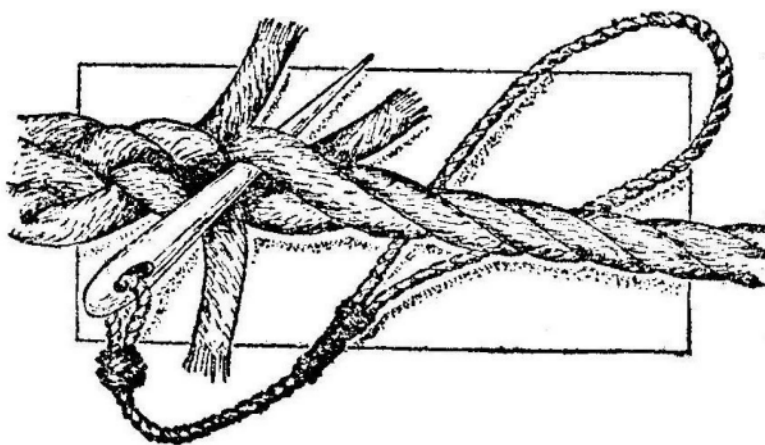


ROPE SPLICING



By P. W. BLANFORD

Assistant County Commissioner Sea Scouts, Warwickshire

Leader — National Scout Canoe Cruises

Author of Scout Mapping, Netmaking, Scouting on the Water, Canoeing etc.

First Printed 1950

Revised — 1953

Original Printed and Made in Great Britain by

BROWN, SON & FERGUSON LIMITED, GLASGOW

CHAPTER 2.

THE BASIC SPLICES.

There are four common splices: back, eye, short and long. These are most frequently used and they form the basis of many of the other splices.

Back Splice. – This is the simplest splice (Fig. 3). It is a means of preventing the end of a rope fraying, and can be used instead of a whipping in circumstances where its increased thickness will not be a disadvantage, e.g., where the rope's end does not have to pass through a block.

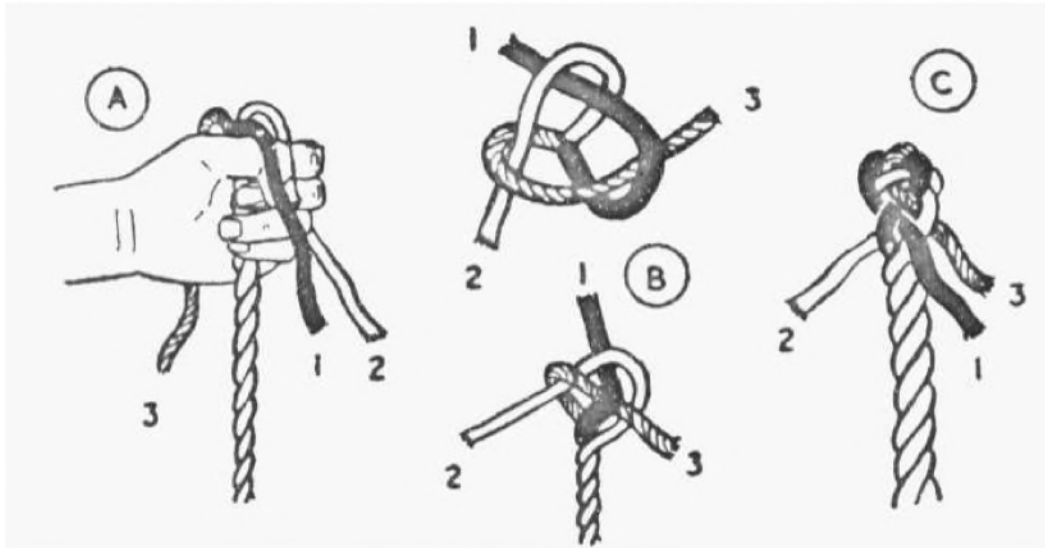


Fig. 3. – A back splice.

Start by making a crown knot in the following way: – Unlay the strands for a short distance (about 6 times the rope's circumference), and hold the rope in the left hand, letting the three strands hang evenly-spaced over the fist (A). Nest, working around the same way as the lay of the rope, take each strand in turn over the next one – 1 over 3, 2 over 3, and 3 down through the loop of 1 (B). Pull tight and the result should show the crown flat on top and the ends lying across the strands of the rope approximately at right-angles to them.

Using a spike to lift the strands, take each end strand in turn over the strand it is resting against and under the next (C). Continue tucking each strand in turn, making a total of three whole tucks and two taper tucks.

Four-stranded rope is treated in the same way, the only difference being in the extra turn in the crown knot.

Eye Splice. – This is by far the most frequently used splice. It may be used to form an eye of any size or to enclose a toggle or thimble.

To make an eye splice in three-stranded rope (Fig. 4) unlay the strands for a short distance and bend the rope to form the eye, placing two end strands across at right-angles to the lay of the standing part of the rope, and the other strand behind (A). Take the centre strand under the nearest strand of the standing part (B). Take the first end strand under the next strand, going in where the second strand comes out (C). Turn the rope over and tuck the third strand under the remaining strand of the standing part, going in where the first strand comes out (D). There should now be an end strand projecting from each space of the standing part (E). This completes the first tuck.

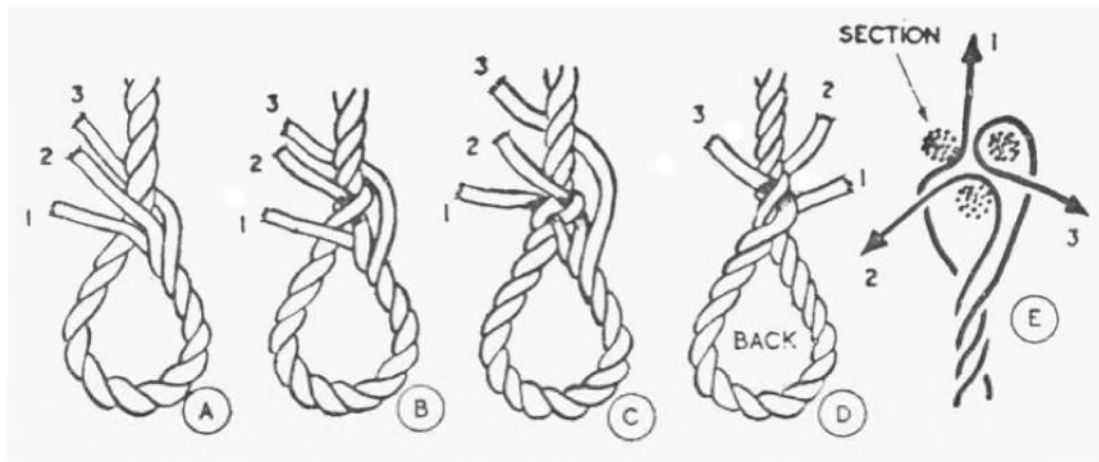


Fig. 4 – An eye splice in three stranded rope.

Tuck each strand in turn "over and under one", making three full tucks and two taper tucks.

To make an eye splice in four-stranded rope (Fig. 5), start as for the three-stranded splice, but lay three end strands on top and one under neath (A). Tuck strand 3 under the most convenient strand of the standing part, then take strand 2 in where 3 comes out and under the next one. Tuck strand 1 in the same space as 2, but go under two strands. Turn the rope over and tuck the fourth strand under the remaining strand of the standing part, going in where strand 1 comes out (B). It will be seen that strands 2, 3 and 4 are tucked in the same way as strands 1, 2 and 3 in a three-stranded rope splice. From this point proceed as for a three-stranded splice, making three whole and two taper tucks.

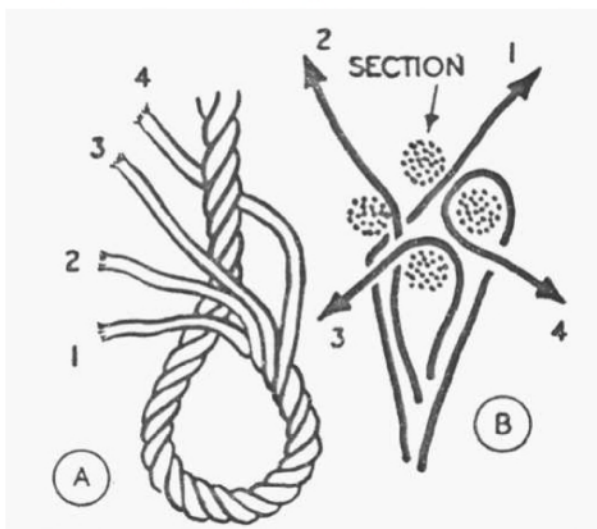


Fig. 5. – An eye splice in four stranded rope

Short Splice. – This splice (Fig. 6) is used for joining ropes end to end, when the extra thickness will not matter. If the rope has to pass through a block, this splice is unsuitable and a long splice must be used.

To make a short splice, unlay the strands of each rope for a distance of about 6 or 7 times the circumference of the rope. For a first attempt it is as well to whip them at the point of unlaying (B), but this will not be necessary after some experience has been gained. "Marry" the strands, i.e., bring the ends together so that the separated strands fit into each other, one strand being in the space between two strands of the opposite rope (A). Force the ropes tightly together and, if they have been whipped, seize the strands of one down to the other and cut off its whipping (C). If whippings are not being used, put a seizing over the junction of the two ropes.

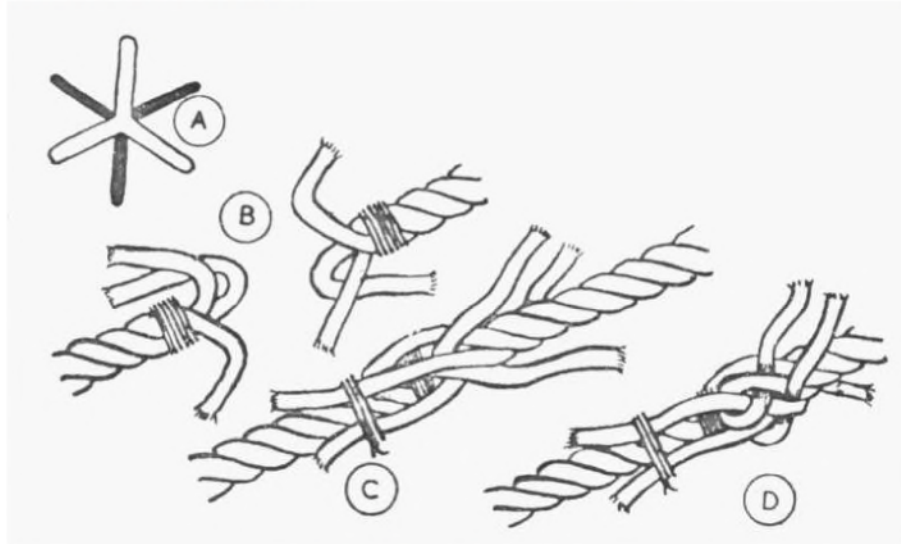


Fig. 6. – A short splice.

Tuck each free strand over and under a strand of the other rope, working against (i.e. across) the lay (D). Make two whole tucks in this way, then remove the seizing, and the remaining whipping, and repeat the process with the other half of the splice. Two full tucks each way are sufficiently strong for most purposes. Taper tucks can be added for neatness.

Long Splice. – This splice (Fig. 7) uses up very much more of the rope than does a short splice, but it has the advantages of not increasing the thickness of the rope and it is hardly distinguishable from the ordinary rope. The amount of each rope to be unlaid varies according to the degree of strength required. For three-stranded rope, the minimum amount unlaid should be 7 times the circumference, and for four-stranded rope 10 times the circumference. The greater the amount unlaid, within reason, the stronger will be the splice. 12 to 14 times the circumference, as in the example, is satisfactory for three-stranded rope and half_ as much again for four-stranded rope.

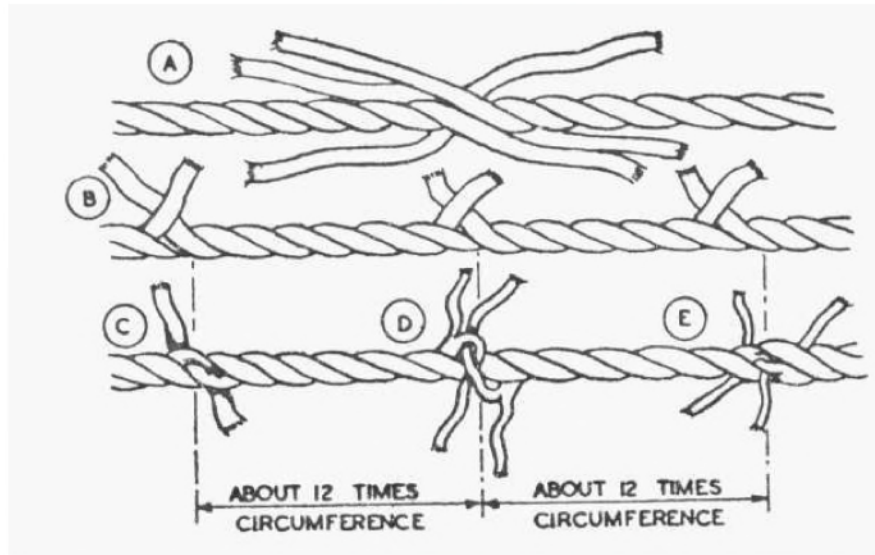


Fig. 7.—A long splice.

To make a long splice in three-stranded rope, unlay the ends of both ropes for a distance of about 12 to 14 times the circumference, then "marry" them as for a short splice (A). Without disturbing the other strands, select one strand and commence to unlay it, filling up the space it leaves with the corresponding strand of the other rope, working to within a few inches of its end. Do the same with another pair of strands, working the opposite way (B). Let the remaining pair of strands stay put.

The ends of the strands now have to be locked in some way, and a variety of methods are possible, among them are the following:

- (i) Tuck each end under its adjoining strand, then take it around and under the same strand three times, tapering well for the last two tucks.
- (ii) Divide the yarns in each strand into two equal groups. Tuck each half-strand around a separate main strand: take one half under and around the adjoining strand and the other half over the adjoining strand and under and around the next one.
- (iii) Half-knot the two ends together (C), then tuck as in a short splice, tapering well after the first tuck.
- (iv) Divide the yarns in each strand into two equal groups. Half-knot two of the half-strands together (D). Tuck the other half-strands under the adjoining main strands (F.) and continue, after tapering, tucking it around that strand. Taper the knotted half-strands, take them over the adjoining strands and under and around the next strands.

A long splice in four-stranded rope is made in a very similar way, but the amount of each rope to be unlayed has to be increased by a half – a good average length being eighteen times the circumference of the ropes. Marry the ropes and unlay one strand, filling its space with the corresponding strand of the other rope, to within a few inches of its end. Do the same with another pair in the opposite direction. Take one of the remaining central pairs and unlay one and lay up the other strand, working for only a short distance in one direction. Do the same in the other direction with the remaining pair. Arrange the final positions of the last two pairs worked so that the four junctions of the strands are evenly spaced at about 12-circumference intervals.

A long splice should be well stretched and rolled before the ends of the strands are finally cut off. This allows the newly-laid strands to settle into place and avoids the risk of cutting off the ends too close.