

No. 751,205.

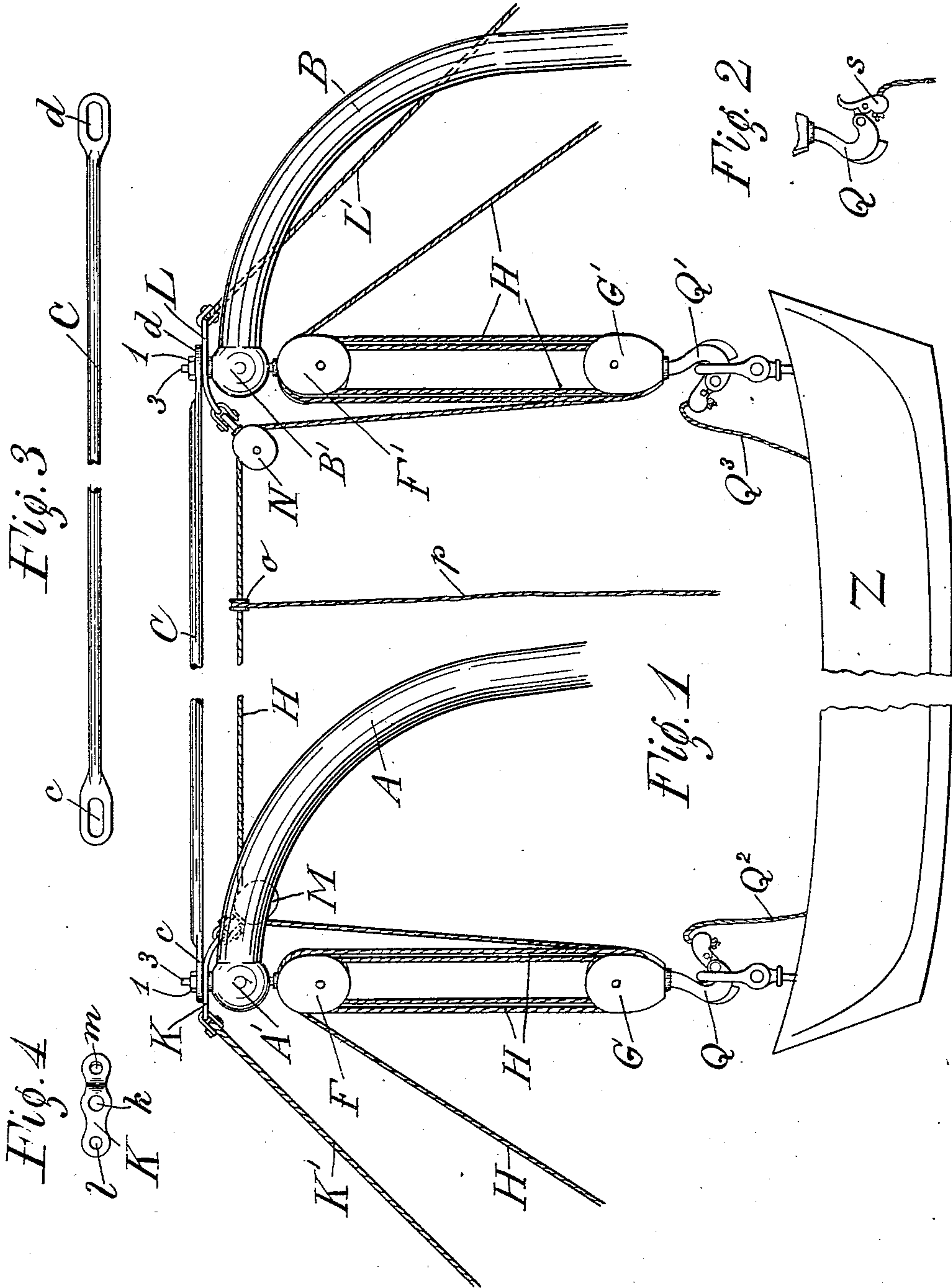
PATENTED FEB. 2, 1904.

J. R. RAYMOND.
BOAT DETACHING APPARATUS.

APPLICATION FILED JAN. 2, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
Juan Yonigsberg.
Henry V. Brown.

James R. Raymond Inventor
By his Attorney
Walter Brown

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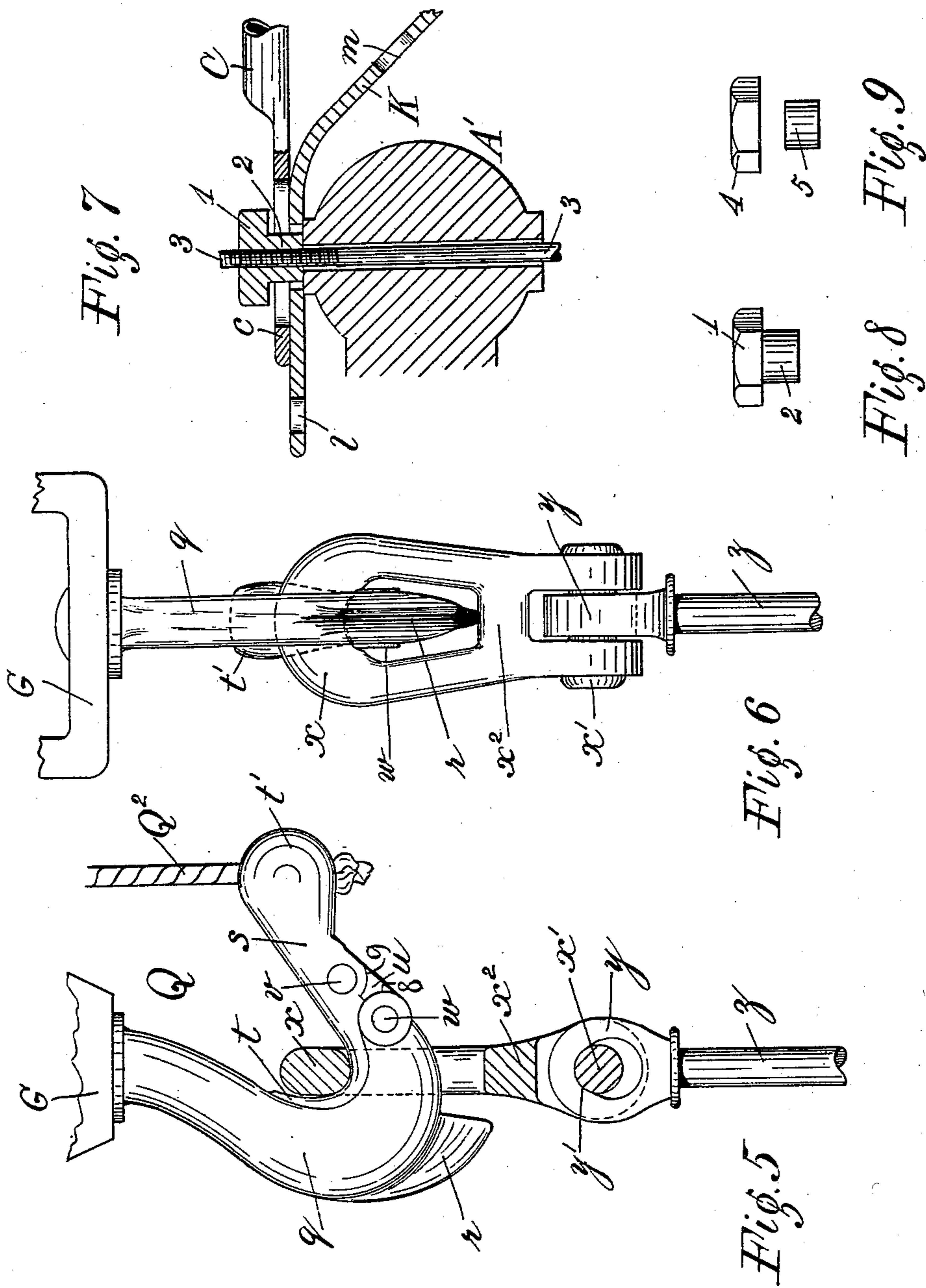
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UNITED STATES PATENT OFFICE.

JAMES R. RAYMOND, OF BAYONNE, NEW JERSEY.

BOAT-DETACHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 751,205, dated February 2, 1904.

Application filed January 2, 1903. Serial No. 137,413. (No model.)

To all whom it may concern:

Be it known that I, JAMES R. RAYMOND, a citizen of the United States of America, and a resident of Bayonne, county of Hudson, State of New Jersey, have invented certain new and useful Improvements in Boat-Detaching Apparatus, of which the following is a specification.

This invention relates to improvements in boat-detaching apparatus.

In particular the invention relates to improvements in such apparatus whereby the turning of the davits outboard and inboard is facilitated and the turning of the davits is accomplished without interfering with any of the blocks of the boat-hoisting rope or with any part of said rope, also whereby the simultaneous automatic detaching of the boat-shackles from the hooks of the davit-tackles is effected with certainty and whereby the hooking on of the boat to said davit-hooks is easily and certainly effected even when the boat is pitching in a heavy sea and without requiring the sailors to handle the hooks or the shackles when hooking on.

The particulars of the improvements whereby the aforesaid results are obtained are hereinafter described, and the preferred form of the invention is illustrated in the accompanying drawings. The construction and arrangement of the davits and the boat-hoisting rope are not, however, specifically claimed in this application, the same being claimed in a divisional application.

Referring to said drawings, Figure 1 is a broken elevation of the upper ends of two davits equipped with my improvements and with a boat hanging therefrom. For clearness the davits are indicated in a position midway between the full inboard and the full outboard positions. Fig. 2, Sheet 1, is an illustration of one of the detaching-hooks in its open or detaching position. Fig. 3, Sheet 1, is a broken detail of the davit-spreader. Fig. 4, Sheet 1, is a detail of one of the swivels to which the single standing blocks of the boat-hoisting rope are attached. Fig. 5, Sheet 2, is an enlarged sectional side elevation of the detaching-hook and shackles. Fig. 6 is a rear elevation of the same parts on the same scale.

Fig. 7 is an enlarged sectional detail of one of the davit-heads, showing the preferred manner of suspending the multiple standing blocks of the hoisting-rope. Fig. 8 is a view of the preferred form of nut and sleeve in one piece. Fig. 9 is a view of a nut and sleeve in two pieces.

A and B are davits of any suitable construction.

C is a spreader, preferably made of an iron or steel pipe, with flattened slotted ends *c d*, which are respectively pivotally secured to the heads A' B' of said davits A B by bolts and nuts 3 and 1, respectively, as shown. Said spreader C keeps the davit-heads the proper distance apart, overcoming the tendency of the weight of the boat Z to swing the davits together, and the slotted ends of said spreader facilitate the turning of said davits A B inboard and outboard. On said davit-heads A' B' are respectively mounted the swivels K L, which are preferably made of metal bars bent to the shapes shown in the drawings and are provided with eyes for attaching blocks and guy-ropes, as hereinafter described.

The boat-hoisting rope H is preferably rove in a continuous length through the multiple standing block F, which is swiveled on the bolt 3 from the davit-head A' and through the multiple running block G, thence upward and through the single standing block M, which is hung by the usual shackle and bolt from the bent end of said swivel K, then across to the other davit-head, B', and through a similar single standing block N, which is similarly hung from the bent end of said swivel L, and thence through the multiple running block G' and multiple standing block F', which is swiveled on the davit-head B' by a bolt 3. The ends of said hoisting-rope H are led down to the cleats. Between the said davit-heads A' B' said hoisting-rope H runs through a bull's-eye *o*, to which is fastened a tail-rope *p*, which is led down to the rail of the ship and belayed, said eye *o* and tail-rope *p* constituting a check for the hoisting-rope H, as will be hereinafter described.

Guy-ropes K' L' are respectively secured to the outer ends of said swivels K L by shackles, as shown, and led to the deck and belayed.

The blocks M N may be connected to the spreader C instead of to the swivels K L, said spreader C being, in fact, a long swivel on both davits. To each said running block G and G' is swiveled a depending hook Q Q', respectively, to support the end of the boat Z when the said boat is hanging on the davits. As said hooks are of similar construction, only one will be described. The body q of said hook Q or Q' is preferably shaped as shown in the drawings and is provided on the back with a web or fin r . A link u is pivoted to said body part q forward of said fin r by the pin w , and to the other end of said link u is pivoted the bill s , which forms a detaching-hook. The joints between the body part q and link u and between said link u and bill s are "rule-joints," and said link has side pieces with curved shoulders 8 9, so as to provide filling-blocks between the body part q and the bill s , as clearly indicated in Fig. 5. The tail or point t of said bill s forms a hook of such shape as to lie fair and true against the flattened inside of said body part u when said bill is in the attaching position, Figs. 1 and 5. The head t' of said bill s is weighted sufficiently to trip the bill to the position of Fig. 2 and throw the shackle x forward when the strain of the boat is taken off said bill s . A lanyard Q² or Q³ is fastened in a suitable hole in the head t' , and I prefer to make said hole vertically through the said head t' , as shown in Fig. 5; but it might be transversely through said head, it only being necessary that the connection of the lanyard with said head t' be such that the lanyard will guide the shackle x over the rounded head t' when hooking on the boat. I prefer to provide the other end of said lanyard Q² or Q³ with an eye, so that it can be connected with a heaving-rope thrown from the ship when the boat is returning to the ship in a heavy sea. Said lanyards may also be used to prevent the tripping of the bills s when not desired by taking a turn of said lanyard around the body part p of said hooks. The top part of said shackle x is preferably of oval cross-section, being elongated vertically and narrow horizontally, as shown in Fig. 5, and is so curved in the top part of its eye as to bear truly on the top and sides of the tail t of said bill s , such bearing increasing the durability of the bill t . Said shackle x , being preferably of the shape shown in Fig. 6, is connected with the eye y of the rod or strap z , which is fastened to the end of the boat Z by the bolt x' , and the hole in said eye y is of ovoidal shape, the upper part y' of said hole being of a shape to fit truly over and bear on the said bolt x' , while the lower part of said hole is enlarged, as shown in Fig. 5. This construction both gives a good bearing-surface of the eye y on the bolt x' and also promotes the quick fall of the shackle x over the bill s . The shackle is, as shown, entirely without springs or like parts

and falls free of the hook by its gravity, the parts being shaped to effect this.

The proportion of the opening in the shackle x to the fin r should be such that the lower cross-bar x^2 of said shackle will strike said fin r whenever the shackle tends to jump back on the hook.

I prefer to use shackles, as described, on the boat; but any rings of suitable size and shape to permit the bills s to trip may be used instead of the shackles.

To prevent the weight of the boat and the blocks and tackles from causing the swivels K L to be bound between the spreader C and the davit-heads A' B', I prefer to use the construction shown in Figs. 7 and 8 or in Fig. 9. In Figs. 7 and 8 the nut 1 has a sleeve 2, which passes through the slotted end of the spreader C and through the proper hole in the swivel K or L, so that the davit-heads sustain the whole weight of the boat and tackles. In Fig. 9 the sleeve 5, which passes through the slotted end of the spreader C and the hole in the swivel, is separate from the nut 4; but the construction is the equivalent of that shown in Figs. 7 and 8.

The apparatus operates as follows: When swinging a boat outboard and lowering it, the guy-ropes K' L' are cast off their cleats and the davits and boat turned outboard, the swivels K L allowing the davits to turn without interfering with the blocks M N or rope H. When outboard, one or two sailors or the whole crew of the boat and the passengers get in and the sailors on the ship lower away on both ends of the rope H. As soon as either end of the boat Z is water-borne, the strain of that end on its hook ceases and the weighted bill of that hook falls to the position of Fig. 2, detaching the shackle at that end of the boat from that hook. At the instant that that end of the boat was water-borne and relieved the strain on its hook the slack of the rope H paid back to the running block of the hook at the other end of the boat, thus slackening the strain on that other hook, whereupon the bill of said other hook also dropped, detaching its shackle also. The detaching of both shackles occurs practically simultaneously and danger of upsetting the boat by one of its ends remaining hooked after the other end is unhooked is obviated. The lanyards Q² Q³ then pay through the shackles x while the boat is rowed away.

To hook the boat onto the tackles, a sailor at each end of the boat passes the ends of a lanyard through its proper shackle, which he can easily do without danger of jamming his hand in the hook, and then pulls the lanyard to the position of Fig. 5, wherein it guides the shackle home to place over the head t' of the bill s . Both ends of the boat are thus easily hooked to the tackle and falls at the same time, whereas to hook the boat-shackles to the hooks of the tackles and falls without

the lanyards is a matter of great difficulty and danger when the boat is pitching in a hard sea. The boat-shackles having been hooked, the sailors haul in on the ends of the rope H and raise the boat to place, when the davits and boat are swung inboard.

The aforesaid check *o p* is useful whenever it is desired to have the parts of the rope H at the two davits act as independent falls—as, for instance, when hooking on a boat. To produce this independent action, a sailor draws down on the tail-rope *p* until he makes a deep bight in rope H. He then fastens the said rope *p* around a cleat and gives it also a turn around the rope H, which checks or stops the paying of the said rope H from one davit to the other and makes both falls of the said rope independent. This is very useful in hooking on and raising a boat, for without the check should one end of the boat be hooked on before the other end and the hooked-on end of the boat drop with the heaving sea the running block and hook at the other end would be heaved aloft out of reach by the strain of the hooked end of the boat.

Now, having described my improvements, I claim as my invention—

1. In boat-detaching apparatus, the combination in the tackle-hook which engages a shackle on the boat of a body part, a weighted bill pivotally connected thereto, and a projection on said body part adapted to prevent the shackle from jumping back on said body part, substantially as described.

2. In boat-detaching apparatus, the combination of tackles and hooks, said hooks being provided with stationary fins and movable bills, boat-shackles adapted to engage said bills, and means for connecting said shackles with said boats and provided with ovoidal eyes in which said shackles are seated, substantially as described.

3. The combination with the tackles and hooks of boat-detaching devices, of shackles *x* adapted to engage said hooks and provided with bolts *x'*, devices *z* for connecting said shackles *x* to boats and provided with eyes *y*

which have holes for said bolts *x'* enlarged downwardly to greater diameter than said bolts *x'* and contracted upwardly to fit said bolts, substantially as described.

4. The combination in boat-detaching apparatus of revoluble davits, tackles comprising standing and running blocks and a hoisting-rope rove continuously through said blocks and adapted to pay back from the blocks on one davit to the blocks on the other davit, detaching-hooks carried by said tackles and having pivoted bills and guide-lanyards on said bills, and shackles connected with boats adapted to a bearing fit on said bills and seated in ovoidal seats is the means which connect the shackles with the boats, substantially as described.

5. The combination in boat-detaching apparatus of boats provided with shackles, detaching-hooks provided with movable weighted bills for connection to said shackles and with guide-lanyards, davits for the two ends of the boat, running and standing blocks at each davit, a hoisting-rope rove continuously through said blocks and from davit to davit and adapted to pay back from the blocks on one davit to the blocks on the other davit, and a bull's-eye running on said hoisting-rope and having a tail-rope whereby said bull's-eye is adapted to check the paying back of said hoisting-rope, substantially as described.

6. The combination in boat-detaching apparatus of davits for the two ends of the boat, detaching-hooks provided with movable bills at each davit for connecting with their respective ends of the boat, and a hoisting-rope connected with said hooks and rove continuously from one hook to the other, whereby the slack of said hoisting-rope at one hook pays back to the other hook, substantially as described.

Signed at New York city this 31st day of December, 1902.

JAMES R. RAYMOND.

Witnesses:

DAVID WALTER BROWN,
HENRY A. CONLIN.