## **Electronic Rain Gauge Never Needs Emptying**

You never have to empty this new precision electronic rain gauge that measures rainfall in hundredths of an inch and can be mounted up to 75 ft. away from the readout unit that goes in the house or barn.

It has no moving parts and, unlike other rain guages which only measure to a tenth of an inch, doesn't have to be mounted completely level, according to inventor-manufacturer Bill Hughes of Innoquest. Here's how it works:

Rain falls into a small plastic funnel and feeds down into a small tube that causes the water to form uniform size drops that each contain the same volume of water. As the drops of water fall off the tube, they pass through a pair of electrical contacts, conpleting an electrical circuit. The electric pulses are counted and calibrated to inches of rainfall. After triggering the electric contacts, the drops of water fall out the bottom of the gauge.



"It's extremely accurate and is powered by a 9-volt battery that'll last 1 to 2 years. You never have to empty it. You just push the reset button on the monitor," says Hughes, who sells the rain gauge for \$79.95 (\$3 shipping).

Contact: FARM SHOW Followup, Bill Hughes, Innoquest, 307 S. Locust St., Champaign, Ill. 61820 (ph 217 355-5547).

### Drain, Tile Cleaner "Walks" Through Pipe

Here's a nifty new way to clean out plugged drains, gutters or even field tile. You simply fit this high pressure point to the end of 1/2 or 3/4-in. dia. hose and it'll "walk" right through clogged pipes, flushing debris out behind it.

One water stream from a tiny hole in the top of the cleaner clears the way in front of the cleaner while 6 reverse streams off the back of the point propel it ahead. It's strong enough to drag 50 ft. or more of garden hose behind it, depending on pressure being used.

"It's an inexpensive and easy way to clean out gutters, drains and septic lines. It's been tested on clogged field tiles but at this point, it's not clear just how serious a plug-up it could handle," says distributor Alfons H. Tenhagen, who's importing the new drain cleaner from Germany.



It'll handle water pressure up to 80 psi but can handle most jobs at normal household water pressure levels. It's made out of plastic so it won't damage pipe. It'll thoroughly clean any pipe from 2 to 6 in. dia.

Sells for \$15 (plus shipping).

Contact: FARM SHOW Followup, Tenhagen German/American Exchange Company, P.O. Box 822, Atkinson, NH 03811.



# Hitch Takes "Shock" Out Of Pulling Equipment

New telescoping "shock hitch", invented by Michigan farmer Rudolph Palenick, smooths out the ride when pulling equipment on the road or in the field.

"We use them on virtually all our equipment-baler, mower, disk, hay wagon, chisel plow, planter and so on. The hitch cushions the ride in muddy fields, on hilly land, over rocks and pulling down the road. Makes fieldwork easier for the operator and it also saves wear and tear on equipment, particularly the transmission," says Palenick.

He got the idea after blowing out an engine on a truck while pulling a heavy load. He says the uneven pull of the load put too much strain on the truck. "Once installed, this hitch lets you pull the same load with a lot less power," says Palenick.

The drawbar is split, with the front end slipping into the larger back end. Air shocks mount on each side of the hitch, attached to brackets on either side of the split joint. The air shocks are sized differently for different sized equipment. On some heavy equipment, Palenick says you could even fit a drawbar with 3 or 4 shocks.

Prices range from \$300 to \$2,400, depending on the equipment and whether or not you can use the existing drawbar. Palenick has also developed a 3-pt.-mounted shock hitch that works on the same principle. It sells for \$250.

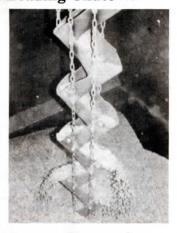
Contact: FARM SHOW Followup, Rudolph E. Palenick, 2566 122nd Ave., Allegan, Mich. 49010-9528 (ph 616 673-3612).

#### New "Zig Zag" Bin Loading Chute

New "zig zag" bin loading chute has no moving parts and is made from heavy-duty rubber belting that cushions grain to reduce damage, says Cushion Flow, Walhalla, N. Dak.

The chute hangs from the top of the bin and consists of a series of curved rubber belts hinged together, one below the other in a zig zag pattern. Grain "flip-flops" back and forth as it makes its way down the chute, passing from one section of belt to the next. Angle of sections can be adjusted for different loading rates or crops. It can be left in the bin after grain has filled in around it without damage.

A 30 1/2-ft. chute sells for about \$1,200. Contact: FARM SHOW Followup, Cushion Flow, P.O. Box 67, Walhalla, N. Dak. 58282 (ph 800 227-4494 or 701 549-3721).



## Slide Hitch For Forage Harvesters

A "slide hitch" mounted on the back of his Deere pull-type forage harvester lets Connecticut farmer Ralph Gold "steer" the dump wagon that trails behind the harvester.

"This has become a popular idea in this area. Some farmers have been doing it for 10 years or more," says Gold. "The original idea was to avoid hitching and unhitching dump wagons when moving from field to field, which was often necessary on our small New England fields. But once we started using the idea, we realized it's a very handy option in the field, too.

"It lets you make small corrections when operating on sidehills and, after dumping the wagon, it lets you steer the wagon away from the truck to avoid scraping it or hooking sides between the truck and wagon."

Gold made his hitch by putting a length of 3-in. sq. tubing across the back of the harvester, attached to the main frame. A slightly



larger piece of sq. tubing about 2 ft. long slips over it. A hitch for the wagon and bracket for the cylinder both attach to this sliding section. A 3-ft. long cylinder slides the hitch back and forth. Itdoesn'ttake a big dia. cylinder but does require an extra set of hydraulic remotes on the tractor.

Contact: FARM SHOW Followup, Ralph C. Gold, Cream Hill Farm, 199 Cream Hill Road, West Cornwall, Conn. 06796 (ph 203 672-6077).

## "Seal-A-Wheel" For Press Drills

The rims on grain drill press wheels have a tendency to throw dirt back into the row over planted seed. This can result in varied seed depth, uneven plant emergence and reduced yields.

To solve the problem, Grainland Inc. has introduced Seal-A-Wheel, a pair of plastic discs that bolt onto the press wheel, one on each side. "The smooth sides of Seal-A-Wheel discs reduce rooster tailing, resulting in constant seed depth, more even plant emergence and increased yields," says Marlin Mugler, sales coordinator.



A pair of Seal-A-Wheel discs, complete with mounting hardware, for 2 by 13 in. press wheels sells for \$8.25.

Contact: FARM SHOW Followup, Grainland Inc., 235 Lincoln Ave., Clay Center, Kan. 67432 (ph 800 247-7698 or 913 632-3101).

#### **Hitch Arm Hold-Downs For Deere Tractors**

You can keep hitch arms from swinging back and forth when they're not in use with these new farmer-designed hold-down brackets.

Chad Randall, Alexis, Ill., got the idea after using tarp straps, wire, springs and other ways to hold the arms stationary. He wanted a simple, neat way to hold them in place yet let him free them up quickly when needed.

A bracket bolts into an existing hole in the pto housing just ahead of the sway blocks. A quick-change lock pin simply attaches to the bracket to hold the hitch arms in place. They allow full up and down travel of arms. When no longer needed, they self-store out of the way so they're right there for quick hookup when equipment is once again unbooked from the hitch arms.



Fits most Deere tractors from the 2840 up to the 4455 models. They sell for \$32.

Contact: FARM SHOW Followup, Chad Randall, Arm Kuffs, Rt. 1, Box 13, Alexis, Ill. 61412 (ph 309 482-6609).