

**W.A. Gibbs, Elmwood, Tenn.:** "I busted out both wheels on my Deere 1530 while mowing steep land. I fixed them by cutting out new steel plate 3/8-in. thick. Then I drilled new bolt holes in the plate corresponding with bolt holes on the wheels and used a torch to cut out between bolt holes on the wheels. I welded through the holes and around the outside to fix. Worked fine."

"Another time I broke off a bolt in between the transmission housing and front engine housing on my Deere 1530. I put together two matching 3-in. channel irons by drilling holes in 4-in. strap iron and welding one end of each onto each one of the channel irons. I drilled a hole in the channel iron to correspond to a hole on the engine housing and transmission housing. I used 4-in. bolts to pull the two housings together. It works like a charm because it takes all the stress off the front housing - as well as the other bolts - and puts it on the bolts that hold the channel iron in place."

"One of the handiest pieces of equipment in my farm shop is my 10-ft. tall A-frame hoist. It's made out of two pieces of pipe with channel iron on top fitted with a chain hoist. Caster wheels welded to the bottom of the A let me push it around the shop. I can pull engines out of trucks, tractors or dozers so slick. And it's 10 times safer than a floor jack because it eliminates the possibility of a jack slipping."

**Fred M. Schrader, West Lafayette, Ind.:** "The fuel-water separator on my 1986 Ford F-350 diesel pickup was sucking air from the drain valve. For \$5, I bought a fuel filter base for a Cummins truck engine and plumbed it in place of the separator. Now I never get any water in the primary filter at all. Replacement filters only cost about \$5."

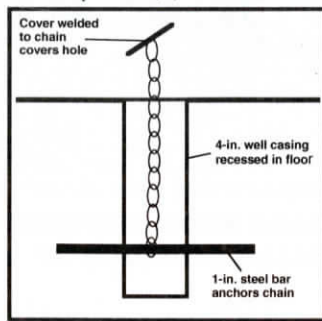
"You can make a nifty collar for a turn-buckle by screwing several nuts loosely together on a threaded rod, then welding them together. You just put a swivel on the anchored end to allow tightening."

"One gadget I made was an oil filter crushing attachment for my log splitter. It's a flat plate with brackets that fits around the wedge on my splitter. Make sure you put a hole in the plate to let the oil out. A short piece of pipe welded over the hole with a hose attached will drain the oil to a bucket so it won't make a mess. Makes disposal of filters easier and cleaner."

**Chris Lynch, Sabina, Ohio:** "When removing a race from inside a hub or other

location where you can't get behind it to punch or pry it out, simply weld a bead on the face of the race and the heat will shrink it enough so it'll slide out."

"One of the best features we built into our farm shop was to anchor four chains in the floor spaced at 4, 8, 12 and 24-ft. across



the floor. Lets us chain down a piece of equipment to straighten it or keeps a tractor from moving when we split it. When not in use, the chains pull back into 12-in. long pieces of 4-in. dia. well casing recessed into the floor. Each chain is anchored by a 1-in. dia. steel crossbar. A cover is welded to the free end of the chain."

"We also came up with an idea to make ripper-chisel plow points last longer. I cut strips off plow shears and weld them onto the top side of the ripper point - over the bottom 4 in. When the wear strips wear back, I just knock them off and weld on new ones."

**Ricky Downs, Winnett, Mont.:** "All Perkins engines have glass-type fuel filters that you can't fill before installing and they're very hard to fill and prime once installed. I use an empty 16-oz. plastic saline solution bottle that I get from my wife to do the job. I rinse the bottle out well and then fill it with diesel. It delivers a very small stream that you can direct into a full plug on top of filter head without making a mess. Then crack one injector line before you start and you're off."

**Ralph Jorgensen, Calgary, Alberta:** "I have a 700-lb. cast iron work table that's especially good to weld on since nothing sticks to it. It measures 4 by 4 ft. and I paid just \$10 for it and then spent \$300 to have it planed flat. It was originally a motor base at a coal mine. Because the surface is perfectly flat, it's great for doing layouts when welding. It so heavy it won't move. Great for straightening parts with a hammer."

"When I remove or replace duals on my tractor, I use a double length extension on my 3/4-in. drive socket set. It enables me to get proper leverage on the wrench, outside of the tire body."

"I use WD40 to keep doors working smoothly. A small squirt on the locking tongue keeps doors closing freely. It is a

## 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 farm 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.

### Quick Repair Tool For Damaged Threads

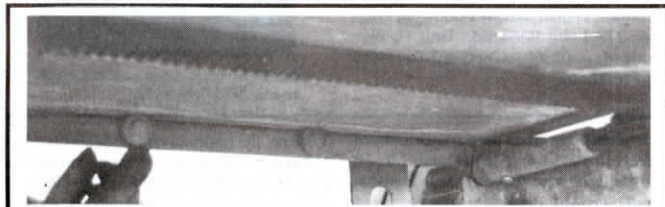
Here's a new-style tool from Australia for repairing damaged bolts and stud threads without the use of a die.

The Studsaver uses two hardened steel blades that clamp onto the damaged threads. When the tool is rotated around the bolt, the blades regroove the threads. The company claims the tool will repair flattened or stripped threads and will also clean threads covered with paint, concrete or rust.

It's available in two sizes. The first works on bolts from 1/4 to 7/8-in. dia. while the larger tool works on threads from 3/4 in. to 1 1/2 in. Both are equipped with 60° and 55° cutting blades. Cost of the Studsaver is about \$40 for the small size and \$80 for the larger unit.



Contact: FARM SHOW Followup, Recoil Pty Ltd., P.O. Box 24, Oakleigh, Victoria 3166 Australia (ph 03 563-1500; fax 03 563-1980). (FARMINGAHEAD)



### Bearings Relieve Pressure On Grain Wagon Doors

Almost everyone has trouble opening slide gates on hopper-bottom wagons. Illinois farmer John Friedman came up with a simple idea that permanently eliminated the annoying problem for him.

He simply bolted four steel bearings to the frame supporting the slide gate. They're positioned so that they just slightly lift the door off the frame so that

the door rides on the bearings, eliminating metal-to-metal contact.

Friedman notes that by making the slide gates easier to open you prolong the life of the gate opening mechanism.

Contact: FARM SHOW Followup, John Friedman, Chatsworth, Ill. 60921 (ph 217 388-2478).

small passion of mine to lubricate doors. If I visit a place and encounter a jamming door lock, I either lubricate it with a small can of WD40 or sneak some butter from the table to do the job."

**Garnet W. Best, Cambridge Station Kings Co., Nova Scotia:** "To break a tire from a rim, lay the wheel flat on a hard surface. Place one end of a 3-ft. plank up on the tire so it just clears the rim, and put the other end on the ground. Drive a rear tractor tire up on the plank and repeat all the way around the tire."

"Here's a trick I've used successfully to extract stubborn bolts that have twisted off or that have chewed-up corners. Weld a large nut to the top of the bolt, welding inside the threaded area. It lets you get a good grip with a larger wrench and the heat from the weld will aid in loosening the bolt."

**Brian Parkinson, Milan, Ill.:** "One of the best features of my farm shop is the way I've plumbed regular iron pipe throughout the shop for compressed air. I've run pipe around the inside and through the walls to the outside. Now I don't have to drag so much hose around. It's especially great in cold weather since I don't have to keep the door open in order to use the air outdoors."

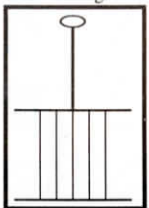
"The drive chains on either side of my Deere 515 no-till drill were coming off or breaking once or twice a season so I hooked up a micro switch on each side - next to the driveshaft - and attached small plastic paddles to each shaft which trigger the switches on each revolution. Then I wired

the two switches to the battery and two red lights in the cab. When the two lights are blinking, I know both sides are okay. This gave me a very low-cost shaft monitor. Works great and is especially handy at night and in dusty conditions. The parts cost less than \$5 and were purchased at a local industrial surplus store."

**Alvin Pearson, Ellsworth, Wis.:** "I made a portable work bench out of a big wire spool (designed to hold heavy underground cable) from the local electric coop. I just set it on end and put a pipe through the center with an eyehook on top to make it easy to handle. It's easy to roll right up to wherever you're working."

**Joe Hagens, Urbana, Ohio:** "With the cost of backhoe work running \$30 or more per hour, I've started putting electric and water lines inside PVC plastic drain pipe. That way, if lines need to be replaced or repaired, you just dig up each end and just pull the lines out."

"I also ran PVC pipe under a new shop floor for electric lines so I don't have to have extension cords running all over the floor. I put small trap doors in the floor that I open to plug into the electric boxes. The doors have cut-outs for electric cords



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