

Crown knot and back splice (backlash)

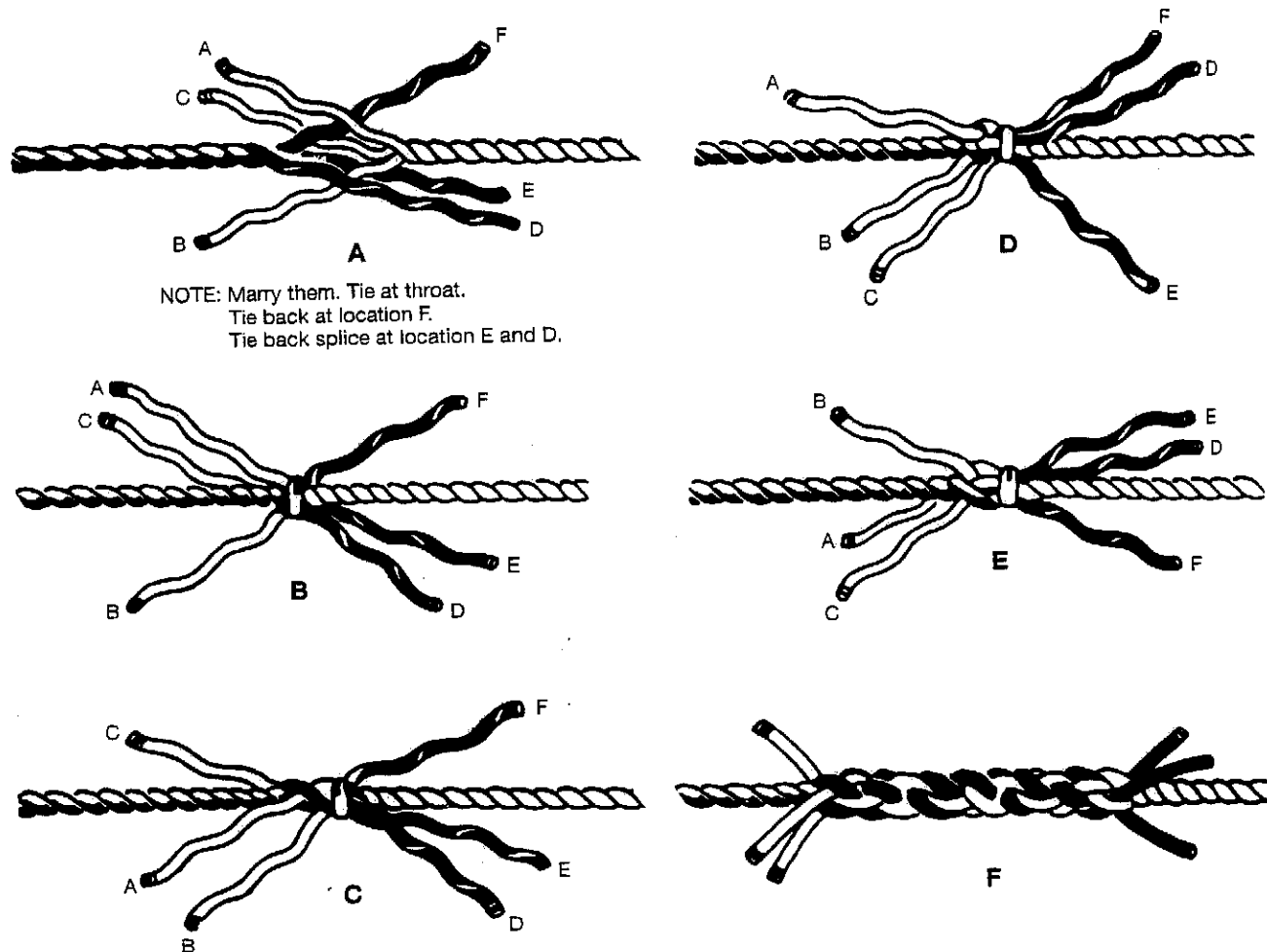
Fig. 1-12

end of each strand down through the loop of the next strand; next, tuck each strand over and under against the lay two or three times, and then cut off the ends. See Fig. 1-12-C. Backlashed ends should never be threaded through blocks.

The short splice is the strongest method of joining two pieces of rope. The long splice is required when spliced rope will be used through pulleys or openings close to rope diameter. How should a short splice be made?

The short splice is made in the following manner:

1. Unlay the strands at one end of each rope for 6 or 8 turns. The ends of the strands should be whipped to prevent their untwisting and brought together so that each strand of one rope alternates with a strand of the other rope. See Fig. 1-13-A.
2. Bring the ends tightly together and apply a temporary seizing where they join, as in Fig. 1-13-B.
3. Take any one strand and begin tucking, the sequence being over one and under one. Strand *A* is passed over the strand nearest to it, which is Strand *D*, and then under the next strand, Strand *E*. See Fig. 1-13-C.
4. Rotate the splice away from you one-third of a turn and make the second tuck. Strand *B* is passed over Strand *F* and then under Strand *F*. See Fig. 1-13-D.
5. Before making the third tuck, rotate the splice again one-third of a turn away from you. Strand *C* is then passed over Strand *F* and under the next one, Strand *D*. See Fig. 1-13-E.
6. This completes the first round of tucks in the left-hand half of the splice. Each strand should now be tucked at least twice more, always over one and under one as before, making sure that each strand lies snug and with no kinks.
7. To finish the splice, reverse the rope end for end so that Strands *D*, *E* and *F* are now at the



NOTE: Marry them. Tie at throat.
Tie back at location F.
Tie back splice at location E and D.

The short splice

Fig. 1-13

left instead of the right and repeat the operation on their side of the rope. Each of the six strands will now have had at least three tucks. A tapered splice is made by taking two more tucks with each strand, cutting away some of the threads from each strand before each extra tuck.

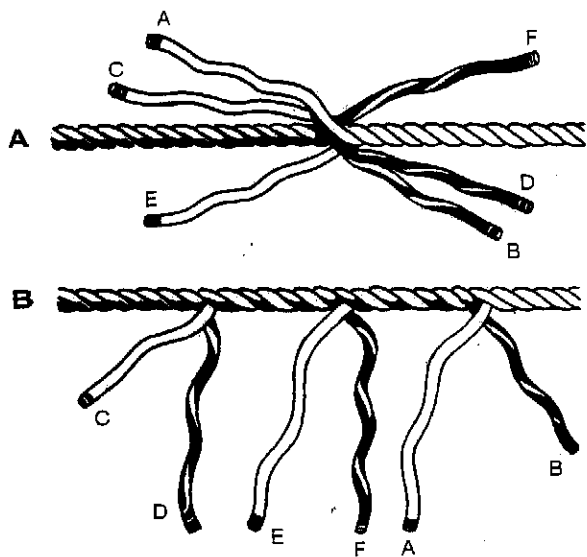
8. When tucking is finished, remove the center seizing and cut off the ends of all strands, leaving at least three-quarters of an inch on each end. To give a smooth appearance, roll the splice back and forth, either under your foot or between two boards. See Fig. 1-13-F.

The long splice is slightly weaker than the short splice, but it increases the rope diameter only slightly which allows the rope to run through a sheave or block without obstruction, lessening wear and chafing of the rope fibers at the point of splicing. A long splice should be made only with two ropes of the same size. They are not suitable for endless slings because of their weaker strength. The long splice is made in the following way;

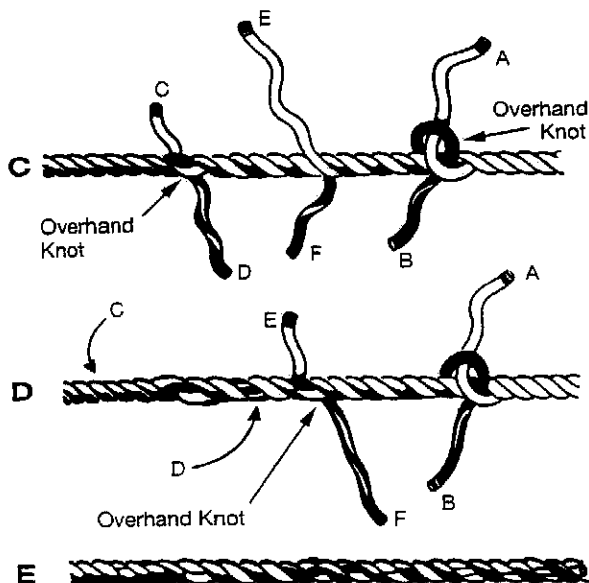
1. Unlay one strand of each rope for 10 or 15 turns. Whip the ends of each strand to pre-

vent untwisting. Then lock the two ropes together by alternating the strands from each end. See Fig. 1-14-A.

- Starting at one end, take an opposite pair of strands, A and B, and unlay Strand A. Follow it with Strand B, turn by turn, continuing until only a foot or less of Strand B remains. Keep Strand B tight during this step and pull it down firmly into Strand A's former place. Repeat this operation with Strands C and D.



NOTE: Use overhand knots to finish long splice



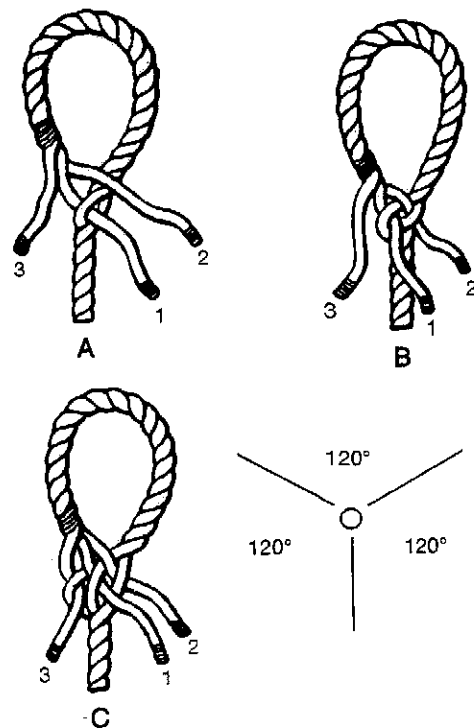
The long splice

Fig. 1-14

Strand D is unlayed and Strand C is laid in its place. See Fig. 1-14-B.

- Now each pair of strands is tied loosely together with a simple overhand knot, as indicated by Strands A and B. Each knot is then pulled down into the rope like Strands C and D. See Fig. 1-14-C.
- Each strand is now tucked twice, over and under, as in the short splice. The illustration shows Strands C and D after tucking. If a smaller diameter splice is desired, taper by tucking each strand twice more, cutting away some of the threads for each additional tuck. See Fig. 1-14-D.
- When tucking is finished, cut all strands off close to the rope and roll the splice on the floor under your foot to smooth it out. See Fig. 1-14-E.

The eye splice shown in Fig. 1-15 is used for making a permanent loop in rope ends for slings. This is done in the following way:



Making an eye splice

Fig. 1-15