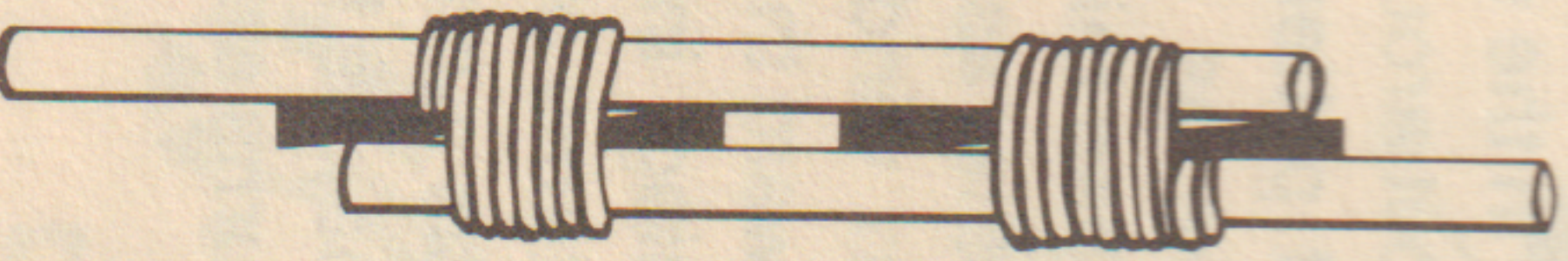
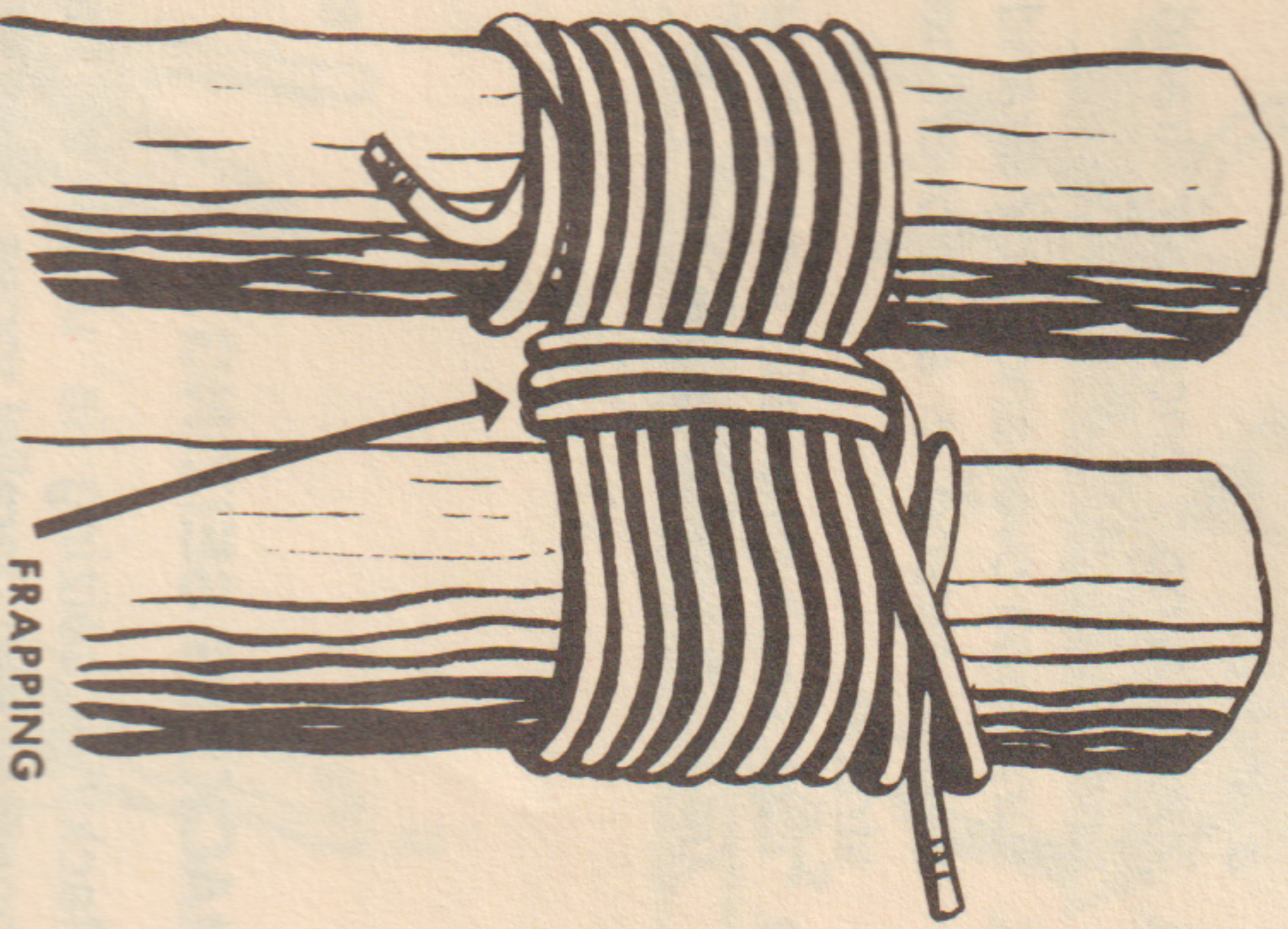


## LASHINGS

For lashing, or binding together timbers with rope, it's important to use ropes of correct thickness and length. For staves or spars up to 1 1/4 inches in diameter, use tough twisted or braided line. For spars up to 3 inches in diameter, you need 1/4-inch rope. For spars over 3 inches in diameter, use 3/8-inch rope. As to



length, figure 1 yard of rope for each inch of the combined diameter of the spars. For example, when you are lashing 3-inch and 4-inch timbers together, you will need 7 yards of rope.

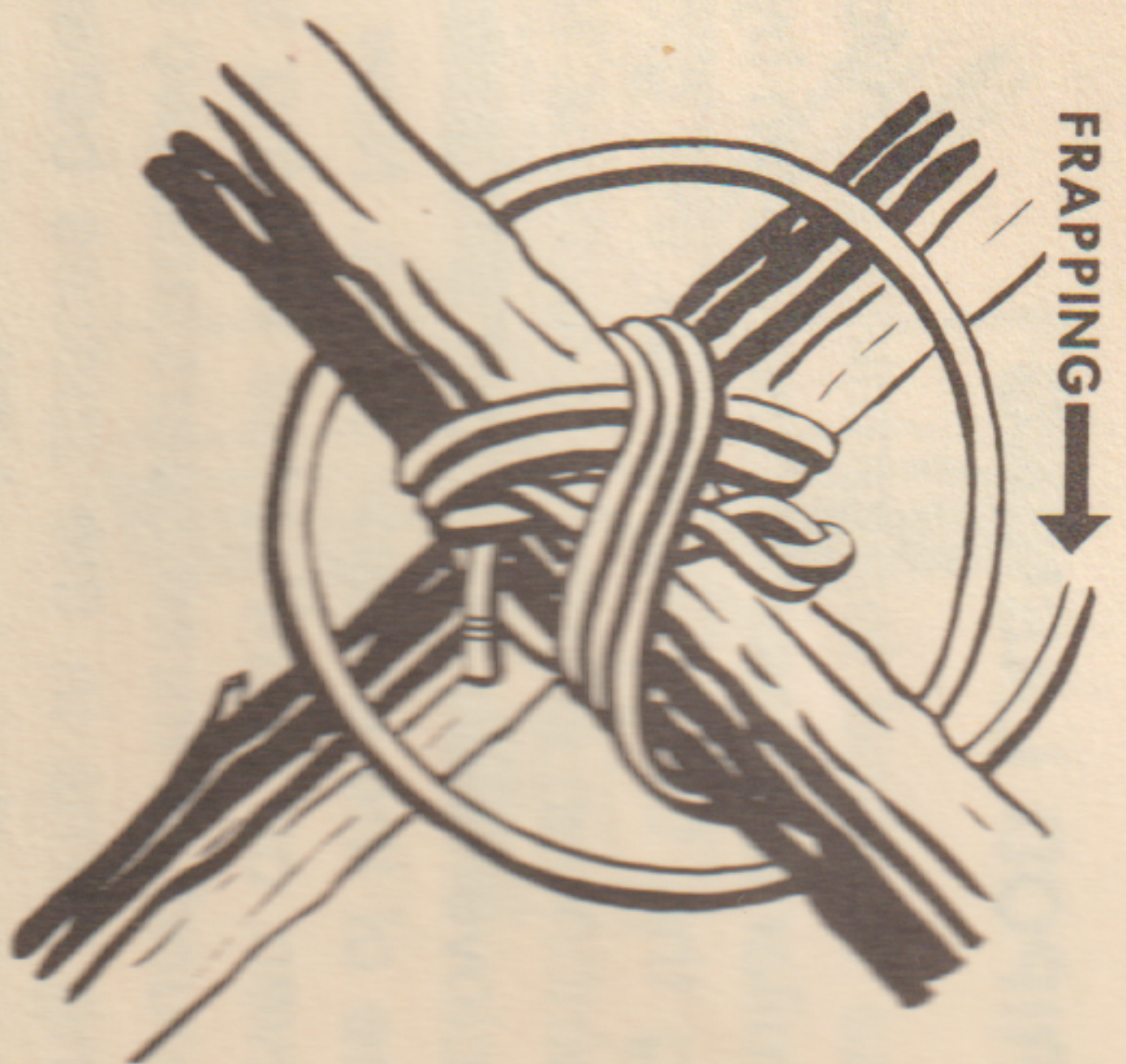
Frapping turns are used to draw the lashing tight.

### SHEAR LASHING

The shear lashing is used for forming shear legs of timbers in pioneering bridges. Begin by laying the spars parallel to one another. Tie a clove hitch around one spar. Then bind the two timbers together by laying seven or eight turns around them, loosely, one turn beside the other. Then make two frapping turns around the lashing between the spars. Fasten the rope end with a clove hitch around the second timber. Open out the two timbers to form shear legs.

Sometimes shear lashings are used to lash two spars together to keep them parallel (to extend a flagpole, for example). In that case, do not use frapping turns.

Sometimes, in this type of lashing it is necessary to put a long, tapered wedge behind the lashing to tighten it.



### DIAGONAL LASHING

A diagonal lashing is used to "spring" two spars together; that is, to lash together two spars that do not touch where they cross. Begin with a timber hitch around both spars. Tighten it to draw the two close together. Three or four turns are then taken around one fork; three or four more, around the other. The turns should be beside each other, not on top of each other. Then take two frapping turns about the lashing at the point where the spars cross. Finish with a clove hitch around either spar.

### SQUARE LASHING

A square lashing is used whenever spars cross at an angle, touching each other where they cross. Start with a clove hitch around the upright, directly below where the crosspiece will be. After tightening it, twist the free rope end and the standing part around each other to hold the loose end. Now wrap the rope behind the upright, down in front of the crosspiece, and around behind the upright. Do this three times, keeping outside the previous turns on the crosspiece and inside them on the upright. Then make two frapping turns between the timbers and strain them tightly. The lashing is then finished with a clove hitch on the crosspiece. Make all turns as tight and secure as possible.

