J. H. GIBSON.

CLAMP.

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989,499.

Patented Apr. 11, 1911.

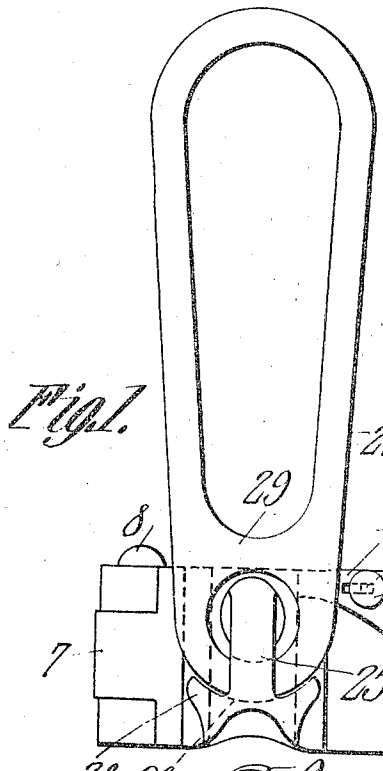

Fig. 1.

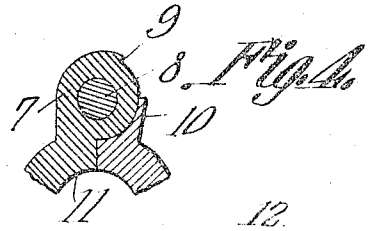

Fig. 5.



Fig. 4.

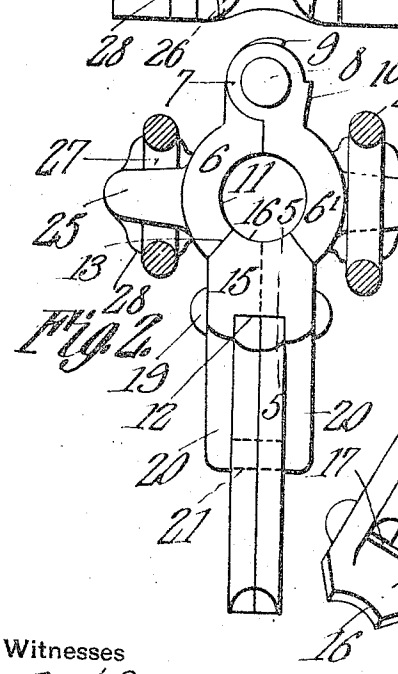

Fig. 2.

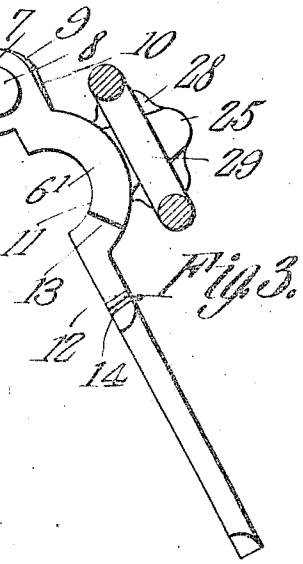

Fig. 3.

Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN H. GIBSON, OF BRUIN, PENNSYLVANIA.

## CLAMP.

989,499. Specification of Letters Patent. Patented Apr. 11, 1911.

Application filed March 19, 1910. Serial No. 550,324.

*To all whom it may concern:*

Be it known that I, JOHN H. GIBSON, a citizen of the United States, residing at Bruin, in the county of Butler and State of Pennsylvania, have invented a new and useful Clamp, of which the following is a specification.

This invention relates to clamps employed for pulling up well casings or tubing, and for pulling, drawing or suspending rods and other cylindrical objects.

It is the purpose of the invention to provide in a clamp of this kind, improved means for locking the jaws on the object, whereby the latter will be securely held, and without danger of slipping out of the jaws.

Another aim of the invention is to provide the clamp with improved rein links which may be easily swung into a position for attachment to the hauling line, without danger of being placed in such a position as to be wrenched off when the object is being elevated or suspended.

The invention also has for its aim to provide a hinge connection between the jaws which permits the jaws to be swung open only the necessary distance to allow the clamp to be applied to the object.

Other objects and advantages of the invention will be manifest from the detailed description appearing hereinafter, and in order that the invention may be fully understood, reference is had to the accompanying drawing, in which:—

Figure 1 is a side elevation of the clamp in closed position. Fig. 2 is a plan view. Fig. 3 is a plan view of the clamp in open position. Fig. 4 is a sectional detail of the hinge joint between the jaws. Fig. 5 is a section on the line 5—5 of Fig. 2.

Referring more particularly to the drawing, 6 and 6′ denote respectively, the two jaws of the clamp. These jaws are formed at one of their ends with hinge knuckles 7 through which a pintle 8 passes, whereby hinge connection between the jaws is had. The knuckle of the jaw 6 is formed with a shoulder 9, and this knuckle is located between the knuckles of the jaw 6′. Between the last mentioned knuckles is a cross bar 10 which is engageable by the shoulder 9 to limit the opening movement of the jaws. This movement is only the necessary distance to allow the jaws to be placed around the tube or other object.

Adjacent to the hinged end of the jaws, each jaw has a semi-circular shape as indicated at 11, and these parts 11, when the jaws come together to closed position, form a cylindrical opening in which the tube or other object to be pulled up or suspended is received.

Beyond the semi-circular portions 11, the jaws are straight, and their opposite faces are flat, and come together when the jaws are closed. In the upper edge of these straight portions of the jaws are made recesses forming at one end a shoulder 12. These recesses are also continued for a short distance into the semi-circular portion of the jaws to form shoulders 13 thereon, said shoulders extending radially with respect to the circular space formed by the semi-circular portions of the jaws, when they are closed. The shoulder 12 is slightly inclined from the perpendicular, and is formed with a groove 14, the shoulder and the groove extending transversely of the jaws.

The jaws are locked in closed position by a latch which is carried by a block 15 shaped to fit snugly in the recess formed in the top edge of the jaws. The block is beveled off at the corners of its forward end to engage the bevels, and said end, between the shoulders 13, is curved as indicated at 16, to conform to the curvature of the semi-circular portion of the jaws, in order that the continuity of the cylindrical space may not be interrupted.

The block 15 carries a latch at its rear end, said latch comprising a bar 17 extending transversely through a recess in the block, from which it is projected by a spring 18. This latch bar is carried by a portion of the block which engages the shoulder 12, and the latch bar 17 is adapted to enter the groove 14. In this position of the latch bar, the block is securely locked in the recess. The projecting end of the latch bar is beveled so that it will be automatically retracted as it slips down the shoulder, and upon coming opposite the groove, the spring advances the latch bar into the groove. The latch bar projects from opposite ends of the block, and said projecting ends are fitted with finger buttons 19 to facilitate the withdrawal of the latch bar.

The block 15 is carried at one end of two parallel arms 20 between which the straight portions of the jaws are received. These arms are pivoted at their other ends to the jaw 6 by means of a pin 21 connecting said

ends of the arms, and passing through a slot 22 in the jaw 6. The inner face of the jaw 6 is formed with a stud 23 through which the slot 22 is continued, the pin also passing there-through. The purpose of this stud is to space the arms sufficiently so that they may straddle the two jaws. The jaw 6' has a recess 24 through which the stud extends when the two jaws are closed.

From the outer surface of the semi-circular portions 11 of the jaws project ears 25 having perforations 26 to receive the rein links 27. The lower portions of the ears, on opposite sides of the perforations 26, and at the lower portion of said perforations, are formed with shoulders 28, extending outwardly and upwardly sufficiently to hold the links in an upright position. These shoulders also prevent the links from binding when they are being placed in a position for attachment on the hauling line, and they also make the links easily accessible, and not interfering with other incidental operations preparatory to the attachment of the hauling line. The ends of the links which are connected to the ears 25 are smaller than their opposite ends, and the links, adjacent the first mentioned ends, are formed with a cross bar 29. The ears 25, as well as the portions of the links which engage the same, are so shaped as to allow a free movement of the links without the latter becoming locked, or out of position when the clamp is in operation.

The operation of the clamp will be apparent from the foregoing description, but may be summarized as follows: To apply the clamp to the casing or other cylindrical object, the jaws are swung open as shown in Fig. 3 of the drawings, after which they may be placed around the casing and closed, the casing being received between the semi-circular portions 11 of the jaws. The arms are now swung upwardly, and the block 15 is placed in the recess, the latch bar 17 snapping into the groove 14. The casing is now securely held in the clamp, and it is pulled, drawn or suspended by attaching a hauling line to the links 27. To release the casing, the latch bar is disengaged from the groove, and the block is swung over the free ends of the jaws to extend beneath the jaws. The block being now removed from the recess, the jaws may be swung open to release the casing.

The device herein described is simple and durable in construction, it can be readily applied to the object, and also removed therefrom, and it therefore effectually serves the purpose for which it is designed.

What is claimed is:—

1. A clamp of the character described comprising hinged jaws having recessed edges, and said recesses forming a shoulder extending transversely of the jaws when the latter are closed and the shoulder being grooved, a pair of arms straddling the jaws, and pivotally connected to one of said jaws, a block carried at the free ends of the arms, and adapted to enter the aforesaid recesses, and a latch carried by the block, and engageable with the aforesaid groove of the shoulder.

2. A clamp of the character described comprising hinged jaws having recessed edges, said recesses forming a shoulder which extends transversely of the jaws when said jaws are in closed position, and said shoulder having a groove, a stud projecting from one of the jaws, the other jaw having a recess to receive the stud, said stud and that portion of the jaw from which it extends carrying a pivot pin extending transversely of the jaws, arms carried by said pin, said arms straddling the jaws when in closed position, a block carried by the free ends of the arms, and adapted to enter the first mentioned recesses of the jaws, and a latch carried by the block, said latch being engageable with the groove of the aforesaid shoulder.

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

JOHN H. GIBSON.

Witnesses:
FRANK B. OCHSENREITER,
C. E. PREINKERT.