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1	2	3
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1	2
4	5

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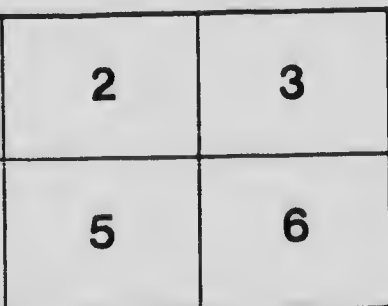
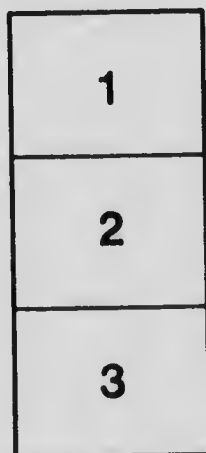
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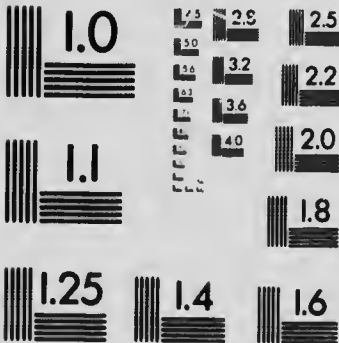
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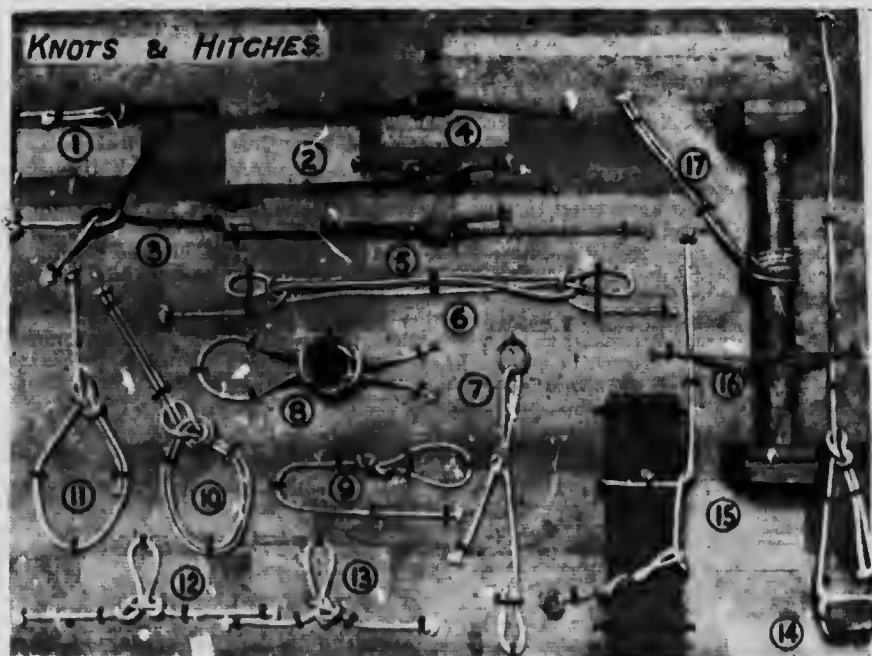
"Rope Knots and Hitches"

By J. MACGREGOR SMITH, B.S.A.,

Professor Agricultural Engineering, College of Agriculture,
University of Saskatchewan

Can you splice a rope?

We recently read 24 extracts from reports sent to the Assistant Deputy Minister of Agriculture for Ontario by a number of district representatives in the various counties. Here is one of them: "When out one day I ran across a man who had his horse fork rope broken and was endeavoring to splice it. Having some little experience in properly splicing ropes I did the work for him. He was evidently quite pleased, as he said he would see that I gave a rope splicing demonstration at their farmers' club next winter."



KNOTS AND HITCHES FARMERS SHOULD KNOW.

1. Square knot; 2. Garrick bend; 3. Granny knot; 4. Weaver's knot;
5. McLelland knot; 6. Sheep shank; 7. Halter tie; 8. Guy line knot;
9. Flemish loop; 10. Bowline on a Bight; 11. Bowline; 12. Harness hitch;
13. Farmer's loop; 14. Scaffold hitch; 15. Timber hitch; 16. Clove hitch;
17. Wellpipe hitch.

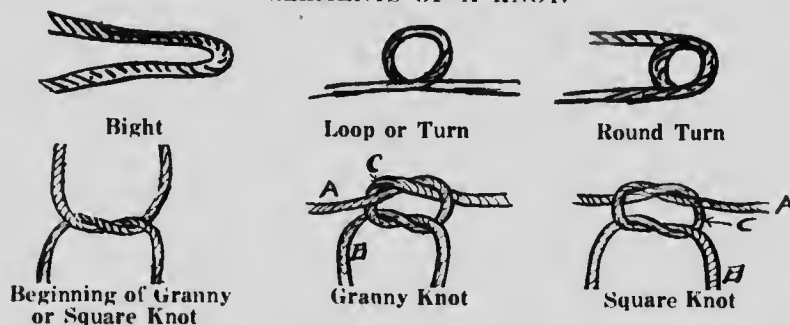
After reading the foregoing we began to wonder where the representative learned to splice a rope, and decided that it certainly was not at the agricultural college. Now the question is, why shouldn't farmers' sons, in fact all those who seek their diploma or degree from an agricultural college, be taught how to splice a rope and how to do much other just such necessary farm work, which many of them never had an opportunity to learn at home, and should know before they go out to aid in the advancement of Canadian agriculture?

ROPE WORK

Every farmer uses rope in some way many times in a year and, therefore, a practical knowledge of the correct methods of tying, hitching and mending rope has for him a real money value. If a hay fork rope breaks in the busy season, how many could splice it so that it would run through the pulleys?

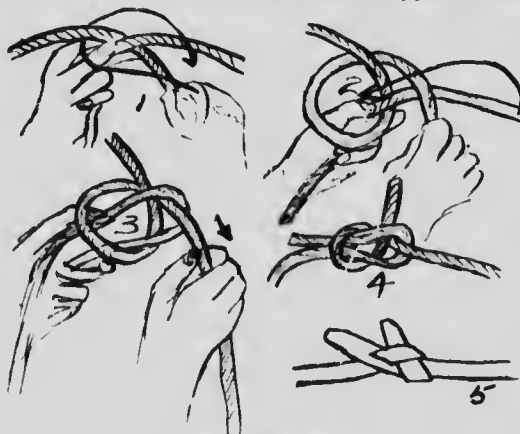
How many would tie a knot and pull up the load as far as they could and then get the hay to its proper place by brute strength? Which way would you prefer? The first, of course. A horse tied by the neck with a knot that may slip and strangle himself through some person's carelessness or ignorance in not knowing a simple knot to tie him with. We plan to show a few knots and hitches and splices, as the average person has not the perseverance to master a great number so thoroughly that he can make them at any time from

ELEMENTS OF A KNOT.



memory. We realize how useful they would have been had we known some of them on the farm, and hope that many readers will get a piece of rope and follow out each illustration carefully, so that the information may be of real value, but you will have to practice because it alone leads to perfection. To those who may have some word of criticism we may say this is not written for those who consider themselves proficient. There are several ways of tying many knots. We have tried to give you the easiest method to learn, though it may not be the quickest to the expert.

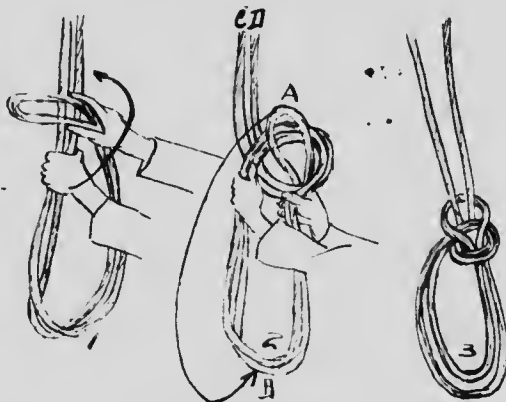
It is not easy to state where knots end and bends and hitches begin, so you must adapt them to your own use. The cut shows the knots which we are going to deal with in this part of the book. Starting from the upper left-hand corner we have first, two very common knots and easily confused; the granny knot when they really intend to make the square knot the ropes A and B are on the same side of C, while in the square knot they are on opposite sides. These knots



Weaver's Knot

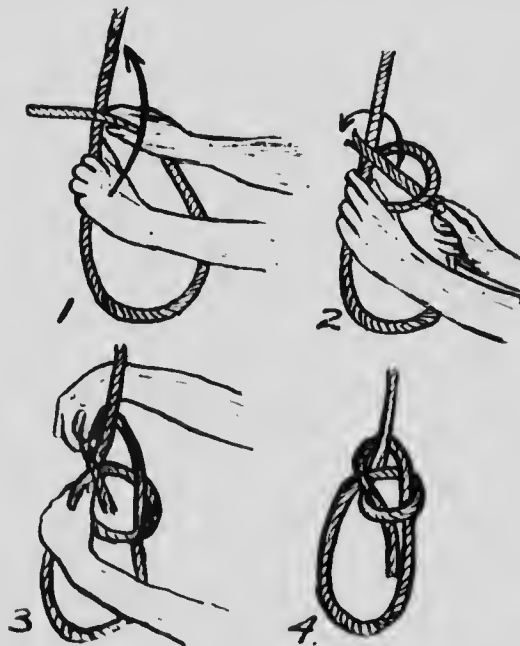
are used to tie the ends of ropes together. Anyone can tie them, but few have the patience to try to untie a square knot after it has been pulled tight.

The Weaver's Knot.—Cross the ropes, the right under the left as in position 1, with the right hand pass the right rope from left to right to form a loop around its own end, passing twice over the left rope as indicated by the arm. Release the right rope and with the right hand bend back the end of the left rope into the loop just formed, pull the end well through and grasp as shown in 3, and pull with the right hand till it is tight. Two straps may be joined together as in 5. This is a good knot to tie two balls of binder twine together. It is also used in making nets. McLelland's knot is very similar, but the right-hand rope has two or three turns in place of one.



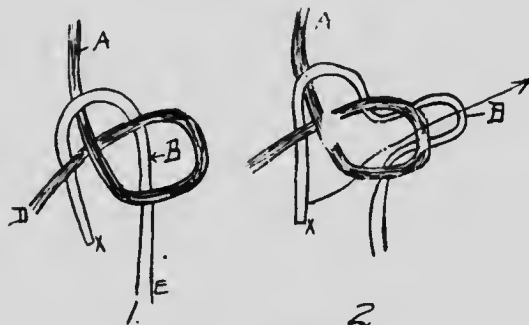
Bowline on a Bight

The Bowline on a Bight.—You will notice that the start is exactly similar to the bowline. However, after arriving at position 2, instead of the bight A passing behind the long ropes it is pulled up through the loop and then brought downward, as indicated by the arrow, and over the large loop B (a bight is simply the bent rope). The bight A is then brought back to its starting place and the loop B pulled out. The finished knot is shown in the cut with all the knots. It forms a flat knot and is used in casting horses, the long ends, C and D, can be passed under the chest and round the hind pasterns as desired.



Halter Tie

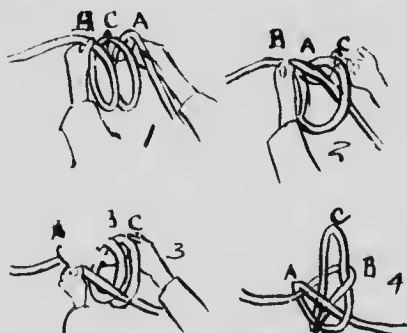
Halter Tie.—Very few men tie up a horse in any definite way, right or wrong. When you go into a stable see how many slip knots are used, on the street see how many tie lines are round about the bottom of the hitching post. When tying a halter rope in a stall, start as in 1, pass the rope upward through the ring then downward on the left of the long rope as in 2. Grasping the short end in the right hand and long rope in the left, put the end through as in 3, and pull as indicated by the arrow. The halter tie should never be used around a horse's neck, because if the tie is not made correctly it forms a slip knot. Some may recognize this as the Scotch plowman's knot used in tying his rope reins to the bit.



Carrick Bend

The Carrick Bend.—A very good knot for tying two ropes together, the knot being easily untied after a pull. Figure 1 shows a round turn in the rope A. The end of the rope B is placed under this turn over A and under to the point X. Now pull the rope B through the round turn in A when position Z will result. The end X is then taken under A through the bight B. Grasp the points D and E, that is the long ends, and pull tight.

The Timber Hitch and Flemish Loop can be easily followed from the cut at beginning of article.



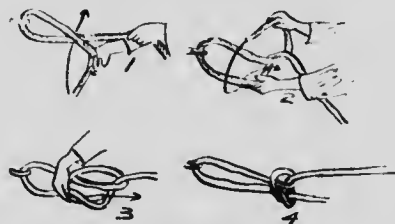
Farmer's Loop

The Harness Hitch and Farmer's Loop are used to form a loop at any point in the rope, also to shorten a rope, and either can be untied very easily. The



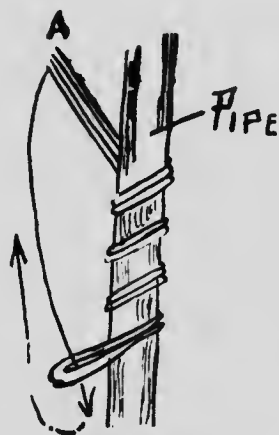
Harness Hitch

former can easily be followed from the figure. The Farmer's Loop—Form two round turns and hold them as shown in 1, thus bringing side by side three ropes, B, C, A. Pass A under C and up between B and C, now pass B between A and C, next C between B and A, pull C up to form the loop as in 4. Thus a secure loop may be quickly formed without access to either end of the rope and easily untied after having been drawn tightly.



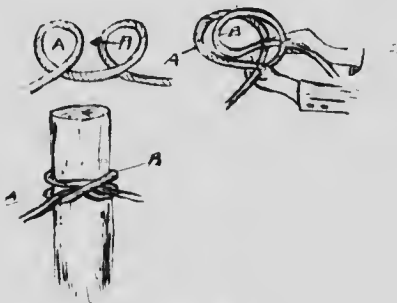
Bowline

The Bowline is the king of knots. It cannot slip, and is easily untied. Its uses are too numerous to mention. For tying stock by the neck no better knot is known, as there is no danger of it slipping and choking the animal.



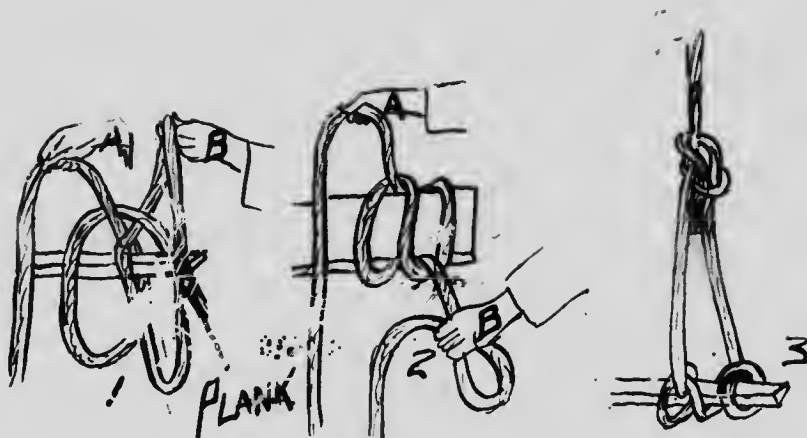
Wellpipe Hitch

Well Pipe Hitch.—This is of great assistance in lifting a well pipe. Double the rope, wind around the pipe, as shown, then pull the long end through the loop. It will positively never slip, and at a pinch makes a very good pipe wrench. Put the long ends A through the loop as shown and pull towards A.



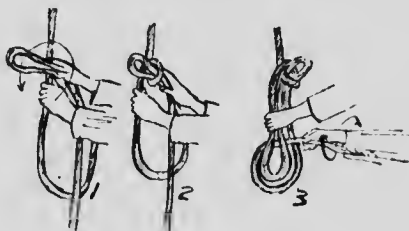
Clove Hitch

Clove Hitch.—Make two loops as shown, A and B, place B over A, the finished hitch is in position on a post. The harder you pull the tighter it gets, and can always be easily loosened. It is used for fastening ropes to tent pegs, guy line ropes or hitching to any post.



Scaffold Hitch

Scaffold Hitch.—Very useful for supporting a plank as a scaffold. The plank cannot twist over and upset. First make a loose clove hitch and place over one end of the plank as in 1, pull A to right and B to the left, tying on the side away from that shown in 1 and 2, and with a bowline tie together. A similar hitch at the other end of the plank makes a very secure scaffold hitch.



Sheepshank

The Sheepshank is used to temporarily shorten a rope. The rope must be kept tight all the time.

For those who are desirous of learning more about this useful art, I recommend "Knotting and Splicing Ropes and Cordage," "Work" Handbook Series, by Cassell & Co., Toronto. Price 25 cents.



