

May 5, 1925.

1,536,701

J. F. BUCKINGHAM ET AL

DEVICE FOR MOORING SHIPS AND THE LIKE

Filed Sept. 22, 1924

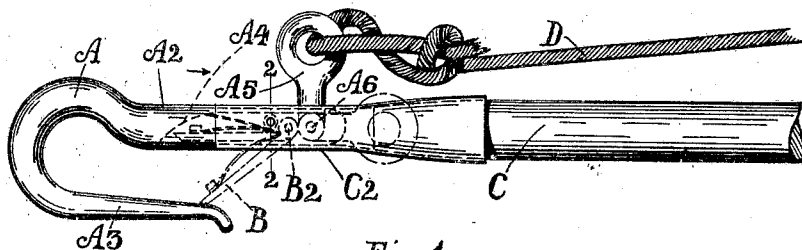


Fig. 1.

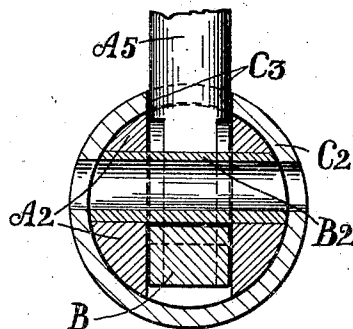


Fig. 2.

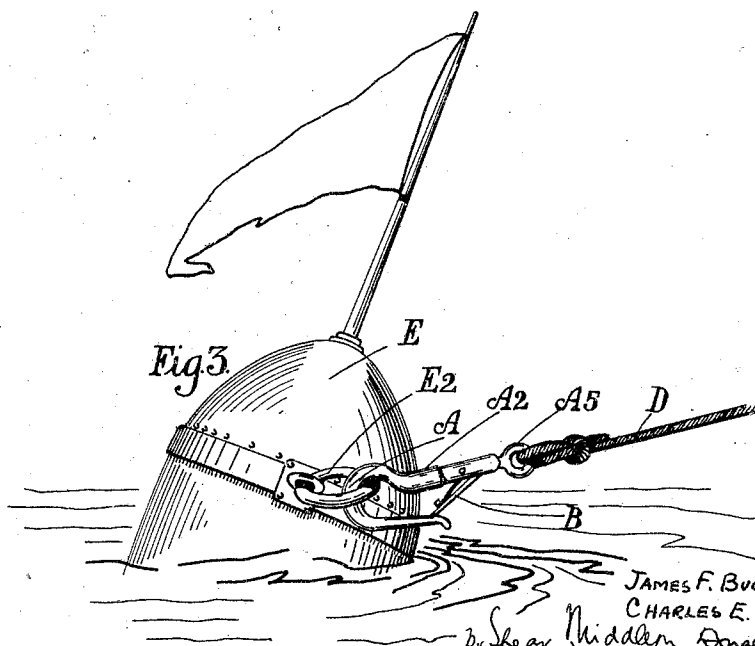


Fig. 3.

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DEVICE FOR MOORING SHIPS AND THE LIKE.

Application filed September 22, 1924. Serial No. 739,215.

To all whom it may concern:

Be it known that we, JAMES FRANK BUCKINGHAM and CHARLES EDWARD BOWDEN, subjects of the King of England, residing at Leamington Spa, Warwickshire, England, have invented certain new and useful Improvements in a Device for Mooring Ships and the like, of which the following is a specification.

This invention relates to a new or improved device for mooring ships and the like, and it has for its object to provide a simple and easily operated appliance for effectively engaging a mooring rope with a buoy or other anchoring device, whereby the common difficulties arising through strong currents, rough water, or other causes, are avoided, and the operations can readily be effected single handed.

According to this invention, the mooring device comprises a hook attached to the mooring rope and loosely mounted upon a pole to enable it to be engaged with a mooring ring or the like, and so arranged that the hook can be left on the mooring ring and the pole removed.

The pole preferably has a telescopic sliding engagement with the hook, and the latter is provided with a closure element which may be held open by the engagement of the hook with the pole and is automatically closed when the pole is withdrawn.

The invention is illustrated in the accompanying drawings, in which

Figure 1 is a side elevation of the hook mounted upon the pole ready for use,

Figure 2 is a cross section on the line 2.2. of Figure 1, looking in the direction of the arrow, a larger scale being employed for clearness, and

Figure 3 shows the hook attached to a ring on a mooring buoy with the pole disengaged.

The hook A consists of a stamping or casting of U-shape and having one of its limbs A² longer than the other A³. On the longer limb is mounted a pivoted member such as a latch B adapted, in turning about its pivot B² automatically to close the hook.

Alternatively the closure element may be a leaf spring secured at one of its ends to the longer limb A² of the hook adapted in one position to bear resiliently against the shorter limb A³ of the hook to close the latter, and in another position to be flexed so

as to lie in a recess A⁴ along the side of the longer limb of the hook to open it. In either arrangement any tendency of the hook to become disengaged makes the closure more secure.

The pole may be of tubular form, or it may be a wooden pole C with a tubular socket C² at its end. This socket is so arranged that when the longer limb A² of the hook is pushed into it, the spring or other closure enters the socket and is thrust against the longer limb of the hook so as to open the latter. When the pole is withdrawn the spring immediately closes the hook.

The mooring rope D is attached to the hook A by means of a suitable eye A⁵ secured thereto by pivoting at A⁶. This eye swings round to the side of the hook when the socket C² is engaged, and to permit of such engagement a longitudinal slot C³ extends from the open end of the socket for a sufficient length to receive it. As will be seen by an inspection of Figure 3, the disengagement of the socket allows the eye to take up a position in line with the pull of the rope D upon the hook.

The operation of mooring is effected in the following manner:—

The user has the hook A mounted upon the pole in the manner just described so that the hook is open, and using the pole C to guide the hook, engages it with the ring E² or equivalent on the mooring buoy E, and then promptly withdraws the pole, leaving the hook on the buoy while the closure device B operates to close the hook and the mooring operation is completed.

By a converse process the hook can be disengaged by means of the pole which is then manipulated so as to engage the longer limb of the hook, and is thrust endwise so that it acts upon and slides over the spring closure and opens the latter, when by suitable manipulation of the pole, the hook can be at once disengaged from the mooring ring.

If preferred, the longer limb of the hook could be made hollow and the mooring rope could extend through the interior and be secured by knotting its end.

The pole which preferably is made of wood could be provided at its ends with a double clamp made of two parts drawn together by bolts instead of the socket C².

One part of this clamp would grip tightly the pole while the other part, arranged side by side with it, would receive with sufficient friction the long limb of the hook with the latter's closure element. By pulling upon the pole after the hook is engaged the latter would be drawn clear of the clamp, and to un-moor a converse movement would re-enter the limb of the hook in the clamp.

10 When the pole is made hollow for the mooring rope to extend through it, a clamping device such as a cam may be provided in the side of the hollow portion to grip the rope and hold it until the user is ready to release it within the pole.

The hook can be made of such size or form that it is not much larger than an ordinary boat hook, and can be arranged for attachment to the end of an oar or scull for use with comparatively small boats.

By the foregoing it will be seen that a vessel or boat can readily be moored single handed to a floating buoy or other anchoring or mooring device in spite of adverse conditions, and can also be un-moored as easily.

The hook may be formed of any desired section material, for instance round or H-section.

30 What we claim as our invention and desire to secure by Letters Patent in the United States is:—

1. In a mooring device for ships and the like, the combination of a mooring rope, a hook attached thereto, a closure device for said hook, and a pole upon which said hook is loosely mounted adapted to control said closure device to hold it open when the pole and the hook are engaged and to allow its closure when said pole is withdrawn, substantially as set forth.

2. In a mooring device for ships and the

like, the combination of a mooring rope, a hook of U shape having limbs of unequal length attached to said mooring rope, a latch pivoted to the longer limb of said hook and a spring acting upon said latch to thrust it against the shorter limb of said hook to close the latter, a pole, and a socket at the end of said pole adapted slidably to engage the longer limb of said hook and when so engaged to open the latch against the action of its spring, substantially as set forth.

3. In a mooring device for ships and the like, the combination of a mooring rope, a U shaped hook attached thereto, a spring pressed closure device mounted upon said hook, a socket adapted to slide upon the limb of said hook, thereby to hold said closure device open against the action of its spring, and engagement means for securing said socket to a spar, substantially as set forth.

4. In a mooring device for ships and the like, the combination of a U shaped hook having one limb longer than the other, an eye pivotally connected with the longer limb of said hook, a mooring rope attached to said eye, a spring closure device upon said hook, a pole, a socket at the end of said pole adapted to slide freely over the longer limb of said hook thereby to support the hook and to hold open said closure device, and a slot along said socket adapted to provide for the passage along it of said pivoted eye, substantially as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JAMES FRANK BUCKINGHAM.
CHARLES EDWARD BOWDEN.

Witnesses:

CECIL E. BOWDEN,
WALTER G. INGRAM.