Peterson hinged tongue on picker, installing a hydraulic cylinder (at center in photo) which reacts to "row finders" on snout. He also extended outside wheel on picker by 2 ft. to run between ridges.

**SIMPLE, DO-IT-YOURSELF SYSTEM COULD ALSO BE USED ON FORAGE CHOPPERS**

# "Row Finder" Keeps Corn Picker On Track

"It automatically keeps my corn picker on the row. Cost almost nothing to make and would probably work just as well on a forage chopper," says Dave Peterson, Lake Mills, Iowa, about the home-built "row finder" guidance system he added to his 1964 New Idea 324 2-row row pull-type picker.

A row-finding finger mounts on either side of the picker's middle snout. When hit by stalks, they send a signal to a hydraulic cylinder mounted on the picker's hinged tongue, which then adjusts the position of the picker so it stays on the center of the row.

"It keeps the picker from slipping off the row and eliminates the stress of always having to look back, even on curved rows or hillsides," says Peterson. "The tongue automatically moves as much as 24 in. from side to side. It really comes in handy because I pick corn at a fast 5 mph and farm on ridges. I don't want to drive over the ridges, but on slopes it's hard to keep the picker tires off them, especially with a heavy wagon load on back. I've come to like my automatic guidance system so much that if it ever quits working, I'll go home and repair it before I'll pick any more corn."

The heart of the "row finder" system is a single spool, mechanically-activated hydraulic valve mounted under the center of the snout. A pair of 8-in. long steel rod "fingers" on each side of the snout connect to the valve. As corn stalks press against the rods, the valve is actuated and sends oil through a pair of hydraulic hoses to a power steering pump (salvaged from a 1979 Chevrolet car) that Peterson mounted on the picker frame. The pump, belt-driven off the corn picker's fan, is connected by another pair of hydraulic hoses to the 2 1/2 by 8-in. cylinder mounted on the picker's hinged tongue. Cylinder then automatically moves the picker back on the center of the row.

"I used the picker's fan to drive the power steering pump because it was the only shaft on the picker with enough speed to operate it," says Peterson. "I replaced the fan's single pulley with a double pulley and also mounted a smaller pulley on the power steering pump in order to increase the pump rpm's. The power steering pump didn't hold enough oil to operate the cylinder so I left a 2-ft. long section of filler hose on top of the pump reservoir. It adds an extra pint of oil capacity. The only thing I'd change would be to install an electric valve instead of a mechanical one so that I could use a toggle switch to control movement of the corn picker from the tractor cab."

Hinged steel rod, which brushes against stalks in the row, connects to mechanical valve mounted under snout.

Power steering pump provides power to hydraulic cylinder on tongue. It's driven off pulley on picker fan.

Contact: FARM SHOW Followup, Dave Peterson, Box 84A, Lake Mills, Iowa 50450 (ph 515 592-9262).


Kirby attached steel pipe reservoir to baler endgate with hoses at either end to apply constant flow of oil to chains.

**RESERVOIR BOLTS TO ENDGATE, AUTOMATICALLY LUBRICATING ON-THE-GO**

# Chain Oiler For Big Round Balers

"I've come up with an easy and inexpensive way to keep chains from wearing out on my New Holland 848 round baler. I bolted an oil reservoir onto the endgate that automatically applies a steady stream of waste oil to chains on-the-go," says William Kirby, Woodstown, N.J.

Kirby enclosed the ends of a 10-in. dia. steel tube with large steel plates and then bolted the plates to the top of the endgate. He attached valves fitted with rubber hose to the bottom of each end of the reservoir. Hose ends are positioned just above the chain on each side. Oil flow is controlled by the shut-off valves.

"We put up about 2,000 bales a year, but after 14 years we've had to replace the chains only once," says Kirby, noting that he gets extra waste oil from a friend who is a mechanic.

"Some newer round balers are equipped with automatic chain oilers. However, when we bought a newer New Holland 853 baler we found that the oiler didn't do a good enough job so we replaced it with our home-built oiler. Ours works better because it continuously oils the chains. New Holland's oiler applied a shot of oil each time the endgate was raised. Before the next bale was half made, the chains were already dry again."

A filler pipe is welded onto the top of the steel tube reservoir.

For more information, contact: FARM SHOW Followup, William Kirby, Rt. 4, Box 600, Woodstown, N.J. 08098 (ph 609 769-0792).

## Treadmill Exerciser Made Out Of Old Bale Thrower

After he suffered a heart attack 12 years ago, Frank Drayer, Churdan, Iowa, was told by his doctor he needed to get regular exercise.

"I like to walk but it's difficult to get out in the wintertime. Also, we live along a busy highway so, when I discovered a discarded New Holland bale thrower in my machine shed, I decided to turn it into a motorized treadmill.

"The thrower had 2 separate frames each with a set of rollers and belts, so you can make two treadmills out of one bale thrower. The belts are 12 in. wide and 36 in. long. I attached an 11-in. dia. belt pulley to the front roller shaft, mounting a 1/4-hp. electric motor alongside to drive it. There's a 1 1/2-in. dia. pulley on the motor shaft. A small turnbuckle attached to the motor mounting frame lets me shift the motor back and forth to tighten the belt. That lets you adjust slippage depending on how fast you want to walk.

"Two angle iron uprights bolt to the frame with a 1 1/2-in. dia. pipe in between that you can hang onto. The handle is about chest high with a toggle switch attached to turn the motor on and off.

"The only cost for the treadmill was the toggle switch, pulley and V-belt. I had everything else.

"We keep the treadmill in our family room next to our patio door."

Contact: FARM SHOW Followup, Frank D. Drayer, Box 198, Rt. 1, Churdan, Iowa 50050 (ph 515 389-3458).