horseshoe, removal: First the ***clinches*** need to be eliminated, lest they damage the ***hoof wall*** while being pulled-through. This may be done by filing them off with the fine side of a ***rasp***. Each clinch should be filed individually, to avoid excessive removal of hoof surface which may occur when one attempts to rasp across multiple clinches with each stroke.

The clinches may instead be sheared-off or straightened by placing the edge of a ***clinch cutter*** against the wall, just under the clinch, then driving it upward (toward the ***coronary band***) with a hammer.


Clinch cutter shearing off clinches.

The hoof is placed between one's knees (forelimb) or across the lap (hind) so that both hands may be employed for shoe pulling. The jaws of the ***pullers*** are closed around one branch of the horseshoe at the heel. The jaws sliding between the hoof and shoe start the loosening process. Once the jaws are closed, one hand should support the toe of the hoof while the other swings the puller reins forward, further loosening that side of the shoe. The process is then be repeated at the other heel. Alternate from side to side, moving the pullers a bit towards the toe each time. Caution should be taken to avoid biting through the ***nails*** with the puller jaws, as they should come away with the shoe. Do not attempt to pull the shoe with a few mighty yanks. "Walk" it of with many mild lever swings, always supporting the hoof with your free hand to avoid causing the ***horse*** discomfort.


Supporting the toe while employing pullers...
If you need more than one hand to lever off the shoe,
you are pulling too hard.

Pads, ***heartbars***, and other shoe packages may make using the pullers problematic. In such cases, a crease nail puller can be used to remove the nails one at a time. This may be the preferred approach for inexperienced persons pulling ordinary shoes, as it is easier, if slower, than using pullers.

In cases where the pullers should not be used in the usual way, and the crease nail puller won't work (perhaps due to worn nail heads or shoes without ***fullering***, ***creasing***, or ***swedging***), the clinch cutter blade may be carefully driven between the hoof and shoe package from the side, near the heel, to slightly loosen the shoe. Tapping the shoe back against the bottom of the hoof should then raise the nail heads enough to allow them to be pulled one at the time with the pullers.

Ideally, the nails will be removed with the shoe. If any are left behind in the hoof, they should be removed before trimming, as they will damage ***nipper*** blades.

See: Page A-6; A-8; horseshoe, conventional application.

horseshoe, repair: The best shod horse can still manage to step-on or snag a ***horseshoe***, pulling it partially or completely off. Fortunately, it does not take the skills or tools of a competent ***farrier*** to do a serviceable job of putting the hoof back to right until a ***professional*** is available.

The tools required are a ***rasp***, ***pullers***, wire brush, light driving hammer, heavier hammer, and something to use as an ***anvil***. A section of railroad track, piece of heavy steel plate, or a machinist's vise are adequate anvil substitutes for this task. All that is needed is something solid with a reasonably flat top surface. Chaps, sturdy boots, and safety glasses are recommended. A small supply of appropriate ***nails*** (#5 City Head for most riding horses) will be needed.

A handy "anvil" for the lay-horseman.

First the shoe will need to be removed, if this has not already been done by the horse. (See ***horseshoe, removal***.) Any nails left behind in the foot will need to be removed as cleanly as possible.

Pulled shoes are usually bent away from the ***hoof*** on the stepped-on or snagged branch. The fit of the shoe is usually retained, so it only needs to be re-leveled. After removing the nails from the shoe and wire brushing the dirt off of it, place the bent-down branch hoof-side up onto your "anvil". The bent shoe should form an arch supported by the anvil at two points. Strike down on the shoe between these points with the heavy hammer to drive the top of the arch down. Move the shoe around on the anvil face, driving down high spots, until the shoe is as level as you can get it. When held against the foot, the toe and both heels of the shoe must make contact with the hoof. A slight gap at the quarters, while undesirable, may not prevent the shoe from being adequately secured.

Wire brush the bottom of the hoof clean and hold it in the shoeing position. (Between your knees with fore hooves, across the lap for hinds.) Set the shoe onto the foot and place a nail through the third hole back in one branch of the shoe, being sure to orient the nail with the trademark facing inward. Search around until you find the hole left by the original nail with the tip of your new nail, then push it in with your thumb. Do the same on at the third hole back on the other branch. Use your light hammer to tap one nail home. It should easily follow the path established by the original nail. Bend the protruding nail tip over, then do the same with the nail on the other side. Now the remaining nail holes in the shoe should be directly over the established nail paths in the hoof, so tapping nails through should be a simple matter. See ***horseshoe, conventional application*** for nail seating and the block method of ***clinching*** and tightening.

horseshoe,conventional application
(Excerpts selected to support sample entries above):
Immediately after each nail is driven, its tip should be bent-down or wrung-off with the hammer to reduce the hazard the exposed point presents to the horseshoer and the animal.

Nails should immediately be bent-down or wrung-off after driving.

{...} Until all nails are in-place and bent-over or wrung-off, they should only be driven until the heads are lightly home in their holes. The harder blows needed to fully seat the heads may annoy some horses, so wait until you're just about ready to set the foot down and seat all the heads at once.


Undercutting the nails with the corner of a rasp before clinches are formed.

If the nail points were not wrung-off, they may now be snipped off with nail nippers. (Hoof ***nippers*** should not be used for this purpose, as nails will quickly ruin them.) A small, horizontal notch should be cut into the wall just below each nail's exit point with either the corner of a ***rasp*** or a driven ***clinch gouge***. This discourages hoof wall splitting during the clinching process, and allows the clinch to be seated into the wall.


Clinch being made with clinchers.


Block clinching.

The clinches are usually formed with a pair of ***clinchers***, with the straight jaw positioned against the nail head, and the curved jaw being used to roll down the cut-off end of the nail. This task requires some finesse, as it may be possible to rip the nail through the wall if the clinchers are used too aggressively. Alternatively, a clinch may be started by holding a ***clinch block*** or heavy ***pullers*** firmly against the wall and the cut-off nail end while the nail head is struck with a hammer.


Tightening the clinches down.


Smoothing the clinches and finishing the hoof.

The clinches may be tightened by placing a clinch block or heavy pullers under the nail heads and lightly tapping the clinch into the face of the wall with the hammer. Care should be taken to strike the nails, not the wall itself. The clinches should then be rounded and smoothed with the fine side of a rasp, but not thinned too much, lest they become too weak to keep the shoe tight. The rasp may also be used to remove wall that hangs out over the shoe at this point.

{...}Wax or a modern ***sealant*** may be applied over the clinches to help prevent the nails from providing a point of entry for fungi and bacteria into the wall.

{...}

See: balancing the horse's hoof; keg shoe, fitting; horseshoe, forging; horseshoe, removal; Pages A-2, A-6, A-8.