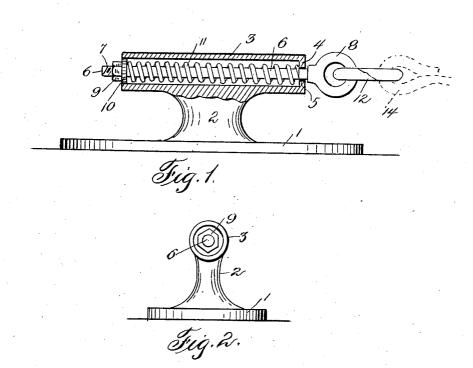
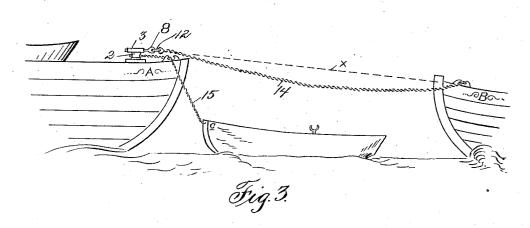
F. A. BIERIE,
YIELDING BOAT CLEAT.
APPLICATION FILED FEB. 25, 1907.





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Witnesses Om Havel. Walter I Kaymond Frederick A. Biesil Walter In Calmore

attorney

UNITED STATES PATENT OFFICE.

FREDERICK A. BIERIE, OF PHILADELPHIA, PENNSYLVANIA.

YIELDING BOAT-CLEAT.

₩o. 869,130.

Specification of Letters Patent.

Patented Oct. 22, 1907.

Application filed February 25, 1907. Serial No. 359,292.

To all whom it may concern:

Be it known that I, FREDERICK A. BIERIE, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have 5 invented certain new and useful Improvements in Yielding Boat-Cleats, of which the following is a specification.

This invention relates to certain new and useful improvements in yielding cleats, of which the following is 10 a full, clear and exact description.

This invention has particular reference to cleats for use on small boats.

A further object of this invention is to provide a T-headed cleat capable of all of the uses to which a 15 cleat of this type may be put and provided with a yielding element especially adapted for towing purposes. While this cleat is primarily designed for towing purposes, it is serviceable in other capacities, as for example, a tension reliever for a sheet line.

Reference will be had to the drawing forming a part of this specification and wherein like numerals of reference designate corresponding parts throughout the several views, in which:

Figure 1, is a side elevation, partly in section, of the 25 invention, showing a rope in dotted lines attached thereto, Fig. 2, is an end view thereof, and Fig. 3 is a perspective view showing one application of the invention in connection with a number of boats.

Reference numeral 1 designates the base, which may 30 be secured in the ordinary manner to the desired object, as the deck of a boat.

Reference numeral 2 designates the usual post extending from said base and provided at its upper end with a horizontal elongated tubular member 3 forming 35 the T-head of the cleat. Thus far the device resembles the ordinary \mathbf{T} -headed cleat and may be put to all uses to which a cleat of this type is adapted. This tubular head member 3 is open at one end and closed at its other end by portion 4, the latter being proyided with a cen-40 tral opening 5 through which extends a stem 6 extending entirely through the head 3 and having one of its projecting ends screw threaded as at 7 and its other projecting end provided with an eye head 8. Threaded on the end 7 of the eye-bolt or stem 6 is an ordinary nut 9, 45 by means of which the tension of the spring may be varied or loose play taken up. On the same end of the stem 6 is mounted a washer 10 which resides within the head 3 and is capable of a sliding movement therein, at the same time retaining the parts in their proper posi-50 tion.

Encircling the stem 6, is a coil spring 11, one end of which bears against the washer 10 and the other end bears against the end portion 4 of the cleat head. If desired, a ring 12 may be attached to the eye 8 of the stem 55 and this may be a split or solid ring to permit attachment of a rope 14 to the stem.

Referring to Fig. 3, A represents the stern of a pleasure launch and B the bow of another launch and C a small tender in tow. To the stern of the leading launch A is secured a cleat involving this invention.

The launch B is in tow of the launch A by tow line 14, and the tender C is also in tow of the launch A by painter 15. With the ordinary deck cleat, the painter 15 would be wrapped around the head of the cleat and in event it was desired to take another boat in tow, the 65 tow line of the latter would have to be wrapped over the painter of the tender affording little or no hold, and in starting or in a heavy sea, should the cleat of launch A be torn from the deck, as is very often the case owing to the insecure means presented in small pleasure 70 launches for anchoring a cleat in position, both boats previously in tow would be at liberty to drift with the tide or carried by the winds. Should the boats B and C be blown onto the flats or into shallow water, it would be impossible for occupants of launch A to reach them 75 without the use of their tender C. This is a very common occurrence with small launches and a very annoving and sometimes dangerous one.

Equipped with the cleat provided by this invention, such an occurrence is impossible. Owing to the yield- 80 ing nature of the cleat it is practically impossible for the same to be torn from the deck by the sudden lurch in starting or that caused by the surge. With this cleat in place, the painter of tender C would either be wrapped around the head 3 as is the usual custom, or 85 secured around the post 2 of the cleat. The tow line 14 of the launch B would be secured to the ring 12 of the yielding stem 6 in the head of the cleat. The sudden tension on line 14 caused by starting of launch A or by a heavy sea would bring line 14 to the position indicated 90 by dotted line X in Fig. 3. In the case of the ordinary solid cleat, the cleat would be torn from the deck, but with this improved cleat, the stem 6 would be drawn rearwardly and the tension taken up by the spring 11 and should the tow line 14 or any part of the yielding 95 mechanism of the cleat part, there would be no danger of tender C going adrift. When no launch is in tow as B, the tender would be attached to the ring 12 of the

stem 6 thus relieving any strain in the towing thereof. Such a cleat is adapted to other and many uses about 100a ship. The anchor line could be attached to the yielding stem, or the mooring line so attached. In sail boats it is capable of many uses where one cleat is to serve both as a cleat and a tension reliever.

Having fully described the invention, what is 105, claimed as new and useful and desired to be secured by Letters Patent is:

1. A boat cleat comprising a base, post and T-head, and yielding means arranged in the head provided with rope attaching means.

2. A T-headed boat cleat, a stem slidable in said head, a spring cushioning said stem, and means for attaching a rope to said stem.

3. In combination with a cleat comprising an integral base, post and T-head, of a stem slidably arranged in said head, a cushion device therefor arranged in said head, and means on one end of the stem for adjusting said cushion 5 device, and means on the other end for attaching a rope to said stem.

4. In combination with a cleat comprising an integral base, post and T-head, of a stem slidably arranged in said head, a spring arranged on said stem and at one end

engaging the end of said T-head, adjusting means on said 10 stem engaged by the other end of said spring, and means for attaching a rope to said stem.

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

FREDERICK A. BIERIE.

Witnesses:

WILSON STEARLY, ROBERT H. ASHMEAD.