

## Is this a Rolling, Midshipman's, Tautline or Magnus Hitch?

The use of these names for hitch structures is an example of an ambiguity that arose probably before the age of print, and has since been perpetuated and confounded. Such ambiguity interferes with clear communication. A proposed way to eliminate the ambiguity while respecting historical usage is provided here.



Is this adjustable hitch (A) the Midshipman's Hitch, the Rolling Hitch, the Tautline Hitch, a Magnus (or Magner's) Hitch, or something else (eg Adjustable-, Awning-, Mooring-, Shroud-, Snubbing-, Stopper-Hitch)? At some time it has been called all of those things in influential works on knotting, and those names have also been applied to different structures. Unfortunately this ambiguity continues to the time of writing.



Does structure (A) differ from (B)? Is structure (C) different again? Should these three useful knotting structures be considered separate species and have different names for the purpose of clear communication? Or are they sub-species?

It will be observed that these are hitches. The solid shaded grey is unaltered in form by tying the hitch around it. The (grey) substrate may be any solid: eg a spar, a rope, or another part of the cordage used to tie the hitch. All can be tied in a single rope as adjustable eye knots. All can have the final half hitch slipped for easy release.



These are adjustable sliding hitches. When properly tightened, they will remain fixed against a load in the direction of the stand (arrow) if the friction between the cordage and the substrate is sufficient (eg with traditional rope, though modern synthetics may slip). When the load is relieved, these hitches will relax enough to be slid manually in either direction along the substrate.

All three hitches will put a slight kink in a rope substrate when load is applied to the stand of the hitch. This helps to provide friction and resist slip. All have been elaborated with additional turns or half hitches, or used in tandem multiple forms, for additional friction and slip-resistance with (synthetic) cordage of greater lubricity. Holding power increases exponentially with friction; and (ideally) is thus multiplied, not added, for tandem knots (Thrun, 1973).

Only structure (A) can be used to hold a load before the final (third) turn is made around the substrate. To accomplish this advantage, the second turn is made to cross the first turn (which thus becomes a half hitch), then wedge between the loaded stand and the first turn. It is a "riding hitch". At this stage the structure is sometimes given a separate name (Awning Knot, *ABOK* #1854), although historically it was commonly considered as the same knot however the tail was disposed. The tail may be unsecured for a temporary hitch or secured by various means (commonly seizing, dogging and/or or a half-hitch of the same or reversed direction) for longer use. Seizing is rarely used today (and it would interfere with the adjustable function), so the knot is usually finished conveniently with a half hitch in the same direction (clockwise or counter) as the initial two turns. (As an aside, chirality of the visible helix is confusing when simple helical turns are changed into crossing, riding or grapevine turns. It is less confusing to think of direction in such cases.)

Illustrations A, B and C are modified from *ABOK*. In the discussion below, structure (A) is also referred to as the wedged form, whereas structure (B) is also referred to as the helical form.

Most terms are used here as defined in the [Glossary for Practical Knot Tyers](#), which may be consulted for more detail.

Most knots are shown somewhat loose with short tails to emphasize structure. After they are threaded (or woven) in the desired form, all knots must be checked for correct arrangement (dressing) while tightening firmly by hand (packing or setting) before use. Tails should then be at least ten rope diameters in length, and stopped or secured for critical uses.

## Historical usage

Falconer (1769) mentioned “a rolling-hitch” but gave no description of it.

**HITCH**, *clef*, a sort of knot or noose, by which one rope is fastened to another, or to some other object, as a post, ring, timber-head, mast, &c. Hence we say an half-hitch, *demi-clef*, a clove-hitch, a rolling-hitch, &c. See **BEND** and **KNOT**.

This absence of description and illustration was overcome in a revision by Burney (1815), based on published work of Lever (1808). Translations were copied (with some errors) from Lescallier (1777).

**To HITCH**, (*amarrer, ou saisir un cordage, Fr.*) is to make fast a rope, &c. Thus, when a boat is said to be hoisted in, they say, “hitch the tackles into the rings of the boat!” and when about to weigh anchor, “hitch the fish-hook to the flook of the anchor!”

**To HITCH a Rope**, is to pass its end *a*, plate XII. **Fig. 1.** round the standing part, then bring it up through the bight, and seize it to the standing part at *b*. This is called a *half-hitch*; and two of these, one above the other, **Fig. 2.** is called a *clove-hitch*.

**Blackwall Hitch**, is made by putting a bight of a rope over the hook of a tackle, as represented by **Fig. 3.** **Fig. 3.** and letting the part *a* rest upon it, and the part *b* be jambed by the standing part at the cross. This is used with a lanyard, when setting up the shrouds.

**Magnus Hitch**, is made by passing two round turns with the end of a rope over a spar *a*, then bringing it before the standing part *b*, passing it again under the spar, and up through the bight which it made (**Fig. 4.** **Fig. 4.**), the end part being jambed by the bight *c*.

**A Midshipman's Hitch** is made by taking a half-hitch with the end of a rope *a* (**Fig. 5.** **Fig. 5.**), round the standing part *b*, then taking another turn through the same bight, jamming it between the parts of the *hitch*: when hauled taut the end may be taken round the standing part at *c*, or stopped to it. It is in this manner a tail-tackle is clapped on a rope or fall, to augment the purchase.

**A rolling Hitch**, (*amarrage en fouet, Fr.*) is made in the following manner:—With the end of a rope, as represented at *a*, **Fig. 6.** take two round turns over the spar, &c. at *c*, then pass two half-hitches (see **Fig. 1.**), round the standing part *b*, and it is finished: the end may be stopped to the standing part.

**A Timber Hitch**, (*nœud d'anguille, Fr.*) is made by taking the end of a rope *a*, round the spar, or timber head, **Fig. 7.** leading it under and over the standing part *b*, and passing several turns round its own part *c*. See also the articles **BEND** and **KNOT**.



\* “Two round turns” meant not 2 x 1 round turn, but rather a round turn plus a turn, with stand and tail antiparallel; *ie* three passages of rope over a solid or  $540+360=900$  degrees of rotation by the rope around the solid.

**CLEF**, *s. f.* A sort of knot or hitch, &c.

**Demi-clef**. A half-hitch.

**DEMI-CLÉ**, *s. f.* A half-hitch.

**Deux DEMI-CLÉS**. A clove-hitch.

**Tour mort**. A clove-hitch. **?? Really a Round Turn!**

Lescallier (1777) illustrated various knots and hitches and gave names (in French) that are in some cases used quite differently today.



**Figure 81, DEMI-CLÉ.** Sorte de nœud employé sur-tout aux enfléchures des haubans. Voyez l'article NŒUD, planche 20.

In fact, *deux demi-clés* are shown.

Fig. 95.



**Figure 95, ÉTALINGURE DE GRELIN.** Manière d'étalinguer ou fixer un grelin ou une haussière sur une plus petite ancre.

Fig. 181.



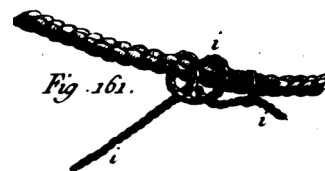
**Figure 181, NŒUD D'ANGUILLE,** qui sert pour embarquer des quarts de farine, des fûtailles légères, & autres objets d'un poids médiocre.

Fig. 193.



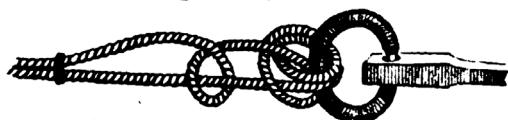
**Figure 193, TOUR MORT AVEC DEUX DEMI-CLÉS.** C'est un nœud très-sûr, servant à amarrer un mât de hune qu'on veut hisser dans le vaisseau, &c.

Today in French, “*Tour mort avec deux demi-clés*” is used for the structure “Round Turn (around the substrate) and Two Half Hitches (around the stand)” (ABOK #1784); but that is clearly not what is illustrated in Lescallier (1777), who translated it ambiguously into English as “a clove hitch with a round turn”. In fact, the modern sense of “Round Turn and Two Half Hitches” (ABOK #1784) was not illustrated until Burney (1871), though Luce (1863) hinted at it, and the related anchor hitch was shown much earlier. Similarly, the English shorthand name “Two Half Hitches” is often today applied to the structure with a U-turn around the substrate and two half hitches around the stand (ABOK #1781); but Steel (1794) clearly showed it with the half hitches around the substrate, not the stand; a structure copied from a *Marguerite* (Fig. 161) with “*deux tours à ce cordage sur le cable*” in Lescallier (1777). *Demi-clé* (or older spelling *clef*) is (in English) a half-hitch. Multiples are *demi-clés*, the simplest of which (with same chirality) is the clove-hitch, commonly enumerated as *deux demi-clés*.



Röding (1794) copied and extended Lescallier with names (in German) that in some cases seem strange today. For example, Röding identified the German *Timmerstich* as English Clove Hitch.

F. 32



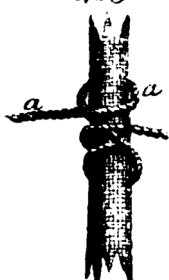
**Fig. 32.** Zeigt wie das Dreggtau zuweilen an den Dregg gestochen wird.

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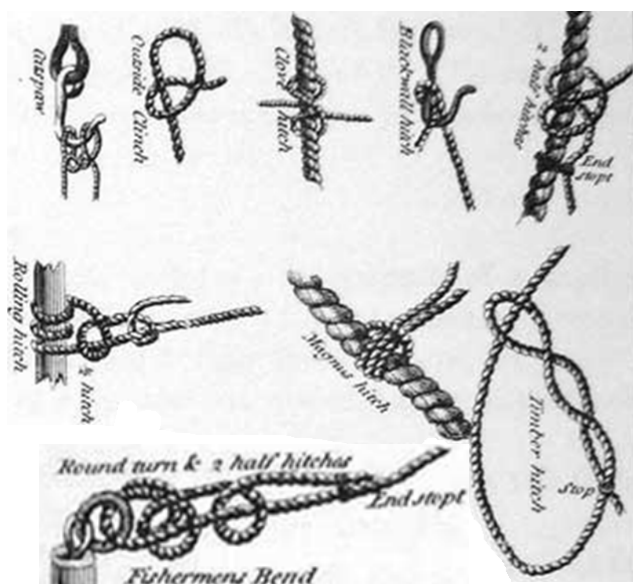
**Fin. 192.** Ein Fischerstich.

203.



**Fig. 203.** Ein Timmerstich mit einem Vor-schlag.

Steel (1794) mostly copied Lescallier, with some additions and names in English.



The “Magnus hitch” appears to be Lescallier’s “Tour mort avec deux demi-clés”, with the final half hitch reversed.

The “Rolling hitch” was three turns (two round turns) around a solid with two half hitches around the stand.

The name “Round Turn & 2 half hitches” was given with no image or description.

There were some errors in the text (eg Magnus Hitch, Midshipman’s-Hitch):

“CLOVE-HITCH is two half-hitches, one at the back of the other, made by the ratlings round the shrouds, and by buoy ropes round anchors.

HALF-HITCH. Pass the end of a rope over the standing part, and through the bight, and lay it up to the standing part; and repeat it for two half hitches.

MAGNUS-HITCH Take **two round turns** through the ring of an anchor, &c. and bring the end over the standing part, then round the ring and through the bight. ??

MIDSHIPMAN’S-HITCH. Take a half hitch round the standing part, and **a round turn above the hitch**, which jams tight. It is mostly tied to make fast the sheets of sailing boats. ??

ROLLING-HITCH. Take two round turns round a mast, &c. and make two half hitches on the standing part.

TIMBER-HITCH. Lay the end over the hauling part, and pass it through the bight; then take several turns round the standing part, and stop the end. The bight serves as a sling for bales, drawing of timber, &c.”

Moore (1805) mostly copied Steel, but his “Rolling-Hitch, and Half Hitch (102)” appears to be Lescallier’s “Tour mort avec deux demi-clés”.

Lever (1808) provided clear illustrations and text for what he called the Timber (Fig. 53), Rolling (Fig. 54), Magnus (Fig. 55-56) and Midshipman’s (Fig. 68-69) Hitches. The Magnus Hitch differed from Steel: it is Lescallier’s “Tour mort avec deux demi-clés”. Another way to describe this hitch is that it is tied like a Clove Hitch, except that a round turn instead of a single turn is made around the substrate, before crossing by the wend to form a half hitch, and finishing with another half hitch around the substrate. In Steel, the final half hitch in the “Magnus Hitch” had reversed chirality (like a Girth Hitch).

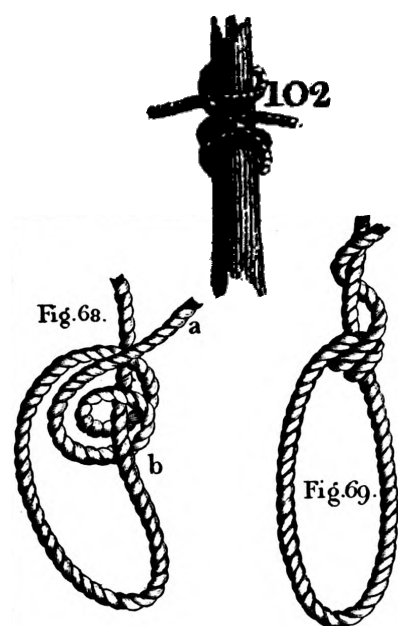
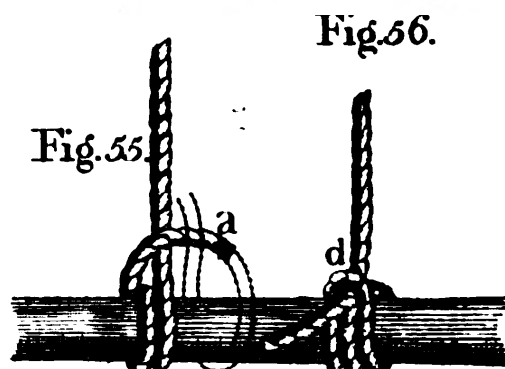
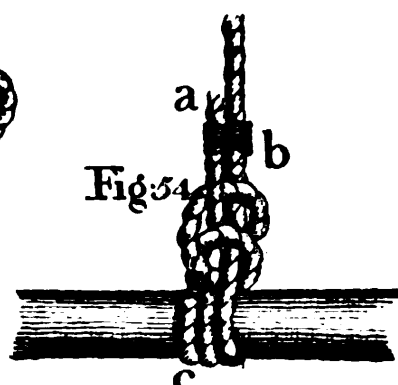
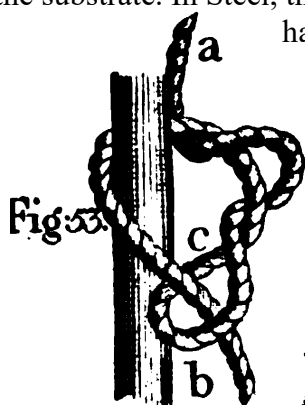
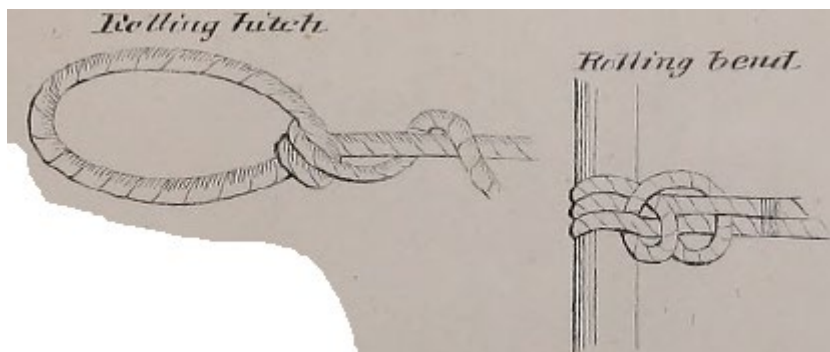


Fig. 56.



Brady (1841) called Lever's Midshipman's Hitch a "Rolling Hitch", and illustrated as a "Rolling Bend" something that might be Lever's Rolling Hitch. (The latter illustration is at best ambiguous. Subsequently, diverse structures have been called a "Rolling Bend").



Dana (1841) did not illustrate Magnus or Rolling Hitches, but wrote:

A ROLLING HITCH.—Pass the end of a rope round a spar. Take it round a second time, nearer to the standing part. Then carry it across the standing part, over and round the spar, and up through the bight. A strap or a tail-block is fastened to a rope by this hitch.

A bend, sometimes called a *rolling hitch*, is made by two round-turns round a spar and two half-hitches round the standing part; but the name is commonly applied to the former hitch.

"nearer to the standing part". Did Dana really mean a new dressing altogether, in which the second turn passes between the first turn and the stand, but conceals the necessary crossing of these turns behind the solid? Nobody before or after Dana seems to recommend such a dressing. Or did he mean to describe Lever's Midshipman's Hitch ( $\equiv$  Brady's Rolling Hitch) with a final half hitch (at least when made around a spar) as a "Rolling Hitch"? We cannot be certain. Exceptionally for the knots he presented, Dana provided no illustration. Nor did he mention the Magnus, Midshipman's or Round Turn and Two Half Hitches; or a Rolling Bend.

As an aside, there are multiple dressing variants of Lever's Magnus Hitch (Figs. 55-56):

1. The classical Magnus Hitch starts with two turns ( $\equiv$  a round turn) around the solid, then the wend passes over all turns and the stand to finish with a half hitch around the solid.
2. The Midshipman's Hitch (Dana-dubbed Rolling Hitch?) starts with a single turn around the solid, arranged to cross the stand (*ie* form a half hitch). Whether the crossing is at the end of turn one or the start of turn two is a matter of perspective. In any case, the wend continues around the solid, passes between the stand and first turn, then across the stand (a second time) to finish with a half hitch around the solid.
3. The form (Dana-dubbed Rolling Hitch?) in which the second turn passes between the first turn and the stand (it must cross the first turn to do this, but the crossing can be concealed behind the solid), then passes over the stand to finish with a half hitch around the solid.

The solid can (for example) be a spar, a pole, another rope or another part of the same rope. Sometimes, even today, "Midshipman's Hitch" is used when the knot is formed around another rope, or another part of the same rope, but it is the same structure as the (Dana-dubbed) "Rolling Hitch" (Magnus dressing variant 2. above).

All these are dressing variants because their structures are interchangeable simply by lifting the second turn over the first, then ‘rolling’ the place at which the second turn crosses the first turn into any desired position, without any re-threading of the ends.

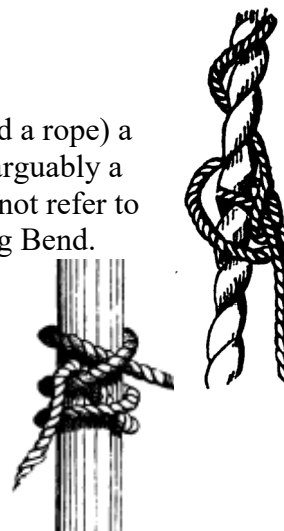
There are other dressing variants as we will see below (eg pulling the first and second turns apart along the solid).

Steel’s Magnus Hitch with ‘reversed’ final half hitch is a threading variant (it can only be interchanged by re-threading). It also has comparable dressing variants.

Biddlecombe (1848) followed Steel.

Alston (1860) followed Brady in calling Lever’s Midshipman’s Hitch (around a rope) a “Rolling Hitch”; though Alston showed a confusing illustration of a what is arguably a different dressing (similar to that shown by Nares around a spar). Alston did not refer to the Magnus, Midshipman’s or Round Turn and two Half Hitches; or a Rolling Bend.

Nares (1860) showed as a “Rolling Hitch” a structure fitting Lever’s Midshipman’s Hitch, as it might be tied around a spar (and with a securing half hitch). This (arguably fourth!) dressing pulls the first and second turns apart, so there are two clear crossing turns over the loaded stand. Nares did not refer to the Magnus, Midshipman’s or Round Turn and Two Half Hitches; or a Rolling Bend.



As another aside, this “loose” illustration in Nares (1860) has been widely copied, sometimes with even more distance between the turns. It does serve to emphasise the difference in arrangement of the turns from that in the classical Magnus Hitch. The Rolling Hitch is harder to draw clearly in its correct form: with the second turn wedged between the first turn and the stand. A knot could even be tied in the “loose” way with a loose rope, but I do not think this would ever be done by a skilled knotter for practical use. The “loose” form will slide along a smooth solid when the stand is loaded parallel to the solid. The correct “wedged” form will not slip. That is the primary purpose of a Rolling Hitch. As in the classical Magnus Hitch, the turns /half-hitches should lie close together.

Today, the use of Rolling Hitch for the structure given in Fig. 54 of Lever (1808) is considered to be superseded. Instead the name is used for Magnus dressing variant 2. in the first box above. Some people attempt a distinction between Magnus and Rolling Hitches based on whether the line crosses the stand once or twice. The two crossings are easily seen in the “loose” illustration, but we know from dressing variant 3. above that this just depends where we ‘roll’ the place at which the second turn crosses the first turn.

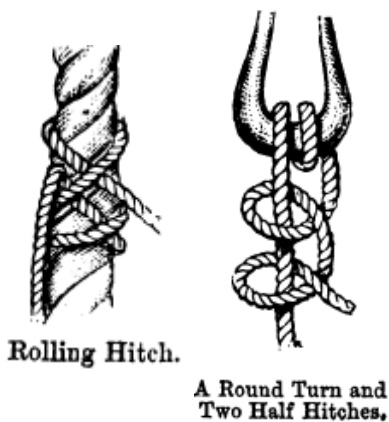
It seems more useful to distinguish the Rolling Hitch based on (a) formation of a half hitch by the first turn and (b) wedging of the second turn between stand and first turn; because this determines whether the structure resists sliding along the solid when there is tension on the stand, even before the final half hitch is made around the solid. In the present document, the combination of (a) and (b) is referred to as the wedged form. More on that later.

Some combination of the names used in these early “Seamanship Manuals” was used in many subsequent compilations of knots.

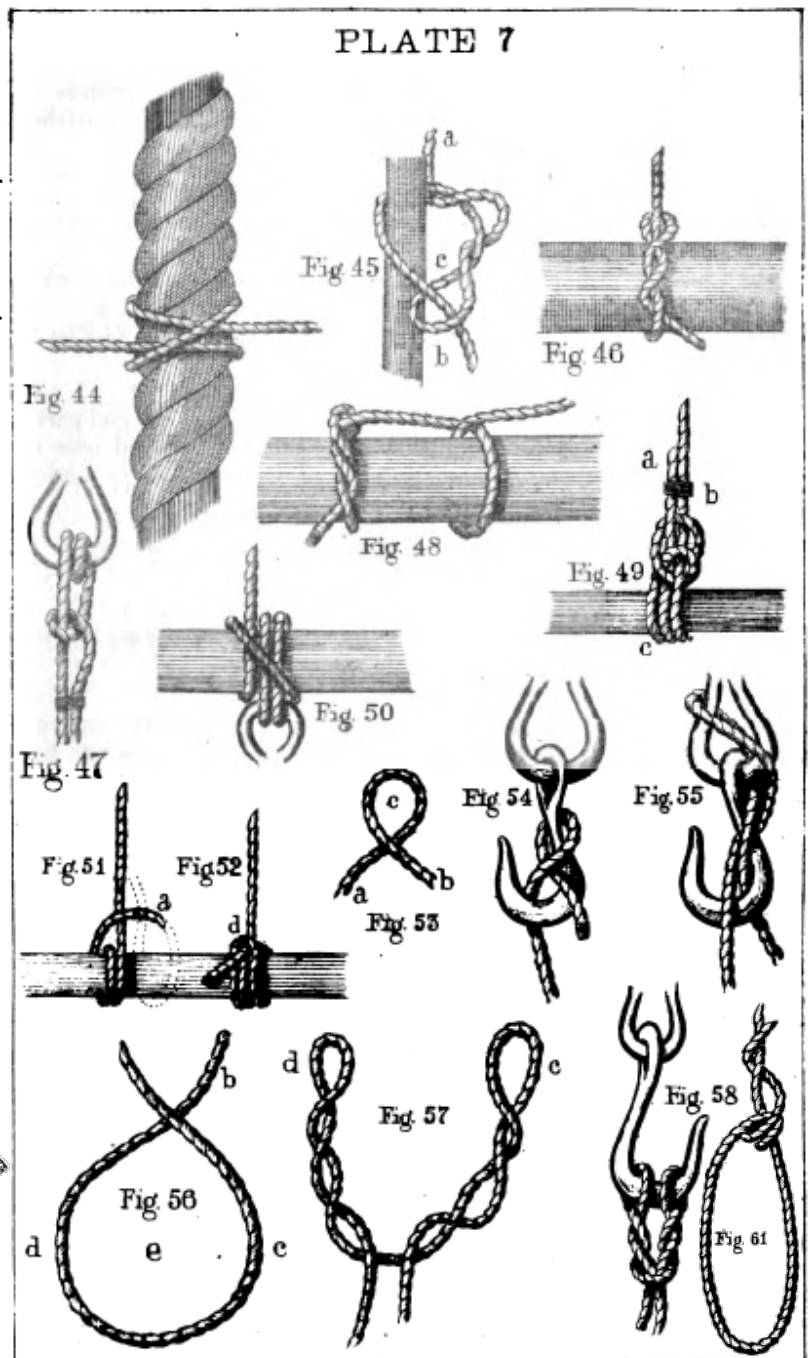
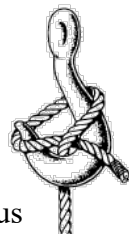
Terminology identical to that of Lever (1808) was used in some influential works until at least (Haslope, 1891) and (Hasluck, 1905; which copied Haslope and remains in print); despite the alternative usage adopted by Brady, Dana, Alston, Nares and those that followed them.

Luce (1863) was perhaps the most comprehensive. He followed Lever and added a “Round Turn and Half-Hitch” (Fig. 47). He even mentioned a “round turn and couple of half hitches”.

The British Admiralty by 1871 taught a “Rolling Hitch” around rope and later also a spar (like Lever’s Midshipman’s Hitch but dressed like Nares; with tail dogged and stopped in early editions); as well as a “Round Turn and Two Half Hitches”, but made no mention of Magnus. Both the Canadian (1972) and USA (1957) navies followed suit.

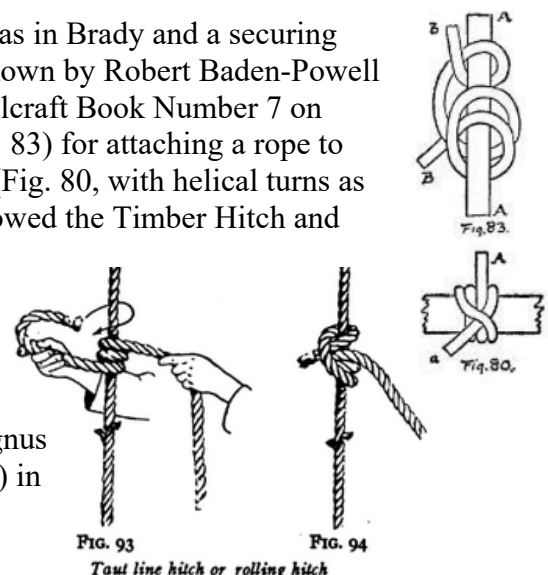


“Midshipman’s Hitch” has been (and is) applied to various knots in Britain, including a Hook Hitch (Bill Hitch) and formerly the Marline-Spike Hitch.



In early Scouting, the “Rolling Hitch” (with wedged turns as in Brady and a securing half hitch: Fig. 83) “for guy lines” was among the knots shown by Robert Baden-Powell in *Campfire Yarn* Number 8 on *Pioneering* (1908). The Gilcraft Book Number 7 on *Knotting* (1929) likewise advised the “Rolling Hitch” (Fig. 83) for attaching a rope to another rope under strain; and added the “Magnus Hitch” (Fig. 80, with helical turns as in Lever) for use on a slippery spar. Both booklets also showed the Timber Hitch and the Round Turn and Two Half Hitches.

An American “Lesson for the Farm” (Riley, 1912) taught a “taut line hitch or rolling hitch” to “attach a new rope to a taut one”, but described and illustrated a classical Magnus Hitch. This was copied (without the rolling hitch synonym) in later Bulletins for American farmers (eg Burger, 1917).



Day (1935) noted that three different structures were commonly known as “Rolling Hitches”: the structures distinguished as “Midshipman’s”, “Rolling”, and “Magnus” Hitches by Lever.

Of these, only Lever’s Midshipman’s Hitch has the second turn wedged between the first turn (half hitch) and stand. The structure of these two turns is sufficient to define the knot. It is the simplest “riding hitch” Fig. 62B. The tail may be disposed of (secured) in any of several ways (eg a half hitch in Fig. 62E-F), but the core knot remains. The various methods of tail disposal could be considered as sub-species. “Midshipman’s Hitch” has other current and historical uses in (British) knotting, so it may be best to use “Rolling Hitch” for this structure (as did Brady, Dana, Alston and many later authorities). The structure shown as a “Rolling Hitch” by Nares is a loose equivalent.



FIG. 62B

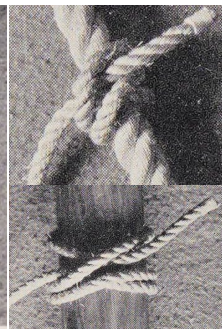


FIG. 62E-F

Lever’s Magnus Hitch (Lescallier’s “Tour mort avec deux demi-clés”) has a very similar structure. The second turn simply does not cross the first turn: this gives a “round turn” which is not stable. So the wend is taken across this round turn and secured in a half hitch around the substrate to obtain a stable knot. According to Steel, the final half hitch can be in reversed direction relative to the first and second turns. The tail also may be further secured, eg by seizing to the stand. Such further methods of security could be considered as sub-species. Fig. 64.



FIG. 64

The structure called a “Rolling Hitch” by Steel (and later by Lever) is nothing more than two round turns around the substrate and two half hitches around the stand. It is very much like the common “Round Turn and Two Half Hitches” (having just one more turn around the substrate, which can increase jam-resistance). Fig. 63. As perhaps noted by Ashley (1944), this usage of the name is superseded.



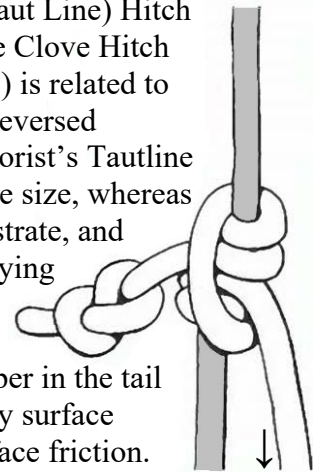
FIG. 63

Ashley (1944) was inconsistent about these names. He reasonably regarded the application of “Rolling Hitch” to the structure in Day Fig. 63 as superseded (ABOK #1721), but sometimes he lapsed (ABOK #1884). He proposed that the Midshipman’s Hitch was tied around the stand whereas the Rolling and Magnus Hitches were tied around some other solid (ABOK #61-62, 1728-1729); but elsewhere he used the names interchangeably (eg ABOK #480, 1753-1754, 1800, 1856). Use of “Adjustable Hitch” was also confusing (ABOK #157, 431, 1472, 1800, 1994, 2031, 2073). Probably reflecting usage at the time, Ashley rarely distinguished in name between the structures with wedged or helical turns, although he noted that this difference substantially alters the functions of the knot (ABOK #1729-1730, 1734-1735). Sometimes he made a confusing distinction of names (ABOK #1855-1856). Sometimes he declared that the wedged form should be used on a laid rope whereas the helical form should be used on a spar (ABOK #1734-1735), but in most places he showed the helical form on laid rope (eg ABOK #1465, 1681) and he showed the wedged form on a smooth substrate (ABOK #167). In ABOK #1736 he interpreted Steel to distinguish the “Magnus Hitch” when the third half hitch has reversed direction, but this was not consistent (eg ABOK #1734, 1800, 1857). Those who seek to follow Ashley in this matter (eg Grog) refer to two versions of the Rolling Hitch (with wedged or helical turns as distinguished here). Ashley also described interesting derivatives (eg ABOK #481, 1230, 1681, 1727, 1737, 1754, 1994); as did Warner (1992, #446-461).

According to Grog, Scouting America popularized the name “Taut-Line Hitch”, in 1948 for the wedged form (Rolling Hitch) then from 1959 for the helical form (Magnus Hitch). A different confusion of names is taught to [American Sea Scouts](#). The name “Taut Line Hitch” was long used for the Magnus Hitch in America (eg Riley, 1912; Dana & Pearl, 1921), though probably more by farmers than sailors (Noel, 1957). There seems to be no advantage (and perhaps some risk) in continued use as an alternative name for the classical Magnus Hitch.



Arborists require an extra turn (for extra friction) to constitute a Tautline (or Taut Line) Hitch (eg Jepson, 2000). The Arborist's Tautline Hitch (*ABOK* #480) is related to the Clove Hitch (eg *ABOK* #1773) in the same way that the 2-wrap Prusik Hitch ( $\approx$ *ABOK* #481) is related to the Girth or Cow Hitch (eg *ABOK* #1673). In the latter, half of the turns have reversed chirality, but this may not be noticed when tying (eg using a Prusik sling). Arborist's Tautline Hitches are commonly tied as adjustable hitches on a substrate rope of the same size, whereas Prusik Hitches are typically tied using a sling of smaller diameter than the substrate, and loaded on both ends. Sometimes (for non-critical uses) arborists save time by tying "sui-slide" hitches with one less turn. Before using any of these knots in a life-critical application; obtain advice from a trusted, trained and experienced professional in the field. Notice, for example, that arborists typically tie a stopper in the tail to further secure the sliding hitch in critical uses. Cordage properties, especially surface friction, must also be taken into account. Mud or ice on a rope can change surface friction.

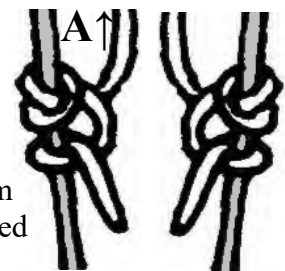


## Proposed usage of names

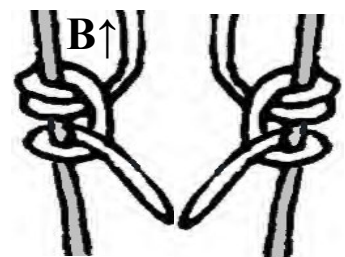
If confusion in concise communication is to be avoided, it is important to agree on a unique name for each knot species, and above all to avoid the situation where the same name is used for different knot species (Birch, 2025). Knot 'species' are generally recognised based on a unique structure of the nub; allowing for sub-species with differences outside of the nub (such as structures added to a stable knot for greater security), and for minor dressing variants that do not affect function. It is generally preferable to abide by traditional usage, where that is possible without ambiguity.

With these principles in mind, and taking account of the historical situation above, a proposal is made for the knots sometimes known as "Rolling Hitches":

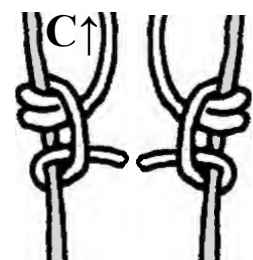
The species "Rolling Hitch" applies to the structures given in *ABOK* #167, 1728, 1729, 1735, 1798, 1799, 1854, 1855, 1999, 2019. This structure has turn two wedged between turn one and stand, as in structure (A). Like any hitch, it may use any solid (including the stand of the same cordage) as a substrate. The structure comprising two turns is stable (at least in the short term if the load is steady) and sufficient to define the knot. The tail may be "disposed of" in any of several ways for longer security, but the core knot remains the Rolling Hitch. Various methods of tail "disposal" may be considered as sub-species. Chiral twins are considered to be the same species (though they may behave differently on a chiral substrate). There is no way to reverse only one of the two chiral elements in the core Rolling Hitch while retaining a stable knot (though other ways to wedge the wend can be envisaged). Ashley (1944) seems wrong to regard this hitch as non-adjustable, most people find it to adjust without difficulty.



The species "Magnus Hitch" applies to the structures given in *ABOK* #61, 62, 503, 1465, 1472, 1488, 1681, 1730, 1734, 1791, 1800, 1856, 2031, 2555. This structure has helical turns one and two, and a third turn as a half hitch around the substrate is required for a stable knot, as in structure (B). This ancient structure is shown in the earliest illustrations of marine knots. Some say Magnus was a Viking, but the hitch is given other names in Scandinavia (Öhrvall, 1916). In any case, it was improved by the simple expedient of crossing one turn, to obtain a structure called the "Rolling Hitch" here, that could relieve (from the wend) a load on the stand during tying.



The species "Reversed Magnus Hitch" applies to the structure given in *ABOK* #1466, 1736, 1857. It is distinct from the "Magnus Hitch" because the third turn has reversed direction (and chirality) relative to turns one and two, as in structure (C). Warner (1992) calls this a "Cow Magnus Hitch". Variations in further methods of tail security are sub-species of either "Magnus".



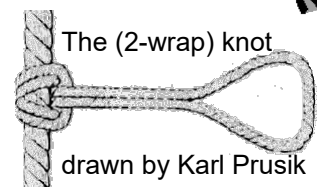
Day (1947) noted that “Magnus” nooses draw closer than the “Rolling” noose around a solid. Reversed hitches may suffer less twist (*ABOK* #1736) but be less secure (Ross, 1984).

The second turn in the Magnus Hitch can be lifted over the first turn after weaving, so it might be argued that the Rolling Hitch is a mere dressing variant. However, the second turn is typically crossed during weaving of the Rolling Hitch then pulled tight in a deliberate action to wedge it between the loaded stand and the first turn. The resulting structure is different in appearance and function from a Magnus Hitch, and warrants the designation of a different knot species: the Rolling Hitch. The wedging of the crossing turn has been described as jamming (or jaming). This is evocative, but the crossing turn (and the entire knot) remains easy to untie after a heavy load, so it is not jammed in the usual sense, and the ambiguity is best avoided.

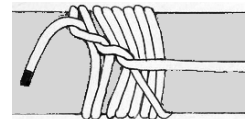
It is recommended to use the full designation “Arborist’s Tautline Hitch” for the structure given in *ABOK* #480, noting that arborists typically tie a stopper in the tail for security (a sub-species). The Arborist’s Tautline Hitch (*ABOK* #480) is modified from the Magnus Hitch (*ABOK* #61) by addition of a final turn around the substrate, under the crossing line and towards the stand. An equivalent modification to the Reversed Magnus Hitch (*ABOK* #1736) yields the 2-wrap Prusik Hitch ( $\approx$  *ABOK* #481, 1744?).



Ashley (1944) showed other friction hitches used on poles, spars, ropes and cables (eg *ABOK* #208-214, 1464-1470, 1733-1772). Climbers, cavers and arborists have developed for use on rope various 4- to 6-turn friction hitches not shown in *ABOK* (eg Thrun, 1973; Jepson, 2000; Adams, 2005). [Tarquin Winton-Jones](#) (2024) also explored the history of such hitches.



Structures that differ in the number or arrangement of turns in the nub may be named as distinct species if they have sufficient value (eg “Camel Hitch” *ABOK* #215, 1741; “Steeplejack’s Hitch”, *ABOK* #452, 1745?; “Blake’s Hitch” etc [Adams, 2005]). Turns around the substrate can be added to increase friction of Prusik, Magnus and Rolling Hitches. Extended helical forms seem to be used more often (eg Petit, 2013).



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