



CLIMBERS' CORNER

Slick Tricks

By Mark Adams

Arborists use slick lines, also commonly called throwlines, for a variety of tasks. Slick lines can be used for installing climbing lines, lowering lines, taglines, and transfer lines; removing hangers; aiding in tying back shrubs, branches and trees; and reaching climbers or bucket operators who have dropped a rope. Throwlines can be set from the ground, from a tree, or from an aerial lift. Some people are reluctant to use throwlines, however, because there is some frustration in learning how to use them and because people believe they can be productive faster without them.

The intent of this article is to encourage greater use of the throwline by illustrating some techniques that have not been widely circulated. Some of these tricks I learned from others, and some I devised myself. Arborists who are new to throwline use will, I hope, find additional ways to work through some common problems that make learning to use the throwline so frustrating. Those who are already slick-line savvy may find a new idea or two that can be added to their existing repertoire.

A number of sources describe methods and uses of a throwline. Jepson, in *The Tree Climber's Companion*, provides information

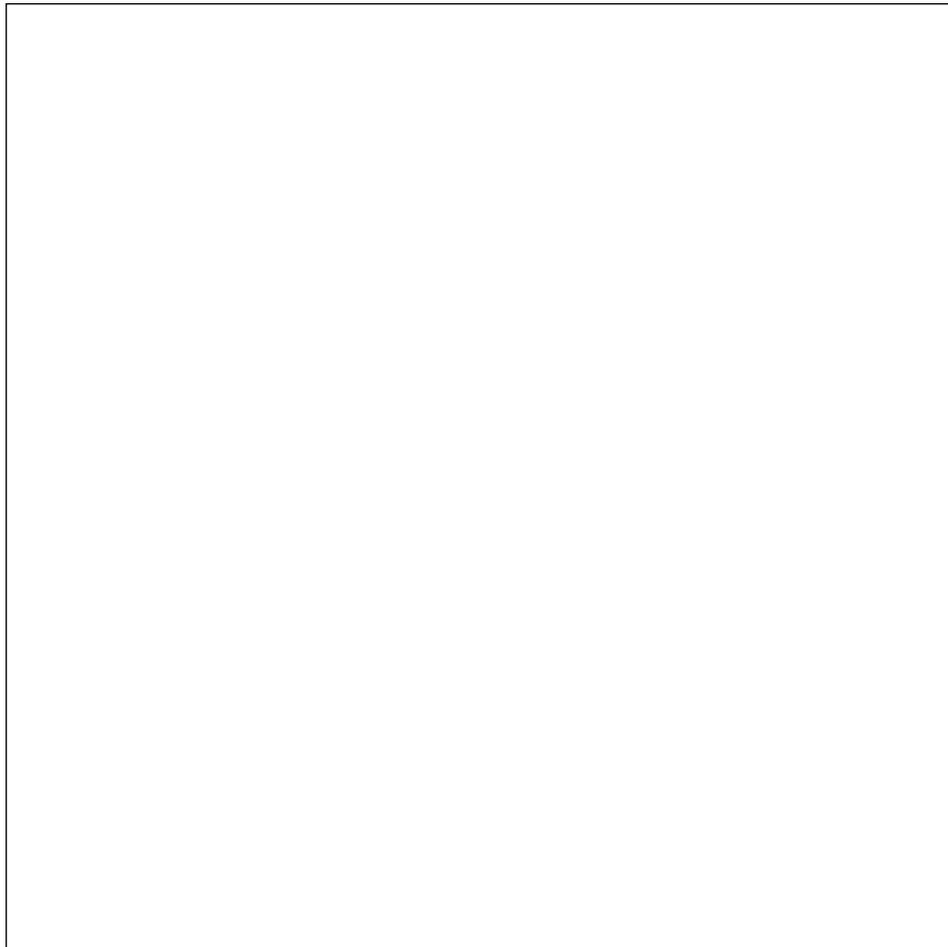
on weights, lines, use of the Big Shot, and installation of false crotches and friction savers. Blair's *Arborist Equipment* also covers types of weights and lines, and is sprinkled with some amusing anecdotal history. Bera-neck (*Fundamentals of General Tree Work*) has some dated—but also some very interesting—tricks. This past fall, the discussion pages on the ISA Web site (www.isa-arbor.com) contained a couple of threads that discussed throwing, types of string, and methods of storage. Also, instructional videos that include some discussion of throwline use are available from both ISA and NAA.

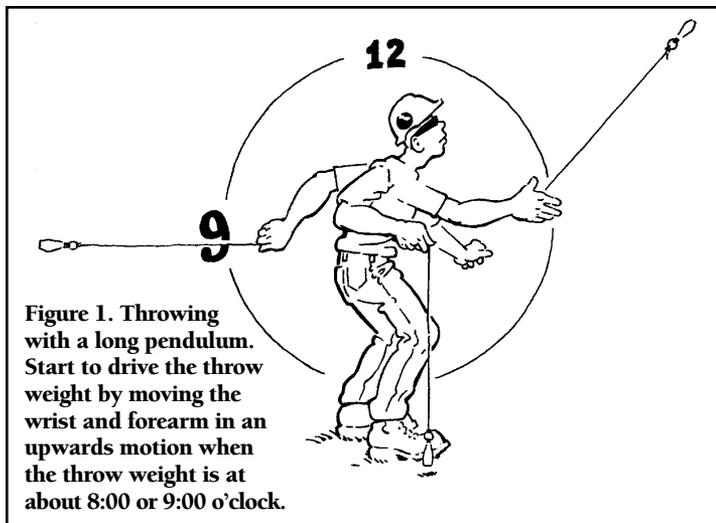
Getting Ready

Always wear a helmet and eye protection when using a throwline. For the setup of the throwline, I prefer to have a throw weight at each end of the line. Various knots can be used to secure the string to the throw weight: Two half hitches, clove hitch, buntline hitch, anchor hitch, and bowline are all used as attachment knots in this application. Because of the small diameter of the string, however, and the amount of force that is sometimes used to pull on the string, these knots can become difficult to untie, particularly if the string is frayed. Many of these knots can be “slipped” (passing a bight through the final tuck), which can solve this problem. Another arrangement is to girth hitch the throw weight. It is easy to take the weight on and off even after being loaded and, although this knot does not slip once it is set, it can be backed up with a half hitch if desired.

Throwing

A common method of throwing the weight is the underhand throw (also called single hand or pendulum). It is accomplished by making a slipknot in the string at about waist height, holding the string at the knot, and swinging the weight back and forth.





you), attach a stick to the line with a clove hitch or simply by taking a number of wraps around the stick. This becomes a handle you can pull on until the weight shoots out of the tree or the string breaks and snaps back at you. You must wear a helmet and eye protection when you do this.

For higher shots with this throw, you can stand on a bucket or other item to increase the length of the string and gain more momentum on the swing. A variation of this throw is simply to tie the knot higher (above waist height) and use a different arm movement to swing and drive the throw weight. Because the knot is above waist height, the arm and wrist have to move up and down to swing the line. When ready to throw, start to drive the weight when the back swing is close to horizontal (about 8:00 or 9:00 o'clock) and move the arm and wrist in more of an upwards motion than used in the previously described method (Figure 1). This variation allows higher throws without the need to stand on anything, but it requires different arm and wrist movements in the swing, drive, and release of the throw weight. It can take several months of regular throwing to learn this if you are used to the other method.

Manipulating the Line

Occasionally, the throw weight gets stuck in the tree. This situation most often occurs when attempting to pull the line out of the tree after an errant throw. To reduce the chance of this happening, remove the throw weight before you pull the string out of the tree. This will not only reduce the number of times that the throw weight gets stuck, it also will eliminate the possibility of the throw weight flying uncontrollably out of the tree and breaking a window, denting a client's car, or clunking you in the head. If the weight does get stuck and you want to pull on the string without slicing your hand open (and if there are no targets behind

When using the throwline to place a line, you generally will want to isolate a particular crotch or at least a particular area of the tree. A number of methods can be used to isolate the desired crotch. As you work and gain more experience with the throwline, you will begin to recognize which trick(s) to use depending on the height and growth habit of the tree and the system you are trying to install. In the following examples, I use a number of abbreviations to facilitate the discussion: tw = throw weight; tw1 = the throw weight that was thrown; tw2 = the throw weight on the other end of the line.

Sometimes your throw will be near, but not over the target branch. For example, in Figure 2 you want the line to isolate branch A, but your throw lands on branch B—which is unsafe for climbing. One way to isolate branch A is to “walk” or “step” the throw weight.

Walking or Stepping the Throw Weight

1. Pull tw1 into the tree, causing it to swing either by bouncing it on the way up or by starting the swing with your hand before you pull the weight up into the tree (Figure 2a).
2. As tw1 approaches branch B, continue the swing, then snap the string so that tw1 goes over branch B, flies backwards, and catches on branch A (Figure 2b).

This technique also can work to move the throw weight up to a higher branch or even to a branch or crotch that is across the canopy. The only caveat is that you must let the throw weight run. If you stop it abruptly, the weight may catch branch A (or some other

branch) and wrap around it several times—making it impossible to retrieve from the ground.

At other times, you may have the string over a suitable branch with one leg of the

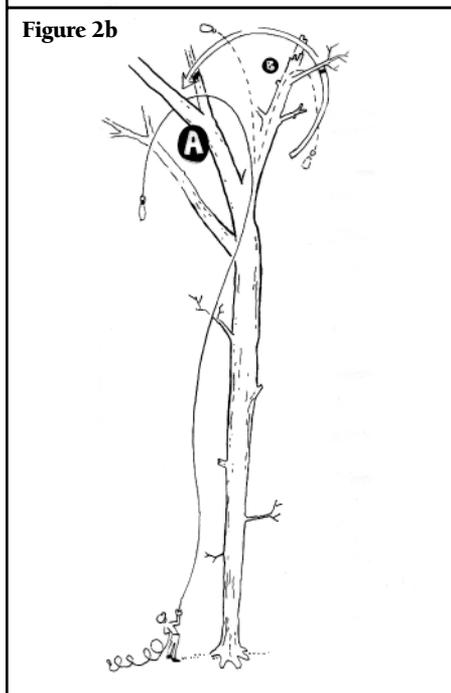
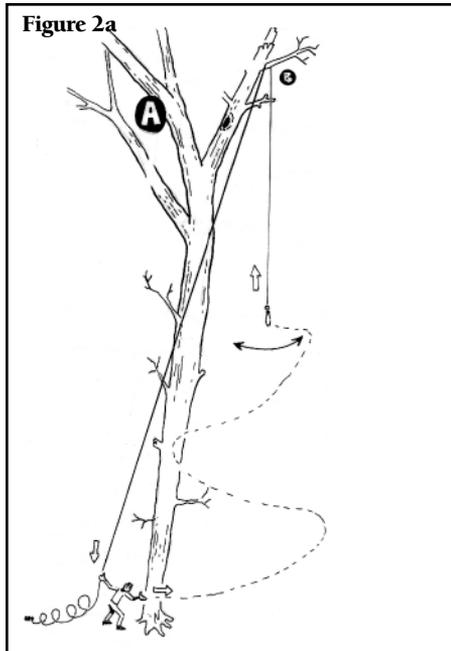


Figure 2. Walking the throw weight. Snap the string so that the throw weight flips around the branch and toward the desired crotch. With practice, and in an open canopy, the throw weight can be directed to a branch that is above, below, or across from where it initially lands.

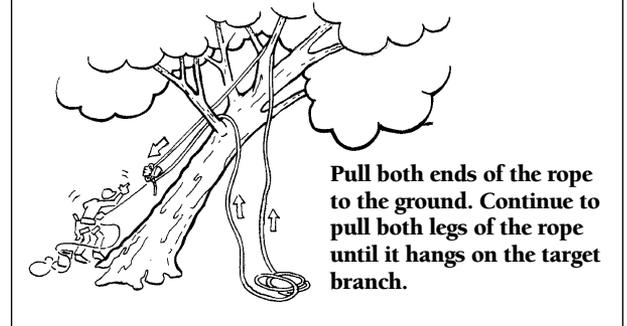
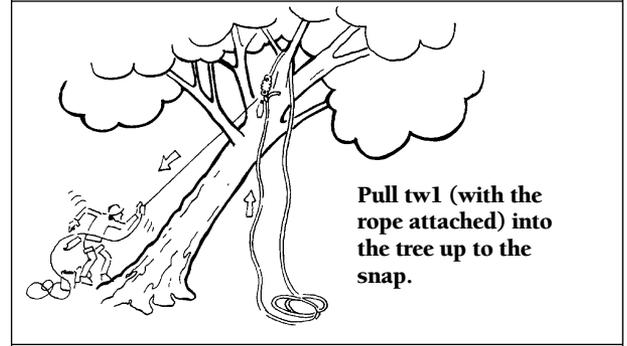
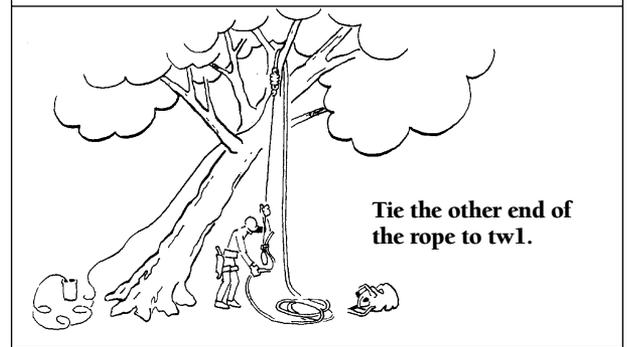
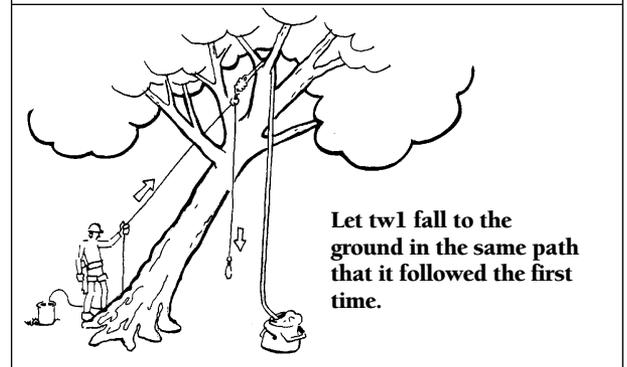
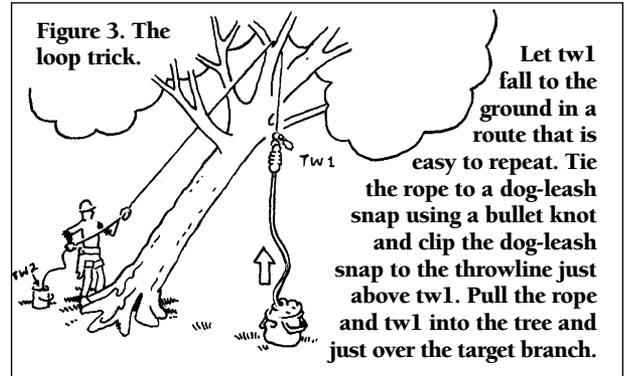
string following the desired route to the ground, but you are unable to get the second leg of the string in the same position (Figure 3). In this situation, use the *loop trick* to get both legs in proper alignment.

The Loop Trick

1. Let tw1 fall to the ground in a route that is easy to repeat. It does not matter if there are numerous branches between it and tw2.
2. Tie the rope to a dog-leash snap using a bullet knot or monkey's fist.
3. Clip the snap to the throwline just above tw1.
4. Pull the rope and tw1 into the tree and just over the target branch.
5. Let tw1 fall to the ground in the same path that it followed the first time (that is, it should parallel the rope).
6. Tie the other end of the rope to tw1.
7. Pull tw1 (with the rope attached) into the tree up to the snap.
8. Pull both ends of rope to the ground.
9. Continue to pull both legs of the rope until it hangs on the target branch.

On higher throws, the weight of the rope has a tendency to pull the throwline out of the tree. This problem can be countered by tying a larger bullet knot, by clipping a carabiner into the ring of tw1, or both.

There will be times that, once the rope is over the desired branch, it is resting some distance out on the branch rather than seated directly in a crotch. If the



only thing that prevents the rope from sliding down toward the base of the branch is a couple of small dead twigs, tie the ends of the rope together using two double-over-hand knots and pull this knotted rope into the tree to break the twigs. For slightly bigger twigs or small stubs, use a *jump stick*.

Jump Stick

Tie a sturdy stick in the rope using a clove hitch or an in-line girth hitch and pull this stick up to break the twig or stub (tie the ends of the rope together so that one end is not inadvertently pulled off the ground). Experiment with tying the stick in the middle, at one end, or at both ends to achieve different reactions in the way it jumps. For stubs that are too big to break, or if you are pruning the tree and do not want to break a live branch, combine two of these tricks (*walking* and *jump stick*) to create a *jump bag*.

Jump Bag

With the throwline still in the tree, tie both ends of the string to one throw weight. Pull the weight into the tree, swing it as it approaches the branch, and then snap the string so that the weight flies over the stub or twig. If you

miss the first time, simply work the throw weight back and forth using both ends of the string. Try adding a carabiner or a second throw weight for greater response.

Throwlines can eliminate a great amount of climbing and can be a big time saver, but they can sometimes be extremely frustrating. This problem should not discourage the newcomer from persevering and trying again (and again and again). It will take time to get a sense of when to try which technique. Practice and exposure to a wide variety of techniques will make you more proficient and allow you to find a variety of tricks to suit your own particular style of climbing.

A future issue of *Arborist News* will feature other slick tricks. If you have ideas that you would like to share, please write to me or to the editor. Tell us about a particular way that you used a throwline to access or remove a tree in a tight situation. It is hoped that these tricks will serve as a springboard for creativity.

References

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