

FENCE FIXES



Tips for building, fixing fence in tough environments.

Story & photos by Heather Smith Thomas, freelancer

Building and maintaining fences can be a big job — even in the best of environments. Here are some creative solutions for building fence in not-so-ideal situations.

Rocky, steep terrain

Fencing can be a challenge when it's too rocky to dig postholes or set posts with a post-pounder. Michael Thomas, a rancher and custom fence-builder from Baker, Idaho, uses a hydraulic jack-hammer-type post-pounder mounted on his skid steer. It will drive posts through most rocky conditions.

In some situations, however, the best option to set a deep brace post is to dig a hole with a backhoe. In country too steep for a backhoe, he sometimes uses a roto-hammer electric drill and a portable generator.

“This works for drilling small-diameter holes into solid rock to insert a steel post, or even create a

larger hole for a brace post,” says Thomas.

In areas where it's not too steep and where there are surface rocks, you can use an above-ground basket/cage full of rocks as a brace point. You can gather and stack rocks and then secure them with wire, or make a cage first and put rocks into it.

“Net wire works to create the cage around a pile of rocks to hold them in place. Rocks are heavy enough that you only need a cage about 3 feet (ft.) in diameter or width to provide a solid anchor to secure your fence wire and stretch it from there,” he says.

If terrain is too rocky for setting wood posts, you can usually put

steel posts into the ground enough to hold, using rock baskets every so often for braces.

Other alternatives are a completely aboveground fence, like a jack fence (buck fence) or worm fence.

A worm fence (see Fig. 1) is

created by stacking logs or large-diameter poles upon one another, interlocking in two directions. The fence is a continual series of corners/angles.

A jack fence (see Fig. 2) of poles works if ground is too rocky or swampy to set posts, but in windy country it must be anchored so it won't blow over.

“To keep it from tipping over, hang a large rock under one of the jacks (X-shaped uprights) every so often, or make small rock baskets under some of the jacks, with the

Fig. 1: Example of a worm fence

A worm fence is created by stacking logs or large-diameter poles upon one another, interlocking in two directions.





PHOTO BY SHAUNA HERMEL

jack secured to them,” Thomas advises.

Frozen ground

Digging postholes or pounding posts in winter can be difficult if frost is deep. One solution is to use a metal “post” to create a pilot hole for pounding posts. The pilot post will often go down through rocky ground, pushing aside the rocks, or penetrate frozen ground; whereas, a wood post would be forced out of line or shatter.

Thomas’s hydraulic post-

pounder (see Fig. 3) can drive posts through more than a foot of frost; but if it’s much deeper, he uses a 7-ft.-tall metal pilot post (see Fig. 4, page 104).

Only 3-4 inches (in.) in diameter, the pilot post creates a hole to start the wood post into. The pilot post’s pointed bottom is solid drill steel 3 ft. long. The rest is hollow, like well casing, which makes it lighter to carry. A solid cap on top provides a place for the pounder to hit.

“You drive the pilot post as far

as you can, pull it out with the tractor or skid-steer loader, and insert your wood post into the pilot hole and drive it in, forcing it into the slightly smaller hole,” explains Thomas, noting it is very solid and secure.

Make sure you can pull the pilot post out, he cautions. “Most of the automated drivers are affixed to a loader, three-point hitch, or skid steer that you can pull it out with. When you build a pilot post, make sure you have a way to hook a chain to it and pull it out.”

Another trick Thomas sometimes uses is thawing the ground with “ovens” created by cutting 50-gallon (gal.) metal barrels in half or utilizing any metal container about that size (see Fig. 5, page 104). He sets each one over a small fire built on top of the spot for the post. The oven contains the fire and any sparks that might ignite nearby dead grass, haystacks or other flammable material.

Using a cutting torch, make a

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Fig. 2: Example of a jack fence

Jack fences don’t require postholes. Rails are held up by X-shaped uprights, called jacks.



Fig. 3: Hydraulic post-pounder

A hydraulic post-pounder can drive posts through more than a foot of frost.



Fig. 4: Metal pilot post

Only 3-4 in. in diameter, the pilot post creates a hole to start the wood post into.



Fig. 5: Oven to thaw ground for setting post

Thomas sometimes thaws the ground with “ovens” created with 50-gal. metal barrels cut in half and vented, placed over spots where posts will be driven.



small smoke hole in the top of each oven (covered with a screen weighted down with rocks, to keep sparks or embers from coming out) and several air vent holes near the bottom to draw air in.

“You can thaw frozen ground even if the frost goes down 2 or 3 feet,” Thomas says. “After the fire has burned awhile, dig out the thawed ground underneath. If it’s not deep enough for the posthole, build another fire to thaw it on down.”

Splice and tighten wire

When mending fence — such as a broken wire — you can often tighten it adequately with a claw hammer if you don’t have a fence stretcher with you. A sagging wire can be tightened by making a “hammer roll” (see Fig. 6). If the wire is broken, you probably need to add another piece to make a splice. A short piece of smooth wire works for splicing.

“To start the splice, make a loop in one end of the broken wire and run the extra piece through the loop,” says Thomas. “Place the hammer against the wire and anchor the loose end between the hammer claws. Then roll the wire

Fig. 6: Splicing fence

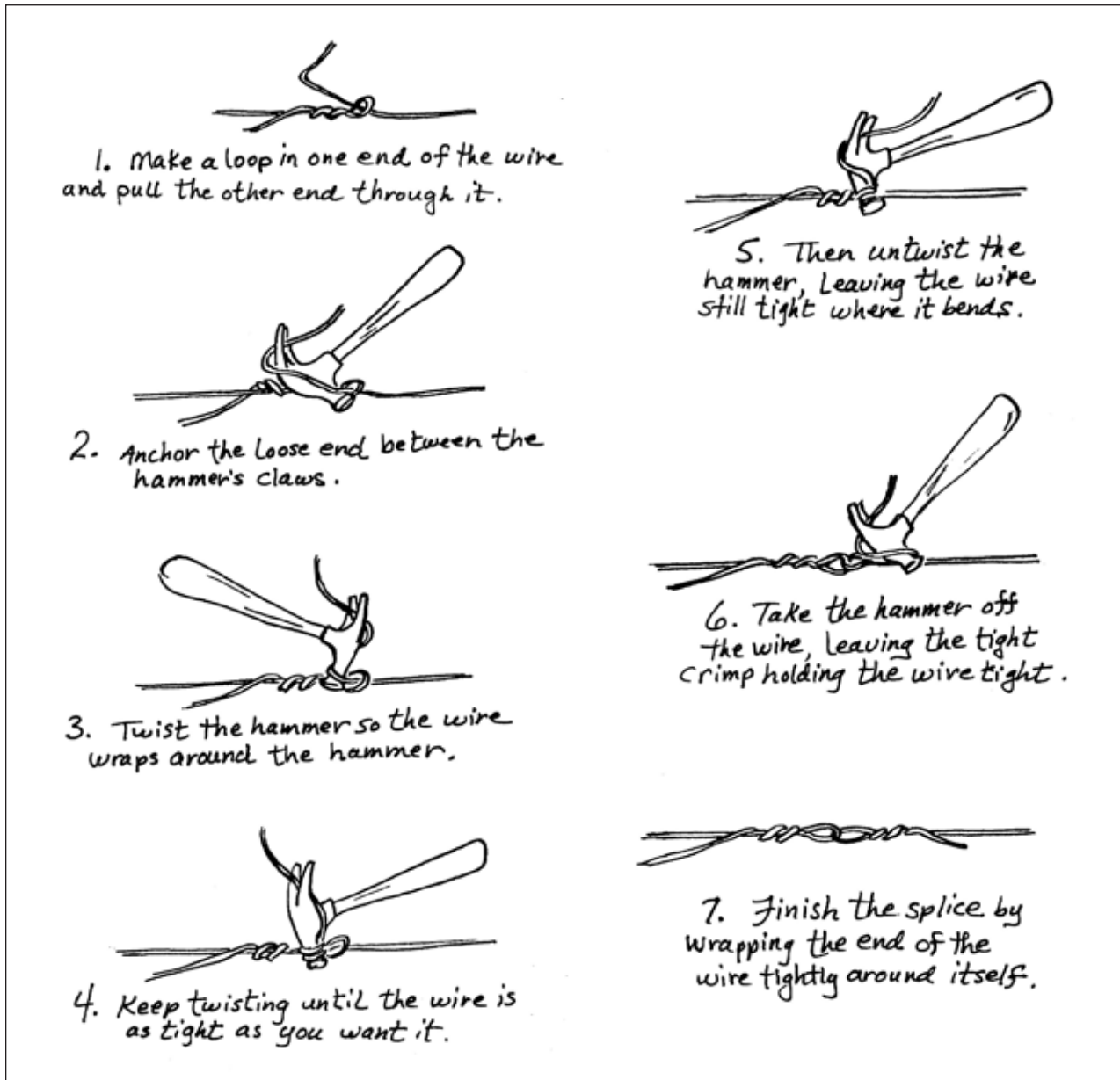


Fig. 7: Portable post-holders

Portable post-holders can be created from old disc wheels to create temporary electric fencing where the ground is too hard to push step-in posts into the ground.



around the hammer, making as many twists as necessary to get the wire tight.”

Once it's tight, untwist the hammer, leaving the wire still tight where it bends, he recommends. Then you can twist the remainder of the loose end around the wire, finishing your splice.

Using the hammer, you can pull the wire much tighter than you can by hand, making the bend in the

wire tight enough to hold until you can wrap it around itself.

Electric-post holder

Many ranchers use rotational grazing, and it's common to divide pastures into segments with portable electric fencing. You can also use portable fence to let livestock graze around a barnyard or in lanes to keep grass and weeds trimmed.

There are easy ways to create temporary electric fencing with step-in posts, unless the ground is too hard to push them in. Portable post-holders can be created from old disc wheels, welding a metal tube onto each disc (see Fig. 7). Just drop a fiberglass post into the tube, but don't use a really tall post that the wind may tip over.

This is handy for putting posts on hard ground (like the edge of a

driveway) where you can't pound them in. The portable post-holder can be moved wherever you want it.

Sometimes out-of-the-box thinking can keep cattle inside the fences. |

Editor's note: Heather Smith Thomas is a freelance writer and cattlemaster from Salmon, Idaho.

Gate fixes

Gates can become a heavy burden to open and close if they sag and drag. Gate posts should be sturdy and set deep in the ground, preferably with a good brace.

Sometimes well-set posts “give” over time unless they are set in concrete. Ground that is wet or unstable won't hold a post very well for a heavy gate. Sometimes frost pushes posts upward, and then the gate won't open or close properly.

This problem can be solved by attaching a small wheel to the end of the panel or sagging gate (see Figs. 8 and 9). The wheel takes the weight and supports the gate. It can't sag any further when you open or close it. You no longer have to pick it up and carry it.

Nearly any small wheel will work, including old wheelbarrow tires, small discarded machinery tires or metal wheels found in junk piles or salvaged from ancient farm equipment. A wheelbarrow tire can be adapted so you can bolt one or both uprights — the pieces of metal that come down either side of the tire to hold its small axle — to a wooden gate or pole gate.

An old wheel or tire with any type of axle attached can be securely wired to the bottom rail of a gate. If you use stiff, strong wire and

securely wire it at each end of the axle (close to the wheel, and at the opposite end) the weight of the gate won't alter the angle of the wheel. You want the axle securely attached to the gate so the wheel or tire will stay upright without wobbling — rolling freely, taking the weight without binding.

Sometimes a gate won't stay on its hinges because the gate post is too short to support the top hinge. To make the gate post taller, a person can use a piece of flat scrap metal or weld some pieces together to fit the purpose to bolt to the post and extend the height of the post to accommodate the top hinge on the gate (see Fig. 10).

To keep the structure solid and secure so it can never be pulled out of line by the heavy gate, a piece of angle iron can be welded to the back side. The angle iron coming down over the edge of the post gives additional support.

With a big all-thread bolt through the “post extension” welded to the gate hinge (with nuts to tighten and adjust the height of the gate on the swinging end), the gate is secure and can swing properly and never fall off its hinges again.

— Photos and commentary by Heather Smith Thomas

Fig. 8: Example of wheel on gate



Fig. 9: Example of wheel on gate



Fig. 10: Post extension to support gate

