May 21, 1963 N. RONSHEIM 3,090,343

CLEAT

Filed Jan. 6, 1960

Fig-1

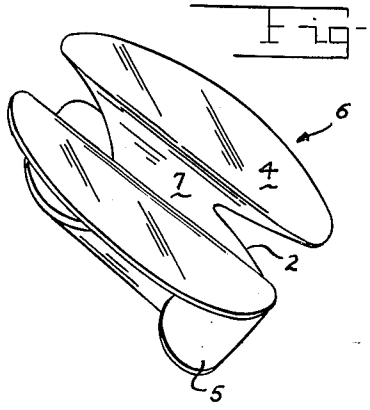


Fig-2

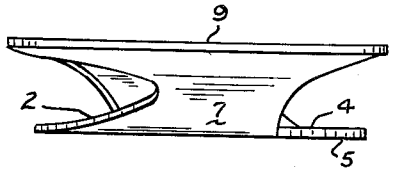


Fig-3

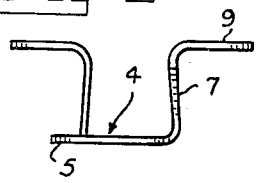


Fig-4

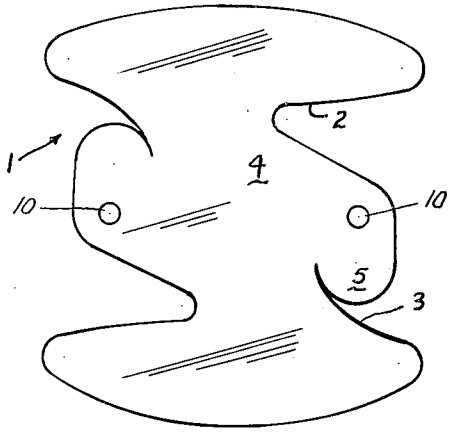


Fig-5

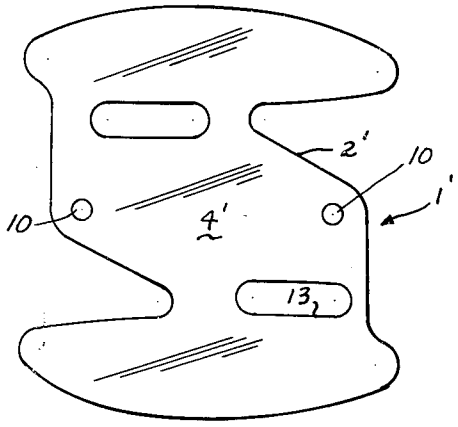


Fig-6

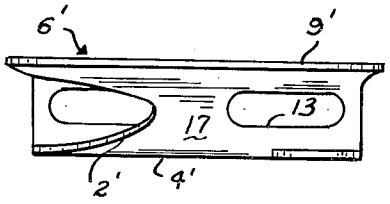
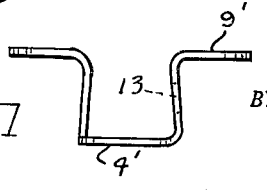


Fig-7



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3,090,343

CLEAT

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This invention relates to improved cleats particularly applicable for marine use. It provides a novelty fabricated cleat which can be simply and effectively employed even by the most unskilled individuals.

The object of the invention is to simplify the construction as well as the means and mode of operation of cleats whereby such cleats may not only be economically manufactured, but will be more efficient and satisfactory in use, adaptable to a wide variety of applications, and be unlikely to get out of order.

A further object of the invention is to provide a cleat affording a simple positive anchor for a rope or cable.

Another object of the invention is to provide an improved cleat which can be formed in a single stamping operation.

An additional object of the invention is to provide an improved cleat so shaped to automatically anchor a line without an involved knotting or tie down procedure.

A further object of the invention is to provide an improved cleat so formed to anchor a rope without a suggestion of a knot being required.

Another object of the invention is to provide an improved cleat which can be effectively employed to provide a quick positive hitch capable of quick release.

A further object of the invention is to provide a cleat possessing the advantageous structural features, the inherent meritorious characteristics and the mode of operation herein mentioned.

With the above and other incidental objects in view as will more fully appear in the specification, the invention intended to be protected by Letters Patent consists of the features of construction, the parts and combinations thereof, and the mode of operation as hereinafter described or illustrated in the accompanying drawings, or their equivalents.

Referring to the accompanying drawings wherein is shown one but obviously not necessarily the only form of embodiment of the invention,

FIG. 1 is a perspective view of a cleat in accordance with the invention;

FIG. 2 is a side view of the cleat of FIG. 1;

FIG. 3 is an end view of the cleat of FIG. 1;

FIG. 4 shows the pattern from which the cleat of FIG. 1 is formed;

FIG. 5 is a modified form of the pattern shown in FIG. 4;

FIG. 6 is a side elevation of a modified form of the cleat of FIG. 1 which results from the pattern of FIG. 5; and

FIG. 7 is an end view of the cleat of FIG. 6.

Like parts are indicated by similar characters of reference throughout the several views.

The invention can be best described with reference to the drawings. The embodiments of FIGS. 1–3 is formed from the pattern shown in FIG. 4. The pattern provides for a plate 1, the ends of which are smoothly arcuate. One side of the plate has a wedge shaped notch 2 adjacent one end. The notch 2 is inwardly convergent and extends directly across about one third the width of the plate. The other side of plate 1 has an identical notch 2 adjacent its other end. The respective sides of the plate each have an additional notch 3 adjacent and equally spaced from their ends remote from their notches 2 and opposite a notch 2 in the other side of the plate. The notches 3 are provided by arcuate cuts generally directed

towards each other in a diagonal sense. The inner extremities of notches 3 terminate at points equally spaced from the plate ends and to either side of central rectangular section 4 transversely of the plate 1. The notches 3 also define semi-circular ears 5 integral with the section 4 to opposite sides and opposite ends thereof.

The plate 1 can be cut and formed in a single stamping operation to provide the cleat 6 shown in FIGS. 1–3 of the drawings. The cleat 6 includes the central transverse plate section 4 and the oppositely projected ears 5 as its base. The sides of the cleat base are determined by the inner extremities of the arcuate cuts defining the ears 5. The waist portions 7 of the cleat are bent vertically upwards from the base section 4 in generally parallel relation to form a channel and include the plate portions defining wedge shaped notches 2. The notches 2 are thereby disposed to opposite ends of the cleats in the respective waist portions. The end portions of plate 1 outwardly of its notched portions are bent generally at right angles to the waist portions 7 and directed oppositely and outwardly from the lateral extremities of the waist and base portions of the cleat. The end portions of the plate 1 thus define spaced head elements 9 which are generally parallel to the base section 4 defined therebetween. A pair of spaced apertures 10 respectively to either end of base section 4 provides means for securing the cleat to suitable support structure in an obvious manner.

The cleat 6 can be used simply and effectively. The provision for the base section 4 to be defined between the waist portions 7 enables the cleat to serve a single or dual purpose. It also leaves maximum space for paassage of a rope or cable under projected head elements 9. The wedge shaped notches 2 afford means for simple effective wedge of a line therein as it is passed around the waist portions. If a single waist portion is used, a line having a single knot may be simply wedged in the notch 2 and provide a positive anchor without any involved tie down procedure. Using both waist portions a rope may be simply and effectively anchored by passing one end about one waist portion, wedging it in a notch 2 thereof, and crossing it between the waist portions to further wedge it in the notch 2 in the other waist portion. In this manner a rope can be anchored irrespective of knots.

A preferred manner of anchoring a line to the cleat 6 would be to fold the end of a line on itself, lay it between the waist portions 7 to base section 4, with the loop formed thereby projected beyond the cleat, and then bring the loop back over and about the head elements 9 to the outside of the waist portions 7. A simple pull on the line jams the line in both wedge shaped notches 2 in the waist portions of the cleat. A sound anchoring of the line is simply effected. There is no danger of inadvertent release in use.

It is to be noted that the configuration and disposition of the head elements 9 and the base section 4 enable stress or strain thereon to be equally distributed throughout the cleat for maximum security. The cleat is thus highly resistant to any lever action which would tear a conventional cleat from its support. The diagonal disposition of ears 5 play a significant part in the stability of the cleat in certain applications.

It should now be obvious that a line can be simply applied and anchored to the cleat 6 and just as simply released, though not inadvertently. The use of the cleat does not require technical knowledge or manual dexterity. Any novice can anchore a line to the cleat with maximum security due to its channel form and inherent wedging features which are readily available and apparent.

FIG. 5 shows a modified pattern for a cleat in accordance with the invention. The plate 1' shown is provided with arcuate ends and notches 2' as in the example first described. Here, however, the notches 3 are eliminated

leaving solid plate portions within which elongated apertures 13 are provided respectively in line with and adjacent the notches 2'.

The cleat 6' provided by stamping and forming plate 1' includes a generally rectangular base section 4' devoid of ears. The waist portions 17 thereof are similar to the waist portions 7 but include apertures 13 adjacent the wedge shaped notches 2'. The head elements 9' on cleat 6' are identical with head elements 9 and similarly positioned with respect to base section and waist portions integral therewith.

The apertures 13 may be desirable for special hitching applications where a line would be threaded through the cleat waist and also wedged in notches 2'. An extremely secure hitch can be provided thereby in any number of ways readily obvious to those versed in the art.

It should be apparent that using a double headed channelled cleat as illustrated, a line may be simply hitched by providing it with a single or series of simple knots and laying it to the cleat base between the waist portions. The knot or knots catch under the overhanging portions of the head elements and in the recesses defined by the waist portions. The line won't pull loose but can be quickly released with a simple slip and jerk action in an obvious manner. The wedge shaped cuts in the waist portions of the invention cleat will always jam a line and will resist slipping with any type hitch.

The simplicity of the invention cleat and the structural improvements therein are readily apparent. Its single operation fabrication provides the ultimate in manufacturing economy and efficiency.

It should be recognized that these cleats can be used in a great number of ways. Only the simpliest of illustrations are provided to point out its obvious advantages which enable its efficient use by persons unskilled in the art.

From the above description it will be apparent that there is thus provided a device of the character described possessing the particular features of advantage before enumerated as desirable, but which obviously is susceptible of modification in its form, proportions, detail construction and arrangement of parts without departing from the principle involved or sacrificing any of its advantages.

While in order to comply with the statute the invention has been described in language more or less specific as to structural features, it is to be understood that the invention is not limited to the specific features shown, but that the means and construction herein disclosed comprise but one of several modes of putting the invention into effect, and the invention is therefore claimed in any of its forms or modifications within the legitimate and valid scope of the appended claim.

Having thus described my invention, I claim:

A cleat formed from a metal stamping which is initially generally rectangular in shape and formed with a wedge shaped notch in each side edge thereof, the location of said notches relative to the ends of the stamping on the respective side edges being the reverse of one another, said stamping being bent along longitudinally spaced apart transverse lines in adjacent relation to said notches, and being further reversely bent at its ends to define base and head plate portions and laterally spaced apart interconnecting waist portions, said notches appearing in different waist portions at apposite ends thereof, an arcuate cut being formed in each side edge of the metal stamping located approximately in transverse alignment with the wedge shaped notch on the other side edge of the stamping, said arcuate cut and the wedge shaped notch on each side of the stamping defining in the formed condition of the cleat relatively offset ears at the ends of the base portion, said ears extending in respectively different directions.

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