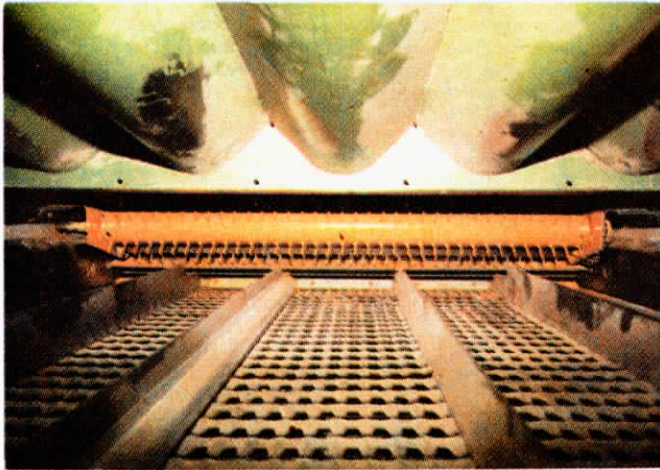


# Look What They're Doing To Combines

(Continued from cover page)

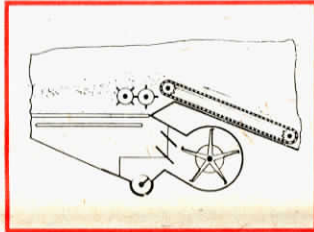


## Rotary "Chaffer" Saves Grain, Boosts Combine Capacity

"It replaces solid-type auxiliary chaffer pans or fingers at the front of the shoe to improve separation and delivery of crop material to sieves," says Gary Porter of Porta Products, Inc., Rosalia, Wash., about the company's add-on Porta Picker for Deere and IH combines.

The Porta Picker consists of two side-by-side rotors fitted with hundreds of spinning fingers. It receives unseparated grain and chaff from the delivery auger or elevator and thoroughly breaks it up and separates it before dropping it onto the main shoe chaffer sieve. As the Porta Picker rotates, chaff is picked up and suspended in the air by the cleaning fan, never getting a chance to pile up on the sieve.

"It's especially effective in heavy crops and on hillsides because it evenly feeds materials to the sieve at all times no matter what the terrain or how heavy the flow of material," says Porter.



The unit is chain-driven by the straw walker shaft and takes about 3 to 4 hrs. to install. It spins at 280 rpms and, according to Porter, can save up to 20% of grain under adverse conditions. Fits Deere 55, 95, 105, 4400, 6600, 6602, 6622, 7700, and 8820 combines, and International 1440, 1460, 1470 and 1480 combines. Sells for \$500 to \$600, depending on the model.

Contact: FARM SHOW Followup, Porta Products and Machine Co., Inc., Box 157, Rosalia, Wash. 99170 (ph 509 523-3451 or 509 523-3745).

## Crop-Saving "Fingers" Boost Combine Capacity

(Continued from cover page)

Dayton says the fingers agitate so well most of the chaff never even hits the sieves because it's blown away by the time it reaches the end of the fingers.

"You can open the bottom sieve all the way. There's no need to adjust it because of the effectiveness of the Winn-O-Bar," he notes.

"We converted a Gleaner L2 combine last summer and it easily outran a much larger N6 combine. It greatly boosts capacity and you don't find grain in the return auger anymore," says Dayton, who adds that the device was invented by Newdale, Manitoba farmer Cliff Usick. "He accomplished what combine manufacturers have not been able to. He's eliminated grain loss over the shoe of the combine. Usick invented the crop-shaking

fingers after climbing inside a combine while it was running and using a stick to agitate the crop material as it came over the shoe."

The Winn-O-Bar is simple to mount. There are no chains, gears or sprockets. Key to its success is an offset drive arm — which moves the fingers up and down as the bar goes back and forth — that attaches with a mounting plate to the sidewall of the combine.

Kits available in widths from 47 to 58 in. sell for \$595 to \$795. They'll fit rotaries as well as conventional machines.

For more information, contact: FARM SHOW Followup, Winn-O-Bar, P.O. Box 39, Newdale, Manitoba R0J 1J0 Canada (ph 204 849-2157, or 204 759-2065).



## "Swing Angle" Combine Hitch

A "swing angle" hitch that provides better pickup and practically eliminates side draft on pull-type combines is now on the market. The prototype was first featured in FARM SHOW 2 years ago.

Developed by Manitoba farmer Alex McWilliams, the new hitch swings the entire combine body by up to 22° to approach the windrow at an angle rather than head-on.

"It simply makes the pickup more efficient. The pickup fingers cross the swath at an angle, picking up the crop crosswise. It lets the combine pick up any swath quickly and without hesitation so the crop isn't dragged or missed completely. The device is particularly good in thin or downed crops."

Installing the angle kit on a pull-type combine brings it in directly behind the tractor. This puts the pto shaft in a straight line which cuts down on vibration and, according to McWilliams, practically eliminates the side-draft problem with most pull-type combines on rolling land.

The angle kit consists of a steering assembly that mounts on the end of the combine axles. It's powered by tractor hydraulics. The kit sells for around \$2,000, depending on the model.

Contact: FARM SHOW Followup, Alex McWilliams, Glendale Manufacturing, 750 Douglas St., Brandon, Manitoba, Canada (ph 204 727-7282).

## Farmer Invents New Axial Flow Combine

A Kansas farmer and custom cutter who says he's fed up with the high maintenance cost of conventional combines has invented and patented his own machine.

"My design eliminates nearly all chains, augers, shafts, pulleys and other high-wear components that cause most down time problems for high-use operators," says Mark Underwood of Burr Oak, who has yet to build a working prototype of his machine. He worked out the design on paper and with scale models.

The combine uses an axial flow design to thresh grain. Rasp bars are connected to a frame that rotates around the threshing cylinder. "Lift rings" attached to the outer surface of this threshing frame pick up separated grain at the bottom of the combine and carry it up to the clean grain hopper, replacing grain elevators and augers. An inner lift ring picks up tailings discharged from the sieve and returns them to the intake to be re-threshed. A rack and pinion assembly mounted at the rear of the

thresher drum and beater assembly allows clearance between the thresher and grates to be varied by simply rotating the pinion.

The combine also has new hillside features which Underwood says are much less complex and expensive than current hydraulic leveling systems. "The sieve housing is mounted on rollers in a curved guidance track. These rollers allow the sieve housing to swing with gravity regardless of the position of the combine frame so that it's always cleaning grain on the level," explains Underwood.

He plans to begin work soon on a full-scale prototype and hopes to find a manufacturer interested in the design.

For a copy of Steve Anderson's U.S. Patent, which contains details and drawings of his new combine, send \$2.00 to: Patents, FARM SHOW Publishing, P.O. Box 1029, Lakeville, Minn. 55044.

Contact: FARM SHOW Followup, Mark R. Underwood, Box 128, Rt. 1, Burr Oak, Kan. 66936 (ph 913 647-6971).