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Tying Clove Hitch Knots

Introduction:
The clove hitch knot might as well be called "the fireworks knot," since it is used almost exclusively among firework makers. There are several features of this knot that make it the ideal choice for use in fireworks. It is a self-cinching knot that stays put once it is pulled tight. Tying a clove hitch is not a two step process like the more common double half hitch knot, which is prone to loosening while tying the second half hitch over top of the first. After the knot pattern is setup, you just pull it once and it is done. Sometimes it is more reassuring to tie a half hitch on top of the clove hitch to make sure it doesn't unravel, but in most cases this isn't necessary.

There are several ways of tying this knot, which are illustrated below. There are probably even more ways of tying it than shown here, but these methods are the most common and will get you tying knots like a pro.

Method #1
One of the biggest advantages of a clove hitch is that it can be tied without having access to the free end of the string. As seen in the sequence below, simply twisting two loops in succession over the top of the time fuse will create a clove hitch knot. Not only is this the fastest method, it also produces the tightest knot. Since the string is being held by a spiking horse, the operator can put his weight into tightening each of the two loops, creating a very tightly cinched knot.

Step 1: Start with the string to the left of the time fuse.

Step 2: Turn a loop by twisting the string in a clockwise direction.

Step 3: Cinch the first loop and then turn a second loop.

Step 4: Cinching the second loop completes the knot.

Method #2
While method #1 is ideal for tying off to time fuses when spiking shells, it can't be used in cases where the loop can not be easily passed over the object you are tying onto. The method below shows how to wrap the string around the object being tied such that a clove hitch knot is constructed. This method also works good for pre-tying the knot onto your fingers and then slipping it off so that it may be put in place around nosing paper or other object that is to be cinched closed at a later time.
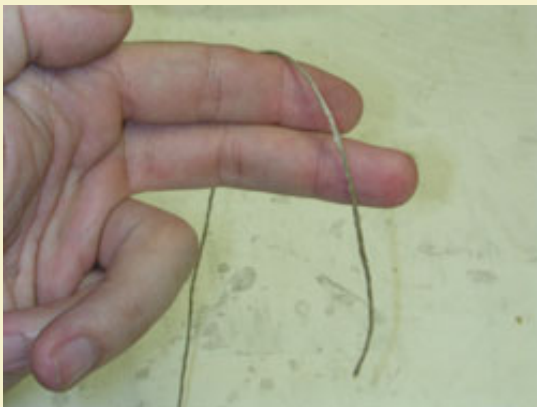
Step 1: First loop finishes on the right.

Step 2: A second loop also finishes on the right.

Step 3: The third loop cuts across behind the first two and emerges on the left, then skips over the first loop and finally cuts under the second loop.

Step 4: If tied around your fingers, the finished knot can be slipped off and placed around whatever needs cinchin'.

Method #3:

This method is not very common when making fireworks, but is used frequently by sailors when tying off to dock posts. The self-cinching feature of the clove hitch is ideal for boat tie-offs, since the more a boat tries to drift away then the tighter the knot gets. This method makes more sense when using a large piece of rope, but is cumbersome with tiny strings.

Step 1: Two opposing loops are twisted in opposite directions.

Step 2: The loops are folded together to form the clove hitch pattern.

Step 3: The hoops are then placed over the object being tied and the two ends are pulled.

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