



Herickhoff can unload both carts at once or either cart individually.

## ADD-ON PTO RUNS THROUGH BOTTOM OF FRONT WAGON

# He "Gangs" 400-Bu. Grain Carts Together

An add-on pto shaft that runs through the bottom of one 400-bu. grain cart and back to a second 400-bu. cart hitched behind lets Mark Herickhoff, Belgrade, Minn., unload two carts at the same time.

The add-on pto is belt-driven by a pulley mounted on the front cart's unloading auger drive sprocket and can be engaged or disengaged hydraulically from the tractor seat by moving the end of the add-on shaft up or down via hydraulic cylinder.

"During harvest I use them to load double hopper semi trucks parked at the end of the field. The carts' combined 800-bu. capacity allows a combine with an 8-row head to make a complete 1-mile round trip without unloading. Some of my fields are 30 miles from drying and storage facilities, so the carts also serve as a holding bin while the trucks are gone. I pull the carts with a 200 hp Deere 4955 mfw tractor. One limitation to hitching the carts together is that I can't back up much, but I seldom need to back them up anyway.

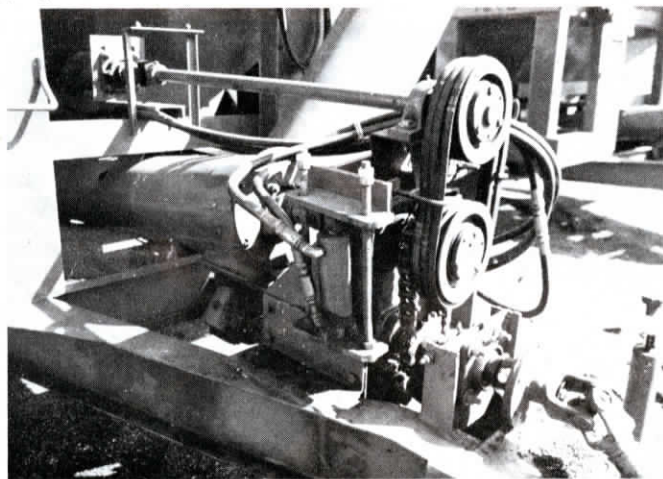
"I originally had one 400 bu. cart and needed more capacity. However, I didn't want to spend the money for a new 800 bu. cart. I have about \$5,200 invested in the two carts and spent about \$1,200 more to add the pto shaft. A single cart of comparable capacity would have cost at least \$10,000 to

\$12,000. The two carts are equipped with 12-in. dia. augers and unload at about the same speed as a single cart equipped with a 16-in. dia. auger. However, running two carts together is better than a large single cart because I can use them separately in muddy fields where a large cart would sink in."

To install the add-on pto, Herickhoff ran a piece of 4-in. dia. well casing through the bottom of the front grain cart to protect the pto shaft. Grain simply flows around the pipe. He then mounted a drawbar removed from a Deere 5020 tractor behind the front cart. He also widened the carts' axles so they can straddle four 30-in. rows without knocking stalks down, allowing his stalk chopper to do a better job.

To drive the new pto, he installed heavy duty no. 80 roller chain on the front cart's drive sprocket. He mounted a triple pulley on the drive sprocket which then belt-drives the pulley on the add-on pto shaft. The top pulley mounts on a hinging steel plate which is moved up and down by a 6-in. hydraulic cylinder to engage and disengage the rear cart's pto.

Contact: FARM SHOW Followup, Mark Herickhoff, 26804 U.S. Hwy. 71, Belgrade, Minn. 56312 (ph 612 254-3636).



To drive shaft that runs back to rear cart, Herickhoff mounted a 3-groove pulley on front cart's drive sprocket. When in use, all pto components are covered by a sheet metal guard (removed for photo).



## Roto-Tiller Trench Digger

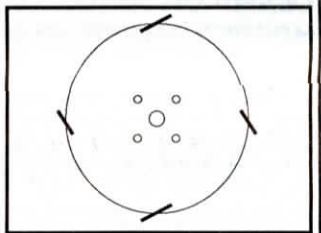
Several years ago a FARM SHOW reader in Oregon developed a trench digging chain to fit his chain saw (Vol. 10, No. 6). The idea generated so much interest a company was formed to market the chain but eventually the company went out of business. Now a Texas farmer-inventor has come up with what he says is an even better way to dig trenches to lay water lines, electric cable, etc.

Duane Darling, who farms near Muleshoe, removed the tines from his garden roto-tiller and mounted a trench-digging steel disc off to one side. He fitted the disc with four 2-in. wide digging teeth.

"There's nothing on the market like it. Most commercial ditch diggers use chains and are quite expensive," says Darling, who has used the ditcher to lay irrigation drip lines around his farmyard.

The 3/8-in. steel digging disc is 20 in. in dia. Darling simply removed the tines from the tiller and drilled holes in the center of the disc to fit the roto-tiller hub. The disc digs down to a depth of about 8 in. The 2 by 4-in. rectangular teeth, made out of 3/8-in. thick steel cut out of old truck springs, fit into slots on the edge of the wheel, positioned at an angle. The disc turns forward so the teeth cut into the soil and pull it up the backside. Darling operates the rig backwards by pulling back on the handlebars.

"It's easy and fast to use. Takes only about 10 min. to cut a 30-ft. ditch. If you had a bigger tiller, you could install a bigger disc to dig deeper but it might be difficult to hold by hand," says Darling.



Drawing shows how teeth, made out of steel cut from old truck springs, fit into slots on the edge of wheel.

Contact: FARM SHOW Followup, Duane Darling, Rt. 3, Box 442, Muleshoe, Tex. 79347.

## STOWS OR TOWS IN SECONDS

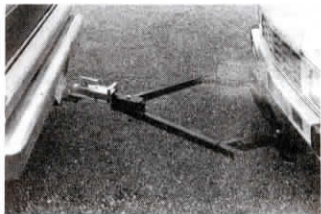
# Folding Tow Bar For Cars, Pickups

It only takes about 10 seconds to put the new Fastow tow bar into the stow or tow position.

When hooking up, you only have to be reasonably close to the coupler. The hitch's unique folding sides allow a hookup area of 400 sq. in. When driving the towing vehicle ahead, or when backing the towed vehicle, the sides of the tow bar straighten, latch and automatically become rigid.

The Fastow is 48 in. long in the rigid towing position. It folds to 60 in. long, 4 in. wide and 2 in. high (excluding the ball hitch coupler). It stows below or in front of the bumper and can be padlocked in the stow position.

For more information, contact: FARM



Hitch folds back flat under bumper when not in use.

SHOW Followup, Fastow Tow Bar, Leon Boeck, Inventor, Rt. 1, Box 138, Easton, Minn. 56025 (ph 507 787-2565).