Pioneering Merit Badge Resources:

- [Pioneering Merit Badge](#)
- [Requirements-2017](#)
This small camp table can be comprised almost completely of Scout staves. It’s 100% functional and provides a convenient raised surface for personal, patrol, or general use. It’s simple design makes it quick and easy to set up, and it is remarkably stable.
Make the table legs. Start by lashing together four Scout staves into two sets of shear legs with 6-foot manila lashing ropes. If you prefer, square lashings can be used instead of shear lashings. (In lieu of Scout staves, straight poles an inch or so in diameter are just fine.)

Lash on the table top supports. Next, with two square lashings, lash a 2-1/2-foot stick to connect each set of shear legs about 30 inches off the ground. (A Scout stave cut in two is ideal.) This will form two A-frames, one for each side of the table. Make sure each of these support sticks are lashed on straight and at the same distance from the bottom end of both sets of legs.

Securely hold up the A-frames. This is surely the best part. Find the midpoint of a 20-foot line. At about two feet away, tie a clove hitch at the top of one of the Scout staves of one of the A-frames. Repeat this process on the other side attaching the line with a clove hitch to one of the Scout staves of the other A-frame.

Secure each end of the 20-foot line to stakes driven into the ground on either side, about 5 feet away, so the line extends out evenly from each end of this table framework. You can use round turns with two half hitches, taut-line hitches, or rope tackles. Here’s the beauty of this configuration: you can manipulate the distance between the A-frames by adjusting the clove hitches, and provide optimum stability to the table by placing a good, reasonable strain on the line at each stake. It will stand up in an impressively rigid fashion.

Lash on the table top. Finally, lay 12 Scout staves, (or similar poles) side by side, on top of the 2-1/2-foot support sticks, and using binder twine, lash them on with floor lashings.
A BETTER CLOTHES DRYING RACK

You’ve got to love this design. It’s compact, it’s sturdy, and it’s ingenious!

This drying rack is based on suspending two concentric, equilateral triangles to make six cross sections for hanging wet clothing or towels during a long term encampment, and there’s no reason you can’t put it up on an overnighter if there’s a practical need. All that’s been said before regarding the advantages of this kind of campsite improvement apply to this simple camp gadget:

- It takes up less space while drying more wet things.
- It eliminates the clutter of clothing and towels haphazardly strewn around on tables, tree branches, tent platforms, or overcrowded on a disorganized array of drooping clothes lines.
- It can be set up in a location where there is the most sunshine.
- It’s especially useful when camping in an open area with few trees.

Materials (adapt these as you like)

- three 4-foot x 1-inch sticks
- three 5-foot x 1-inch sticks (Scout staves are ideal)
- one 6-foot x 1-1/2 to 2-1/2-inch straight pole for the upright (or an additional 5-foot Scout stave)
- one 30-inch pioneering stake
- eight camp gadget lashing ropes (6 to 10-foot)
- three 15-foot lashing ropes
- three small stakes
Procedure

Lash the triangles. Start by lashing together two equilateral triangles, one smaller for the top (three 4-foot sticks), and the larger one for the bottom (three 5-foot staves). Use square lashings. One easy way is to lash two at 90° and then bend them in and tie the third square lashing to make the triangle. This yields a nice, tightly-lashed triangle. (but be careful you're not putting too much stress on the ropes and poles when preparing to apply the third lashing).

Erect the upright. Pound in a pioneering stake and lash the 6-foot pole to it securely with two tight strop lashings or round lashings. Making this upright stand up vertically without moving or wobbling at all is a key to a good and sturdy clothing dryer. So, solidly pound in the stake and make sure it's as straight as possible. Also, make sure the lashings are well-tied and tight.

—> A clothes drying rack can be erected without having to either pound in a stake or sink the center pole, by using the same principle as when erecting a flagpole. The key is using the support ropes as guylines. SEE PHOTO.

Rolling Hitches

Attach the triangles. Lay the triangles on the ground over the upright, first the larger triangle, and then the smaller one on top.

Using rolling hitches, tie the three 15-foot support ropes to the top of the upright. (Round Turns with two half hitches also work just fine.)

Tie each corner of the smaller triangle to a support rope so it will be suspended about 5 feet above the ground. Use clove hitches which can be
adjusted as necessary to assure the triangle hangs evenly and the 4-foot sticks are horizontal. Continuing with each of the three support ropes, repeat this process for the larger triangle so that it will hang about 4 feet above the ground.

Anchor the support in a small stake a foot with each corner of triangle. Using the of the support ropes, the stakes with a hitch. This will further clothing dryer and make fine-tune the way the triangles lay. (You can also just make stakes with a round turn with two half hitches, or another clove hitch.)

Stake ropes. Hammer or so out, in line the bottom remaining length attach them to simple taut-line stabilize the enable you to adjustments to them fast to the

An assembled clothes drying rack at the 2013 Jamboree gets the once over.
HAND WASH STATION

This wash station is the ideal First Class Camp Gadget! It’s sturdy, portable, and very useful when camping away from washroom facilities. Inherent in its design is a sound approach to a variety of pioneering concepts and skills. When this project’s built with all the lashings tight and all the legs, crossbar, and support pieces properly positioned, it’s a fine example of a well-engineered, highly functional camp gadget. Each of the three legs making up the tripod gets a lashed on support piece, and the wash station’s stability stems from the fact the design contains three triangles.

To start, you’ll need six good, straight sticks as follows:

- Two 2-foot x 3/4 to 1-inch for the leg braces
- Two 4-foot x 3/4 to 1-inch for the back leg and crossbar
- Two 5-foot x 3/4 to 1-inch for the front legs

For the lashings, you’ll need:

- One 10-foot x 1/4-inch manila rope for tripod lashing
- Six 6-foot x 1/4-inch manila ropes for square lashings

NOTE: This and several types of camp gadgets can be happily lashed together simply using twine!

You’ll also need:

- Bar of soap in a sock with a 3-foot cord
- Small to medium-sized towel with a 3-foot cord
- No. 10 can with a bail or 4-quart cooking pot with a bail.

Here’s the assembly procedure:
Make the tripod. Using the 10-foot rope, lash the two 5-foot sticks and one 4-foot stick together with a tight tripod lashing. The 4-foot stick should be in the middle. Make sure the “butt” ends of all three these sticks are even. Separate the legs and set the tripod up. The success of this project relies on a well-tied, tight tripod lashing.

Lash on the braces. Using four tight square lashings, with the 6-foot ropes lash one end of the 2-foot sticks to the 5-foot legs and the other end of the 2-foot sticks to the four-foot leg.

Lash on the crossbar. Using two more square lashings, tightly lash the other 4-foot stick to the top extended sections of the two 5-foot sticks to make a cross bar for the towel and soap-in-a-sock.

Add the soap, water, and towel. Tie the end of one 3-foot cord to the soap-in-a-sock and the end of the other 3-foot cord to the towel, and hang them on either side of the 4-foot crossbar.
Washing his hands before breakfast on a cold, winter camping trip.

Hang the can filled with water to the end of the 4-foot stick extending from the front of the tripod.

During the camping trip, change the water as necessary. See that the soap-in-a-sock is not left in the can after use as it will melt.

One of the beauties of using metal containers is that in cold weather, the can of water can be heated in the fire.
Background and History. Washing meal time utensils on a camping trip can range from using paper plates (no washing) to “Philmont-style” (lick 'em clean and sanitize in boiling water). Through the years, Scouting has come up with a variety of “dish washing assembly line” configurations. For a wide range of field applications, the three container approach has proven itself tried and true.

Here’s the method featured in the current edition of the Boy Scout Handbook:

- 1st container: Wash Pot (hot water with a few drops of biodegradable soap)
- 2nd container: Hot Rinse Pot (hot clean water)
- 3rd container: Cold Rinse Pot (cold water with a sanitizing tablet or a few drops of bleach to kill bacteria)

Here’s the method featured in the current edition of the Fieldbook:

- 1st container: Wash Pot (hot water with a few drops of biodegradable soap)
- 2nd container: Cold-Rinse Pot (cold water with a sanitizing tablet or a few drops of bleach to kill bacteria)
On many overnight camping and backpacking trips, this approach has been adapted, sometimes combining the second and third containers into one 8 quart pot. In all cases, the initial step is to clean or scrape off as much excess food as possible into a designated receptacle, before placing anything into the 1st container. Most often the final step, is to let all washed items air dry on a plastic sheet. Even when wash basins are used on front-country, “car-camping” trips, the whole production frequently takes place right on the ground. This is always the case when there are no picnic tables, limited table space, or when tables are being used for other things. Improving the campsite, making it more comfortable, making kitchen tasks more convenient, being resourceful and using one’s ingenuity is what creating camp gadgets are all about. That’s why the Scout Stave Dish Washing Rack was devised.
The wash basins are supported underneath by two Scout Staves.

Two challenges. 1) Drawings for dish washing rack designs are common. But, until you make one and try it with full containers of water, it’s difficult to realize what the main challenge really is—to keep the containers from crashing down because they’re too heavy! Depending on the containers used, an average wash basin won’t have enough of a lip to hold it in place or is just too flimsy to keep its shape when filled with water. That’s why lashing together a framework alone usually won’t suffice. Therefore, in addition to the framework, this design includes a bottom platform made up of two Scout Staves for the basins to rest upon, which solves the weight issue. 2) The next challenge is one that’s common to many a pioneering structure, be it large or small. How do we keep the rack itself from falling over? We overcome this basic concern by bringing into play the same stability solution used in making a simple camp table. It’s exactly the same concept that keeps a monkey bridge erect. Like the table, we connect two upright A-frames with a rope, and using the same rope, we anchor them securely in place on either side. Here’s what you’ll need:

- ten 5-foot Scout Staves
- fourteen 6-foot x 1/4-inch lashing ropes
- one 20-foot x 1/4-inch lashing rope
- two narrow pioneering stakes
- three wash basins (For convenience, the wash basins we used were very inexpensive and easy to find. Purchased were three 18-quart Sterilite basins from Walmart.)

Make the A-frames. Because the rack will be holding around nine gallons of water, approximately 72 pounds, the lashings for this project need to be especially tight. An easy way to assure you’ll have well-lashed A-frames is to first square lash the tops at 90° and then the ledger to one leg, also at 90°. This will create some strain on the lashings when the other leg and the other end of the ledger are lashed together, yielding a nice tight A-frame. (Careful it’s not too tight, and of course you can always start with a shear lashing at the top.) With these Sterilite
wash basins, lash the ledger in place about 28 inches from the top of the legs. Since all we’re using are Scout Staves, in this design one side of the ledger will purposely extend out much farther than the other on each A-frame—a place to hang some towels (or whatever).

![A rope attached to the legs and anchored to a stake on each side.](image)

**Connect and stand up the A-frames.** Tightly lash two staves to the outside of the legs of each A-frame, about 20 inches from the top. The front and back edges of the wash basins will rest on these staves. Hammer in two stakes about 12 feet apart where you want the rack to be located, and position the connected A-frames between. Halve the 20-foot lashing rope and approximating the midpoint between the A-frames, secure the rope to the top of one leg with a clove hitch, and pulling the rope to the other A-frame, repeat the process on the top of a leg on the other side. Tie the ends of the rope to the stakes on either side, securing the ends tightly with taut-line hitches. (If preferred use **round turns with two half hitches**.)

**Add the two-stave basin supports.** The A-frame ledgers will now serve to do something more than keep the A-frames’ legs from shifting. They’ll now also support the two remaining staves that assure the basins stay put! Lash these two staves parallel to one another on top of the ledgers, on either side of the rack.

**Place the basins on the rack.** Once you check to see all the lashings are tight, and the central rope is secure and stabilizing the structure, then you’re ready to bring on the basins. Position them side by side and fill them about 3/4 of the way up.
Scout Stave Dish Washing Rack
DOUBLE FIRE BUCKET HOLDER

One of the essential mandates in the BSA’s Outdoor Code is: BE CAREFUL WITH FIRE.

- I will prevent wildfire.
- I will build my fires only where they are appropriate.
- When I have finished using a fire, I will make sure it is cold out.
- I will leave a clean fire ring, or remove all evidence of my fire.

In addition to being the height of simplicity, the Double Fire Bucket Holder makes an invaluable contribution towards safety around the fire circle. In our campsites, since it’s always a safe bet to have a supply of water right near our cooking and campfires, why not add some convenience and accessibility, especially because when fire buckets are on the ground, they’re frequently knocked over, inadvertently kicked, and even stepped in!
The materials needed for this ultra simple campsite improvement are two pioneering stakes, a solid stick about 30 inches long with a notch on either end to hang the buckets, and two short 1/4-inch manila lashing ropes, 6 to 10 feet long. In a sensible place near the fire circle, simply pound in the pioneering stakes, approximately 1 and 3/4 feet apart. Then, making sure the notches on the 30-inch crossbar are facing up, lash it to the two stakes with tight square lashings. Fill the fire buckets and hang them on either side. That’s all there is to it. As illustrated in the drawing below, this same design can be used in a variety of ways.

Whatever the doctor orders.
SIMPLE FLAGPOLES

Flags engender pride! Flying ’em high is great for Scout spirit, and making a flagpole is really easy. All you need are straight sticks (Scout Staves work great), rope for round lashings, rope for guy lines, and three stakes.
The key to **making** a simple flagpole out of shorter poles is **round lashings** and knowing where to tie them. The space where the two poles are joined, gets two tight round lashings—one on either side of the overlap and right near the ends of each pole. The length and thickness of the poles being lashed together will determine how much they need to overlap, and how many tight wraps need to be taken. Using 5-foot Scout Staves, you can simply overlap them about 10 inches with a couple of 6-foot lashing ropes. With practice, a Scout patrol can make a 15-foot flagpole out of four Scout staves in a few short minutes.

![15-Foot Scout Stave Flagpole without a Halyard](image)

The key to **lifting and securing** a simple flagpole is tying on three guy lines about 3/4 of the way up, and extending them out equidistant from one another. The stakes should form an equilateral triangle, and should ideally be hammered in a distance away from the flagpole of at least twice the height of where they’re tied. So, if the flagpole is 15 feet, and the guy lines are attached 11 feet up, the stakes should be 22 feet from the pole for optimum stability. Under many circumstances, this distance can be much shorter and still provide the support to hold the flag up, even during lengthy periods of use.
While the flagpole is being lashed together, a Scout or Scouts can be putting the stakes in the ground, pacing out the proper distance and hammering them in to form that equilateral triangle.

Before raising the pole, the three guylines should be tied at about 3/4 the way up using round turns with two half hitches or rolling hitches. Then when the flagpole is being held erect, three Scouts can each take a guyline and attach it to a stake with a tight taut-line hitch, or for taller, heavier flagpoles, a rope tackle.

If the flag is not to be ceremoniously raised and lowered, or with shorter flagpoles, a halyard is not necessary.
EASY TALL FLAGPOLE

At most Scouting events, there isn’t a permanently-installed, tall, metal pole for raising and lowering the colors. During opening ceremonies at these Scout gatherings, a tall flagpole made by joining long spars together can impress and inspire.

What is meant by tall? Naturally, the height of the flagpole depends on the size of the flag and the size of the area where it will be raised. For the most part, the flags used in Scouting are 3 x 5 feet, and the average size outdoor flagpole for a 3 x 5-foot flag is 20 feet. Of course, the main criteria for flagpole height is how far away you want the flag to be seen. But also, flying a flag high is synonymous with pride, and the taller the pole the greater the impact. However, this post is about a simple flagpole and not a pioneering display of goliath proportions. The specific flagpole featured on this page topped out at 32 feet, which was impressive, but not uncanny.
Building and putting up a taller flagpole requires more attention than one for an easy campsite setup, but all in all it’s still a relatively simple operation. Basically, four things are needed:

1. Long spars
2. An effective way to join the spars together so the flagpole will be rigid
3. A series of planned steps to take before standing the flagpole up *
4. A crew to lift the flagpole to its vertical position

Long spars. Depending on your point of reference, the definition of long spars is relative, and will hinge on what’s available in your geographic area and how practical it is to procure and transport them. Naturally, the longer the spars the fewer you’ll need to make the pole tall, which of course has obvious advantages. Again, depending on your point of reference, a long spar can be seen as having a length anywhere from 10 to 20 feet.

In the flagpole featured on this page, there are three long spars: 16-foot bottom, 14-foot middle, and 10-foot top. The lower the spar, the larger the diameter. The butt end of the next spar up should be as near to the same diameter as possible to the top of the one it’s joining.
An effective way to join the spars together so the flagpole will be rigid. Obviously, the rigidity of the flagpole is a primary concern. You don’t want it to bend and you don’t want it to come apart. It has to ever-withstand the stress of its own weight in a vertical position, as well as the weakening forces of wind, rain, and varying temperatures. When it comes to joining spars together to extend their length, there are basically four lashings that can be employed. For the tightest and most secure lashing, the West Country Round Lashing works really very well.

When the utmost rigidity is required, a quarter of the spars’ lengths should overlap each other. Using long lengths of 1/4-inch manila rope, start each of the two lashings approximately 1-1/2 to 2 inches from the ends of the overlapping spars and tie at least ten tight half knots (overhand knots) towards the middle of the overlap. Depending on the length of the lashing rope and the size of the spars, for added security, additional lashings can be tied e.g. in the photo to the left, where the bottom spar and the middle spar overlap, four West Country Round Lashings were applied.

* A series of planned steps to take before standing the flagpole up. Before transforming the finished flagpole from horizontal to vertical, these steps need to be taken:

1. Determine the spot on the ground where the flagpole will stand and dig a hole about 4 inches deep with a diameter just a little larger than that of the flagpole butt end.
2. Position the flagpole so the bottom is right over the hole.
3. To attach the rope halyard, tie a small rope grommet and pulley to the top of the flagpole with a prusik.
4. Reave the prepared rope halyard through the tackle.
5. Attach four guylines of the proper length (see: Guylines.) Tie the guylines to the flagpole about 3/4 up the pole with four rolling hitches. Tie them on so they will each line out to their respective anchors.
6. Measure out the proper distance from the bottom of the flagpole in four perpendicular directions and mark the spots where the front pioneering stake will be driven into the ground for each 1-1 anchor. The rule of thumb is drive in the stakes at a distance equal to twice the height from where the knots were tied, measured out from the base of the flagpole.
7. Build four 1-1 anchors in readiness for attaching the four guylines.

A crew to lift the flagpole to its vertical position. When ready, four crew members each take hold of a guyline and position themselves in line with their respective anchors. Additional crew members line up along the length of the flagpole ready to walk the pole up to its vertical position. One member is stationed at the bottom to guide the pole into the hole as the others lift. When everyone is in position, a signal caller gives the go ahead to lift. Those with the guylines pass the ends of their lines behind the front stake of their anchor. Once the flagpole is standing upright, each guyline is secured to its anchor with a rope tackle. Final adjustments can then be made to each guyline until the pole is standing straight.
Put it together, lift it up, and tie it down!

Several campcraft skills come into play in order to successfully complete this Simple Flagpole challenge. Each patrol flies their patrol flag from a 14’ flagpole they construct using the following materials:

- Four Scout Staves (or 3 Scout Staves if their patrol flag is already tied to a 5’ pole)
- Six 6-foot x 1/4-inch lashing ropes
- Three 15-foot dining fly guylines
- Three long stakes
- One mallet

On signal, each patrol flies their flag by:

1. Joining the staves together with round lashings
2. Attaching the three guylines about 3/4 the way up from the bottom with round turns with two half hitches or rolling hitches
3. Hammering in the three stakes forming an equilateral triangle
4. Tying the guy lines at the stakes with taut-line hitches
5. Adjusting the tension on the lines to securely hold their flagpole in a vertical position
Patrol Flags Flying!

All Winners!
Getting that garbage bag off the ground has all kinds of advantages, but sometimes, you can’t hammer sticks into the ground to make the easy three stake holder. There might be any number of reasons. The ground’s got too many rocks. The ground is rock. You’re in a parking lot or on the sidewalk during a fundraiser. You’re indoors.

In these cases, to hold up a trash bag (when there is no trash can), you can simply lash three Scout Staves or similar poles into a tripod and lash on some short cross pieces to keep it stable. All that’s required is seven lashing ropes, one for a tripod lashing and six for square lashings. For the poles you need three 4 to 5-foot sticks for the tripod legs, and three short sticks for the tripod leg supports.

Note: The tripod lashing is tied below the middle of the longer sticks. The length that the sticks extend on top of the lashing will be determined by the size of the bag you’re holding. Also, to secure the bag on the holder, and to shorten or lengthen the amount the bag hangs, you can fold the top of the bag as much or as little as you like over the three upper leg extensions.
It's a sight right out of the old frontier, a cooking fire with some game roasting on a wooden spit supported by two forked sticks. It's easy to make, and the wooden spit is often a crossbar from which pots are suspended for boiling water and cooking food. In the photo to the left, the forked sticks are placed outside the fire ring and round lashed to two pioneering stakes driven into the ground.
deep enough to hold the sticks upright (click on the photo to catch the detail).

As this photo shows, if the crossbar is long enough, one side of the fireplace can be set up to simultaneously cook food over coals on a grill, in a frying pan, or in foil packets. If the fireplace is to be used for a campfire, and the crossbar is not needed, it can simply be lifted off and set aside.

![Fireplace with straight forked sticks](image)

This old fashioned camp gadget can also be set up without any lashing, as seen in the photo to the right. Just find a couple of straight sticks with a branch growing out at about 45° and saw them to size. (Procure them in a conservation-minded way!) Sharpen the bottom and the forked sticks can be hammered directly into the ground without breaking.

Once fashioned, these two prepared straight sticks, along with the crossbar, can be reused repeatedly on future front country outings. They’re a whole lot more portable than other gear that’s carted into a campsite, and very functional.
CHIPPEWA KITCHEN

The Chippewa Kitchen can be seen as the indisputable KING of all “camp gadgets.” It’s the ultimate camp kitchen pioneering project, providing a huge element of convenience to a wide range of camp cooking operations. The Chippewa Kitchen can provide a raised surface for food preparation, a nifty place to hang tools and utensils, a framework from which a pot can be safely suspended over a cooking fire, and primarily, a convenient, raised cooking surface for cooking over hot coals.

There are all kinds of Chippewa Kitchens. They come in all sizes and shapes.

When our troop first started making Chippewa Kitchens, we built them with one 10-foot tripod, with one 6-foot crossbar, and two 8-foot crossbars each of those extending out so that a shelf could be constructed where we’d pour the coals and do the cooking. We’d tie a rope from the top of the tripod and hang an 8 qt. pot over a fire built on the ground in the middle between the three legs of the tripod. This always worked well, but with all the weight from the mineral soil, coals, food, and dutch ovens, it was a lot less stable. That design tended to make it difficult to keep the tripod from leaning and the crossbar extensions from shifting lower.

DOUBLE TRIPOD CHIPPEWA KITCHEN. Our more recent constructions consist of two 8-foot tripods connected with two parallel 8-foot or 10-foot platform supports over which we lash the cooking platform. With this design, you can build a cooking fire under one or both tripods and suspend a pot over each. Of course the platform is superb for Dutch Oven use and ideal for foil cooking.
Looking good and feeling good at Playcard Environmental Education Center during Swampfest.

Materials needed for a Double Tripod Chippewa Kitchen

- two 10-foot x 3-inch platform support spars (For a smaller Chippewa Kitchen, 8-foot spars work great.)
- six 8-foot x 3-inch tripod leg spars
- four 6-foot x 2-1/2-inch tripod braces
- two 6-foot x 2-1/2 to 3-inch front tripod braces (to support the platform support spars)
- twenty to forty 3 to 4-foot x 2-inch floor spars (depending on the size of the cooking surface required)
- sixteen 15-foot x 1/4-inch manila lashing ropes for square lashings
- two 20-foot x 1/4-inch manila lashing ropes for tripod lashings
- binder twine for floor lashing
- piece(s) of burlap, terry cloth, or canvas to cover cooking platform

Here's a procedure to make a Double Tripod Chippewa Kitchen:

**Build the tripods.** Lay three 8-foot tripod legs side by side and lash them together with a tight tripod lashing. Make sure the butt ends are at the bottom and even.

Stand the tripod up by crossing the outside legs underneath the middle leg.

Repeat this process for the second tripod.
Lash on the tripod braces. Connect the two outside legs with one of the 6-foot front tripod braces. With tight square lashings, lash the brace so it is perpendicular to the ground and three feet high. Lash another 6-foot tripod brace to each outside leg and connect them to the middle leg with square lashings, about two feet and two and a half feet high respectfully.

Repeat this process for the second tripod, making sure the front tripod brace connecting the outside legs is again, three feet high.

Position the tripods. Place the tripods so the 6-foot tripod braces lashed to the outside legs (the stout ones that are three feet off the ground) are facing each other. These braces are the ones that will hold up the long platform support spars, which in turn will support the cooking platform. The distance between the two tripods should be close enough so the long platform support spars can extend over each brace by at least six inches.

Lash on the platform support spars. Place the long platform support spars parallel to each other on top of the three foot high tripod brace on each tripod. Space them apart so the shortest floor spar will extend over their edges by six inches on either side. Lash them in place with tight square lashings.
**Lash on the floor spars.** The cooking surface is made up of 3 to 4-foot x 2-inch floor spars, depending on how wide a cooking area will be required. These are lashed onto the parallel platform supports with a floor lashing using binder twine.

**Prepare the cooking surface.** Prior to adding 2 to 3 inches of mineral soil, and to keep the mineral soil from falling though spaces between the floor spars, spread pieces of burlap, terry cloth, or canvas over the platform.

Finally, cover the platform with a layer of mineral soil thick enough to protect the floor spars from the intense heat that will be generated from the coals during cooking.

*Construction is logical and easy. Burlap is a practical layer between the platform floor spars and the mineral soil.*

*A Covered Double Tripod Chippewa Kitchen during an American Legion Open House*
SMALLER DOUBLE TRIPOD CHIPPEWA KITCHEN

Basically, this is a mini version of the full-sized Double Tripod Chippewa Kitchen. Same procedure, just scaled down, and a perfect fit for one patrol. The only things different here are the dimensions:

- two 6-foot x 2-1/2 to 3-inch platform support spars
- six 6-foot x 2-inch tripod leg spars
- four 4-foot x 2-inch rear tripod braces
- two 4-foot x 2-1/2 to 3-inch front tripod braces (to support the platform support spars)
- fifteen to twenty 3-foot x 2-inch floor spars (depending on the size of the cooking surface required)
- sixteen 15-foot x 1/4-inch manila lashing ropes for square lashings (12-1/2’ lashing ropes work well if you have them.)
- two 20-foot x 1/4-inch manila lashing ropes for tripod lashings
- binder twine for floor lashing
- piece(s) of burlap or canvas to cover cooking platform (unless you’re using clay)
Note: When lashing on the tripod braces, position the two rear ones as low as possible. This way the thicker front one can be lashed on unencumbered, and also placed at the right height. When it comes to adding the two platform support spars you have a choice: lash them both on either the outside or on the inside of the front (outer) tripod legs. In these photos, they’re lashed on the inside.
TOOL RACK

Fundamentally speaking, as long as a campsite is safe and clean, all’s well. However, especially for longer term camps (or when displaying demonstrations of Scoutcraft skills), there’s definitely something to say for the added convenience of a campsite tool rack. Set up in a prominent location (in or near an axe yard), a tool rack serves as a reminder to put tools back where they belong. A place for everything, and everything in its place, especially wood tools, goes a long way in not just keeping things well-organized, but also towards limiting accidents.

Construction is very simple. Basically, all that’s needed are four poles; two 6-foot uprights, and two 5-foot cross pieces work fine. The cross pieces are connected to the uprights with four square lashings.

Tools are hung on the rack, suspended by a looped cord attached to the top cross piece with a lark’s head.
Scouts attach a 6-foot stave to a pioneering stake with two round lashings.

If the two uprights cannot be sunk or hammered into the ground, pound in a couple of pioneering stakes and hold the uprights in a vertical position by lashing them firmly to the stakes with a couple of tight round lashings.
TOOL RACK 2

Please refer to the "sales pitch" provided in the Tool Rack post spelling out all the advantages inherent in building one of these simple camp gadgets. It is a good-looking campsite improvement project, but mainly, it’s got major functionality.

The main difference between this version and the other is with the first tool rack, all the tools are hung, suspended by a cord from the upper cross piece and are supported by resting against the lower cross piece. In this tool rack, the tools' handles are slipped in between two parallel cross pieces. This way, they’re held very nicely in place, and any shifting or wobbling around, often experienced in the first rack, is eliminated.

The two racks are also constructed in like manner, again refer back to the Tool Rack post. No need repeating it here. However, in this version, the diameter of the two 6-foot uprights need to be a little larger than the diameter of the thickest handle of any tool you’ll be hanging.
Parallel Square Lashings

When you’re ready to lash on the cross pieces, lash on the first higher than the longest tool. It needs to be at a height easy enough to comfortably place the tools on and take the tools off the rack, without needing to reach up too high or bend over. Secure the first cross piece in front of the uprights with a couple of tight square lashings, and then secure the second cross piece to the uprights in exactly the same position, but on the other side of the uprights. You’ll be tying a tight square lashing here too, and there’s plenty of room to wrap and frap. That’s all there is to it.

By the way, if you’d like to erect a cover over the tool rack, lash another cross piece to the very top, and rig up a tarp, using this third cross piece as a ridge pole.