yokes 12 for the

reception of the legs of the animal are approximately circular, the engaging faces of the jaws being formed on approximately a semicircle. The lower portion 13 of the shank or bar 14 is enlarged and forked, and the yokes 12 are connected with the same by an upper pivot 15. The jaws 16, which are adapted to slide on the yokes, are connected with the sides of the forked portion of the shank or bar by links or levers 17. The links or levers are connected with the shank or bar by a lower pivot 18, and the jaws are provided with depending ears 19 to receive the pivots for connecting the upper ends of the links or levers to them. The jaws are provided at opposite sides with grooves to receive the sides of the yokes, and the legs of the animal are engaged by spurs 20 and 21, extending from the jaws and the yokes, as clearly illustrated in Figs. 4 and 5 of the accompanying drawings. The operation of the device shown in Figs. 4 to 6, inclusive, is the same as that heretofore described in connection with the construction illustrated in Figs. 1 to 3, with the exception that in the modification the spurs hold the legs of the animals and prevent the same from slipping, while in the other form of the invention the legs are wedged in the tapering openings of the jaws.

In order to facilitate the operation of the device and enable the jaws to open automatically as soon as the same are relieved of the weight of an animal, a coiled spring 22 is employed. This spring is arranged on the lower pivot 18 between the sides of the fork or bifurcation of the portion 13 of the bar or shank 14, and it is provided with upwardly-extending arms 23, located at the opposite faces of the shank or bar and terminating in hooks for engaging the links or levers 17. The arms of the spring engage the links or levers at the outer edges thereof and near the upper ends of the same, and as soon as the device is relieved of the weight of an animal the spring will swing the links or levers inward and open the jaws and enable the device to be readily removed from one carcass and applied to another.

It will be seen that the shackle is exceedingly simple and inexpensive in construction, that it possesses great strength and durability, and that it is automatic in its operation and adapted to hold an animal firmly and in convenient position, so that it may be thoroughly operated on by a scraping-machine and the hair entirely removed from all portions of the carcass.

What is claimed is—

1. A device of the class described compris-

ing a bar or support, yokes or frames pivoted to the bar or support, sliding jaws cooperating with the yokes or frames, and links or levers connecting the jaws with the bar or support and adapted to cause the jaws to move outward when the device is subjected to the weight of an animal, substantially as described.

2. A device of the class described comprising a bar or support, a pair of yokes or frames pivoted to the bar or support, jaws slidingly mounted on and carried by the yokes or frames, and means connecting the jaws with the bar or support, whereby they will be forced outward when the yokes or frames are swung downward, substantially as described.

3. A device of the class described comprising a bar or support, a pair of substantially U-shaped yokes or frames pivotally mounted on the bar or support, jaws slidingly connected with the yokes or frames and adapted to move inward and outward thereon, and the diverging links or levers located beneath the jaws and connected with the same and with the bar or support, substantially as described.

4. A device of the class described comprising a bar or support, a pair of yokes or frames pivoted to the bar or support, the approximately V-shaped jaws provided at opposite sides with grooves receiving the yokes or frames, and means connecting the jaws with the bar or support, whereby the jaws are carried outward and inward when the yokes or frames are swung upward and downward, substantially as described.

5. A device of the class described comprising a bar or support, a pivoted yoke or frame mounted on the bar or support, a jaw slidingly connected with the yoke or frame and adapted to move inward and outward thereon, and a link connecting the jaw and the bar or support, substantially as and for the purpose described.

6. A device of the class described comprising a bar or support, yokes or frames arranged at opposite sides thereof, jaws slidingly connected with the yokes and provided with tapering openings, and means for moving the jaws outward on the yokes, whereby the legs of an animal will be wedged in the said tapering openings, substantially as described.

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

CHAUNCEY WEED HINMAN.

Witnesses:

J. K. WALKER,

U. J. LORACK.