works great for polishing the inside of any hole. He made it out of a 3-in. long, 1/2-in. dia. cold-rolled round steel bar, with the end turned down to 1/4 in. to fit into the drill chuck. The bar has a saw cut endwise deep enough that I can fit a strip of 1-in. dia. coated sandpaper in it. The strip of sandpaper wraps itself around the steel rod. Centrifugal force pushes the sandpaper out - it actually does a nicer job than I can with a file. The sandpaper is the kind often used on lathes and comes in up to 100-ft. rolls.

"I use several different bottom dies with our hydraulic press. The one shown in the photo is made from 1 3/4-in. dia., 6-in. long rounds set 4 in. apart on a 1/2-in. thick steel plate. My 50-ton press can bend 1/2 by 6-in. bars on it.

"Top dies have to be made according to the configuration of your press. A square bar could be used, up at 45 degrees, if sufficiently supported vertically."

Wes Cornelius, Winlock, Wash.: "I live in a building that's more than 100 years old, with a metal roof that was nailed on in the 1960's. Over the years a few leaks have developed. I tried re-screwing the roof and seam-sealing those areas, but it wouldn't last for very long. Finally one cold, wet, blustery day I went into the attic with an aerosol can of insulation spray foam. I used a flashlight to locate each leak and then sprayed a little foam on the nail or into the seam. The foam bubbled up to create a nice seal. Problem solved.

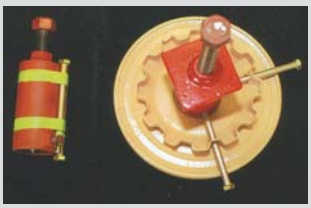
"To clean household appliances I apply a coat of car wax to all sheet metal. The wax keeps appliances looking brand new."

Roger Avram, Twining, Mich.: "I welded 2 oil filter wrenches together to come up with this dual strap oil filter wrench, which makes removing hard-to-turn oil filters a much easier job. The dual strap applies the load to a greater area which increases the torque, and it won't crush the filter like a single strap filter might."

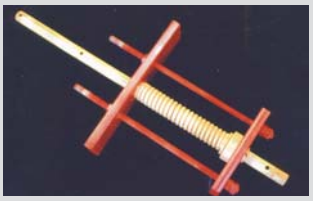
Chad Travis, Drasco, Ark.: "The bird beak design on my hand-forged staple puller

works great for removing deeply embedded staples from trees and posts. The tool has good balance and feel, and there's a piece of strap metal welded on top to hammer on.

"The pto control lever on my Deere 5000 series tractor broke off in my hand one day when I was using it, so I decided to replace it with one that I made out of 3/4-in. dia. solid cold-rolled rod. I heated the tubing and made a double bend handle at the top. The handle extends much farther off the operator's platform than the factory one, so now I don't have to reach as far to engage or disengage the pto. And, there's enough room underneath the handle for my chainsaw."



Leonard Hodges, Callaway, Va.: "The starter pulley on Cub Cadet garden tractors can be easily damaged when you try to remove it because it's made from lightweight metal. A new replacement pulley costs about $35. To solve the problem, I made a puller that prevents the damage. I have a few in stock, and they sell for $50 plus S&H.



"I came up with a tool for my Cub Cadet garden tractor that compresses the spring on the tractor's driveshaft, making it easier to replace the tractor's throw-out bearing. It's a safe way to get the job done. Anyone who's interested can call me and I'll tell them how to make it."

Bob Bugger, Effingham, Ill.: Bob and his son, Bobby, are automobile and motorcycle fans. They came up with this shop stool with tool tray on caster wheels. It's equipped with a removeable metal pan to hold small parts.

George Rodman, Ostrander, Ohio: "I've had great success starting lawn mowers in the spring, by squirting a shot of gas directly into the carburetor using a hypodermic syringe. I've found that small plastic complimentary shampoo bottles offered by motels work well for this, too. Maybe even better because they last longer, as the gas tends to destroy the rubber in a hypodermic syringe."

Portable metal bender fits into receiver hitch on back of Warren Farley's pickup. "It'll bend steel up to 3 in. wide and 3/8 in. thick," says Farley.

Pickup-Mounted Metal Bender

Warren Farley didn't have enough room in his small garage for a stationary metal bender, so he built one that fits into the receiver hitch on back of his pickup.

The unit consists of a 4-in. sq. vertical steel tube welded to two 12-in. sq. metal plates and uses four 18-in. long arms and a 36-in. long handle at the end to do the bending. A 4-bolt, adjustable clamp on the tube attaches to an adjustable hitch plate on the pickup. He used 3/4-in. thick, 2-in. wide steel to build the arms and drilled 5/8-in. dia. holes through them, which accept grade 5 bolts that hold the arms together.

"I built it after I bought a small stationary metal bender from Harbor Freight. It only cost $80 but couldn't even bend 2-in. material," says Farley. "I ended up spending nearly 4 times that to build my bender, but it's portable and is built a lot heavier. It'll bend steel up to 3 in. wide and 3/8 in. thick, or maybe thicker, and with the long handle, it's very easy to use.

"It weighs about 200 lbs. so I use a small 2-wheeled cart to move it around. It's all I can do to lift it into the back of my pickup."

Contact: FARM SHOW Followup, Warren Farley, 280 State Street, Jackson, Ohio 45640 (wrfarley@roadrunner.com).

Seed Boot Mounting Repair Kit

Craig Craft recently sent FARM SHOW photos of a kit he developed to solve a common problem with the seed boots on Deere 50, 60, and 90 Series no-till grain drills.

"Deere no-till drills use a pair of cast iron lugs on the main arm to mount the seed boot. The lugs don't have replaceable bushings. As the center seed boot mounting hole wears, the rear of the seed boot works loose and flexes upward, allowing seed to randomly miss the furrow," says Craft.

His solution to the problem involves drilling out the hole on the seed boot mounting lug, then installing a hardened full length bushing made from heat-treated aircraft grade alloy steel.

"Restoring the tight fit of the boots results in better stands and higher yields," says Craft. "The repair can be made with the mounting arms still mounted on the drill. The seed boots themselves require no modification. Only the seed boot and opener blade have to be removed."

The kit he developed includes a 2-piece drilling jig that's used to drill through the hole, and the hardened bushings. The bushings are driven into the worn-out holes in the mounting lugs using a simple driving tool that Craft designed.

"The new bushings allow the seed boot to pivot as originally designed," says Craft. "Thanks to our drilling jig, the holes are true and parallel to the original location. The kit actually lets you restore the seed boot mounting clearances to better than new tolerances. For example, factory new 50 Series drills have less than 3/4 in. total bearing surface for the seed boot mounting bolts, while drills repaired using our method have 2.125 in. of total bearing surface.

"The repair allows you to use OEM parts and hardware. Factory and aftermarket seed boots, mounting bolts, and leaf springs can be installed without modification."

A complete kit for 12-row drills sells for $475 plus S&H; 24-row drills, $595 plus S&H; 32-row drills, $695 plus S&H; 44-row drills, $795 plus S&H.

Craig Craft developed this kit to repair the seed boot mounting hole on Deere 50, 60, and 90 Series no-till grain drills.

Repair involves drilling out the hole on seed boot mounting lug, then installing a hardened full length bushing.

"Restoring the tight fit of the boots results in better stands and higher yields," says Craft.

Contact: FARM SHOW Followup, Craig Craft, Craft Air Services, LLC, 865 Swamp Rd., Hertford, N.C. 27944 (ph 252 426-9676; craig@craftairservices.com; www.jddrillfix.com).