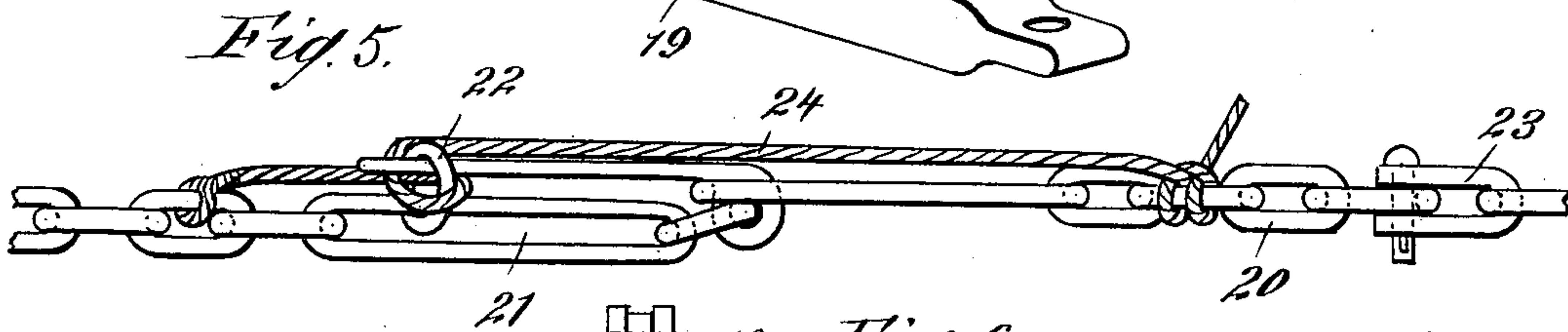
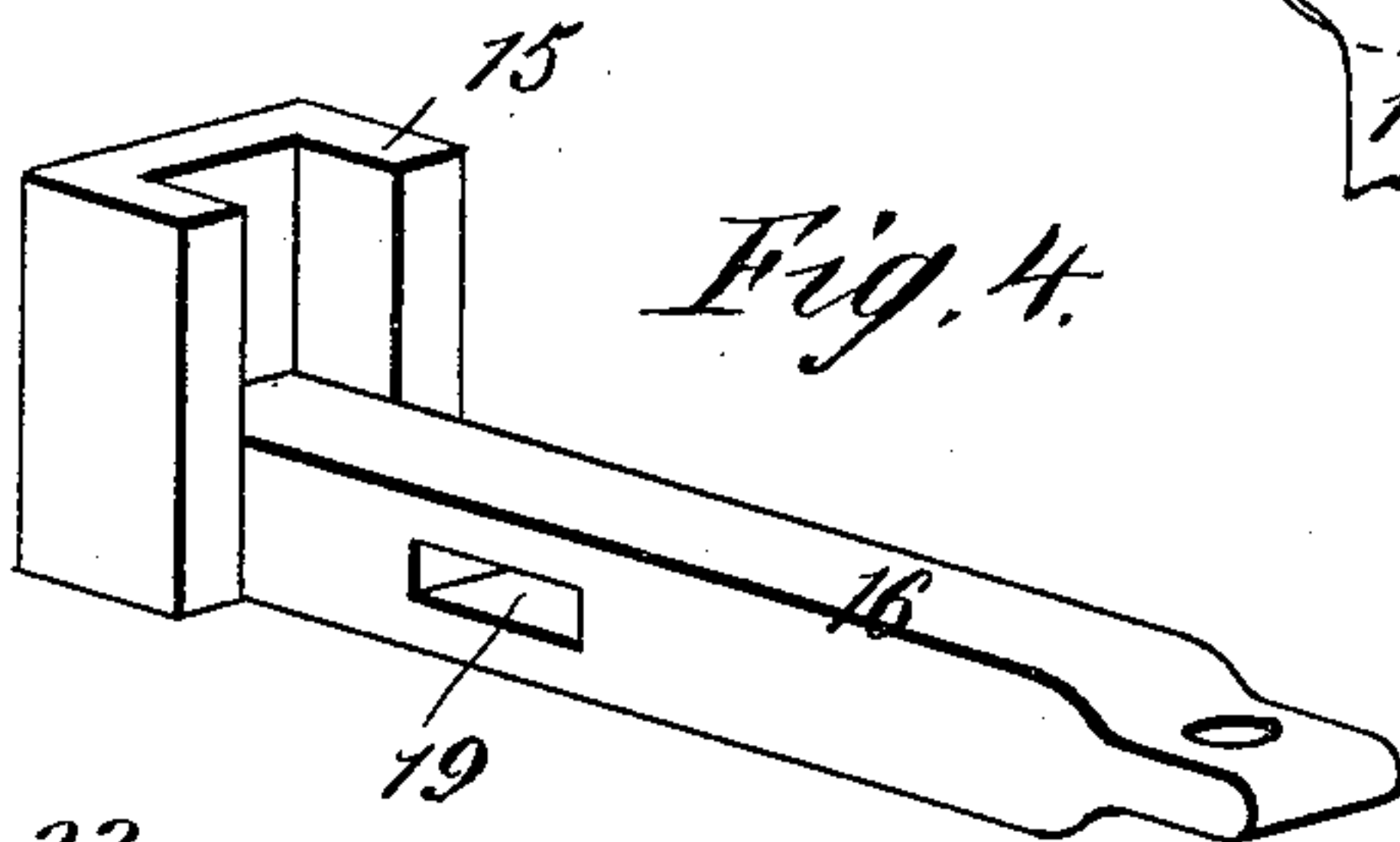
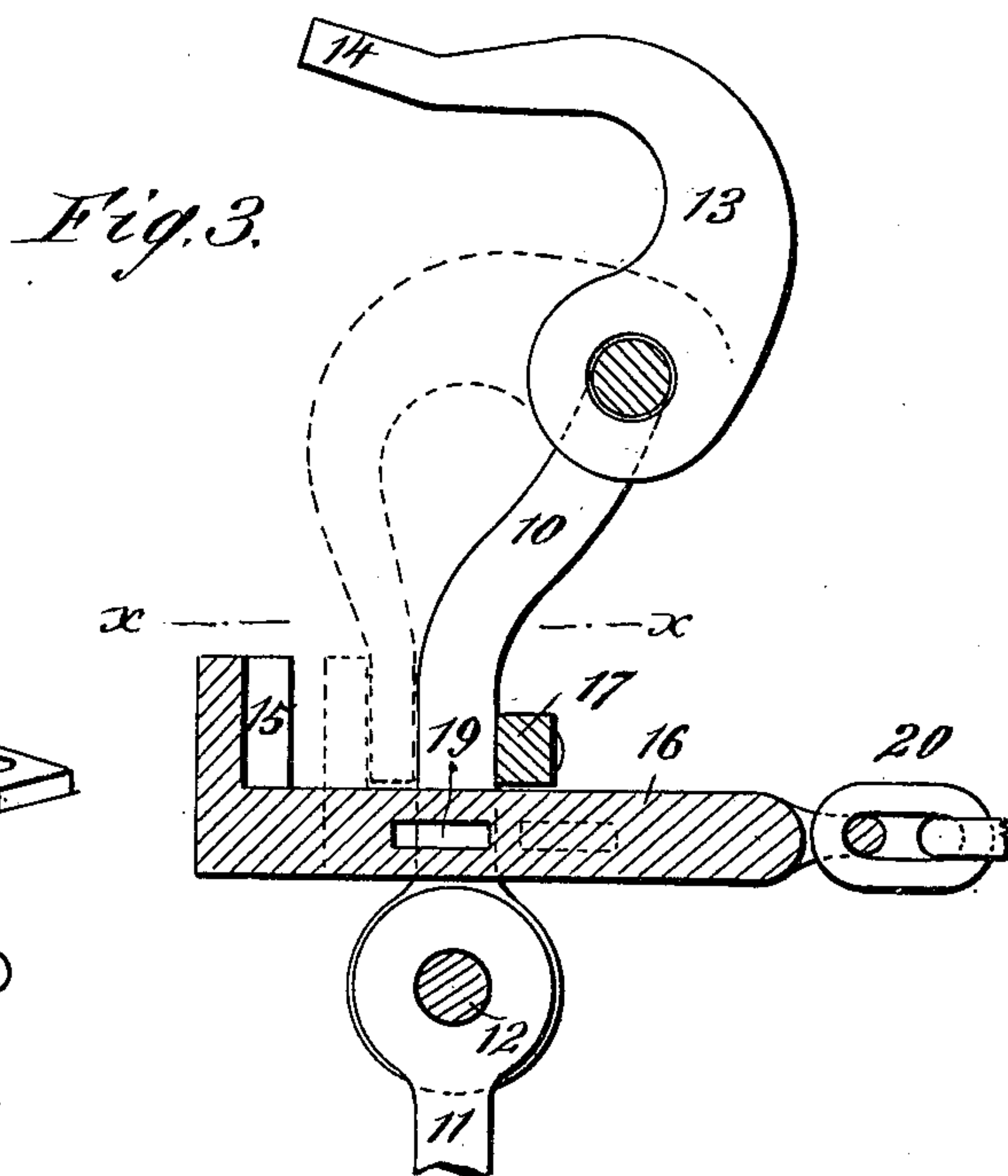
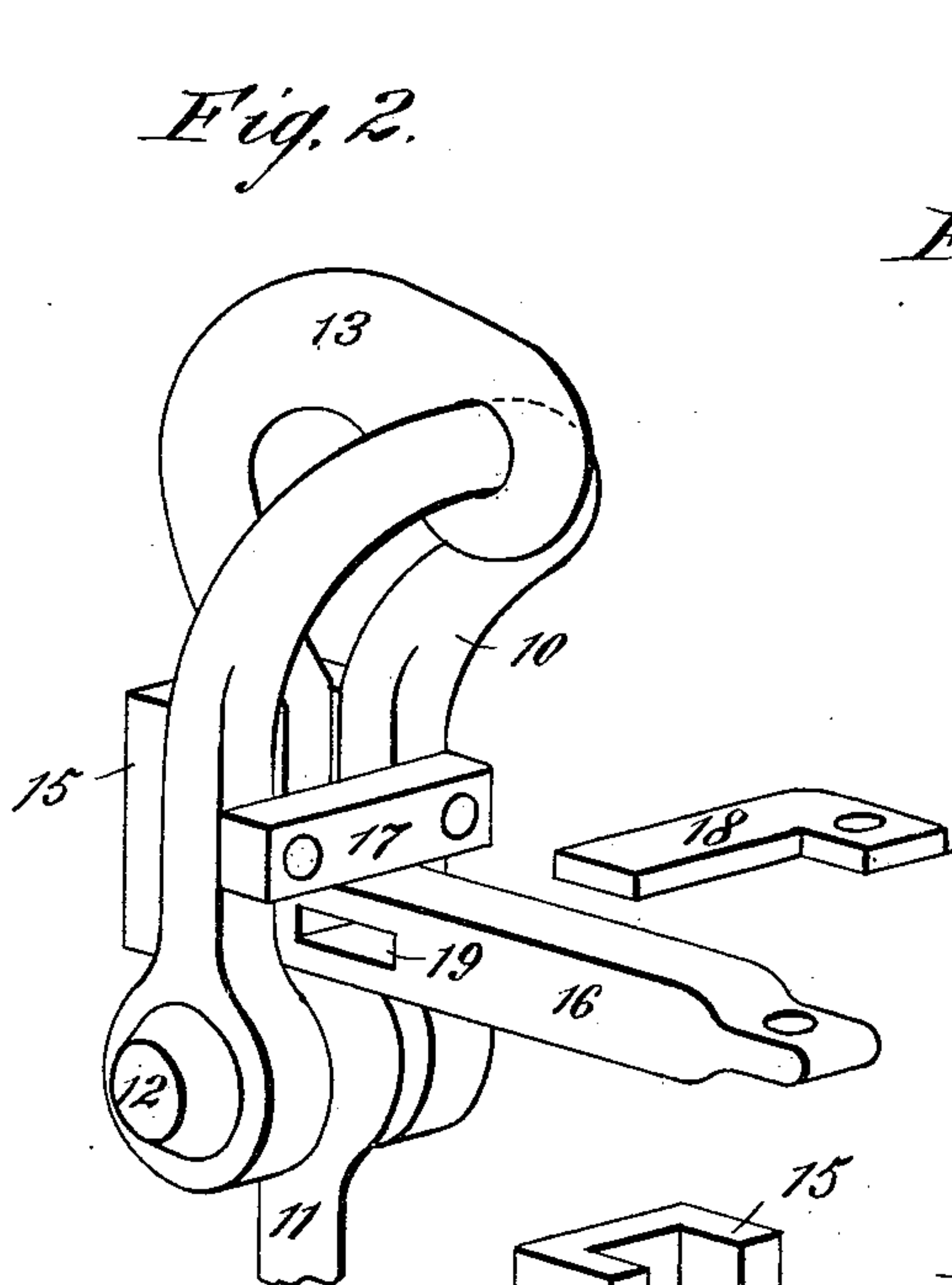
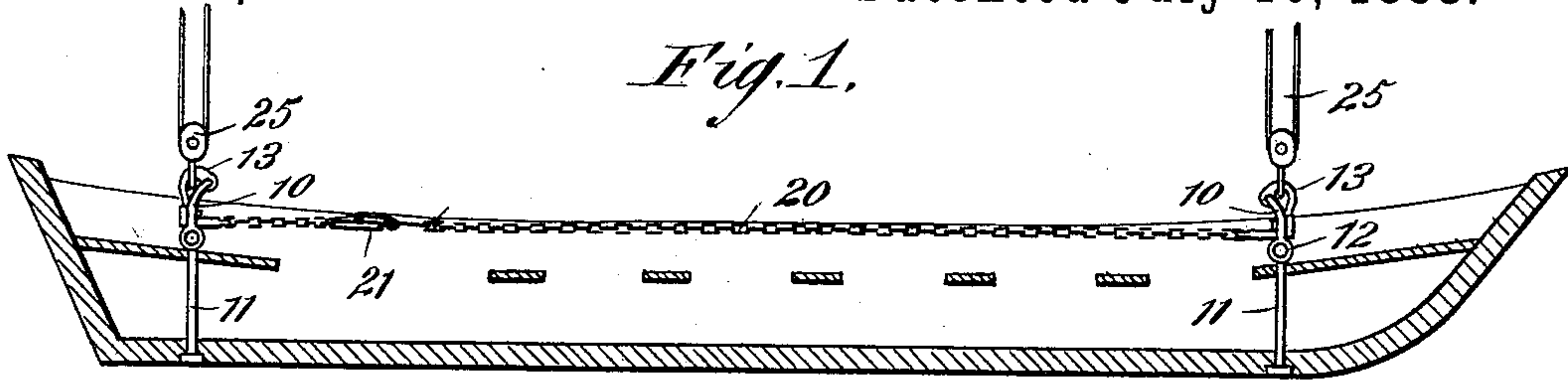


(No Model.)

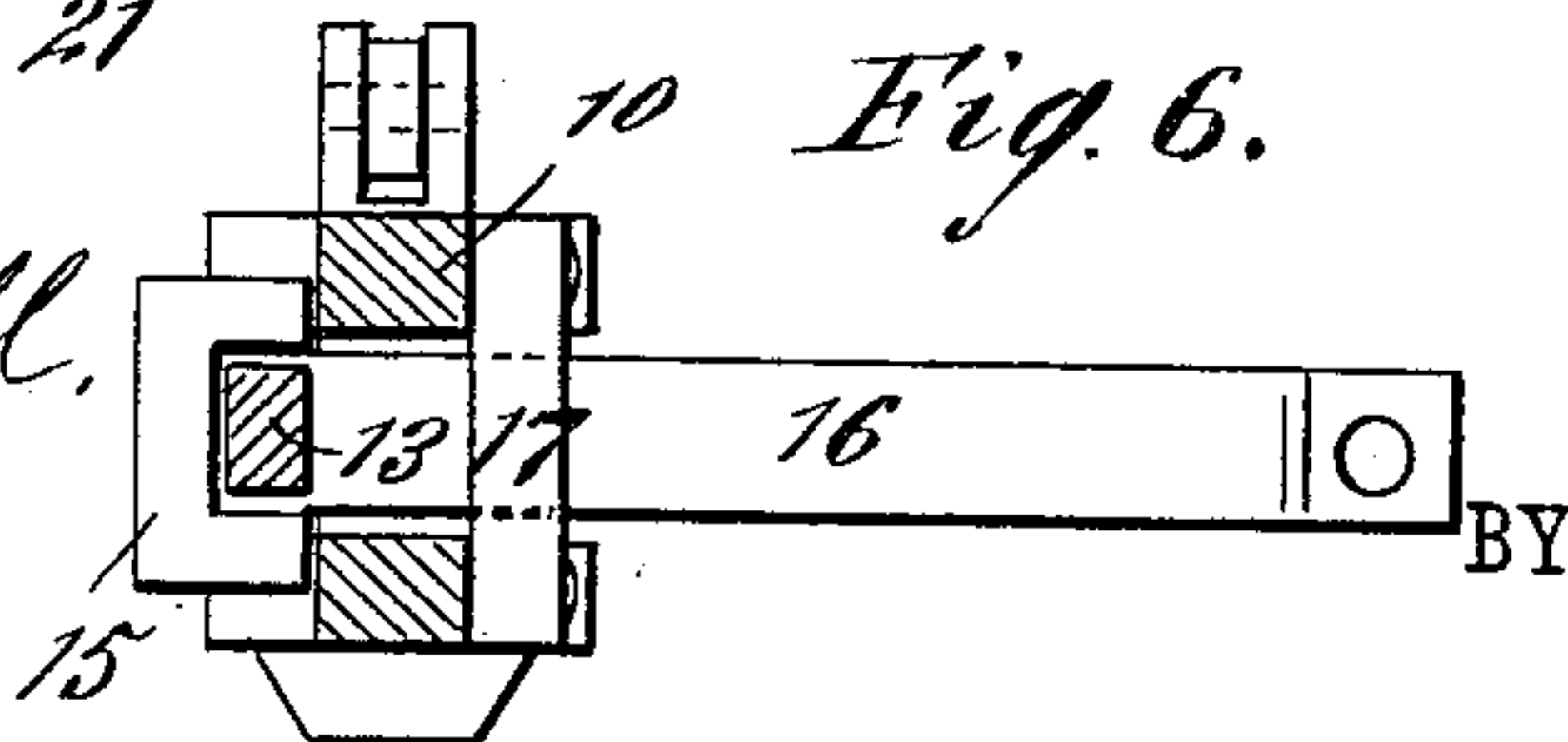
A. McCrackin.
BOAT DETACHING APPARATUS.

No. 385,866.

Patented July 10, 1888.



WITNESSES:
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UNITED STATES PATENT OFFICE.

ALEXANDER McCrackin, OF FAIRFIELD, IOWA.

BOAT-DETACHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 385,866, dated July 10, 1888.

Application filed June 11, 1887. Serial No. 241,013. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER McCrackin, of the United States Navy, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented a new and Improved Apparatus for Attaching and Detaching Boats and other Objects, of which the following is a full, clear, and exact description.

My invention relates to improvements in apparatus for detaching boats and other objects when they are to be launched, and for again reattaching them to the hoisting-tackles.

The object of my invention is to provide an apparatus for the above purpose that is safe, simple, light, compact, durable, and reliable; which will not stick, hang, or jam; that is not liable to get out of order by rust or ice; that does not require lubrication; that will not interfere with the stepping of masts; that can be readily adapted to any boat without change (not requiring special fittings on boat or hoisting tackles, but which can be shackled onto the sling, span, ring, or eyebolts already in the boat;) that has few parts, is direct acting, with no sheaves or rollers, and thus quick in action; that will not disengage by any motion of boat or vessel; that can be adapted to a boat in any position on side, quarter, or stern of a vessel; that can be used in any state of sea or weather, and whether the vessel is at rest, going ahead, or astern; that will detach both ends of the boat absolutely at the same required instant—whether the boat is lowered level or not, and when the boat is in or out of the water, and if one or both ends of the boat are water borne—and that will not detach in any case whatever unless it is desired.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 represents my apparatus as it appears when applied to a boat, the boat being shown in central longitudinal section. Fig. 2 is a perspective view of one of my improved attaching and detaching appliances. Fig. 3 is a central longitudinal sectional view of the same, the parts being represented in full lines as they appear when in the open position and in dotted lines as they appear when in the closed position. Fig. 4 is a detail view of the sliding claw employed in my apparatus. Fig.

5 is a side view of the slip-hook and connections, the parts being represented as they appear when the slip-hook is bound to place; and Fig. 6 is a sectional plan view taken upon a line corresponding with that of the line *xx* of Fig. 3.

The apparatus illustrated in the drawings above referred to consists, essentially, of a shackle, ring, or link, 10, (the drawings represent a shackle,) which is arranged for connection with a hoisting sling, span, ring, or eyebolt in the bow and stern of the boat. In the drawings I have represented an eyebolt, which is shown at 11, the shackle being connected to the eyebolt by a bolt, 12. The shackle 10 carries a loose hook, 13, that is mounted to turn upon the bow of the shackle, said hook being formed with a straight point or end, 14, that fits into a keeper, 15, that is formed upon a sliding bar or bolt, 16, which passes beneath a transverse bar, 17, that is bolted, riveted, or otherwise secured to the arms of the shackle 10. A key, 18, is arranged to fit within a proper aperture, 19, that is formed in the bolt 16, the arrangement being such that when the key is in position the bolt or bar will be locked to place upon the shackle.

In practice two such devices as those described are employed, and these two devices are connected by a small chain or its equivalent, which chain is shown at 20 and is in two parts that are joined by a slip-hook of ordinary construction, such as the one shown at 21, said slip-hook being provided with a ring, 22, that slides upon the closed link of the hook, and is adapted to slip over the point of the hook proper, a small line or lanyard, 24, being fastened to the chain 20 and arranged so that it may be slipped behind the ring 22 and then brought forward about the ring and between the point of the hook proper and the link upon which the ring 22 rides, the end of the line or lanyard being hitched to the chain 20, as indicated, the lanyard being employed to prevent the accidental displacement of the ring and the consequent slipping of the hook 21. The length of the chain 20 is regulated by means of a small shackle, 23, which is shown in Fig. 5.

From the construction described it will be seen that when the two sections of the chain 20 are connected by the slip-hook 21 and the

chain is drawn taut, the two bars or bolts 16 will be held together and prevented from slipping outward to relieve the hooks 13, so that if suspending tackles 25 are brought into en-

5 gagement with said hooks the boat in connection with which the attachments are arranged may be suspended, as indicated in Fig. 1.

When the boat is to be lowered and detached, 10 the crew being in her, the boat officer or coxswain casts off the lanyard 24, when at any desired time the ring 22 may be slipped off from engagement with the point of the hook 21, and the keys 18 having been previously 15 removed, the weight of the boat and crew will turn the hook 13 to the position in which they are shown in full lines in Fig. 3, the chain 20 will drop harmlessly on the thwarts out of the way of the masts and oars, and the boat will 20 be free to drop into the water, the bars or bolts 16 at this time moving to the position in which they are shown in full lines in Fig. 3, thus releasing both hooks 13 instantly and simultaneously.

25 To attach the boat, the hooks 13 are turned down and brought into engagement with the keepers 15, the keys 18 are inserted, and the ends of the bars or bolts 16 are connected by means of the chain 20, the ring 22 being bound 30 to place by the lanyard 24. The hoisting-tackles 25 may then be brought into engagement with the hooks 13, after which the boat may be hoisted up.

In order that the attachment may be in con- 35 dition for immediate use, it is desirable that the keys 18 be removed immediately after the ring 22 has been bound to place.

If desired, the chain 20 need not be connected until after the boat is hoisted, or the 40 hoisting-tackle may be hooked directly into the shackle 10. This might be desirable when the boat is to be hoisted at night or in stormy weather.

Having thus fully described my invention, 45 I claim as new and desire to secure by Letters Patent—

1. In a boat-detaching apparatus, the combination, with the shackle or its stated equivalent, having a transverse cross-piece and a 50 hook pivoting on upper part of the shackle or its stated equivalent, of a sliding bar or bolt passed through the space below the said cross-bar, and having at one end an upward-projecting keeper to receive the free end of the hook

when said end is swung down and the keeper 55 moved toward the shackle, substantially as set forth.

2. In a boat-detaching apparatus, the combination, with the shackle 10, or its stated equivalent, having a transverse cross-piece 60 and a hook, 13, pivoting on the upper part of the shackle, of the sliding bar or bolt 16, passed through the space under said cross-piece, and having an upward-extending open keeper, 15, on its end at the outer side of the shackle to 65 receive the free end of the hook 13, and an aperture, 19, to receive the key 18 at the inner side of the shackle, substantially as set forth.

3. A boat-detaching apparatus comprising 70 the two shackles 10, or the stated equivalents thereof, having transverse cross-pieces 17, and oppositely-facing hooks 13, pivoting on the upper parts of the shackles, the two bars or bolts 16, passing through the spaces below the 75 cross-pieces, and having on their outer ends upwardly-projecting keepers 15, open on their sides next to the shackles to receive the free ends of the hooks when the bars or bolts are slid toward each other, and apertures 19, to receive 80 keys 18 at the inner sides of the shackles, a chain connecting the inner ends of said bars or bolts and provided with a slip-hook, and a lanyard, 24, for securing the ring 22 of the slip-hook from longitudinal movement, sub- 85 stantially as set forth.

4. The combination, with the boat having the usual eye-bolts, 11, at its ends, of the shackles 10, or their stated equivalents, pivoted to the eyes of said bolts by transverse pivots, and 90 having transverse cross-pieces 17 above the pivots, and the hooks 13 on the upper ends of the shackles and facing the ends of the boat, the sliding bars or bolts 16, extending through the spaces under the cross-pieces 17, and hav- 95 ing keepers 15 on their outer ends open on their sides next to the shackles to slide over the free ends 14 of the hooks when the said bars or bolts are drawn toward each other, the locking-keys for the bolts at the inner sides of 100 the shackles, and the connecting-chain having a slip-link, whereby the boat may be suspended by the swinging hooks or directly by the shackles 10, substantially as set forth.

ALEXANDER McCrackin.

Witnesses:

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C. W. RUSH.