

**Don Doey, Salmon Arm, B.C.:** "Readers often write in about having trouble charging batteries. Here's a tip: A warm battery will not charge well. If it comes off a drill and is put on charge right away, it'll charge poorly. You'll do better if you put your battery in the fridge overnight to make it cool. But don't freeze it. Just cool it off and then when you charge it it'll have nearly double the strength. Often a battery that you think is done can be revived by cooling it before charging."

**Harold David Rupard, Winchester, Ky.:** "When I tried putting a new starter on my 1997 Deere 6300 tractor, I found there wasn't room for a wrench. I tried using a special tool borrowed from my Deere dealer, but it didn't help. So I came up with my own solution. I used a bandsaw to cut a box end wrench in half and put the box end half on the nut. Then I used a cold chisel and hammer to tap around the nut until it came off."

"The lug bolts on the tractor's dual wheels were too long to get a deepwell socket on them. So I used my bandsaw to cut a socket in half. Then I welded the open end of the socket to one end of a 6-in. long pipe, and welded the drive end to the other end. To remove the wheel, I just connect the socket drive end of the pipe to my air-operated wrench."



**John Heide, Deerbrook, Wis.:** "The electronic ignition on my log splitter's Wisconsin engine quit working, and they wanted \$300 to replace the ignition module. Instead, I took a 4-cyl. distributor I already

had and ground 3 of the 4 lobes off the camshaft, then bolted the distributor to the engine.

"Now, instead of the breaker points opening 4 times for every revolution of the distributor, the points open only once. To drive the distributor I drilled through the center of the engine crankshaft and installed a 1/2-in. dia. shaft. A length of hydraulic hose forms a coupling that connects the shaft to the distributor. The original clamp on the distributor is used to adjust engine timing.

"I already had all the parts I needed, including the coil. No problems after five years."

**Rod Hancock, Nanaimo, B.C.:** "When installing rubber grommets to run wires through a metal bulk head I pick the grommet that I want to use, find which hole in my drill gauge it fits, and then use that size drill. It makes a perfect fit every time."



**Al Burant, Barrys Bay, Ont.:** "I find that cans or large pop bottles work well for storing long extension cords. I've used this idea for at least 30 years. I just coil up the cord and slip it into a can, which holds it tightly together."

"Old-time watches have crystal faces made of glass. When the glass broke on my mom's watch she fixed it herself. She took a pane of broken window glass and used a crayon to trace out the circle she wanted to cut, then put the glass under a pan of cold water and used a pair of kitchen shears to cut out the glass. Holding the glass under the water will keep it from shattering - it has something to do with a change in surface tension."

**Dan Rallison, St. Alberta, Ont.:** "The

**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](mailto:editor@farmshow.com).

Mark Newhall, Editor

**Sunbelt Chemicals Corp., Palm Coast, Fla. (ph 386 446-4595; [www.sunbeltchemicals.com](http://www.sunbeltchemicals.com)):** Sunbelt manufactures Right Stuff De-Ruster metal conditioner and rust preventer. It converts rust into iron phosphate and can be used for everything from engine parts to car frames, heavy equipment, storage tanks, etc. You just spray onto the surface being treated and it cures out and is ready for primer in about 2 hrs. Available in 32-oz. spray bottles and in 1 and 5-gal. sizes.

store where I bought my 20 hp Honda "clone" engine doesn't stock the oil or air filters for it. They said it would cost \$25 apiece to order them from China. So I went to the Fram filter website ([www.fram.com](http://www.fram.com)). They have a page that tells which filters fit which engines, and they also provide filter specs so you can confirm the match before you buy. I ended up buying a Fram filter for \$9."

to pre-treat roads here in Pennsylvania. To solve the problem, I add about a cup of 'pH Up' swimming pool stabilizer to one gallon of water and then use my garden sprayer to wash off the vehicle. It neutralizes and removes the brine, and seems safe to use. It's available at many stores and websites including [www.aquariumguys.com](http://www.aquariumguys.com).

**Tim Von Ohlen, Varysburg, N.Y.:** "Don't throw away your old rechargeable electric razor if it won't hold a charge any more. Instead, remove the battery pack and wire in a 3-12-volt AC adapter (I used Radio Shack's no. 273-029) and voila! you now have a corded razor. I've been using this idea for three years and it's still going strong. The battery pack shows you the voltage info, and the AC adapter has multiple settings for different voltages. If it spins the wrong way, I just reverse the wires."

**Mike Toppen, Burnips, Mich.:** "I needed to change hydraulic hoses on the pivot mount on my backhoe but there wasn't room for a wrench.



"To solve the problem, I used an air hammer and a punch against the sides of the fittings to break them loose. Then I used the same idea to retighten the new hoses. It took no time at all, and the new fittings don't leak a bit."

**Oran Rodgers, Yellville, Ark.:** "I attach screen door springs to both ends of my electric fence. It keeps the wire tight and makes take-down and reinstallation an easy job, especially when mowing."

**Kirk Krofka, Frewsburg, N.Y.:** "Older farm vehicles with carburetors can experience severe vapor locking problems during unusually hot days in early spring, before summer-blend gas becomes available. To solve the problem, I add one gal. of diesel fuel to every 10 to 12 gal. of



**Russell Delancy, Leavittsburg, Ohio:** "I made a cheap, heavy duty chain binder out of an old car bumper jack and two chain hooks. I removed the base from the jack, then drilled a hole into one end of the jack post and bolted a chain hook into place. Then I bolted another chain hook to the jack mechanism itself."

**James Stimson, St. Peters, Penn.:** "I had problems with corrosion of my on-road vehicles due to a brine solution that's used

## "Home Brewed" Penetrating Oil

One of the most popular articles FARM SHOW has ever run was a short piece reporting on the results of a test of penetrating oils in Machinist's Workshop magazine (Vol. 34, No. 3). The winner turned out to be a home brewed 50/50 mix of automatic transmission fluid and acetone. It beat out Liquid Wrench, WD-40 and other popular "rust busters".

FARM SHOW reader Steve Coley was fascinated by the idea and decided the market could use a premixed product. He blends transmission fluid and acetone with another proprietary lubricating additive for even better penetration. He's ready to hit the market in November with half-pint, spouted cans of his penetrating oil, which he calls Metal Liberator.

"It's a grassroots idea that appeals to me," Coley says. "I think most people aren't going to go out and buy quantities of transmission fluid and acetone and mix them together. They'll like the convenience of having it done for them."

Coley has used his product extensively. One project was with his children, rebuilding a cast iron fireplace that had been in a fire, and then rusted. He soaked the bolts overnight and the blend worked great.

He notes that he is a huge fan of FARM SHOW and respects the opinions of its readers. He's hoping some of them will try his product and give him feedback, about everything from the oil, to the can and the labeling.

Because of shipping and set-up costs, he estimates his Metal Liberator will cost \$10

Steve Coley sells half-pint, spouted cans of a home brewed, premixed penetrating oil he calls Metal Liberator.

to \$12. Eventually he hopes to sell case lots to chain stores.

"This won't make me a rich man, but I'll have fun with it," Coley says.

That's clear with the artwork on his labels. Metal Liberator's mascot is a squirrel next to the tagline: No frozen nuts.

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