



Paul Miller, Gardiner, Mont.: "A friend of mine ran over my wheelbarrow, breaking off one handle. I had an ax handle that was broken off at the head. I drilled holes in the ax handle, aligned it with the other handle, and screwed it onto the remaining broken off section. It is very comfortable to use. If I can find another ax handle, I'll ask my friend to run over the other side."

David Lapp, Elmridge Machine & Gear, 94 Fairview Rd., Lititz, Penn. 17543 (ph 717 664-1079): Elmridge Machine specializes in producing custom or hard-to-find spline shafts and spur, helical, or worm gears. "Send us the original part and explain



the application. We will test the hardness of the piece and decide on the best material for the purpose, take careful measurements, and reproduce a gear to those specifications. Heat treatment and finish grinding processes follow as needed," says Lapp.

Replacement gears are available for restoration of antique tractors, custom-build applications, or to get an older machine running again for which parts are no longer available.

Mack Myers, Kirbyville, Texas: "As I get older I can't lift as much as I used to, so I try to come up with ways to make life easier. I recently equipped a 2-wheeled dolly with a battery-operated diesel transfer pump. It



really comes in handy for refueling tractors and other diesel-powered vehicles.

"A 12-volt battery sets on a wooden shelf at the middle of the dolly, with the transfer pump and its discharge hose mounted above it. There's a 5-gal. container at the bottom. When refueling, I stick a 20-in. length of pvc pipe into the container to serve as a suction hose.



Rotating caddy uses 16 containers - old plastic medicine bottles - to hold parts. Containers are arranged in rows of 4 on each quadrant of a 6-in. dia. pvc pipe.

he wants to open.

"I've seen homemade caddies that use glass baby food jars with screw off tops, but the covers are made of lightweight aluminum and are easily mis-threaded," Gass says. "When that happens, a person either has to find another cover or take it off completely. I made my caddy with medicine bottles because those plastic safety covers are virtually indestructible. It's a real handy place to store a lot of small pieces in my shop."

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FARM SHOW®

Money-Saving Repairs & Maintenance Shortcuts

Have you come up with any unusual money-saving repair methods for fixing farm equipment? What maintenance shortcuts have you found? Have you had any equipment recalled by the factory? Name a particularly tough mechanical problem you've had with a piece of equipment and how you solved it.

These are a few of the questions we asked randomly selected FARM SHOW readers. If you have a repair tip, maintenance shortcut, or other mechanical experience you'd like to share, send details to: FARM SHOW, P.O. Box 1029, Lakeville, Minn. 55044 or email us at: editor@farmshow.com.

Mark Newhall, Editor

"This setup eliminates the need to haul heavy containers around by hand and do any lifting, and there's no need for an electric outlet to operate the transfer pump. I bought the pump and hoses at Harbor Freight for \$104 (with a 20 percent off coupon) and already had the dolly and battery."

Douglas Strouse, Mason, Mich.: "I use a 5-gal. bucket with a 1/8-in. dia. hole in the bottom to water new trees. Water runs out slowly and soaks into the ground without running off. Cat litter pails work good because they come with lids."

David Nolt, McVeytown, Penn.: "Whenever I'm installing cup-type hydraulic cylinder seals I first apply heavy grease. Then I use nylon ties or clamps to compress the ring and put it in the freezer for an hour. The seal will then slip easily into place."

Herbert Brown, Saint Peter, Minn.: "Over the years I've owned several different brands of cordless drills, but on all of them I find that if the chuck is hand tightened the bit can easily slip. A big jaw pliers can be used to tighten the bit, but that can be very dangerous because of the twist. I've tried grinding the flat side of the bit shank, which sometimes helps. Anyone else have a solution?"

Jim Monaghan, Chelsea, Mich.: "Here's an easy way to remove a stubborn bolt. Center punch the bolt head to make a dent in it, then use a small drill to make a starter hole in the head. Then use another drill the same size as the bolt and drill it out."

Dale Stodel, Vermontville, Mich.: "On older equipment, nuts and bolts can get rusty enough to break on disassembly. Whenever I know in advance that I have to work on old equipment, I squirt penetrating oil or brake fluid every couple of days onto the fasteners and then tap them with a 1-lb. ballpeen hammer. I've never had a nut hold out longer than 2 weeks, and usually I can break the nut loose in a week or less."

Gerald Schmidt, Cape Coral, Fla.: "When a bolt head broke off on my Ford 555 backhoe-loader tractor, I placed an oversized nut over the broken bolt and then welded it in place of the head so I could remove the bolt. Worked great.

"Here's a tip to make acrylic enamel catalyst paint last longer. Blow into the can and then quickly place a lid on it. The carbon dioxide in your breath will make the paint last another 30 days or so, and if you put the can inside your freezer it'll last even longer."

Kerry Kligora, Mineral Point, Wis.: "I made this shop stool for my father-in-law last Christmas. The seat is from an old Massey Harris tractor and is supported by a



spring tine off an old cultivator. I used 2-in. sq. tubing to make the base and mounted it on 3 caster wheels. I painted everything Oliver green and white, since Oliver is my father-in-law's favorite brand.

"The seat is comfortable and stable but sits a little too high for doing real low work. However, my father-in-law says it works great for working on his dump truck, and even better for when the guys come over for a beer."



Brad Miller, Ridgeville Corners, Ohio: "Here's a way to make some handy spring

Medicine Bottle Parts Holder

Retired Illinois steamfitter John Gass says he's been working in farm shops since he was a kid. "I grew up on a farm 30 miles from town, so when machinery broke down or we needed something, we learned to fix it ourselves or build what we needed," Gass says.

His latest shop invention is a simple rotating caddy that has 16 containers to hold nuts, bolts and small connectors. The containers, which are old plastic medicine bottles, are arranged in rows of 4 on each quadrant of a 6-in. dia. pvc pipe. They're attached with screws and a 1/2-in. washer that hold the covers tightly to the pipe. His caddy rotates on a 2-ft. long threaded metal bar that extends through the pipe. It's held tight with double nuts against bearings bolted onto pieces of plywood on each end. Gass mounted the caddy on a simple metal frame that's secured to the wall of his shop. A handle on one end of the bar easily rotates the caddy to whatever group of containers