No. 640,027. Patented Dec. 26, 1899.

# G. S. A. RANKING.

## BOAT LOWERING AND DETACHING APPARATUS.

(Application filed July 3, 1899.)

(No Model.)

FIG. 1

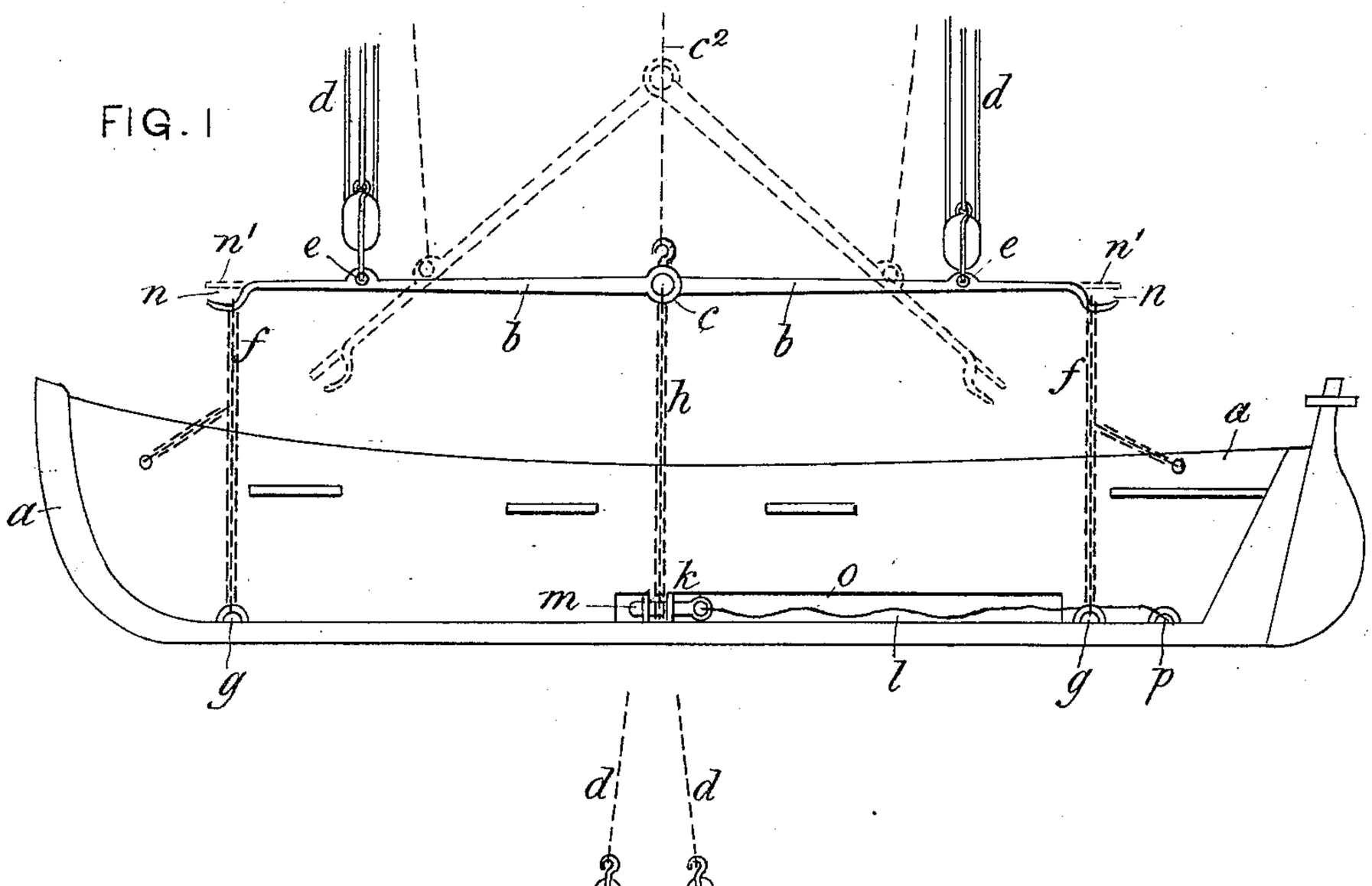



FIG. 2

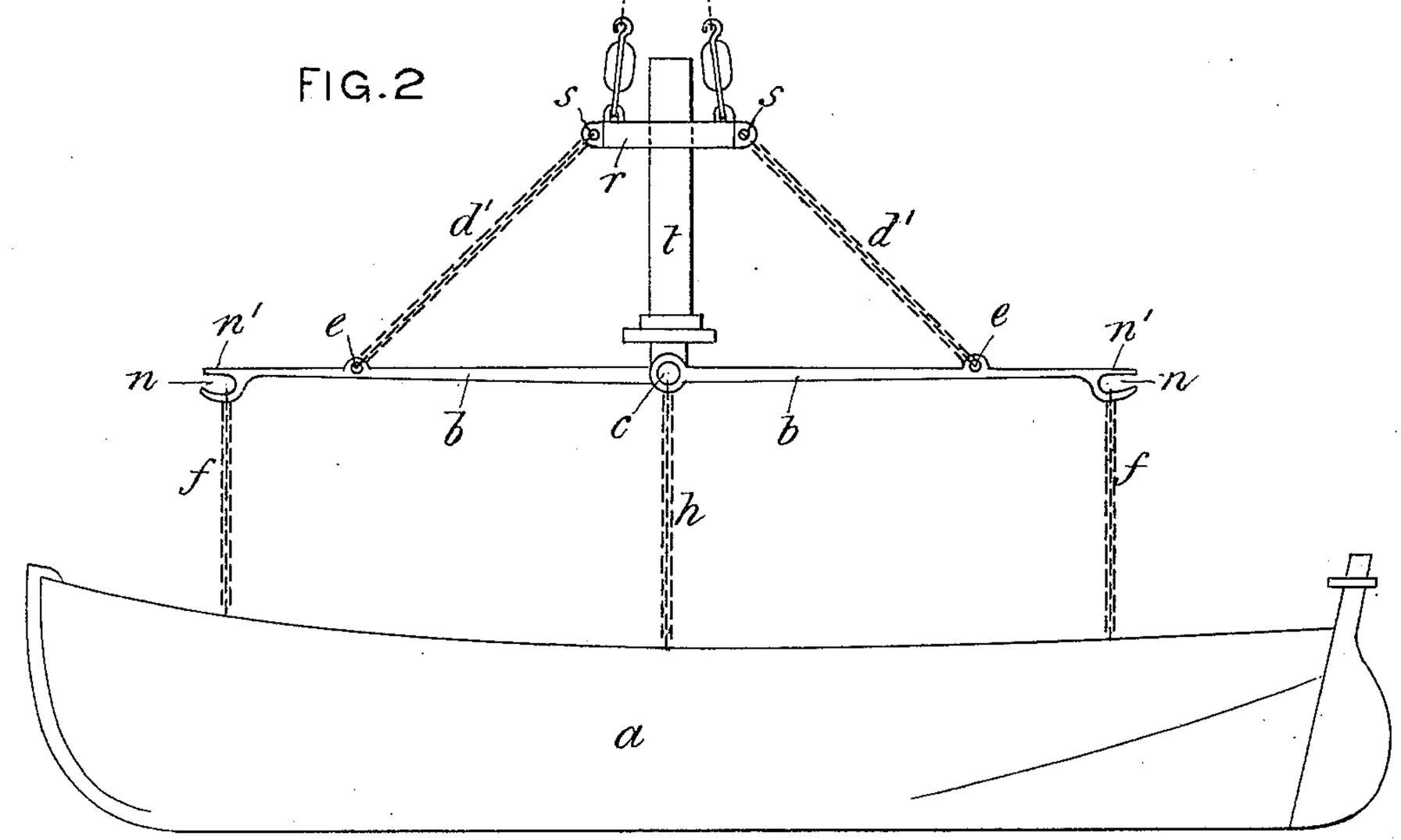
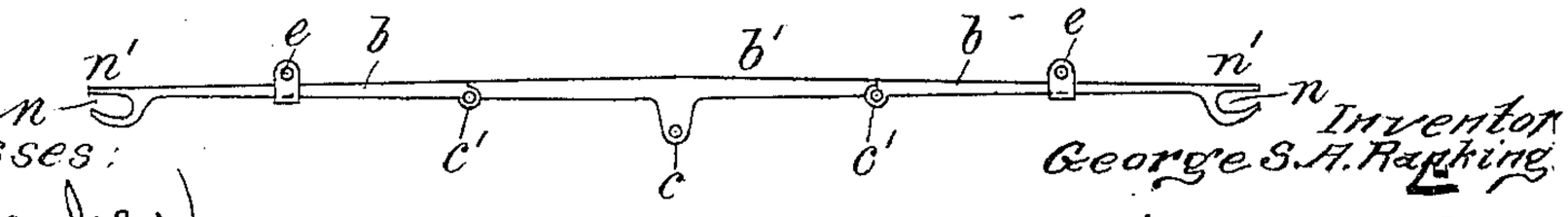



FIG. 3




Witnesses:
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# UNITED STATES PATENT OFFICE.

GEORGE SPEIRS ALEXANDER RANKING, OF CALCUTTA, INDIA.

## BOAT LOWERING AND DETACHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 640,027, dated December 26, 1899.

Application filed July 3, 1899. Serial No. 722,735. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE SPEIRS ALEXANDER RANKING, lieutenant-colonel Indian Medical Service, a subject of Her Majesty the Queen of Great Britain and Ireland, and a resident of No. 17 Elysium Row, Calcutta, India, have invented certain new and useful Improvements in or Relating to Boat Lowering and Disengaging Appliances, of which the following is a specification.

The object of my invention is to construct improved appliances in or relating to boat-lowering apparatus whereby boats may be safely lowered in a seaway, both ends of the boat being simultaneously released, thus insuring the safe descent of the boat into the water and obviating all danger of entanglement of the falls or of one end of the boat hitching up, which occurrences frequently cause loss of life when lowering boats at sea.

According to my invention I suspend the boat to the hoisting-gear by means of two horizontal levers pivoted together at their meeting ends or to the ends of a beam, the levers being attached to the falls. The boat is attached to the outer ends of these levers by two detachable chains, one at each end, and by a third chain fixed to the meeting ends of the levers or to the middle of the beam and detachably linked to the keelson of the boat. These three chains keep the levers in alinement when the boat is raised; but when the central chain is released from the boat the pivoted ends of the levers rise to an angle, and the ends of the levers are thereby simultaneously released from the end chains, the boat being then free of the lifting-gear.

In order that my said invention may be particularly described and ascertained, reference is hereby made to the accompanying drawings, in which similar letters of reference indicate corresponding parts.

Figure 1 is a sectional elevation showing a boat suspended according to my invention, and Fig. 2 is an elevation showing a modification of the same. Fig. 3 is an elevation of a modification of the levers.

*a* is the boat.

*b b* are the two horizontal levers pivoted together at *c*.

*d d* are the ordinary falls, linked to the levers *b b* at *e e*.

*f f* are chains made fast to the keelson at *g g* and detachably linked to the levers *b b* at *n n*.

*h* is a chain made fast to the pivoted portions of the levers at *c* and detachably linked to the keelson of the boat at *k*.

*l* is a lanyard consisting of a rope or chain, one end of which is attached to a bolt or trigger *m* or other releasing device and the other end to the keelson at *p*. *o* is a cover to protect the lanyard. The releasing device may be operated by a lever and suitable connections.

Referring to Fig. 3, the horizontal levers are shown formed in three parts. *b b* are the two levers, which are united to the central beam *b'* by means of knuckle or rule joints at *c' c'*. *e e* are the eyes to which the lifts are attached.

When the boat is lowered to the water, the man in charge pulls the lanyard *l*, and thereby withdraws the bolt *m*. This releases the chain *h*. The levers *b b* then become diagonal to each other, whereby the hooked ends *n n* are withdrawn from the rings of the chains *f f*, as shown by dotted lines in Fig. 1. The boat is then quite clear of all the lifting-gear.

$c^2$ is a chain or rope for preventing the levers when diagonal turning over and for facilitating the operation of connecting the levers to the boats.

Referring to Fig. 2, *r* is a collar to which the falls *d d* are linked or hooked. *d' d'* are chains made fast to the collar *r* at *s s* and to the levers *b b* at *e e*. *t* is a ram or weight pivotally attached to the levers *b b* at *c* and guided at its upper end by passing through the collar *r*. By means of this ram or weight *t* (in addition to the chain *h*) the levers *b b* are kept in a horizontal position or at a suitable angle of not less than ninety degrees with the axis of the ram, thereby increasing the security of the tackle when the boat is raised.

Other well-known or ordinary tackle for securing the boat to the davits when raised may be used in addition to that herein described.

The ends *n* of the levers *b* are sometimes provided with an extension *n'* to prevent ac-

cidental disengagement should one end of the boat be temporarily borne by a wave. Also the eyes *e e* are sometimes made capable of being adjusted along the levers *b b*, so as to adjust the leverage as found desirable.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a boat lowering and disengaging apparatus, a support comprising pivoted lever-arms, hoisting apparatus connected to each of said lever-arms, means for detachably connecting the outer ends of said lever-arms to the boat, a connection extending from the center of said support and detachably secured to the boat, and means for releasing said connection from engagement with the boat, substantially as described.

2. In a boat lowering and disengaging apparatus, a pair of lever-arms pivotally united at their inner ends, means for detachably connecting the outer ends of said lever-arms to the boat, hoisting apparatus connected to each of said lever-arms, a connection extending from the joint of said lever-arms and detachably secured to the boat, and means for releasing said connection from engagement with the boat, substantially as described.

3. In a boat lowering and disengaging apparatus, a pair of lever-arms pivotally united at their inner ends, hoisting apparatus connected to each of said lever-arms, chains connected, respectively, to each end of the boat and having free ends provided with rings which are adapted to be inserted on the outer ends of the lever-arms, a chain connected at one end to the joint of said lever-arms and at its opposite end being detachably connected to the boat, and means for releasing said last-named chain from engagement with the boat, substantially as described.

4. In a boat lowering and disengaging apparatus, a pair of lever-arms pivotally united at their inner ends, hoisting apparatus, a collar carried thereby, chains connected at one end to opposite sides of said collar and at their other end to the lever-arms, a weight movable vertically in said collar and connected at its lower end to the joint of said lever-arms, chains connected to opposite ends of the boat and having their outer ends detachably connected to the outer ends of said lever-arms, a chain connected at one end to the joint of the lever-arms and at its opposite end to the boat, and means for releasing said last-named chain from engagement with the boat, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

GEORGE SPEIRS ALEXANDER RANKING.

Witnesses:
MAURICE REMFRY,
DOUGLAS HENRY REMFRY.