



Cast iron shroud fits over point of guard for in-place straightening.

## CUTS REPLACEMENT COSTS

# “Bender” Straightens Sickie Guards

Taking the 1st place prize at the 1982 Minnesota Inventors Congress was the Guard-Bender, developed by John Kappahn of Elbow Lake, Minn.

“The Guard-Bender will pay for itself in no time at all,” says Kappahn. “With guards selling for \$8 to \$9, it’s easy to recover the cost of the unit by fixing just three guards. And, unlike a hammer, you’re less likely to bust the guard.

“It’s simple to use on all types of sickle guards, except the real old single section mower guards. They’re too big.

“Besides saving the guard,” Kappahn adds, “The Guard-Bender keeps guards straight, cutting down wear and tear on the sickle sections and cutter bar bearings.”

It consists of a 32 in. long, heavy duty, 8 ga., 1 in. dia. tubing, ¼ in.

thick, and a shroud that fits on top of the tubing fastened with a ¾ in. bolt. The bolt loosens to allow adjustment for different sized guards. The shroud, made of 80,000 psi cast iron, has an opening that fits onto the guard.

To use, slide the shroud over the point of the guard and slide the tubing up until the notch at the end of the tubing catches on the base of the guard, right under the sickle. When it catches, you can bend the guard up, down, left or right without putting pressure on the sickle because the force is on the fulcrum on the bottom of the guard.

Guard-Bender sells for \$21.95.

For more information, contact: FARM SHOW Followup, John Kappahn R.R. 1, Elbow Lake, Minn. 56531 (ph 218 685-4604).

## FLATBED CONFIGURATION FOR RETURN HAULS

# New Grain Trailer Turns Into Flatbed

The price of grain hauling might come down in the near future with the aid of a new two-way grain trailer that folds into a flatbed for return hauls.

With its sides up, the Doepker trailer, built by Doepker Industries, looks like any other hopper-bottom semi-trailer. Once the grain is emptied, though, you simply remove the tarp rafters and release the catches on the spring-loaded sidewall hinges and fold them down. One man can easily raise or lower the sides.

“The drip cap design connecting the side walls protects even the most water sensitive grains or fertilizers from moisture damage in heavy rain or slushy conditions,” a Doepker rep-

resentative told FARM SHOW. The sidewalls are just 4 ft. high because of the large volume belly. The trailer is completely self-emptying when filled with grain.

As a flatbed, the trailer has a full length 3-4 in. plywood floor with a steel frame, supported by cross members on 18 in. centers. There are stake pockets along both sides and ratchet-type load binders on the driver’s side. The tarp rafters can be stored below the floor.

A 40-ft. two-way fold down 13,000 lb. trailer sells for \$22,100.

For more information, contact: FARM SHOW Followup, Doepker Industries Ltd., Anaheim, Sask. SOKOGO (ph 306 598-2171).

## PROVIDES 24 HOUR MONITORING

# Ground Voltage Detector Remembers Stray Voltage

“It provides 24 hour monitoring for stray voltage,” says Don Feigl, Pine Island, Minn., who teamed up with his brother Bob, and nephew Ron, to develop a detector that “remembers” stray voltage.

Several electronics companies offer volt meters which monitor fluctuating current creating the stray voltage problem. However, if a strong voltage surge had passed through the area where cows are affected, and then disappeared temporarily, the absent dairyman would have no knowledge of this.

“This is where our new ground voltage detector comes into play,” explains Don Feigl. It’s affixed to the most symptomatic area of the dairy barn. When current above the .6 volt level passes through the designated area, one light glows. When the current exceeds one volt, a second bulb lights up and stays on until the unit is reset.

“Upon returning to his barn, the dairyman knows that cow-sensitive current passed through the area and he can begin to search for the source,” explains Feigl.

The detector installs by attaching one wire to a ground rod and another wire to a place where there may be stray voltage, such as a stanchion or pipeline. The unit works by measuring the difference in voltage between the ground rod and the selected point.

Tested by power companies and dairy equipment companies, the detector works on both single and 3 phase systems. The control unit which the wires connect to measures



Photo Courtesy Mike Williams, Rochester Agri News

**Detector lets you know if any short-lived stray voltage passed through the barn or milking parlor.**

3 in. by 6 in. by 2 in. and plugs into a 110V outlet. It has a solid state printed circuit board and is waterproof. Don recommends installing the control unit in the milk room where it can be easily monitored. He cautions against mounting the control box in the milking parlor or stanchion barn because of high pressure spraying that can penetrate the box.

The ground voltage detector sells for \$150, including the control box. It has not been tested in hog or poultry operations.

For more information, contact: FARM SHOW Followup, Feigl’s Inc., Pine Island, Minn. 55963 (ph 507 356-8349).



Self-emptying grain trailer quickly converts into flatbed. One man does it all by removing the tarp rafters and releasing catches on the spring-loaded hinges, then folding down the sides.