If your winters bring snows that are so deep a horse can't plow through them, but must instead walk on top, the equine version of human snowshoes like these from Norway might indeed come in handy!

Snow Shoes For Gaited Horses

By Lee Ziegler

Unless you live in a part of the world where it never snows, or the snow falls in small doses, then quickly melts away, enjoying your gaited horse during the winter can present some interesting challenges.

More likely, however, you will be faced with a combination of moderately deep snow, ice and some open ground for your rides. On the open ground, your horse's hooves will need protection from wear, on slick surfaces they will need traction to provide safety for both you and your horse, and in the deeper snow, they will need some system to prevent "snow balls" from forming. Fortunately, there are several solutions available to meet these needs.

Get a Grip

When bare, a horse's hoof provides fairly good traction in snow or slush, and sheds snow as it expands and contracts at the frog. It also has a little – very little - traction on ice. If you rarely ride on ice, but often ride in snow or slush, you can easily make it through the winter with your horse barefoot if the quality of his hoof is up to barefoot riding.

If your horse needs just a little protection for his hooves on occasional bare ground between patches of snow, slip-on plastic horse boots (Easy boots) can provide protection and some traction. They can be a good part-time solution for light winter riding, although they tend to fill with snow, and unless fitted with some sort of "grabs" will slip on icy surfaces.

Protecting the hoof for any length of time, however, requires a shoe of some kind. As anyone who has tried winter riding in them knows, ordinary keg shoes can be dangerous on ice, working like ice skates for the hooves. There is a variety of traction methods designed for winter riding available as add-ons or replacements for ordinary keg shoes, some more effective than others. Unfortunately, the most effective traction devices also put extra strain on the legs of the horse, since they dig firmly into the ground, which does not allow the hoof to move in the same what it does naturally. Horses generally like them, as they quickly realize the difference between slipping and not slipping, but approach them with caution and be aware that for a gaited horse, while they keep the horse from slipping, they may alter his gait in some ways. He may take shorter, choppier steps when shod for extra traction. He may be less able to extend his stride or move at the fastest speed of his gait. Don't expect him to move the same way he does on open ground in his normal shoes when he is fitted with his winter footgear!

Tolting in snow, riders from Vermont Icelandic Horse farm, enjoy a brisk outing. In snow, without ice, barefoot is best if hoof quality is good.

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Traction Options

There are nearly as many different types of traction solutions for your horse's feet as there are for yours.

The type you chose depends on your conditions and your riding habits. Here is what you need to know about the most common tractions devices.

• *Ordinary caulks:* Farriers sometimes add "turn backs" or caulks to shoes, and some types of keg shoes come ready-made with heel caulks. These small bumps of metal at the rear of each branch of the shoe are designed to provide some extra traction in soft ground, but on hard surfaces and ice, shoes made with ordinary steel or aluminum caulks can slip more than those without caulks. They are not very useful for winter riding in ice, but can be of some use in mud or slush.

• *Rim shoes:* In light snow, where there is no ice and the ground is not frozen, a "rim" shoe may provide some additional traction to help the horse keep his footing. There is a groove in the center of the shoe that fills with dirt and marginally improves the traction of the shoe. Once the ground freezes solid, and the horse must work over ice, however, these shoes are no better than ordinary keg shoes for traction.

• *Removable studs:* For horses that spend most of their time in stalls, but are taken out to be ridden over snowy, icy ground, a part-time traction device that can be attached to the shoe when the horse is working, and removed when he is "at home" may be a good idea. Shoes made with holes in them for screw-in studs can be left on the horse in the stall, and cleaned out and fitted with studs tipped with some hardened metal, such as borium, for outside work. The studs can then be removed when the horse returns to the stall. Studs should not be left in the shoes while the horse is confined to his stall because the horse can injure himself if he lies down with them on. This method provides good traction, but it takes time to insert and remove the studs for every ride.

Obviously, the horse can't be turned out in the shoes with the studs removed because they provide no traction. And, of course, it is never a good idea to turn a horse out with studs on, especially in a herd of other horses. A kick delivered from a studded hoof is much more destructive than one from an ordinary shod hoof, and horses running and playing in a group with studded shoes are very susceptible to strains and sprains.

For gaited horses, it may be a good idea to use these studs on the front shoes only, leaving the hind hooves bare, or using another traction method behind, unless the majority of your riding will be on solid ice.

Studs grip well on ice, but they can also dig in and prevent hind hoofs from sliding into place, as they should in the running walk or fox trot, putting excess stress on the hind legs.

• *Borium headed nails:* A more permanent method of providing traction for ordinary shoes is to attach them with borium headed nails. These provide less of a grip on the ice than studs, but help to keep the shoe from sliding. Borium headed nails protrude less from the shoe than studs do, so they can be left on your horse all of the time. Since they do not grip as strongly as studs or cleats (see below), they can be used on the hind shoes of gaited horses with fewer problems than other traction devices. They do wear down faster than studs or cleats, but they are not very expensive and can be replaced at the next shoeing.

A farrier adds borium cleats to a standard "keg" shoe. Photo by Lee Ziegler

Top: Borium tube, used for welding beads or "cleats" on shoes. Bottom left: Commercially available Borium headed nail. Bottom right: Ordinary horseshoe nail, note the smaller head. Photo by Lee Ziegler

• *Cleats made of borium or "drill tec" welded or brazed to the shoe:* Shoes fitted with permanently attached cleats or beads of abrasive metal provide excellent traction on ice. Again, they can interfere with hind leg movement in gait, and may present a problem for horses that kick and are turned out in groups. For these reasons, many people prefer to use them on the front hooves alone. Shoes made with these cleat additions wear for a long time; it is not unusual for a set to last two or three winters.

Prevent Snow Balls

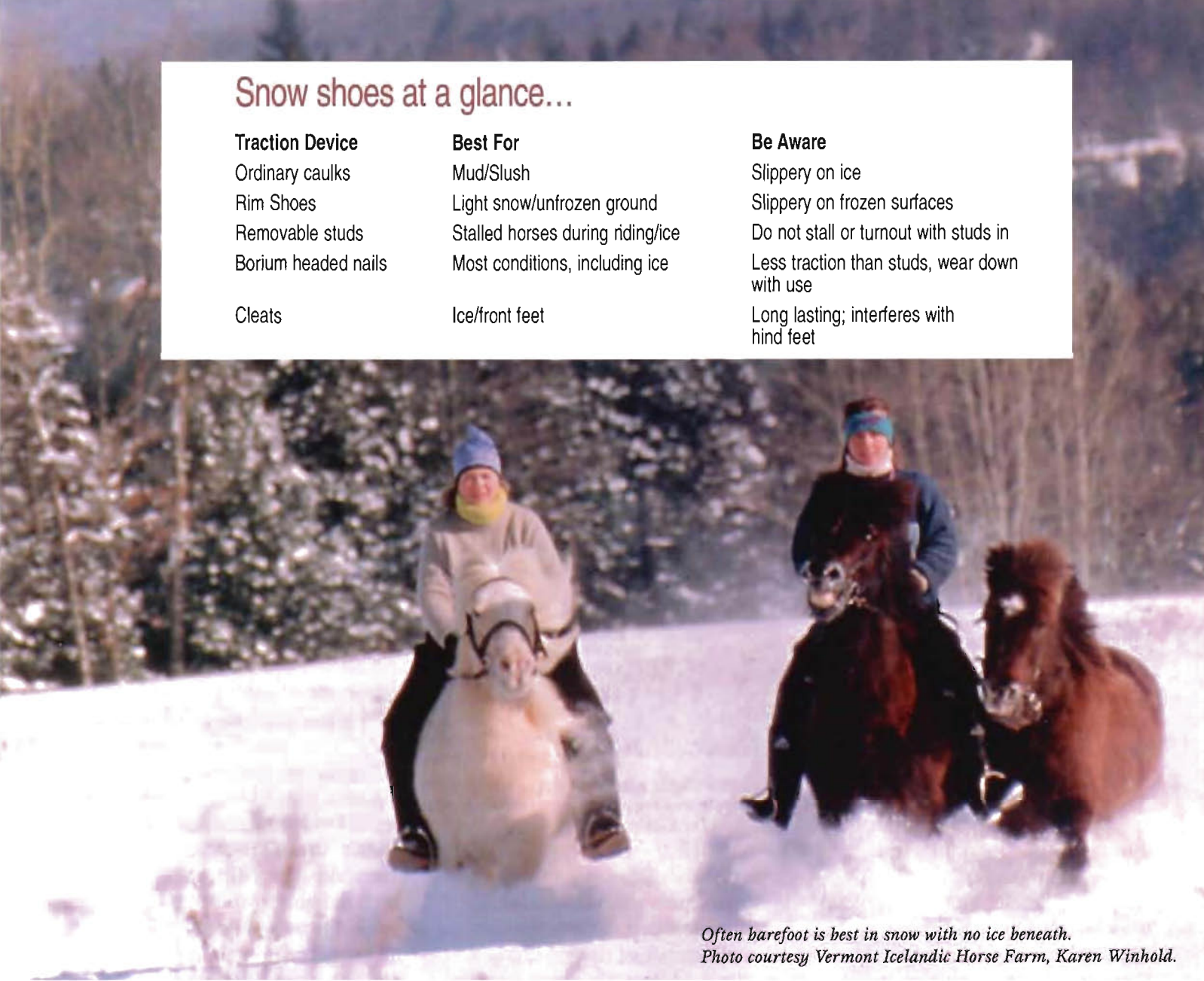
Once you decide on the form of traction that works best for you and your horse, the next part of the snowshoe challenge is to choose a method to prevent balling up of snow and ice inside the shoe.

• *Grease:* Some people have success slathering large amounts of grease or lanolin on the sole of the hoof to prevent snow from sticking. I have heard of people using spray-on cooking oil or even liquid chlorine bleach for this purpose, as well. This stuff lasts awhile, depending on the temperature and the consistency of the snow, and then wears off, letting the snow ball up again. Unless you carry a supply with you, and dismount to reapply it from time to time, this method is not very effective for keeping snow out of shod hooves.

• *Flat Pads*: You can apply ordinary flat, plastic pads under traction shoes to keep the snow from balling up. I have never had much success with these, but in places where the snow is of a drier type than our Colorado Rocky Mountain snow, they may work. One problem with pads is that they trap moisture next to the sole and frog, even when filled with silicon or oakum, which can lead to thrush. These flat pads do allow some snow balling because they do not flex very much to expel built-up snow.

Snow shoes at a glance...

Traction Device	Best For	Be Aware
Ordinary caulks	Mud/Slush	Slippery on ice
Rim Shoes	Light snow/unfrozen ground	Slippery on frozen surfaces
Removable studs	Stalled horses during riding/ice	Do not stall or turnout with studs in
Borium headed nails	Most conditions, including ice	Less traction than studs, wear down with use
Cleats	Ice/front feet	Long lasting; interferes with hind feet



Often barefoot is best in snow with no ice beneath.
Photo courtesy Vermont Icelandic Horse Farm, Karen Winhold.

Bubble and tube pads both work well to expel snow from the sole of the hoof. Photo by Lee Ziegler

One side benefit for riding a pacey horse in snow -- they tend to square up rather nicely and start hard trotting in it at about 6 inches deep.

• *"Bubble" pads:* These are plastic pads with an outward bulging bubble in the center which expands and contracts as the hoof sets down. They work well to expel snow build-up and last for several resets. They must be packed with oakum, not silicon, since to work they must not be filled under the bubble. Again, they can trap moisture next to the sole and contribute to thrush.

• *Rim "tube" pads:* The idea for these came from Switzerland about 20 years ago, where they were developed for ice jumping - a national pastime. There are several brands available now, and if applied correctly, I have found them an excellent solution to the snowball problem. The hollow tube at the outside of the "pad" expands and contracts as the hoof hits the ground, expelling snow, while leaving the frog open to the air and allowing the sole of the hoof to breathe.

A cleated shoe in place with a tube pad, for maximum traction and snowball expulsion. Photo by Lee Ziegler

These pads seem to wear well, even on abrasive surfaces like gravel, and I have had several sets go for three winters. But, they *must* be applied correctly, or they can come loose, tear, and wear out quickly. The trick is to use rubber cement to attach them to the shoe, after any abrasive cleats have been applied, and before they are nailed to the hoof. Warm rubber cement, applied to the pad and the shoe, once tacky, will keep the tube pad in place as it is nailed.

Set for Winter!

Again, what's best for you and your horse depends on your conditions, your horse's gaits and your riding habits. For most winter riding on a gaited horse, a complete set of keg shoes attached with borium headed nails and fitted over tube pads will work well to keep the horse from slipping or building snow balls under his hooves. For riding in mixed ice and snow conditions, with a horse that fox trots or running walks, a set of cleated shoes and pads in the front and barefoot hooves behind will give traction while allowing the sliding action of the hind hooves common in those gaits. Cleats all around along with pads are definitely indicated for safety if you are riding on solid ice, or snow over ice, no matter what gait your horse does.

Moderate your speed in gait with these "studded snows" and enjoy your winter rides free from the worry that the horse will lose his footing or fall with you!

Snowball Busters

Snowbuster	Effectiveness	Be Aware
Grease	Not very	Short term, needs several reapplications per ride
Flat Pads	Best in dry snow	Traps moisture, allow some snow balling
"Bubble" pads	Good	Trap moisture, must be packed with oakum
Rim "tube" pads	Very good	Wear well, even on gravel, apply with rubber cement. Must be applied correctly.