the holder by ripping a 7-in. wide sheet of 3/4-in. plywood. Then he cut out a section along one side that's 1/4 in. wider than his level. He made 45° cuts on either end to leave a small, flat point to rest on the floor. A hand hold near the center of the holder makes it easy to carry and hold in place. Four strips of duct tape hold the level in place.

Richard S. Gerhard, Quakertown, Penn.: "To replace the drive belt on our garden tractor, I lift the front end of the tractor up with a front-end loader. That way I can get at it easily without crawling under the garden tractor," noting that you should block the loader arms up for safety and put blocks under the tractor when it's in the air.

"To replace the starter on a Briggs & Stratton motor, I cut the metal ventilating casing into three pieces. Now I don't have to remove so many bolts and take the whole casing off to get at the starter."

Corey Hoseth, Mahnomen, Minn.: "A common problem on the farm or around any equipment is failure of lines, hoses, steel wiring, etc., caused by rubbing. I've found that wear shields made by Epha Inc. (P.O. Box 1230, 5 Campbell Drive, Hermiston, Ore. 97838 ph 800 867-2351) help solve the problem."

The company makes two types of wear shields. "Hose protectors" wrap around the hose or wiring and are held in place by three zip-ties placed in grooves in the protectors (you use a pair of pliers to pull the zip-ties tight). The grooves protect the zip-ties and keep the protector from slipping. A company spokesman says hose protectors are practically indestructible and are effective in temperatures ranging from 40 degrees below zero to 400 degrees above. They can be used on hydraulic hoses, wiring harness, fuel lines, radiator hoses, battery cables, brake systems, air lines, oil lines, etc. They're formulated to resist solvents, oils, grease, gasoline, etc. Available in 4, 6, and 8-in. lengths. They sell for $2 to $4 depending on the volume ordered (cable ties included).

Hose spacers and hose looms are designed to help keep hoses organized while also preventing hose abrasion at points of contact. Available in 3/4, 1, 1 1/2, and 1 3/8-in. sizes, they're also installed with cable ties.

John R. Pauls, Inman, Kan.: "My son was putting up a 40 by 64-ft. machine shed with 14-ft. high walls and couldn't lift the rafters into place with his tractor and loader. Fully extended, the loader on his Massey 1135 reached only 13 ft. So I got $16.35 worth of odds and ends from a salvage yard and rigged a heavy-duty 'rafter raiser' that fits in the middle of bucket. I used a 15-ft. length of 4-in. dia. reinforced oil field pipe.

"I made a mounting bracket out of angle and channel iron that welds to the pipe and bolts onto the bucket. The bracket holds the pipe completely rigid on the bucket. For extra strength, I used sucker rod to make a bridge on top of the pipe to reinforce it. The bridge welds to both ends of the pipe after tapering from about 1 1/2 ft. high in the center. I welded a hook onto the far end of the pipe so we could lift up rafter sections with chains. When the device is on the bucket and the bucket's fully extended, it'll reach 25 ft. in the air, no problem. It made life a lot easier putting up the machine shed."

(Continued on next page)

"Gapless Rings" Increase Engine Life

"I learned about gapless piston rings from a driver who competed in the Pikes Peak Hill Climb," says Harry Wallace, who was so impressed with Total Seal piston rings he became a distributor.

"The design puts two rings in the same groove so end gaps overlap, reducing compression gases leaking into the crankcase," Wallace says.

Installing the gapless rings on an engine reduces ring leakage to 2% or less, increases manifold vacuum, improves cold starts, extends oil changes, raises compression tests more than a point, and increases fuel mileage and decreases cooling requirements.

The rings are available for almost any engine including farm tractors (antique also), chain saws, snowmobiles, 18-wheelers, and automobiles. They're available for both gas and diesel engines.

Total Seal rings generally run about 60% more than ordinary piston rings. An information package, including a sample ring, is available for $15.50.

Contact: FARM SHOW Followup, ENGINE I.Q., Harry Wallace, P.O. Box 521, Woodland Park, Colo. 80866-0521 (ph 719 687-3761).

"Top Side" Mechanic's Creeper

"It lets me work from the top side of the engine - anywhere under the hood - with both my hands free," says Wesley Linn, Mena, Ark., about his "top side" mechanic's creeper.

The 5-ft. long creeper is made from steel tubing and angle iron. It rolls on four caster wheels. A ladder leads up to a 4-ft. long, height-adjustable platform covered by 1-in. foam rubber and naugahyde. Telescoping legs, held in place by steel pins, allow the platform to be raised up to 6 ft. high.

"I can position it to straddle the front wheels from the side or go over the radiator in front. The caster wheels make it easy to move around. I built it about 12 years ago after an alternator burned out on my 1979 GMC pickup. The alternator was difficult to reach and I watched as a young mechanic tried to reach it. He was kicking, scratching, and clawing and ended up getting poked hard in the side. I decided to build something for him that would make such jobs easier."

Contact: FARM SHOW Followup, Wesley Linn, 1307 Ransom Road, Mena, Ark. 71953 (ph 501 394-7478).

Drill/Tap Guide Makes Engine Work Easier

If you've ever had trouble repairing or replacing an exhaust manifold on Deere 400 and 500 series engines, you'll like this new drill/tap guide which was introduced at the recent National Farm Machinery Show at Louisville, Ky.

"Often if you have to replace the turbocharger, studs are corroded and break off," explains inventor Vince Jeffries of Jackson-Lee-Pearson Inc., Flora, Ind. "This guide allows you to remove the broken stud by hitting it dead center with the drill bit, avoiding damage to the threads on the manifold. You can even do the work without taking the manifold off. It's a real time and money-saver."

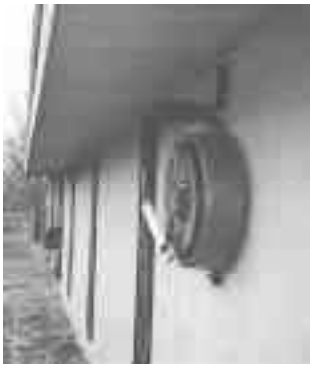
It consists of a metal plate the size of the base of a turbocharger. It has four 3/8-in. holes, corresponding to stud positions on the exhaust manifold. You simply line up the plate on the manifold, bolt it to two unbroken studs, then insert one of three guide sleeves over the broken stud. You choose the sleeve for the job you're doing - drilling, retapping, or installing a helicoil.

Comes with replaceable hardened guides for 5/32-in., 5/16-in., and 25/64-in. drill bits.

Sells for $165 apiece for the Deere series engines plus $5 S&H. (Can also be custom-built for most other engines). Indiana residents add 5% tax where applicable.

Contact: FARM SHOW Followup, Jackson-Lee-Pearson Inc., State Rt. 75 South, Flora, Ind., 46929 (ph 219 967-4164; fax 4230).

To roll up the cord you just grab the feeder tube and swing it around.



Bracket that holds tube swings out of the way and extends only 8 in. from wall.

"Whipper Reel" Cord Retriever

If you're tired of hassling with tangled-up extension cords, you'll want to take a look at this "Whipper Reel" cord retriever that fastens to walls or ceilings or can be staked to the ground.

It consists of a 13-in. dia. pvc reel and a length of pvc tube that the cord feeds into. One end of the tube attaches to the rim of the reel and the other attaches to a bracket that extends a couple feet out from the reel.

To wind a cord onto the reel, you simply grab onto the tube and use it to turn the reel in a clockwise direction.

"It takes just one hand to operate and has no motors or springs to wear out or break like on other cord retrieval systems. The cord flows in as smooth as silk," says Sonny Olson, manufacturer. "The reel holds up to 125 ft. of 14 or 16-ga. cord and up to 100 ft. of 12-ga. cord. You never have to touch the cord while winding it up."

Sells for $129.50.

Olson has also come up with an innovative air hose reel that he says is like nothing else on the market. The Ultra Lite Hosereel (weighs just 10 lbs.) comes prespooled with 50 ft. of 3/8-in. dia. air hose. "It has an ultra smooth exit and retrieve," notes Olson.

Contact: FARM SHOW Followup, Win Enterprises, 2641 Quail Rd., Chapman, Kansas 67431 (ph 913 922-6513).