No. 670,293. Patented Mar. 19, 1901.

F. S. PETT.

BOAT DETACHING APPARATUS.

(Application filed Jan. 15, 1900.)

(No Model.) 3 Sheets—Sheet 1.

Fig. 1.

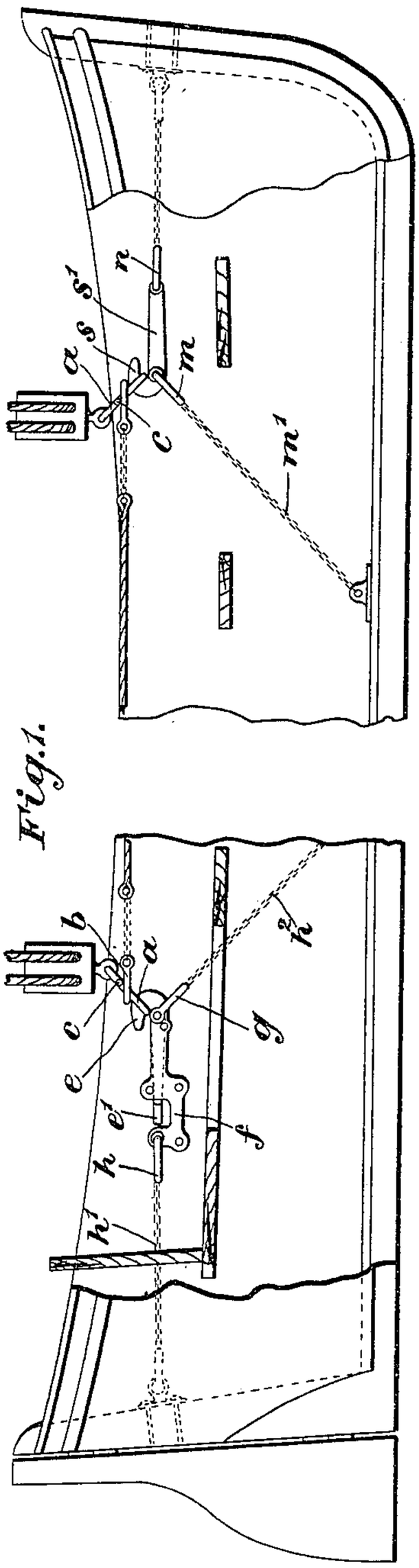


Fig. 2.

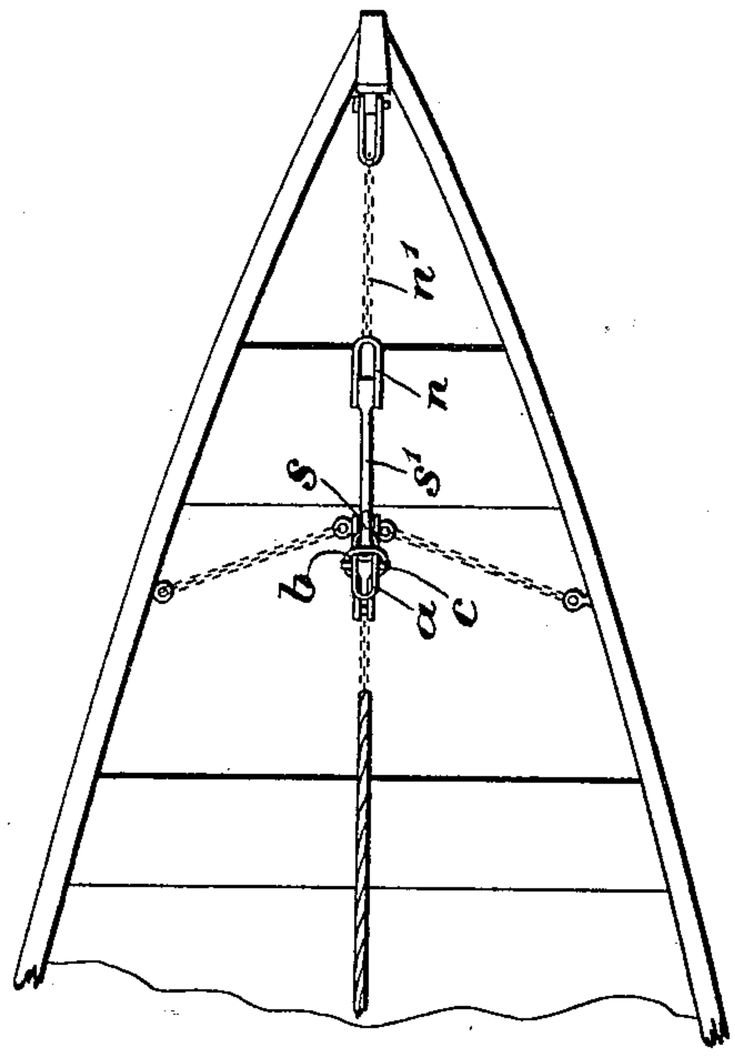
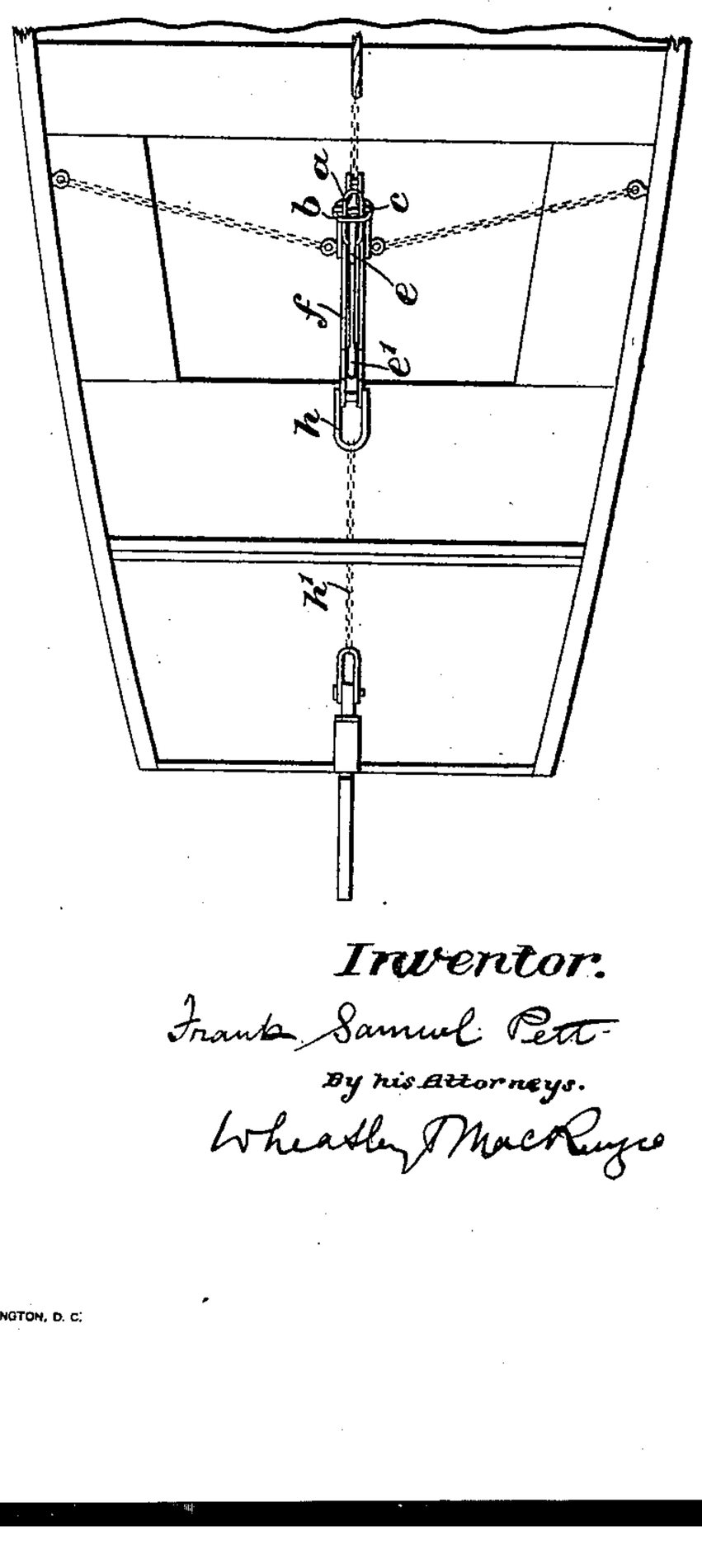


Fig. 3.

Fig. 4.



Witnesses.
Albert Jones.
Frederick Burnham.

Inventor.
Frank Samuel Pett
By his Attorneys.
Wheatley & MacRae

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(No Model.) 3 Sheets—Sheet 2.

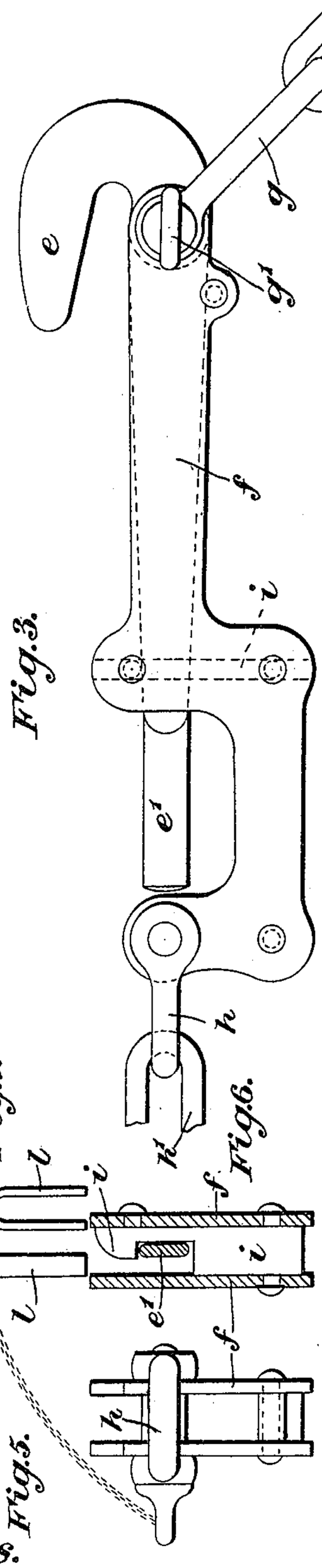

Fig. 3.

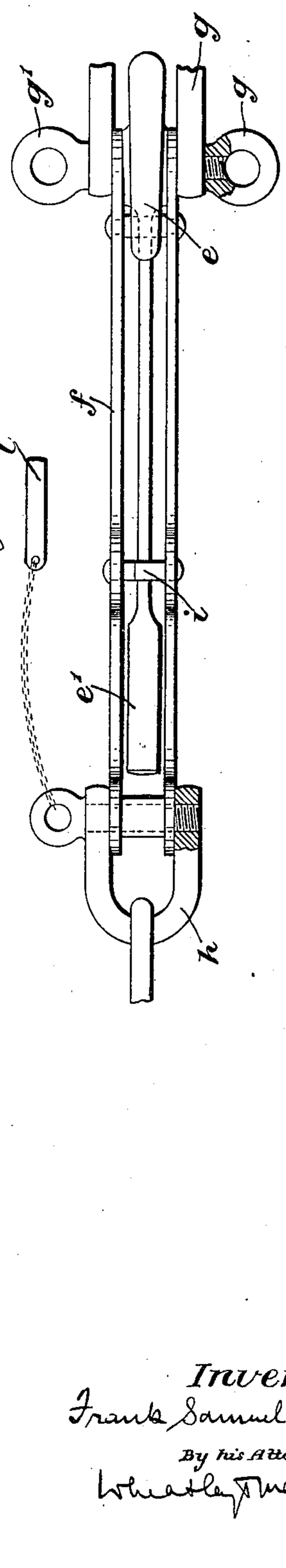

Fig. 4.

Fig. 7. Fig. 6. Fig. 5.

Witnesses.
Albert Jones
Frederick Burnham

Inventor.
Frank Samuel Pett
By his Attorneys.
Wheatley & MacRae

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(No Model.)

3 Sheets—Sheet 3.

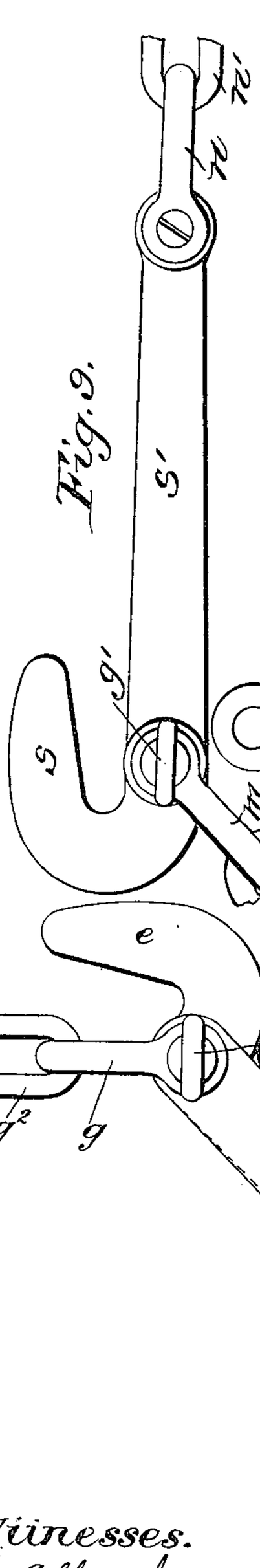

Fig. 9.

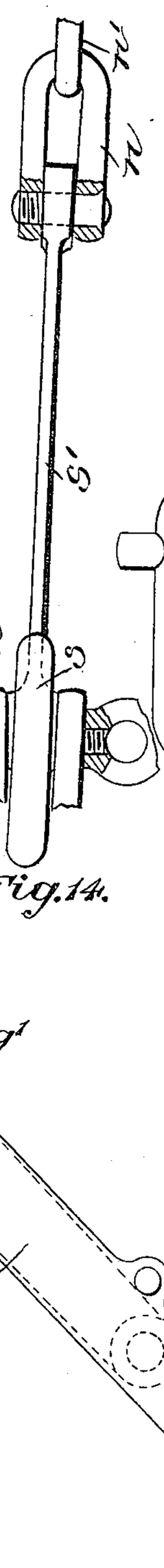

Fig. 10.

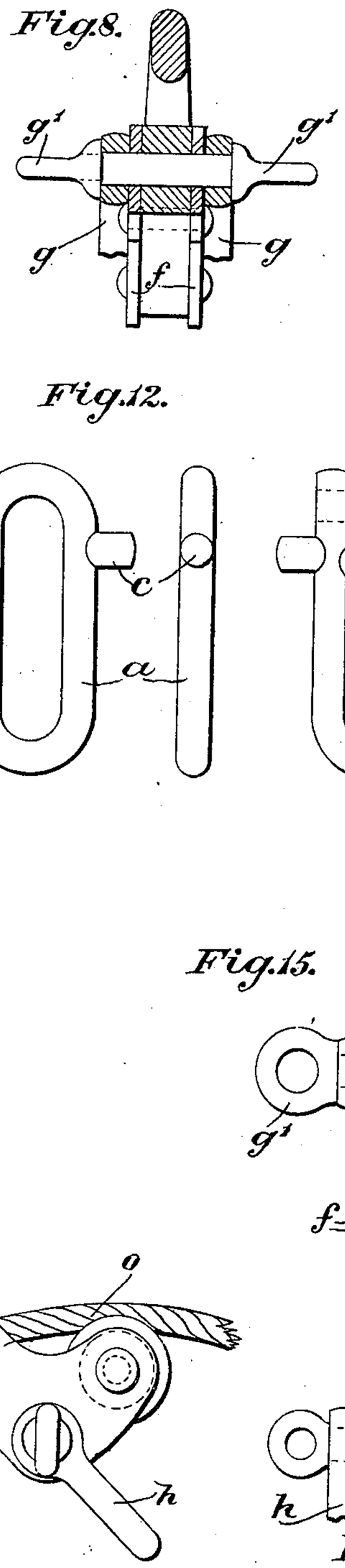

Fig. 8.

Fig. 12.

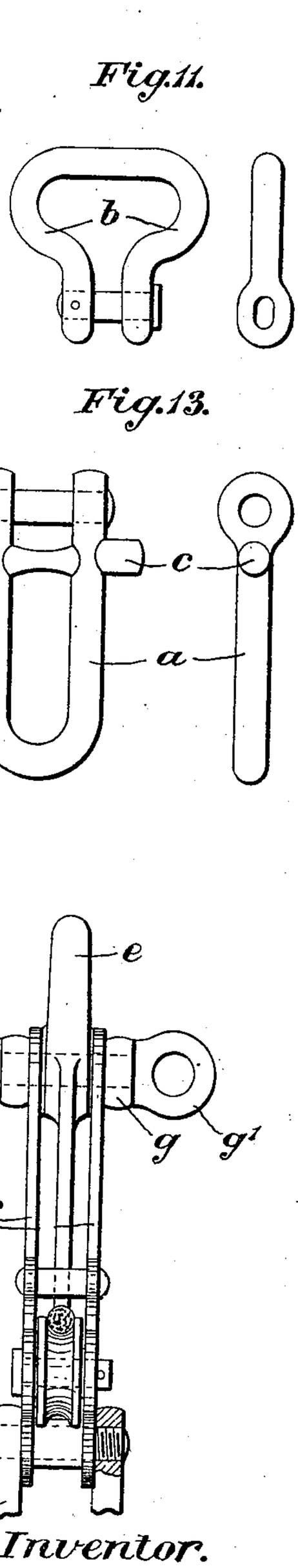

Fig. 11.

Fig. 13.

Fig. 14.

Fig. 15.

Witnesses.
Albert Jones
Frederick Burnham.

Inventor.
Frank Samuel Pett
By his Attorneys.
Wheatley & MacRae

UNITED STATES PATENT OFFICE.

FRANK SAMUEL PETT, OF DOVER, ENGLAND.

BOAT-DETACHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 670,293, dated March 19, 1901.

Application filed January 15, 1900. Serial No. 1,501. (No model.)

To all whom it may concern:

Be it known that I, FRANK SAMUEL PETT, a subject of the Queen of Great Britain and Ireland, residing at 11 Belgrave Gardens, Folkestone road, Dover, in the county of Kent, England, have invented certain new and useful Improvements in Boat Lowering and Disconnecting Gear, (for which I have made application for patent in Great Britain, No. 12,849, dated June 20, 1899;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention for improvements in boat lowering and disconnecting gear relates to gear of that class in which the lower davit-block rings are kept on their respective hooks by means of a chain or wire span, more particularly as described and illustrated in my prior patents, No. 14,741 of 1891 and No. 9,006 of 1896, and has for its principal object to enable the gear to be attached to boats by means of chain or wire-rope slings.

According to this invention the after lever-hook is pivoted between two cheeks and a shackle is fitted on the pivot-pin and is connected to the chain-sling fixed to the keel. The other end of the cheeks is also provided with a shackle connected by a chain to the stern-post. The cheeks are sufficiently cut away near the handle of the lever-hook to leave sufficient room for operations by hand or the handle of the lever may be suitably shaped for this purpose. The retaining-catch for the lever-handle is fixed between the cheeks and forms also a distance-piece, and either it or the lever-handle is arranged to spring to enable the handles to pass the catch. The after lever-hook is locked against accidental disengagement of the boat by a casting that when in position fills up the space between the point of the retaining-catch and the cheek or plate. The fore hook is provided near its hook end with a shackle connected by a chain to the keel, and the fore end or shank of the hook is connected by a shackle and chain to the stem. In a modification of the after hook, in which the lever of the hook is inclined downwardly, the hook is pivoted between two plates, the lower ends of which are connected by a shackle and chain to the keel. The upper ends of the plates are attached by a long shackle (to allow the hook to pivot) and chain to the stern-post. The lever-hook can be fixed in position by means of a safety-pin passing through the two cheeks or by chain lanyard and tackle attached to after thwart. In certain cases the fore hook may be made to trip instead of the after hook. When the boat-gear is fitted with keel-bolts, tie-rods, or slings in combination with the thwart of the boat, a casting is sunk in flush with after thwart and is provided with a slot and two lugs, between which the lever-hook works, the lugs forming guides for the boss of the hook.

This invention also relates to an improved lower davit-block ring. The upper portion of the ring is made in the form of a shackle to enable the same to be readily shackled onto the eye of the lower davit-block.

In the accompanying sheets of illustrative drawings, Figure 1 is a sectional elevation of a ship's boat, showing the improvements in the boat lowering and disengaging gear constructed according to this invention; and Fig. 2 is a plan of the same. Figs. 3, 4, and 5 are side elevation, plan, and end elevation, respectively, of the after hook and frame. Fig. 6 is a cross-section of the after hook and frame. Fig. 7 shows elevations of the locking-fork for the after hook. Fig. 8 is a cross-section of the after hook and frame. Figs. 9 and 10 are elevation and plan of the fore hook. Fig. 11 shows detail views of the span rings or shackles. Figs. 12 and 13 are detail views of lower davit-block rings. Figs. 14 and 15 are side and end elevation, respectively, of a modified form of after hook in which the shank or lever of the hook is inclined downwardly.

In the arrangement shown in Figs. 1 to 13 the after lever-hook *e* is pivoted between two cheeks *f* and a shackle *g* is fitted on the pivot-pin and is connected to the chain-sling h^2, fixed to the keel. The said pivot-pin is provided with an eye *g'* at each end, and to these eyes are attached the steadying-lines connecting the apparatus with the gunwales of the boat. The other end of the cheeks *f* is also provided with a shackle *h*, connected by a chain *h'* to the stern-post. The cheeks *f* are sufficiently cut away near the handle *e'* of the lever-hook

e to leave sufficient room for operations by hand. The retaining-catch *i* for the lever-handle is fixed between the cheeks and forms also a distance-piece. The lever-handle *e'* is arranged to spring to enable the handle to pass the catch. The after lever-hook is locked against accidental disengagement of the boat by a forked pin *l*, that when in position fills up the space between the retaining-catch and the cheek or plate. The fore hook *s* is provided near its hook end with a shackle *m*, connected by a chain *m'* to the keel, and the fore end or shank *s'* of the hook is connected by a shackle *n* and chain *n'* to the stem.

In a modification of the after hook shown in Figs. 14 and 15 the hook *e* is pivoted between two plates *f*, connected at their lower ends by a shackle *h* and chain to the keel. The upper ends of the plates are attached by a long shackle *g* (to allow the hook to pivot) and chain g^2 to the stern-post. The lever-hook can be fixed in position by means of a safety-pin passing through the two cheeks or by chain or wire rope, lanyard, and tackle *o*, attached to after thwart.

In certain cases the fore hook may be made to trip instead of the after hook.

This invention also relates to an improved lower davit-block ring. The upper portion of the ring is made in the form of a shackle, as shown in Fig. 13, to enable the same to be readily shackled onto the eye of the lower davit-block. In engaging the boat to the davit-tackle rings the fore lower davit-block ring *a* is partly rove through the span-ring *b* on the fore end of the span, after which the lower portion of the lower fore davit-block ring *a* is passed over the rigid hook *s* in the bow of the boat. The after lower davit-block ring *a* is then partly rove through the span-ring *b* on the after part of the span, after which the lower portion of the after lower davit-block ring *a* is placed over the after lever-hook *e*. The chain or wire span *d* is then made taut by pressing down the handle *e'* until the lever portion of the hook *e* springs under catch *i* or by hauling taut the lanyard or tackle *o*, that controls the after lever-hook *e e'*, after which the fall or lanyard is belayed to a cleat on the after seat. It will be observed on the boat being engaged the lugs *c* on the rings *a* prevent the span-rings *b* from slipping too far up the rings *a*, the span-rings *b* being prevented from slipping down the rings *a* by the angle the lower davit-block rings make to the horizontal plane of the boat.

In disengaging the boat the after lever-hook is disengaged from its retaining-catch by means of a side and vertical pull, or in Figs. 14 and 15 by letting go the tackle-fall or lanyard *o* when the after lever-hook takes up the position as shown in dotted lines, and it will be found that the stern of the boat will in all cases take the water first.

What I claim, and desire to secure by Letters Patent, is—

1. In a boat lowering and disconnecting gear, a fore hook, a shackle carried by the hooked end thereof and connected to a chain for securing the fore hook to the keel of a boat, a shackle *n'* carried by the shank of the hook, and connected to a chain for securing the fore hook to the stem of a boat, a pivoted after hook, a shackle carried thereby and connected to a chain for securing said after hook to the keel of a boat, a shackle *h* carried thereby and connected to a chain for securing said after hook to the stern-post of a boat, a pair of steadying-lines connected to each of the said hooks and to the gunwales of a boat, a wire span and means for removably connecting said span to each of said hooks, substantially as described.

2. In a boat lowering and disconnecting gear, a pair of cheeks, an after lever-hook, a pin extending through said cheeks for pivotally connecting said lever thereto and having each end thereof provided with an eye, a shackle connected to said pin, a retaining-catch for said lever arranged between said cheeks, a shackle *h* connected to said cheeks, a fore hook, and a wire span connecting the said hooks together.

3. In a boat lowering and disconnecting gear, a pair of cheeks, an after lever-hook, a pin extending through said cheeks for pivotally connecting said lever thereto and having each end thereof provided with an eye, a shackle connected to said pin, a shackle connected to said cheeks, a fore hook, a shackle carried thereby near the hook portion thereof, a shackle carried by the shank of said fore hook, and a span for connecting said hooks together.

4. In a boat lowering and disconnecting gear, a pair of cheeks, an after lever-hook, a pin extending through said cheeks for pivotally connecting said lever thereto and having each end thereof provided with an eye, a shackle connected to said pin, a shackle connected to said cheeks, a fore hook, a shackle carried thereby near the hook portion thereof, a shackle carried by the shank of said fore hook, a davit-ring connected to each of said hooks and provided with a pair of stop-lugs, a span-ring mounted upon each of said davit-rings, and a span connected to the said span-rings.

In testimony whereof I have affixed my signature in presence of two witnesses.

FRANK SAMUEL PETT.

Witnesses:

G. FIELDING,

FREDERIC STOCKWELL.