

## Money-Saving Repairs & Maintenance Shortcuts

around the end of the cylinder bars on combine cylinders. The result is that a hole gets worn through the metal in the side of the combine and you have to patch the holes. I've seen this happen on different makes of conventional combines.

"I found a way to eliminate the problem by welding 1 by 1 1/2-in. strips of 1/4-in. thick metal to each end of the concave. These small metal risers keep straw from going past the ends of the bars."

**James O. Bass, Vineland, N.J.:** "Here's an idea that makes it easier to pull tires off garden tractor wheels. I use a 12-in. piece of 3/4-in. all-thread bolt. It feeds up through a 1-in. hole in the top of my work bench and then through one of the holes in the wheel. Lets you quickly tighten the wheel down to make it easy to pull off the tire."

**Donald L. Enterline, Jamestown, Penn.:** "When you need to really secure a nut so it won't come loose, just turn the nut onto the bolt a couple turns and then hit with a hammer to egg shape it a bit, then tighten it down. Won't come off."

**Francis B. Haines, Galesville, Wis.:** "I carry a dishwashing liquid bottle behind the seat of my pickup and also keep a bottle in the shop and in my tractors. It contains water with 25 percent dish soap. Works great to clean hands in the field or wherever I am."

**Myron D. Hebbert, Chadron, Neb.:** "I use castor oil as a rim sealant on tubeless tires. It's good for the rubber and makes any tire easier to dismount. Also helps prevent rim rust. I've used this idea ever since tubeless tires first came on the market. Just brush it on.

"One time someone suggested using transmission oil the same way but I think that would ruin a tire for patching and other future uses."

**Larry Zenz, Parks, Ark.:** "While cleaning up after an ice storm, I came up with an easy way to splice broken fence wire. I stretch the wires so they overlap about 1 1/2 in. and



then bend up about a 3/4-in. long piece at the end of each wire. I slip a washer over the ends, bend the wires back, then run a 1/4-in. bolt through the washer with a 1/4-in. washer on each side. Tighten it down and you're done. The splice will hold till the cows come home!"

**Donald Winkler, North Platte, Neb.:** "Our oldest son bought a used arc welder from the maintenance department of a local factory. It was a large D.C. welding generator driven by a 220-volt, 3-phase A.C. motor. They sold it cheap because it didn't work properly. The problem was that the company had crossed the 220-volt input wires, which caused the armature to run backward. As a result it wouldn't excite the generator fields. They tried using a car battery to excite the generator. This caused the generator to produce a D.C. welding current, but because the armature was rotating in the wrong direction, the commutator brushes arced terribly.

"Our son, John, pulled the A.C. motor armature off the common shaft that it shared

with the D.C. armature. Then he coupled the shaft to a 4-cyl. Jeep engine and mounted everything on a 4-wheel trailer. The result is a portable gas-driven, D.C. welder. It has a lot of power and runs a strong, smooth bead."

**Dave Woodwell, Las Cruces, New Mexico:** "I've had lower back problems for years, so wheelbarrows aren't a very friendly tool for me. The lifting isn't much of a problem. It's the steadying of loose loads or going over uneven terrain. One wrong twist and I'm out of business for a week.

"I noticed some new wheelbarrows with two wheels at our local hardware store. I

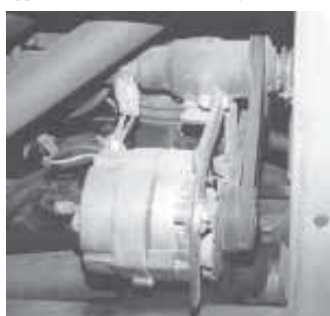


decided to modify my 3-cu. ft. wheelbarrow.

"I bought a second wheel and replaced the existing axle with a new, longer one that supports the two wheels. I used 1 by 3/16-in. flat stock to make braces, and a 24-in. length of 5/8-in. dia. steel rod to make the new axle. Holes were drilled in the ends of the axle to accommodate cotter pins. I cut the flat stock in half and drilled 5/8-in. dia. holes in one end and 1/4-in. dia. holes in the other. I bent the upper end of the braces to conform to the shape of the wheelbarrow and bolted them on. The lower ends of the braces mount on the axle inside the cotter pins. Braces probably aren't necessary, but they sure make it look nice and stable. I've carried three bags of cement at a time with no problem."

**Kenny Brandt, 32748 I. Ave., Hubbard, Iowa 50122 (ph 641 864-3283):** "My John Deere B loader tractor, which is equipped with a narrow front end, steered hard. The conventional way to add power steering would have been to add a power steering pump and belt-drive it by adding a double pulley to the fan shaft. But to do that I would have had to remove the gas tank and radiator.

"Instead I replaced the original generator with a 12-volt alternator and mounted a double-grooved pulley on it. I went to a junkyard and found an old Pontiac power steering pump, which I mounted on the opposite side of the tractor using homemade



brackets. It drives off the alternator. Then I mounted a Charlin hydraulic motor on the tractor's steering shaft, just in front of the steering wheel. I drilled a hole through the steering shaft and bolted the motor to it.

*Continued on next page*

**Hand-held torch attaches to 4-wheeled "tractor" that follows 6-in. channel iron track. Control box regulates tractor's speed.**



## Track Turns Any Torch Into Straight-Line Cutter

Anyone can use a hand-held torch to cut a perfectly straight line through steel plate using this new "track torch".

Kyle Palumbo, Welding Contractors, Union Bridge, Md., sells the "RK Torchmaster", a 4-wheeled "tractor" that attaches to the torch. It measures 6 in. wide by 8 in. long and is fitted with four grooved steel wheels that ride on top of a piece of 6-in. channel iron which the buyer supplies. The Torchmaster is powered by a gear drive DC motor that runs on standard 110-volt electricity. A control box clamps onto the torch's on-off lever, which is normally thumb-controlled, and is used to regulate the tractor's speed as it goes down the track.

"It cuts a perfectly straight line which is virtually impossible to do freehand. It's much

less expensive than other commercial track torches because it doesn't have a built-in track and torch," says Palumbo. "I came up with the idea a few years ago for use in my farm repair shop and have even hauled it in my service truck out to farms. It works so well that I decided to manufacture units for sale.

"The machine travels at infinitely variable speeds from 6 to 160 inches per minute in both forward and reverse. The speed you use depends on the thickness of the material you're cutting. The torch can be adjusted up or down to fit any handheld cutting torch."

Sells for \$495 plus S&H.

Contact: FARM SHOW Followup, Kyle Palumbo, Welding Contractors, Box 452, Union Bridge, Md. 21791 (ph 410 775-7003).

## Angle Finder Tool

Whether you're a woodworker, metalworker, or both, you'll probably find a lot of ways to use this new "Angle Finder".

The easy-to-use tool lets you accurately read any inside or outside angle directly from a scale. Or you can use it as a template to transfer a known angle directly to a workpiece, eliminating having to make a separate template.

Figliuzzi says his gauge can also be used to find the center of any cylindrical object, and the adjustable arms make it possible to find the centers of both large and small objects. In addition, it can also function as a miter gauge, a combination square, a bevel gauge, and a construction protractor. Its parallel arm construction also makes it easy to draw parallel lines.

Figliuzzi says it's an indispensable tool for carpenters, cabinetmakers, pattern makers, boat builders and anyone with a home workshop. "You may not use it every day. But when you do need to find or transfer an angle, it sure is handy to have one hanging on the wall.

"I also use it if I can't find my carpenter's square," Figliuzzi says. "You just set it at 90 degrees. The locking knob is sized to make it easy to grip when locking an angle setting."

The Angle Finder also comes with a Lifetime Warranty and sells for \$14.95 plus \$4.95 for shipping and handling. Orders received by 2:00 p.m. Central time are shipped the same day.

Contact: FARM SHOW Followup, Joe Figliuzzi, JOEFIG TOOLS, 41502 Hunt Lane NE, Kelliher, Minn. 56650 (ph 218 647-8529



**Easy-to-use tool lets you accurately read any inside or outside angle directly from a scale.**



**Adjustable arms make it possible to find the centers of both large and small objects.**



**Parallel arm construction makes it easy to draw precisely angled lines.**

or 218 647-8200; fax 964 301-8057; E-mail: joefig@anglegauge.com, Website: www.anglegauge.com).