

The Slip & Nip Hitch

This is an interesting and useful knot. It can be a bit fiddly to tie, which might eliminate it from practical use for some people, but it can be worth the effort. I will show you a simple tying method below. As a knot to secure a rope around a mooring post, it has some advantages that make it a hitch without peer.

I can not find it in *The Ashley Book of Knots (ABOK)*, but it is shown in Nic Compton's yacht-oriented *Knot Bible* (p 136), and in several videos: www.youtube.com/watch?v=qnP-Sw11T1s, [=8ytmHmJX_Jw](https://www.youtube.com/watch?v=8ytmHmJX_Jw). These can be hard to find with a web search, because slip nip apparently has a popular meaning unrelated to knot-tying. The same knot is sometimes called the slip & nip noose, the slip nip loop, or something similar. It may be considered a buntline hitch variant which is both more secure (in synthetic ropes) and more jam resistant (although jamming of the buntline hitch is sometimes overstated, and is probably experienced only after very high tension).



First the 'slip' part of the name. This is a noose, meaning that it provides an eye of rope (sometimes called a loop, perpetuating an obsolete and confusing usage), and this eye can be changed in size by pulling the standing part of the rope (the stand). This noose is fairly stiff to change once the knot is tightened; because in order to slide, the stand must overcome friction from two loops and the tail of the knot. Friction can be increased if the stand is kinked over the tail while tightening, but I do not recommend this because it is insecure (the stand may straighten again under load) and the noose is already stiff enough for the recommended uses. If you need a noose that can be slid then 'locked' by capsizing the knot structure, see *ABOK* # 1987 - 1992. Even so, the slip & nip hitch sometimes grips before it slides closed (depending on the rope used and the solid around which eye of rope is used). Then it may be best to push the knot along the stand until the eye lies fairly tight around the enclosed solid - I will explain why later. Another feature of this knot is that the 'arms' of the eye can be made to stand apart more than in many nooses. This can be useful, for example, to cast over a mooring post. (I know that anatomical eyes do not have arms, but mixed metaphors are not unknown in knotting: see *ABOK* # 2729, 2733. Any noose can be a hitch if it is drawn tight around a solid - but most will not be as secure and jam resistant as this one.)

Now for the 'nip'. When this knot is tightened, the tail is gripped by four parts in the nub. Above and below, the tail is gripped by the parts that go on to form the two arms of the eye. To a lesser extent, the tail is gripped on either side by a turn (around one or both of these soon-to-be-arms). If the tail is followed back into the nub, it can be seen to make several turns, including a crossed turn, before emerging as the fixed arm of the eye. All of this friction (nip) makes the tail very secure. The hitch seems to work even around a solid (such as a carabiner) that is narrower than the rope, but this needs more testing before climbing or rescue use. It is very secure around a large solid (such as a mooring pole or a tree), because when the noose is drawn tight the turns grip the tail more tightly. With ring loading (when the arms of the eye are pulled apart) movement of the turn nearest the eye is constrained, and only increases the nip on the tail. Friction of the first turn on the tail varies with the angle of departure of the stand through that turn, but the hitch seems to remain secure. Cyclic loading is also OK, so this is a much more secure mooring hitch than a bowline. Grip by the turns on the tail seems higher in relatively soft rope, like some double braids, than in a very stiff hawser.

I have not seen any strength testing, but from the knot structure I guess it will fall in the range of popular hitches under the same conditions. Like any secure hitch, there may be some weakening of the stand over time at the region of entry into the nub, when the stand is subject to cyclic loading from various angles.

The references given above show a method to tie the noose 'in hand'. This is fine if you want to tie the noose, then throw it over a mooring post, for example. But it is a tricky method that is not obvious from the knot structure. Also it does not exploit a useful feature of the knot: that it can be tied with substantial tension on the stand. First take a U turn of the rope around the post, or a round-turn if you need more friction to hold the load (maybe your yacht). Then you can still tie the knot with the loose working end (wend), around the tensioned stand. This method (detailed below) can also be used to tie the noose 'in hand'. It is both simple and obvious from the knot structure, but make sure to practice it before you need it in earnest.

There is another great feature of this knot: the nub does not jam the tail, so it is easy to untie. If you draw the eye tight around a large solid (as I recommend), you will first have to relieve the load on the stand and perhaps slide the noose open a little. Then roll the two turns that grip the tail apart, and voilà you can slip the tail out and the knot will fall apart.

It is unusual to find a knot that is both secure in use and easy to untie after heavy loading. It is even rarer to find an eye knot that has open arms when tied, resists ring- and cyclic-loading, can be tied PET and with the stand under substantial tension, and is secure and jam resistant. But after the eye is drawn tight around the solid, the stand will have to be adjusted at the other end (eg on deck) to maintain (or release) tension. So it is probably impractical for those who need to make fast and unfasten every few hours. If you need to unfasten under tension, try a version of the lighterman's hitch (Compton pp 62-63) or perhaps the pile hitch (ABOK # 1815). But when you want a hitch to remain secure over a longer period (hours or days), and do all the things above, the nip & slip hitch is a knot without peer (not without pier).

Tying around a post:



1. Pass the rope (in a U turn) around the post or tree. If you need more friction to hold the load, pass the rope around again to make a round turn. You can make as many turns around the post as you need.

2. Now you will have the standing part of the rope running to the load (probably under tension) and the working end which will be loose (because tension is dissipated in the turn or turns around the post). There are also turns in the nub of the knot, and I always mean these turns in the nub in steps 3-8 below. I will assume that you are facing the rope, with the working end (wend) below the standing part (stand).



3. Place a finger or hand between the wend and stand as a temporary block. To the side of this block away from the post, pass the wend over the stand and away from the post (this gives the first turn).



4. Bring the wend up toward you and also toward the post, and pass it over the start of the first turn and over the stand again (like starting a buntline hitch, *ABOK* # 1711). This gives the second turn.



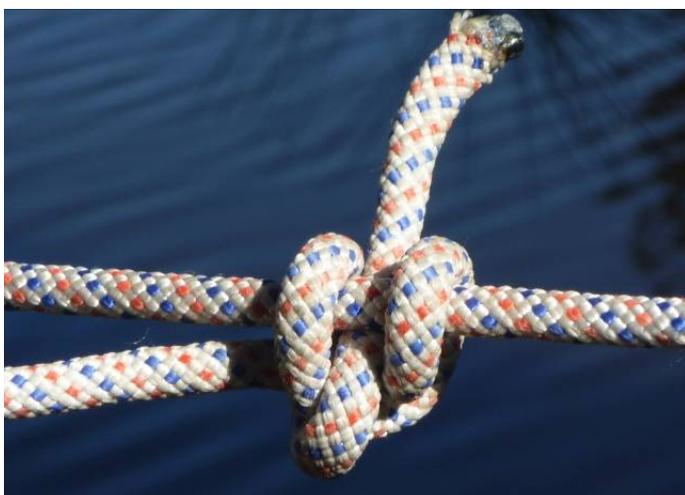
5. Bring the wend up toward you, between the temporary block and the post, and enclosing the lower arm of the eye. Then take the wend into the V between the two turns and through the space under the stand which is occupied by the temporary block (unlike the finish to a buntline hitch).



Withdraw the temporary block (finger or hand) as the tail of the knot passes through and beyond this space. With practice, you will not even need the temporary block. It is no harder to tie than a buntline hitch.



6. Tighten the nub by working any slack out through the tail (and the line running into the other side of the nub if necessary). In this method of tying, there is not much slack rope to pull out while tightening the nub.



7. Look at the knot. If it is correct the appearance will be distinctive, with the tail projecting from the nub between the two turns, and under the line that slides through the noose (which is also the stand that runs to the load). It is best to keep the stand straight, and not kink it over the tail in the nub.

The turns that flank the nub and pass over the stand look a bit like those in the lineman's loop / bend (*ABOK* # 1053 a.k.a. alpine butterfly). The front of the 'sheet bend eye' (*G&H Simple Knotting* Fig. 310) looks similar, but it lacks a crossing turn below and is less secure.

In the photos, the tail has been kept short to be obvious. But as with any knot, a tail length equivalent to at least 10 rope diameters is recommended.



8. You could pull the nub away from the post to make the lines tight, and this might hold in some ropes with high surface friction. But if you want this kind of effect it is better to tie a rolling hitch (*ABOK* # 1735, 1799).

To obtain a secure hitch, it is best to slide the nub of the slip nip noose towards the post and draw the noose tight around the post.

Voilà, you have tied a very secure and jam-resistant mooring hitch.

The knot is PET (you can tie it around a tall tree without a preliminary knot) but not TIB (it cannot be tied without using an end of the rope). If the eye is withdrawn into the nub, the knot resolves after some twisting into a figure eight. That provides another (tricky) way of tying.

If the knot jargon in this article is a hurdle, see the Glossary on the IGKT web site or at https://scithings.id.au/Knot_Glossary.pdf

Here are some views of the knot (in noose form) from more angles in case they help you:



Appearance (from front and back) of a slip & nip noose (L) compared to a lineman's loop (R):

