'T' with a small electric hydraulic unit that I bought from Princess Auto. This oil line includes a check valve and a 'T' connection through a hydraulic ball valve to return oil to the tank. This provides a quick advance to the cylinder with up to 1,800 lbs. pressure for light pressure. If the press stalls, I can turn off the electric hydraulic unit and use the hand pump."

John Imhoff, Roanoke, Ill.: He made a fairly simple change to his Deere 750 no-till drill which he says has a made a huge differ-

ence in operation. What Imhoff did was to move the marker arms to the back of the drill.

The problem was that the markers would dig into the ground on turns when mounted on front. Now the marker discs pivot in their own mark as the drill turns. Much less danger of damage to the markers."

Joel Waldner, Lethbridge, Alberta: "We use old plastic-coated slatted floors designed for hog confinement buildings in our potato 'cooler' storage building. We grow 15 tons

of potatoes every year and put them in bags which we stack in the building. The slats help ventilate to keep them from rotting. Air is blown down through the building walls and then comes up under the floor and through the slats, which are 2 in. off the floor. It's a very simple idea but it works. The potato cooler building measures 20 ft. square. We also use these slats in two 50 by 100-ft. buildings that we use for meat storage."

Ron Saltzman, Corning, Iowa: "I used sheet metal to make a 2-ft. long funnel that bolts onto the end of my grain auger. Grain

was splattering off a flipper at the end of the auger and, if it was windy, some of it blew away before reaching the truck. The funnel makes the grain flow straight down.

"I made a pattern in the sheet metal, cut it out, and pop riveted it together. I bolted a

pair of small steel tabs onto the auger and drilled a hole through each one. A steel rod goes through both brackets and is secured by a cotter pin. I bolted a small wooden block onto each side of the funnel to keep the rod from wearing through the metal.

"I made two of these funnels, one on an auger that I use to fill my dryer bin and the

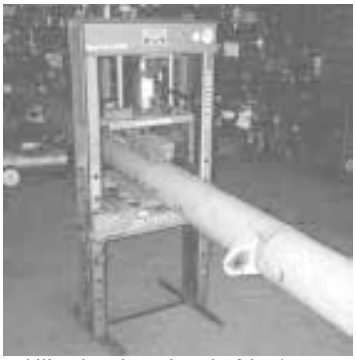
other on a transport auger that I use to load trucks. The rod is off an old wagon box. My only cost was for the sheet metal which I bought at a plumbing store.

"To keep ears of corn from flipping out of the feederhouse on my Deere 7720 combine, I made my own 'corn saver'. I used a curved angle iron frame that came off an old Deere pull-type rotary hoe and welded expanded metal onto it, bending the metal to match the curve of the angle iron. The angle iron bolts onto the header. I made a hinging mechanism so that the corn saver can be flipped up out of the way whenever I need to work on the header. It works good and cost almost nothing to build. I paid $10 for the expanded metal. Commercial models sell for about $200."

Ray Obrecht, McCallsburg, Iowa: "Last fall my son David's 70-ft. long, 8-in. dia. grain auger blew off his 20,000-bu. grain bin during a storm, just a few days after we had finished filling the bin. The auger crashed down onto his driveway.

"The impact of the fall caused dents in the auger's heavy gauge tube and it also became somewhat egg-shaped. Also, the undercarriage got bent and twisted. A lot of other augers in Iowa were wrecked during that same storm so it was hard to find a used auger as a replacement. We didn't want to spend the money for a new one so we decided to repair ours.

"A friend who's in the body and fender business told us it would be easier to straighten one piece at a time, so I disassembled the auger into as many pieces as possible. It came apart in 20-ft. lengths. I fed each tube through my 30-ton capacity press 18 to 24 in. at a time in order to make the tube round again. We made a platform out of 2 by 8-in. wood with a bit of circle to help



stabilize the tube and used a 2 by 4 to press down on the top of the tube.

"To remove the dents we borrowed the scissors car jack out of my wife's new Ford Taurus and mounted it on the press. We made a long flat base for the jack by welding a 15-in. length of 2-in. hollow square steel to the bottom of the jack. We capped the top of the jack with a slightly convex piece of metal.

"Because the tube was in 20-ft. lengths, we added 12 ft. to the jack's crank handle and welded 16 ft. of steel rod to the base so that we could position the jack anywhere we wanted to inside the tube in order to reduce the dents. One person needs to be at each end of the tube - one to position the jack while the other cranks the jack up. We also attached a 7 7/8-in. dia. sprocket to a length of aluminum conduit pipe. When we could insert the sprocket all the way through the tube we knew it had been restored to its original shape. We also used the press to straighten the auger's undercarriage.

"We used two loader tractors to reassemble all the parts. We tried to avoid tightening any bolts until a section was reassembled. The project took about seven days. We saved about $2,000 - not too bad for off-season work right at home."

Ted Birdseye, Gold Hill, Ore.: "Last spring I had a problem with my 1970 Ford 8000 tractor and found a low-cost solution. The tractor's rear wheels have cast iron 'pegs' that fit into grooves, or keyways, on the axle. One of the bolts that hold the wheel to the axle came loose and the pegs broke. I turned the wheel 180 degrees on the axle to position it so the axle caps are now on top where the keyways are, instead of on the bottom. I removed the two caps and had a local machine shop cut keyways into them to match the axle grooves. Then I inserted the keys in those keyways, all the way through the cap

and wheel so the bolts are tight on the axle.

"I spent less than $100. Replacing the entire wheel would've cost $900 to $1,000."

Don & Ralph Walter, Grand Ridge, Ill.: To make routine maintenance quick and easy on their Case 1370 tractor, the Walter's decided to build a tilt-up hood. It's made out of 10-ga. steel.

The secret to the tilt-up hood is a 1/2-in. thick steel plate that bolts to the front of the tractor frame. A piece of pipe is welded to the front of the plate. Then two short pieces of larger diameter pipe slip over either end of the pipe. The short pieces weld to the front of the hood so it can be pivoted forward, exposing the engine compartment in seconds.

Dale Spoerl, Elizabeth, Ill.: "The battery on my Farmall 1026 tractor was originally located under the cab where it was difficult to reach. It extended half way into the cab and I couldn't get at it unless I opened both front windows. I moved the battery to the right side of the tractor where it's a lot easier to service. I made an angle iron frame to hold the battery and bolted it to the side of the tractor. I added a step at the bottom of the frame to make it easier to reach the fuel tank's fill opening. I filled the opening where the battery had been with foam rubber to keep heat from the tractor's engine out of the cab. The foam rubber also keeps the cab quieter

and cooler in the summer.

"I installed a lot of old storm windows, some old and some new, in the sides of my shop when I built it several years ago. There are seven windows that measure 28 by 48 in and two that measure 48 by 76 in. Another one measures 32 by 64 in. Some of the windows had been purchased for a house but were all the wrong size so I was able to get them cheap. I also put see-through skylight material on a big overhead door. All of these windows let in a lot of light which makes it easier to work on machinery.

"Another idea I came up with was to install four 4-ft. long fluorescent tube lights on the shop ceiling. I can pivot each of the lights back and forth by grabbing a steel handle that mounts on one of the shop walls. It lets me place the lights exactly where I want them and provides direct overhead lighting no matter where my implements or shop tools are located."