

## Bull Blinds Keep Bulls From Charging

A common rule of thumb on the farm is to never trust a bull. You never know when one will suddenly decide to come after you.

An Ohio harness maker decided to attack the problem with "Bull Blinds," that limit the animal's vision so he cannot see to charge at you.

"When I was a young boy, we used to get a farm catalog that had bull blinds in it and I always wondered if they would work," says Alvin Martin of Shiloh, Ohio.

As an adult, Martin had never seen an outlet for bull blinds, however, and after knowing people who had close calls with bulls, he wanted to see if they worked.

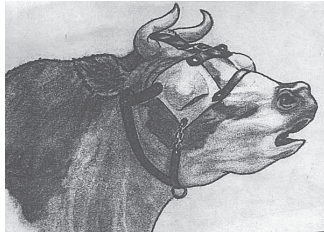
"About 8 years ago, a friend of ours got hurt badly by a bull. Then soon after that, our daughter-in-law was charged by a bull. She crawled into the culvert under the driveway and had to wait for the bull to leave before she could get back to her children in the house," Martin explains. "After that, I decided it was time to do something. Angry bulls are a real danger and there have been many people killed by them."

Martin learned that a man about 10 miles from where he lived had an old set of bull blinds hanging in his barn. They were essentially metal goggles with leather straps. Martin bought them from the man and tried them out.

They worked, so he set about designing his own.

The metal goggles form a bubble over each of the bull's eyes. They have slots in the bottom that allow the bull to see out, but only down over his nose. He can't see to charge, Martin says.

"I found a local man to shape the goggles and he does a good job," he says. "They're held on by halter straps that go around the neck and nose. Instead of leather, I use bio-



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plastic strapping. Mine are easier to adjust than the old style and you can use the same ones for Holstein and Jersey bulls. They work great in the pasture or feedlot. If the bull puts his head down to charge, all he can see is the ground."

Martin has been selling his Bull Blinds for 8 yrs. and occasionally puts an ad in some Amish papers. He has sold hundreds of them by word of mouth, he says.

To fit the Bull Blinds, Martin says people either restrain the bull in a head gate, or use a tranquilizer from their veterinarian.

"You just leave the Bull Blinds on him permanently, but as the bull grows, you will have to adjust the straps, otherwise they will cut into his skin," he explains. "It's really rare for a bull to rub them off, but once in a while there's a bull who will do it."

Martin charges \$88 each, plus \$7 shipping in the U.S.

Contact: FARM SHOW Followup, Martin's Harness Shop, Alvin Martin, 1446 Crum Rd., Shiloh, Ohio 44878 (ph 419 895-2344).



Orville Hillis's home-built thresher consists of a 4 by 4-ft. by 15-in. wide plywood shell fitted with two cylinders, a concave and a cleaning sieve.

## Mini Threshing Machine Ideal For Small Plots

When fields are only 10 by 45-ft. in size, a combine is too big and commercial plot threshing machines are too expensive. Orville Hillis, Charles City, Iowa, solved his small plot dilemma by building his own mini threshing machine. He raises a variety of grains and dry beans in small plots for his personal use and has developed several lines of amaranth seed for sale.

"I've been raising amaranth and other small grains since 1981 and have tried different ways to thresh out the grain," says Hillis. "I even used a bone grinder I got from a local grocery store. It had different size screens that worked for the different grains, but I still had to run a fan over it to clean out the chaff."

His home-built thresher consists of a 4 by 4-ft. by 15-in. wide plywood shell fitted with two cylinders, a concave and a cleaning sieve. The concave was made from rebar covered with pvc pipe and formed into a curve beneath the cylinders. The cylinders were made from 18-in. long, 1-in. steel shafts and lengths of auger tubing. Rounds cut from 1/4-in. steel to fit the auger diameter served for ends and mid shaft support.

Hillis fashioned rasp bars for the cylinders out of angle iron and pieces of wood. The wood was cut at a taper to reduce impact on the grain kernels. Grain falls through the cylinder and onto a combination straw screen/sieve. Here, a blower made from flat 1/4-in. steel welded on a third 1-in. shaft blows trash out the back.

The straw screen/sieve was made from an old Allis Chalmers combine sieve that was cut to fit. As grain falls through the sieve, air from a 12-volt squirrel cage fan rescued from an old wood-burning stove removes smaller chaff and dust. The grain is collected in a pan at the bottom of the threshing chamber.

Power to drive the shafts comes from a pto drive. A belt drives a double pulley on the first cylinder shaft which, in turn, drives a

second pulley driving a double pulley on the main second cylinder shaft. The second pulley on that shaft drives a pulley on the main blower fan.

Hillis mounted the thresher on a small trailer made from an old silage cart. This allows him to set up alongside his small plots.

"I can thresh about two bushels of oats per hour with the help of a second person," he says. "It works well on oats, amaranth, and sorghum, and isn't too bad with soybeans. With wheat and triticale, you do lose some grain with the trash."

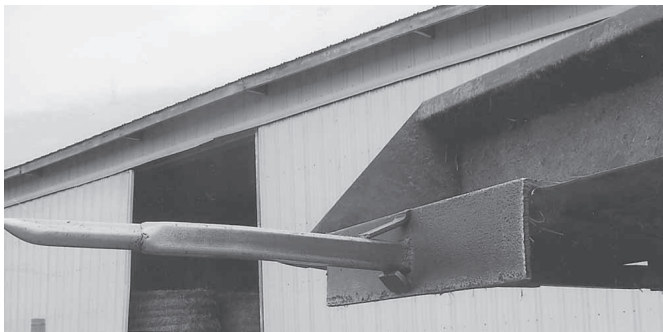
Hillis put his thresher together for less than \$300 and plans to upgrade his design, installing a straw walker above the sieve and building an adjustable concave for better threshing of problem grains.

Hillis is hoping to find a company to partner with to make and market his thresher. He's confident there is a demand for an inexpensive small plot thresher. While attending an international amaranth conference, he had interest from attendees from Africa. They felt his design would be ideal for small villages with lots of labor and limited capital.

Hillis is also marketing the amaranth varieties he has developed using selective breeding. The high protein, South American grain can be ground for flour or popped like popcorn. Hillis likes it because it does well in years when corn doesn't. His varieties yield from 1,800 to 3,500 lbs. per acre, depending on the weather. To dry them, he cuts the heads and lays them out on long racks.

Hillis admits the market is limited at this time. He uses most of the amaranth he grows, but he knows of one processing plant paying 40 to 60¢/lb. depending on whether it is conventional or organic.

Contact: FARM SHOW Followup, Orville Hillis, 3020 220th St., Charles City, Iowa 50616 (ph 641 228-4860).



The 4-ft. long spear is made from the axle off a New Idea 12A manure spreader.

## Slip-On Bucket-Mounted Bale Stabber

"I made my own round bale spear using heavy angle iron that slips over the edge of the loader bucket. It extends under the bucket to the back and fastens with a pin. It's safe to use and easy to put on and off," says Perry Hathaway, Claypool, Ind.

The 4-ft. long spear is made from the axle off a New Idea 12A manure spreader. Hathaway used a cutting torch and a grinder on one end to make a sharp point. He shoved the other end of the tubing into a length of sq. tubing and spot welded it on. The sq. tubing goes through a 3 1/2-ft. long, 1/2-in. thick L-shaped bracket and under the bucket to the back side of the bucket where it's welded to a U clamp.

To mount the bale stabber, he tips the bucket down, then drives forward so that the bucket lip goes between the top of the angle iron and the tubing. Then he tips the bucket up and inserts the pin. To remove the stabber he just removes the pin.

"It's safe to use because the bale can't come



Rear bracket pins to metal hitch welded to back side of bucket.

over the top of the bucket back toward the operator. Over the years I've built several of these for neighbors," notes Hathaway.

Contact: FARM SHOW Followup, Perry Hathaway, 4238 W 625 South, Claypool, Ind. 46510 (ph 574 491-3448).

## Tire "Sock" Increases Traction On Ice

Here's an idea a friend of ours spotted at a British farm show to replace tire chains. Tire "socks" aren't available in the U.S. or Canada yet but they'll be showing up soon.

Autosocks, as they're called, are lightweight elastic fabric coverings for car and truck tires invented by Norwegian Bard Lotveit.

You just slip them over your tires and drive off. They're inexpensive, machine washable and reusable.

According to the company's website, Henry Ford's wife suggested putting fabric over tires to increase friction on snow and ice. Tests proved it worked.

Contact: FARM SHOW Followup, Autosock (www.autosock.com).



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