Five short 1 1/2-in. dia. steel tubes are welded at a 90 degree angle to a vertical pipe and spread evenly across its length. The end of each tube is open and cut at an angle, allowing some grain to enter it. A steel air tube is welded to the open end of each tube.

Air-Powered Grain Bin Sampler

"My air-powered grain bin sampler lets me take samples from anywhere in the bin by simply hooking up to a portable air tank or small hand pump. It's easy to install and easy to use," says Eldon Nuttall, Pense, Sask.

The bin sampler consists of a 1 3/4-in. dia. steel pipe that mounts vertically in the bin about 40 in. from the wall. It runs from the roof down through the bottom of the floor or hopper cone. Five short 1 1/2-in. dia. steel tubes are welded at a 90 degree angle to the tube and spaced evenly across its length. The end of each short tube is open and cut at an angle, allowing some grain to enter it.

A steel air tube is welded to the open end of each tube. Plastic air hose runs from each air tube down to the bottom of the vertical pipe and out the bottom of the bin.

To obtain a grain sample, Nuttall hooks up a portable air tank or small hand pump to any one of the tubes. A small burst of air is enough to send a small sample of grain down the vertical tube.

Contact: FARM SHOW Followup, Eldon Nuttall, Box 63, Pense, Sask., Canada S0G 3W0 (ph 306 345-2418).

Plastic air hose runs from each air tube (left) down to the bottom of the vertical pipe and out the bottom of the bin. To obtain a grain sample, Nuttall hooks up a portable air tank to any one of the small air tubes (right).

Swinging hitch consists of 2 hinged "flaps" positioned on either side of drawbar tongue.

"Automatic" Drawbar Lock For Deere Tractors

By Mick Lane

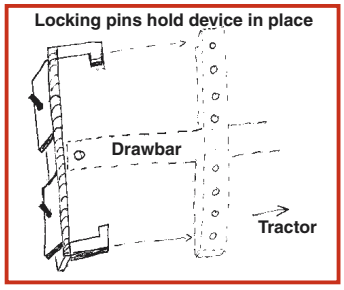
When Lawrence Knaphaus of McCallsburg, Iowa, bought his first 4020 Deere tractor, he liked just about everything about it. The only problem was that he often had to get on and off the tractor two or three times to hitch up drawbar-pulled equipment.

So he made a simple swinging drawbar hitch out of scrap metal that allows him to swing the drawbar back and forth as needed to hook up. Then when he drives ahead, the drawbar straightens out and automatically locks in place.

Knaphaus simply bolts his swinging hitch to the existing drawbar. It consists of two hinged "flaps" positioned on either side of the drawbar tongue. The tongue is freed up so it can swing back and forth if the flaps are lifted up.

Once the implement is hooked up and Knaphaus pulls ahead, the tongue moves to the outer end and the flaps drop down, holding it in place.

No modification is made to the tractor. The swinging hitch can be easily removed, if necessary.



The lock works so well on his 4020, Knaphaus equipped all his other Deere tractors with them. For smaller tractors, Knaphaus used one piece of iron with a notch cut out to lock the drawbar. On larger tractors, he used two separate pieces.

Knaphaus does not wish to field any inquiries on his invention.

"Plastic Pipe" Grain Bin Sampler

"It's an easy way to take samples from three different levels in a bin without having to do any climbing," says Glen Edmunds, Tisdale, Sask., about his new "plastic pipe" grain bin sampler.

The sampler consists of three different lengths of plastic pipe that are suspended by a chain up the center of the bin. The pipes are open on top so grain can fall into them. The pipes lead to a "manifold" installed in the outside bin wall. The manifold has three slide gates, one for each pipe.

"It's so simple I can't figure out why someone didn't invent it a long time ago," says Edmund. "I've installed them in several of my 5,000-bu. bins. All of them have aeration fans and some have heat. Makes it easy to check for grain moisture, temperature, bug infestations, etc. By knowing this information I can turn off the aeration fans or heat much sooner than I otherwise would be able to and save on electricity and gas.

"I came up with the idea because over the years we've had a problem getting an average sample out of our bins. It also works great on hopper bottom bins. In hopper bins the manifold mounts about 24 in. below the edge of the cone. To get a true sample of grain in the bin I have to empty out the grain in each pipe. If the pipes ever plug up at the top, you can push a wire up from the bottom to dislodge the material."

Edmunds offers a kit that includes the manifold, chain, mounting straps, nuts and bolts, and a cover (for wall mounts only), as well as installation instructions. The only thing not included is the pipe. "PVC pipe can be purchased at any hardware store and sells for about 70 cents (Canadian) per foot," notes Edmunds.

The wall mount kit sells for $110 (Canadian) plus tax and $9 S&H. Hopper bin kits sell for $100 (Canadian) plus tax and $9 S&H.

Contact: FARM SHOW Followup, Glen Edmunds, RR 1, Tisdale, Sask., Canada S0E 1T0 (ph 306 873-5480).

Three different lengths of plastic pipe are suspended by chain up center of bin. Pipes are open on top so grain falls into them.

Pipes lead to a "manifold" installed in the outside bin wall. Manifold has three slide gates, one for each pipe.

Dividers are made from slippery high-impact plastic and extend about 5 ft. in front of the wheels. There's a small gauge wheel just behind the tip of each divider. Hydraulic lift mechanisms raise dividers up 2 to 3 ft. for transport or when crossing ditches.

Rolling Crop Dividers Raise Up For Transport

As much as 2 percent of a crop can be lost due to damage caused by high-clearance sprayers. The amount of loss can be reduced by up to 70 percent with these new state-of-the-art crop dividers, according to the manufacturer.

The big dividers are made from slippery high-impact plastic and extend about 5 ft. in front of wheels. What makes them different from other crop dividers on the market is that there's a small gauge wheel just behind the tip of each divider. Also, they're fitted with hydraulic lift mechanisms that raise them up 2 to 3 ft. for transport, or when crossing ditches. They also have a solid outside mount that fits to hub for greater stability.

When in the down position, the dividers free-float over uneven terrain. Although trampling is not completely eliminated, it guides stalks to either side of the wheels.

So far the new dividers are available for Deere, Wilmar, and Rogator high-clearance sprayers. Dividers will be available for other models soon. They sell for right at $2,800 a set (U.S.). Rear sets are also available for right at $450 a set.

Contact: FARM SHOW Followup, TerraFlex Ag Services, Inc., Box 356, Niverville, Manitoba R0A 1E0 Canada (ph 204 388-6565; fax 204 388-6888).