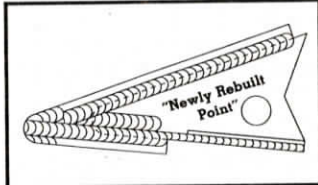
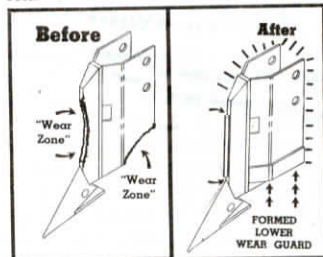


a hack saw. The winch, as shown in the photo, is simply a small drum at one end of the radial arm with a hand crank on it. A length of electric wire runs from the drum to the bracket holding the torch and you roll up the wire onto the drum to pull the torch evenly along a cutting edge. Anyone building this flame cutter will be happier with it if they add this winch." (Contact: Richard B. Walker, Walker Publications, P.O. Box 17924, Irvine, Calif. 92713. Sells for \$9.70, including shipping.)

Roger Kuntz, Grainfield, Kan.: "As a farmer and an inventor, I've come up with several new money-saving maintenance ideas that FARM SHOW readers may be interested in. I was about to replace the



points on my Deere hoe drill when it hit me that only a small part of each point was actually wearing out. With many hoe drill points now selling for \$7 or more, it seemed like a waste to throw the whole thing away. After a lot of trial and error, we devised a method to hard-surface and restore points to meet or exceed original new factory length and width and exceed the original points in wearability. The process includes the addition of a hardened stainless steel welded-on wear rod along the top and bottom of the point. The rod builds the point back up to original specs and also creates a natural cavity for hard surface welding to lay into. When finished, the point is better than new at half the price. Farmers ship points to us and we charge \$3.95 per point to rebuild and return them.



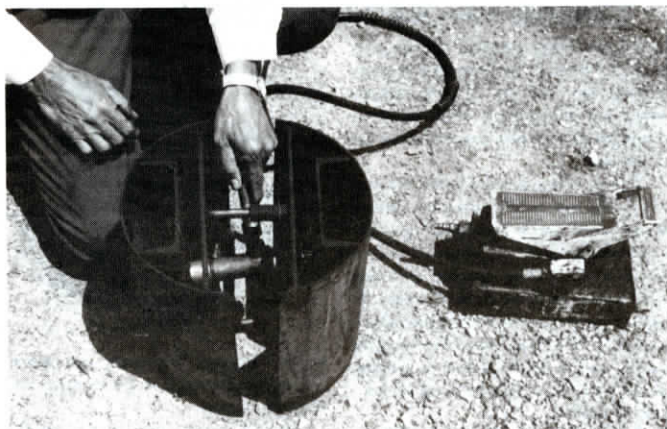
"We're also selling a 'wear guard' to fit over the lower wear guard on Deere LZ and 9300 drills. Dealers would like you to

replace the entire boot for about \$42 apiece with a new point, not including the labor to do the job. Our wear guards eliminate the need to remove and replace the units and makes them better than new. We use a stainless chrome alloy, which is three times more dense and abrasion resistant than ordinary steel. We replace the worn part in front of the boot with a 1/4-in. dia. 'nose guard' rod and repair the worn underside of the boot with a 1/8-in. thick, 1 1/2-in. wide strip. The cost is \$6.95 per pair of boot guards that fit only Deere drills. As with rebuilding points, farmers send us their worn parts and we rebuild them and ship them back." (Contact: K-Tech, HCR 1, Box 69, Grainfield, Kan. 67737).

Jerome Timp, Glen Flora, Wis.: Jerome's had overheating problems with a Case/IH 885 MFWD tractor bought in 1991. "The first problem was that it had a compression leak in the head at 60 hrs. After that was fixed, the tractor would overheat whenever the temperature outside was over 50 degrees. It turned out that not enough oil was running through the transmission cooler to effectively cool the transmission. When the oil built up enough heat, it would overheat the engine because the transmission cooler would get so hot in front of the engine radiator. The problem was fixed by drilling out a valve to let more oil through. Now the engine doesn't go into the red but it's still very hot to operate. If I wanted to get burned in the field, I would have bought a steam engine. This tractor only has 250 hrs."



Terry Braun, Churchbridge, Sask.: Here's a simple way to balance tires using a spindle and hub mounted on a shop wall. You mount the wheel on the hub. When a tire is out of balance, the heaviest side will roll to the bottom. "I got the idea about 6 years ago. At first I tried doing it with the wheel still on the vehicle, but the brakes



Don Moss, Tallula, Ill.: Don makes expandable round presses to fit inside bent augers to restore them to working condition at a fraction of the cost of new augers. "The press in the photo is for 12-in. augers. I have another one for 6-in. augers. I use a 3-ton portable hydraulic jack to operate it, using a combination of pressing and careful ham-

mering on the auger tube to do repairs. I can add as much hydraulic line as necessary to get the press as far inside the auger as needed. I came up with this idea three years ago and some of the augers I've straightened are still running as good as new (ph 217 634-4158)."

caused drag that interfered. The wall-mounted hub lets the wheel spin freely. You just keep attaching weights to the rim until the wheel rotates evenly. You should al-

ways put weights inside and outside to evenly split the load. I've found that I can do as good a job this way as expensive shop balancers."

Home-Built Shop Press & Brake

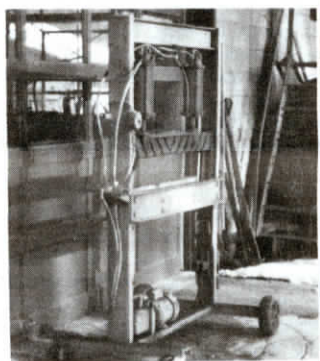
"In our shop we do a lot of snowplow and wing repairs and we used to bend sheet steel by hammering or running a tractor wheel over the sheets to bend. Results were mediocre, at best so about three years ago I decided to build a heavy-duty press and brake," says Carleton Farnham, Tamworth, N.H., who's foreman at a New Hampshire Department of Transportation welding shop and also runs a small farm.

"I built it because commercial brakes large enough to handle 7 and 10 ga. steel 48 in. wide are cumbersome, expensive, and only bend steel. This machine is lightweight, powerful, and very versatile. We use it to press out busings, bearings, hubs, straightening pins, and have even broken small tire beads off rims with it.

"The ends and base of this press-brake are made of 5-in. channel iron. The end pieces are 68 in. tall. The top cross piece that the two 3 by 8-in. hydraulic cylinders hang from is a piece of 5 by 7-in. I-beam. The 'bed' is made of two 6-in. channel irons bolted to either side. The throat is 50 in. wide so it'll handle 48-in. sheets of 7 and 10-ga. steel. The knife blade is a piece of 1 by 4-in. steel bar cut long enough to fit inside the end channels with about 1/8-in. play. I welded a 3/8-in. rod to the edge of the knife and added extra weld and then ground away the extra steel to make a blunt-edged knife.

"Between where the cylinders are attached, a piece of 3 by 1/2-in. steel bar was welded flat to the top edge of the knife to prevent sideways bending. The knife travels up and down two 1-in. sq. bars welded to the inside of each end channel iron.

"The 'bed' channels are held in place with 3/4-in. bolts and can be lowered to an extra set of holes. The knife drops down 2 in. between the 'bed'. Two pieces of 5-in. channel were cut 3 in. long and bolted with 3/4-in. grade eight bolts a third of the way across the bed and mounted flush with the bottom so as to allow room for the knife to drop below the bed. These spacers are



needed because of the tremendous outward pressure on the bed when bending.

"Hydraulic power is provided by a salvaged electric plow pump that's normally used in truck cabs to lift plows. The original motor was burned out so I replaced it with a 3/4-hp. electric motor. The shaft sizes were the same so all I had to do was make a bracket to raise the pump to the height of the motor. The control valve on the press came off a wood splitter. An electric on-off switch mounts next to the valve to save plugging and unplugging cords and so it's close in case of any emergency. I 'bushed' down the control valve and cylinders to 1/4 in. dia. - and used 1/4-in. tees and hose - to slow down the knife speed, which enhances accuracy and safety.

"There's a 1/4-in. hole at the center of the knife to which a pressing adaptor can be bolted. To bend sharp angles, I made an adaptor out of 3-in. channel iron that drops into the bed.

"I cannot emphasize enough to those who use this machine the importance of safety since a lot of pressure is exerted and if work is not properly aligned, things can go flying."

Contact: FARM SHOW Followup, Carleton Farnham, HC 64, Box 52, Tamworth, N.H. 03886.

"Tools On A Bolt"

A Minnesota inventor says his new "Tools On A Bolt" mounting system for shop tools will revolutionize workbenches and service trucks.

"Tools On A Bolt" consists of a pair of channel irons mounted parallel to each other with a space between them. Mounting bolts inserted between the two channels slide freely back and forth on the rail. To mount a tool, you simply place the tool over the bolt and tighten it in place with a flanged nut or "T" handle nut.

"It lets you easily slide tools back and forth on the rail or even rotate them 360° to whatever position works best for the job at hand," says inventor Neil Lossing, who uses "Tool On A Bolt" to mount vises, grinders, routers, saber saws, clamps, benders, and so on.

The sliding tool rail can be mounted on the front edge of a workbench, on the back of a pickup tailgate, or on its own set of



legs. Lossing developed a tailgate mounting bracket that lets you slide the rails on or off a pickup in seconds.

He's looking for a manufacturer to bring the patented tool holder to market.

Contact: FARM SHOW Followup, Neil D. Lossing, 7200 Cahill Road, Edina, Minn. 55439 (ph 612 944-6293).