

Conserve By Learning To Splice Rope

Hemp and Sisal Are Scarce and Needed



SCIENCE

Serving Science Clubs of America

By JOSEPH H. KRAUS

Editor, Science Clubs of America

Conservation is a watchword these days. Every item, from toothpaste tubes and razor blades to iron kettles and stoves, is worth saving regardless of its condition; even the cooking fats and meat bones which you once were wont to throw away can contribute to America's vital war effort.

So far little has been said about rope; but your washline and other heavier rope will warrant your attention. And while it once was a hobby to see how large a ball you could make from string which was used to bind your purchases, today it becomes a patriotic duty to do so.

Not only is there a scarcity of materials such as hemp and sisal from which much rope is made, but these fastenings also are needed for our expanding naval arm.

Much rope is lost because little attempt is made to stop the fraying of the ends. Often, too, new rope is substituted where a spliced length would serve the purpose just as well. Knots incorrectly made or frequently tied and opened again play havoc with rope fibers and make the rope wear out more quickly.

Everyone should learn a few things about rope, particularly how to make knots properly. It would be impossible to cover this subject in a short article. Nevertheless, the hints given here should be of considerable value.

No great amount of technical skill is required to learn a few tricks in the handling of rope. A short piece of rope, three or four feet long, is the only practice material needed.

It may take a little time to examine

the drawings or to read the description of a special rope technique but after you have performed the operation once you will find that it is much more simple to do the trick than to read about it.

In the illustration below, Figures 1 to 5 show how to whip the end of a rope. A piece of twine, preferably fishline, is passed under one of the strands as shown in Fig. 1. End B is left long; end A is relatively short. Wrap end B once around the rope immediately above the exit of A. Now make a loop, or bight as it is commonly called, with end A and permit the return portion of the loop to rest in a groove in the rope. Holding this loop with the thumb, wrap the rope with the twine to within one-eighth of an inch of the top. You now have produced the effect shown in illustration 3.

Pass the free end B through the loop at the top, draw B tight, then pull A until the free end of the twine vanishes beneath the wrapping. Clip off both ends as shown at 5 and the job is finished. A modification of this method often is used for wrapping bamboo fishing poles.

If no twine is available or you do not want to use this method for some particular reason, the free end of the rope can be protected with a crown knot. Here again, as before, the description sounds more complicated than the actual performance. Try it and see.

The crown knot also is to prevent the ends of a rope from unravelling. Holding the rope as shown at 6, form a loop, D, with strand A. This movement places strand A between strands C and B. Now carry strand B over the loop, then forward and downward.

This will give you the effect shown at 7. Put the left thumb on strand B

and you can let go of end A. Now bring C around in front of B and pass this through loop D. Pull all three free ends of the rope evenly to produce a crown knot. This explanation may sound complicated but it really is much more simple to do or demonstrate.

Examination will reveal that in the knot so formed each loop bites an adjacent strand. No further action need be taken now; but if desired, the long free ends of the rope may be tucked in as in illustration 13, which will be explained later.

In splicing ropes several methods are employed. The one here given is known as the "short splice." At the point of this splice the rope becomes twice as thick as normal. While such a splice may not pass through standard pulley blocks, it presents no problem to the average washline pulley.

Untwist the strands for six or eight turns at the two ends of the rope where the splice is to be made. Now butt these ends together so that each strand of one rope lies between two strands of the other rope. This is shown in Fig. 10. Notice that strand D lies between A and C; on the other hand, C lies between D and F.

Take two adjacent strands and tie them together with a simple overhand knot. Make sure that when tying this knot you follow the general twist of the rope. Illustration 11 shows the first stage of this knotting operation with a knot being tied between strands A and B, coming respectively from the left and right ends. Illustration 12 is the next step and shows the knot pulled down tight.

Pick up any one of these ends; B for example. Press this against the rope and observe that it crosses the spirally wound main rope approximately at right angles to the turns. Skip over the first strand (viz., the strand adjacent to the place where the end emerges) but raise the second adjacent strand. Weave end B under this second strand. Proceed in a similar fashion all around the rope at both ends always skipping the adjacent strand and tucking in under the second one. In this way you will produce the effect illustrated at 13.

The tucking operation is easy, if you will just remember to cross the strands approximately at right angles and always skip the strand immediately adjacent.

In very heavy ropes the tucking operation may be expedited by using a pointed, tapered wood rod to raise and separate the strands. Such a tool is called a marlinespike.

After you have mastered the method of tucking in the strands you will want to add the professional touch. To do this grasp the tucked strand firmly between thumb and finger close to the overlaying strand. Twist the fingers and thus

