

Neck Injury Inspires A Time And Labor-Saving Product

After Richard Arnold pinched a nerve in his neck trying to reverse the plugged cylinder on his grain combine, he invented a mechanical product to handle the job for him. Now Arnold, his wife Annete, and son Doug build and market the A1-100CX Reverser for CS Series New Holland combines.

That product has been so well received by farmers that they introduced similar reversers for Lexion CAT and Claas combines in 2017. Deere combine models are in the works.

Doug Arnold says the idea behind their product is to reduce the amount of time and arm strength needed to reverse a plugged cylinder. After the concave is lowered and the

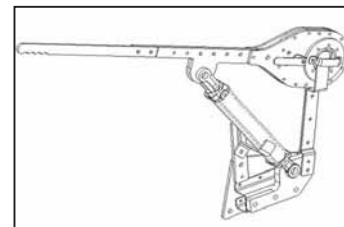
stone trap is opened, their product is raised into place. It uses a ratcheting reversal system with a longer handle than the OEM wrench to reverse the cylinder. The reverser mounts into the combine's hydraulic system with a spool valve so the operator can move the cylinder backwards and forwards to loosen the slug. The ratchet engages in reverse so the slug is turned out of the cylinder.

Arnold says it probably takes less than a quarter of the time to remove a slug with their product compared to the OEM wrench. "It's a time-saver and definitely easier on the operator," Arnold says.

On New Holland machines the reverser



New reverser uses a ratcheting reversal system with a longer handle than the OEM wrench. It reduces the time and arm strength needed to reverse a plugged cylinder.



installs on the left side of the machine while on Lexion models it mounts on the right. The Lexion reverser eliminates the need to loosen belts to remove the slug. A low-pressure kit, for smaller combines, costs \$3,500 while a high-pressure model is \$4,000.

Arnold says they're now developing

hydraulic reversers for New Holland CR twin rotor machines.

Contact: FARM SHOW Followup, Arnold Innovations, P.O. Box 299, Hamiota, Manitoba ROM 0T0 Canada (ph 204 412-1900; www.arnoldinnovations.ca).

"Under Blade" Sweeps

Al Hemerson's new Finish Line Sweeps solve a problem farmers may not even realize they have. Field cultivator and chisel plow sweeps lift and till the soil above them, but they also compact the soil below. The resulting dense soil layer slows root development. Finish Line Sweeps have a knife blade on the bottom that fractures the soil below just as the point and wings fracture the soil above. Hemerson has already seen benefits on his own farm.

"Farmers in our area had rootless corn syndrome last year," says Hemerson. "A seed corn salesman stopped by wondering why we didn't have as much as others did. I think it may have been that our corn roots were able to get through the density layer."

The under blade on the sweeps cuts a path only 2 3/4-in. deep, but that seems to be enough to fracture the compacted layer for the hair-like roots. Hemerson adds that users of Finish Line Sweeps also report less streaking from wheel tracks in bean stubble going into corn. He expects that too is a result of breaking through the compacted layers left by field equipment.

Hemerson got the idea for his sweep design driving by an airport and noticing a jet tail

sticking above a chain link fence. Wondering aloud what a jet flying upside down would look like, he soon applied the image to cultivator sweeps. Indeed, an upside down jet plane tail is the best descriptor of the sweep's under blade.

"The backward sweeping angle fractures the density layer, but it also slides up and over underground obstacles without a problem," says Hemerson.

While many inventions go through multiple prototypes and alterations, that's not the case with Finish Line Sweeps. The design being sold is the same one that Hemerson had Brian Brace, a local welder and fabricator, build for him.

Hemerson tested them out on his own Deere 725 soil finisher and saw immediate results with vertical relief patterns in the soil. After filing for a patent, he shared the idea with Wiese Industries. They quickly adapted the concept to their Viper 7-in. and 9-in. bolt on sweeps.

"They make a premium sweep with a heat infused, hardened leading edge for longer wear," says Hemerson.

Another factor that may affect wear is



Finish Line Sweeps have a knife blade on the bottom that fractures the soil below, just as the point and wings fracture the soil above. The result is less soil compaction.



a side benefit of the design. It has been described as a sweep with a rudder.

"Like a rudder on a boat or a surfboard, the knife beneath the sweep holds it steady as it moves through the field," says Hemerson. "Less weaving back and forth should also reduce wear."

While Hemerson is confident of the benefits his sweeps offer, he is looking forward to validation. His Finish Line Sweeps are being tested by Beck's Hybrids, Hefty Seed and Precision Planting.

Contact Wiese Industries for information on how to access Finish Line Sweeps. They

are currently priced in the \$20 range at a growing list of local implement dealers.

Check out the Finish Line Sweeps in action at FARMSHOW.com.

Contact: FARM SHOW Followup, Finish Line Sweep, 2115 Delaware Ave., Gilmore City, Iowa 50541 (ph 515 368 0050; snowtoes_hemerson@yahoo.com) or Wiese Industries, Inc., P.O. Box 39, Perry, Iowa 50220 (ph 515 465-9875 or 800 568-4391; www.wieseindustries.com).



Corbin used armatures off junked car starters to make rollers for his small mill.

He Made His Own Mini Roller Mill

"I recently built a small roller mill that lets me grind my own organic feed fast. I use it on corn, oats and soybeans and unload the ground feed into 5-gal. buckets, which I feed to my goats and chickens," says Thomas Corbin, Winfield, Penn.

"The mill is bolted onto an angle iron frame and powered by a 1/2 hp. electric motor, which belt-drives a pair of rollers made from the armatures off junked car starters. The armatures measure 5 1/2 in. long by 3 in. dia. and are mounted on pillow block bearings. A cut-out wooden board is bolted to each end of the hopper to contain the grain.

"To make the rollers, I removed the commutator bar and winding coil from each armature, keeping the shaft. Then I used a cut-off wheel with a die grinder to deepen the slots between the armature's stack teeth so they do a better job of grinding. Once the feed has been ground, I dump it in an old cement mixer, add molasses, and mix the feed again. Then I carry it in 5-gal. buckets to my animals.

"The hopper measures 16 by 20 in. and was built by riveting pieces of sheet metal from an old washing machine. The hopper can hold almost a 5-gal. bucket of grain weighing 25



Jan Black used metal tubing and barn siding to make a platform for empty protein tubs, which are bolted on.

Easy-To-Make "No Cost" Feeder

"If you have a bunch of empty protein tubs stacked around the barn, you can save the price of a high-priced plastic feed trough," says Jan Black, Stewart, Tenn.

"I made a narrow platform out of metal tubing and a piece of barn siding, and then

bolted the tubs to the top and to each other. All it cost me was some bolts, screws, and a little time."

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lbs., and four 5-gal. buckets is enough to feed my animals for a week.

"It takes only about 15 min. to grind 50 lbs. of feed whereas it took an hour with my old electric-powered burr mill, which was much smaller than this one. My total cost to build the roller mill was a little over \$100.

"I've found that buying organic ingredients and making my own organic feed costs only about half as much as what I'd have to pay at a farm store."

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