

Charles Larson, Kalispell, Mont.: "Here's how I solve the problem of air leaking out around the rims of tubeless tires. Just put some crankcase oil in the tire and it will seal right up. Works great."

Edwin H. Veitengruber, Frankenmuth, Mich.: "Here's how to break the bead on any tire. Just lay it on a concrete floor and drive your tractor or pickup over the edge of the tire. I have done this many times and it'll break even the most stubborn tire. If it's a large tire, you can lay down a board ramp up to the tire."

Richard Cox, Jacksonville, Ill.: Richard and friend, Buddy White, Jacksonville, Ill., made this shop hoist from parts salvaged from an old portable elevator and a wagon hoist.



A hand-cranked winch mounts on the side of the hoist and runs up through pulleys on top. The lift rolls back and forth across the top of the hoist.

The winch came off a Little Giant elevator. The gantry mounts on casters, and travels anywhere it's needed in the shop.

The two men also came up with a handy high-speed sander-buffer for polishing steel shafts and also for rounding wood. It's a high-speed emery blade mounted on an electric motor, mounted parallel to a small work table. They say it works as well on



wood as metal because it doesn't "fill" with gunk as it's used.

Lloyd Meffert, Rettick, Ill.: He put together a portable stand-by generator that mounts on the frame of a junked garden tractor. The tractor motor powers the



generator via an electric-operated clutch-type pulley. The generator is a 5,000-watt Generac.

He made the frame towable with a hitch point on what had been the back of the tractor. He welded the front axle solid. An electric control box on the tractor activates the electric clutch to engage the generator.

Alfred Amm, Michigan City, Ind.: "To make a hole with threads in sheet metal panels, burn a larger hole than needed and weld in a nut. Use a bolt to hold the nut in place while welding."

Weaver's Welding & Casting, Corbin, Ky. (ph 606 523-4395): "I run a small welding shop and a neighbor brought in a tie rod end from his MF 50 backhoe. The "ball" had popped out of its socket from wear. I cut a piece of 2-in. bar stock and chucked it into my old South Bend lathe and turned out a new socket "cap", contouring the inner edge to match the ball. I then cut the old crimped

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 e-mail us at: Editor@farmshow.com.

Mark Newhall, Editor



New socket cap in lathe.

cap part off the end and mig-welded mine on in place.

"I did the first rod end two years ago and



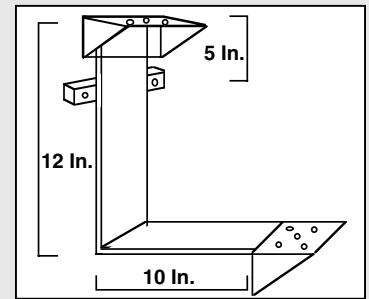
Ball ready to be reinserted (above) and completed end (below).



recently did the other one. They're working great, especially since I tapped grease zerks into the ends. The MF dealer wanted \$400 per new tie rod end. I charged \$70 for the two repairs."

Bruce Burns, 0935N 1100 E., LaGrange, Ind. 46761 (ph 219 367-2455): "I built these steps in less than 2 hours on my 3010 Deere. I've been crawling on and off 10 and 20 Series tractors since they were new. This step is a great improvement, especially getting off. Wish I'd thought of it 35 years ago.

"What I did was to remove both existing steps. Then I took a piece of 2 by 2 by 7-in. steel tubing and drilled holes in it to match the holes where the steps were mounted. Next, I take a piece of 1/2-in. thick strap iron, 22 in. long by 2 in. wide, and make a bend at



12 in. Weld the piece of steel tubing to the back side of the L-shaped strap iron, about 5 in. from the top. Finally, turn the existing Deere steps upside down and weld them to the top and bottom of the 'L'. And then bolt the whole assembly to the tractor."

Marvin Henry, Maywood, Neb.: "I never discard broken shovel, axe, fork handles, and so on. I recycle them into handles for hammer, hatchets, and other tools."

Gordon Lawson, Houston, Texas: "We saved a lot of money using a 2-ton engine hoist to set 18-in. dia. sections of concrete pipe which weighed 700 lbs. each. We used a come-along to draw the pipes together. It was so easy, my wife was able to operate the come-along while I pushed the pipe to its final position."

Richard Jaescke, Northampton, Mass.: "My New Holland 565 twine tie arms came from the factory too rough. The knots were okay but the string would often get cut. I solved the problem by filing excess casting off until they were smooth. Works great now."

Paul Gilster, Bangor, Wis.: "Here's a money-saving repair that saved me some money. It involved my 1984 Gleaner M3. The tube under the feederhouse that locks the head to the combine was rusted and bent. A new one was \$130. I went to the local hardware store and bought a piece of 1-in. pipe the same length with threads and caps to screw over the ends. I took the insides out of the old tube and put in the new pipe, and drilled holes in the caps for the ends to come



Low-Cost Filter Keeps Shop Air Cleaner

"I was tired of breathing dirty air," says Arvin De Cook, Sully, Iowa, who came up with an idea for a low-cost air cleaner to remove dust, smoke, paint and other airborne particles.

"During the winter, I spend many hours a day doing repairs in my heated farm shop. After a couple hours of cutting, grinding, welding or spray painting, the air becomes quite dirty. Usually you don't realize it until you blow your nose. This air can do permanent damage to your lungs.

"You can run an exhaust fan but it'll bring cold air into the shop, which gets costly. And few farmers can justify spending hundreds, or thousands, of dollars for a commercial air cleaner.

"I came up with this idea for a low-cost air cleaner that you can put together for less than \$30. It consists of a 3-speed box fan which pulls air through four cheap furnace filters. The fan and filters are mounted in



a plywood box which hangs from the ceiling in the shop. The fan also circulates warm air through the shop.

"The four plywood sides of the box screw together. A slot is cut out of one side for the filters to fit into. Then a cover is screwed over the slot to cover it. A piece of window screening goes over the open filter side of the box. The fan bolts into the other end of the box and pulls air through the filters.

"Maintenance depends on how much it's used and how dirty the air is. The filters generally cost less than \$1 apiece to replace. Because the fan pulls air through the filters, it's always running on filtered air. However, when you need to replace it these fans can be bought for about \$15."

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