June 5, 1951 G. D. MILLER 2,555,805

COLLAPSIBLE CLEAT

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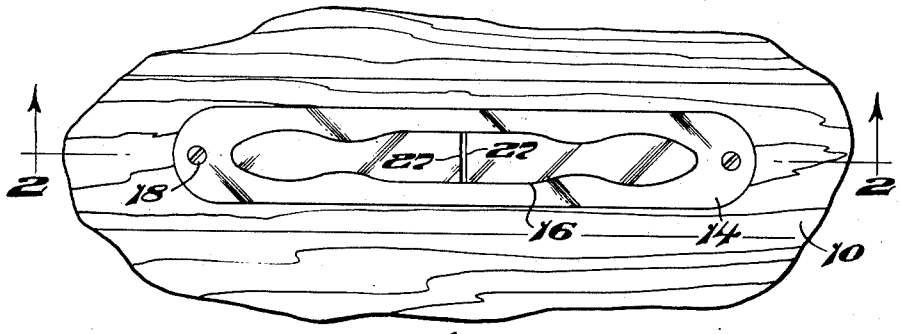


Fig. 1.

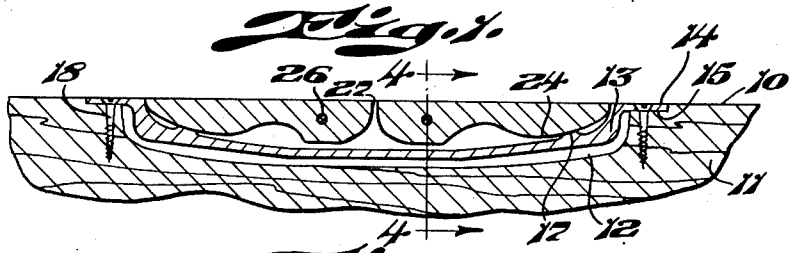


Fig. 2.

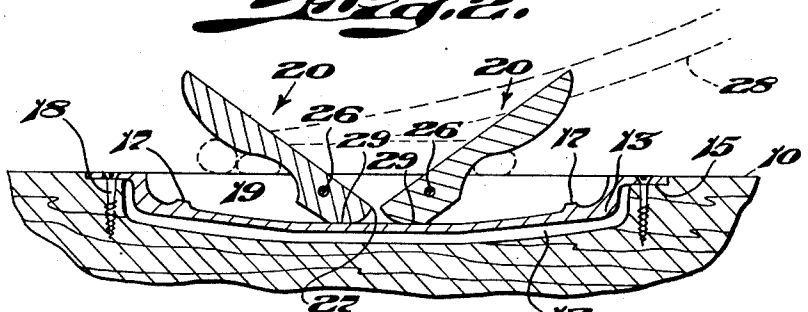


Fig. 3.

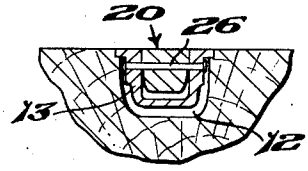


Fig. 4.

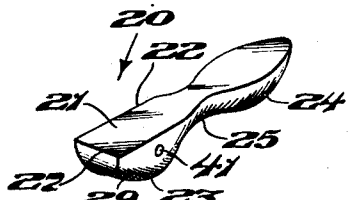


Fig. 5.

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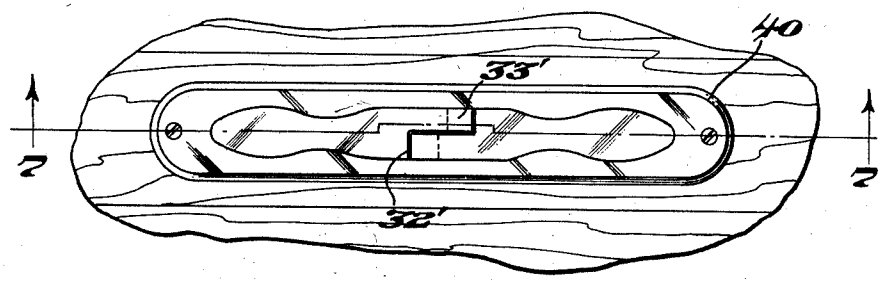


Fig. 6.

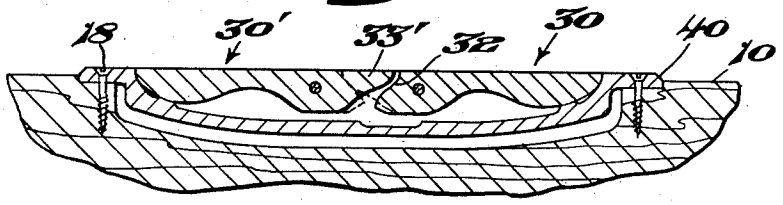


Fig. 7.

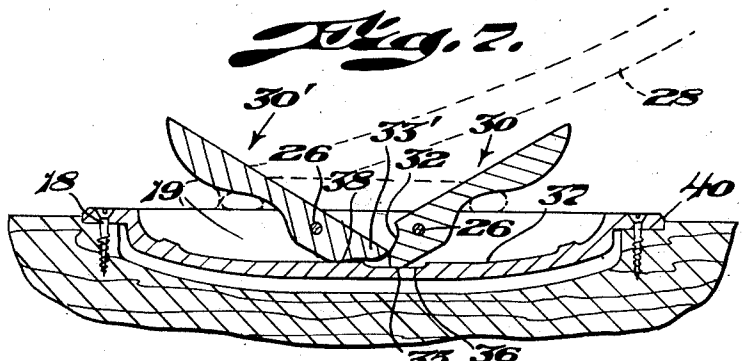


Fig. 8.

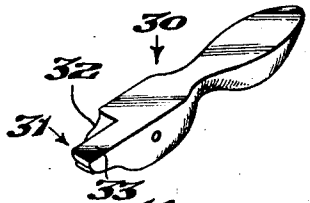


Fig. 9.

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Patented June 5, 1951 2,555,805

UNITED STATES PATENT OFFICE

2,555,805

COLLAPSIBLE CLEAT

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Application March 4, 1950, Serial No. 147,700

5 Claims. (Cl. 114—218)

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This invention relates to a cleat for belaying rope and is designed particularly for use on the deck of a vessel.

Cleats usually are mounted on the deck of a vessel with its belaying end spaced from the deck so that the rope may be passed about it. The cleat in such a mounting stands up from the deck and makes walking on the deck somewhat hazardous, especially at night, and also articles of clothing, sails or other gear used on the vessel may catch on such a cleat.

One of the objects of this invention is to provide a cleat which when not in use may disappear into the surface of the desk and lie substantially flush therewith.

Another object of this invention is the provision of a cleat which may be easily raised from the deck for use when desired.

Another object of this invention is the provision of a pair of belaying members, one of which when raised will cause the other one to be raised for use in belaying rope about them.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings:

Figure 1 is a top plan view of the cleat when not in use;

Figure 2 is a sectional view on line 2—2 of Figure 1;

Figure 3 is a sectional view showing the belaying members raised and a rope in dotted lines about them;

Figure 4 is a sectional view on line 4—4 of Figure 2;

Figure 5 is a perspective view of one of the belaying members of the cleat;

Figure 6 is a top plan view of a modified form of construction;

Figure 7 is a sectional view on line 7—7 of Figure 6;

Figure 8 is a sectional view showing the belaying members in raised position and a rope in dotted lines about them; and

Figure 9 is a perspective view of one of the belaying members of the modified form.

In proceeding with this invention I provide a recess in the flat surface in which I desire to mount a cleat and pivot two belaying members in this recess in tandem relation with the pivot points of the members near the adjacent ends of the members so that when the adjacent ends of the members are depressed, the distant ends of the members are raised into a position about

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which a rope may be wound for belaying purposes. In order that the belaying members may be raised only to a certain position, their inner ends engage the bottom of the recess to form a stop for their pivotal movement. In order that the entire cleat may be a single unit, a base which may fit into the recess in which base the members are pivoted is utilized for providing a unit assembly of the entire cleat structure.

With reference to the drawings, 10 designates a deck which may be of wood shown in section at 11 as having substantial thickness. A recess 12 is formed in the surface 10 of a sufficient depth to receive a shallow trough-like base 13 which if flanged as at 14 at its upper edge to set into a shallow mortise 15 in the deck 10 to receive it. This shallow trough-like base is shaped at its upper edge 16 substantially in the shape of the belaying member which is to fit therein. The wall of this shallow base is usually formed as a casting with certain thickened portions as at 17 to form stops, as will be later pointed out. Screws 18 are utilized through the flanges 14 for holding the base into the recess 12 and mortise 15 in the deck 10. The hollow trough of the base also forms a recess 19 for the belaying members.

The pair of belaying members designated generally 20, and shown in perspective in Figure 5, are shaped as shown in Figure 5 having a flat upper surface 21 with a periphery 22 which will be substantially the shape of the upper edge of the hollow recess 19 of the base to close this recess when in the position shown in Figures 1 and 2 and will be thickened at its ends as at 23 and 24 with a narrow portion 25 between. A pivot pin 26 will extend through an opening 41 in each member 20 laterally of the length thereof so as to pivotally mount the member 20 in the side walls of the trough like base. These members 20 are pivoted in tandem relation with their inner square ends 27 in adjacency when lying flush with the deck 10 and flange 17, as is shown in Figures 1 and 2 with the trough entirely closed. When in this position, the portion 24 of each of the members engages the projection 17 extending upwardly from the inner surface of the bottom of the trough or recess so as to support the members in this flush position. However, when it is desired to use the members, it is merely necessary to simultaneously press upon the inner ends 27 of the members, to move them to the position shown in Figure 3 and then belay rope 28, shown in dotted lines in Figure 3, about them. When the rope is removed the weight of

the members at their distant ends is such that they will drop back into the position shown in Figures 1 and 2 and lie flush with the deck. When the members **20** are raised, the under portion **29** of each of these members will contact the bottom wall of the recess in which they are mounted, as clearly shown in Figure 2, so as to form a stop and limit the upward swinging movement of the members.

In some cases, however, as shown in Figures 6 to 9, the belaying member designated **30** (see Fig. 9) will have its inner end **31** provided on one side with a recess **32** and on the other side a projection **33**. The companion member **30'** will likewise be provided with a recess **32'** and a projection **33'** so that the projections **33'** will extend into the recess **32**, as shown in Figure 8, while the projection **33** will extend into the recess **32'**. By this arrangement when the inner end of one of the members **30** or **30'** is depressed, the projection bearing in the recess of the opposite member will cause the opposite member to also be depressed such as shown in Figure 7. When the outer ends of these members **30** and **30'** are raised, the member **30** will have the under surface **35** of its inner portion engage in a notch **36** in the bottom surface **37** of the hollow or recess **19** of the base, while the portion **38** of the opposite member **30'** will engage the inner surface of the bottom of the base to limit its upward movement. The point of pivoting relative to the base and the inner surface of the base will be such that the proper angle of swinging movement of each of the members will be had for the proper positioning of the members for belaying a rope, as may be desired.

In some cases, as shown in Figures 6 to 8, the base may be slightly projected above the deck **10** and in this case the edges of the base at **40** will be beveled so as to more readily permit any part which comes in contact therewith to slide over this portion of the base.

I claim:

1. In combination a deck presenting an area having a flat surface with a recess therein, a pair of elongated belaying members located in said recess in tandem relation and in a retracted position lying substantially flush with said flat surface, a pivot pin extending laterally of each member near the end thereof which is adjacent the other member whereby the members may be swung on their pivots so that the distant ends of the members may be raised above said flat surface in working position for belaying purposes and held by the work in raised position and so as to drop back into the recess by gravity when the work is removed.

2. The combination of claim 1 wherein the adjacent ends of said members contact the bottom of said recess to limit the upward swinging movement of the distant ends of said members.

3. The combination of claim 1 wherein the adjacent ends of said members interlock so that when one member swings about its pivot the other one will also swing about its pivot.

4. The combination of claim 1 wherein the distant ends of said members contact the bottom of said recess to limit the downward swinging movement of the distant ends of said members.

5. The combination of claim 1 wherein a base is set into said recess and said pivot pins are mounted in said base.

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