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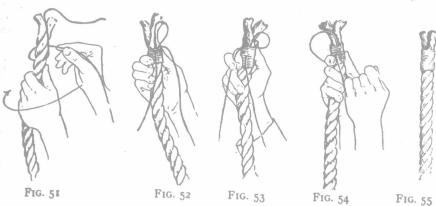
Ropes, Halters, Splices, Knots and

rope-halters, splices, knots, and ties are something which every person working on the farm, from the school-boy to the proprietor himself, makes use of every day in the year. The great diversity of uses makes it necessary that such persons familiarize themselves with these different uses, and, as an aid to this, the accompanying illustrations will be found of benefit. The description of each of these is taken from a Cornell bulletin, and we can do nothing better than repeat it.

may be used.
"This is made according to the following directions :- Unlay the rope for five or ten inches or more, depending on the size. Holding the rope in the left hand, with the loose strands up, take any strand, as No. 1, lay it down across the rope with the end toward the right, and hold it in place with the left thumb, as shown in Fig. Take the next strand to the right, No. 2, and pass it around the end of No. 1, as shown by the arrow in Fig. 56. Before releasing No. 2, take the left thumb off No. 1 and use it to hold No. 2, as in Fig. 57. Strand No. 3 is now to be

fastening the strands is needed, the wall knot right, and bend each rope back on itself (see Fig. Note that ropes A and B are on the 112). same side of C. Wrap A around the other rope end, producing the knot as shown in Fig. 113, A and B being still on the same side of C.

"Granny Knot.—This is frequently tied in mis-take for a square knot. It tends to slip under strain, and is very hard to untie when set. The point at which a granny knot may be detected is in the position shown in Fig. 114. Ropes A and B are not on the same side of C, as they should be in making a square knot, and when the knot is completed, they are still wrong, as shown in Fig. 115.



Whipping the End of a Rope.

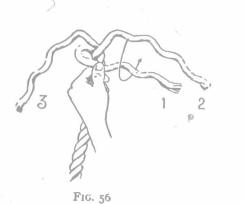




Fig. 57 Wall Knot Begun.

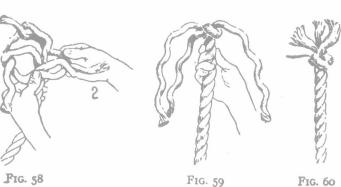
"Binding the end of a rope with twine to prevent it from untwisting is called whipping. Ropes that are to be passed through pulley blocks, or, like halter ropes, through small holes, should be finished in this way. A method of doing this so that both ends of the twine are fastened by tucking under the whipping is as follows :-

"Unlay one strand of the rope back to the point where the whipping is to begin. Under this strand lay the twine, leaving the end eight or ten inches long, as shown in Fig. 51, and then relay the strand into the rope, keeping it twisted up

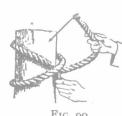
passed around the end of No. 2 and up through the loop of No. 1, as indicated by the arrow in Fig. 57, and as shown in Fig. 58. The knot should next be tightened by pulling all of the strands one after the other. The last steps are to pull the strands closely together in the center, roll the knot toward the end of the rope to hold them, and cut the strands sufficiently long to in-

sure their not pulling back.
"Miller's Knot.—This knot is especially adapted to tying up grain and flour sacks; it is also useful in place of a clove hitch in fastening a rope to an object whose ends can not be reached, such

"Slip Rnot.-This knot, the simplest slip loop possible, may be made starting either with the position as shown in Fig. 122 or with that in Fig. 124, whichever is easier for the person tying the loop. When beginning with Fig. 122, grasp the end of the rope in the left hand and, bringing the right hand upward, pick up a bight of the rope on the wrist as shown. Bend the wrist so that the palm of the hand is upward and the bittle finger touches the short end of the rope. Then rotate the wrist as shown by the upper arrow. This will cross the sides of the bight and form a loop around the wrist, and at the



Wall Knot Completed.



F1G. 91



Miller's Knot.

tightly and pulled down hard into its place as directed for relaying. If an especially secure whipping is to be made, the twine may be tied about the strand under which it is tucked; usually, however, this is not necessary. Whip the long end of the twine around both the rope and short end of the twine, being careful to pull it up tightly and to leave no vacant spaces between When about half the desired distance is covered, bend back the short end of the twine so as to form a bight extending out beyond the end of the rope and begin whipping both sides of the finger of the left hand in such a way that the

as a post in a barn. Take a round turn about same time will bring the main rope in between the neck of the sack or fixed object, crossing the ropes in doing so, as shown in Fig. 90. Raise the main rope just above the crossing, pass the free end under, as in Fig. 91, and draw up tightly (Fig. 92). This hitch may be loosened by grasping either end of the rope and pulling it around to the right or left, as the case may be.

"In tying sacks, it is convenient to hold the mouth of the sack shut with the left hand, and to wrap the twine around the sack and the little bight, as shown in Fig. 52. Continue whipping finger is in the place of the upper rope's end in a tie rope to a post. It is made as follows:-

the thumb and the first finger, as shown in Fig. 123 and as indicated by the lower arrow in Fig. 122. Grasp the main rope and draw a bight up through the loop, as shown in Figs. 124 and 125.

"In starting with the position as shown in ig. 124, the end is held in the left hand and the loop formed by twirling the rope to the right between the thumb and the fingers of the right hand. Either method is easy, provided the end is held in the left hand at the beginning. "Hitching Tie.-This knot is used for hitching

FIG. 112 FIG. 113 Square Knot. FIG. 115

Granny Knot.





FIG. 123





Slip Knot.

as far as desired, and then pass the long end of the twine through the bight and pull it up firmly, By pulling on the free end of the bight, draw the long end of the twine downward underneath the whipping as far as it will go (see Fig. 54). Finish the whipping by cutting off both loose ends of the twine as closely as pos-The completed result is shown in Fig. 55.

"Wall Knot.-When a small knob on the end of a rope is desirable, or when such a knob is not Fig. 91. The twine is brought on around the sack, caught by the finger, and drawn back under the first wrap of twine in a direction diagonally

upward from left to right. 'Square Knot.-This, the most frequently used of all knots, is secure when set, and may be untied without difficulty. In making it, care should be taken not to make a granny knot (see description below).

"Cross the ropes, placing the right under the objectionable, and a quick and secure method of left, wrap the end of the left rope around the

"Pass the rope around the post from left to right, thus forming a bight. Grasp both sides of the bight in the left hand, and with the right hand throw the short end across the ropes in front of the left hand, as indicated by the arrow in Fig. 126, thus forming a second bight below the left hand. Pass the right hand through this second bight, as in Fig. 127, and pull the bight, down through which the end of the rope is passed, as shown in Fig. 128. Pull the knot up tightly. There is a right way and a wrong way to leave

FIG. 124