

EQUIPOTENTIAL PLANE

Here's Help For Solving Stray Voltage Problems

Livestock producers troubled by stray voltage problems may be able to solve them with "equipotential planes" so that all points the cow touches including stanchions, waterers, milk lines and floor—are of the same voltage.

Practical applications of equipotential planes (EP's) have been developed by engineers at the University of Wisconsin and researchers at Wisconsin Power & Light.

EP's, now required in all new Wisconsin livestock containment buildings, can be adapted to existing dairy barns with milking parlors, stanchions or tie stalls. So far, EP's have been put in 20 Wisconsin dairy barns.

The researchers note that EP's aren't the only answer for stray voltage problems, and that cause of the problems should always be determined.

Installation in an existing stanchion or tie-stall barn involves cutting a

¼-in. wide, 1-in. deep groove in the feed manger, and along the hoof areas both in the front and at the back of the stall. Number 4 bare copper wires are laid in the grooves, then covered with a fast-acting grout. The wires are connected to each other and bonded to the metal fixtures, including stanchions, waterers and milk lines. Both sides of the barn are connected together and the copper wire is also tied into the service panel ground.

A barn can be modified in one day. Cost to retrofit a 40-stall barn is reportedly about \$1,200. You can do most of the work yourself, except for the concrete grooving which requires a special machine.

For a free booklet on EP's and their installation, contact: FARM SHOW Followup, Paul Proctor; Wisconsin Power and Light, Attn: Agricultural Department; P.O. Box 192; Madison, Wis. 53701 (ph 608 252-4892).

HELP SECURE BIG LOADS

Tie-Down Brackets Fit Any Pickup

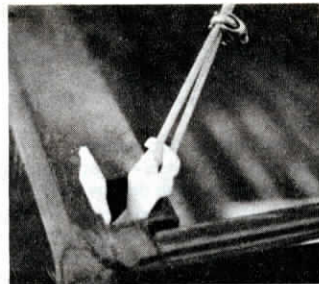
You'll like these handy new clip-on tie down brackets for pickups that help secure big loads.

"They're made from a plastic-nylon material that's actually stronger than steel. You can lift the rear of the pickup with them and they won't break," says distributor Vernon Bennett, Bennett Enterprises, Inc.

To install the "Mighty-Tie", as it's called, you just squeeze and insert into stake pockets on opposite sidewalls of pickup. It automatically locks itself into place. To remove, just squeeze and pull.

Mighty-Ties to fit any domestic pickup sell for \$3.50 each.

For more information, contact: FARM SHOW Followup, Bennett



Bracket is strong enough to support weight of pickup.

Enterprises, Inc., 3900 N.E. 14th Street, Suite 18, Des Moines, Iowa 50313 (ph 515 265-2740).

INSTALL/REMOVE IN SECONDS

Snowplow Add-Ons Cut Plowing Time In Half

"Twenty-five years of plowing snow led me to develop these new 'Side-Kicks' for pickup-mounted snowplows. With them on, I can plow snow in half the time it used to take," says Kenneth Steinhoff, Wheeling, Ill., inventor.

Side-Kicks are steel sections that fit on the sides of the plow so you 'scoop' snow forward instead of angling it to the side. "Works great for custom plowing parking lots between rows of cars or between

buildings where you have to push snow ahead and can't push it aside," notes Steinhoff.

The Side-Kicks remove in just seconds by pulling two clips on each side. Initial installation involves welding a pin to the top and bottom of each side of the plow and welding a 'shoe' to each side of the plow on the front. Each Side-Kick fastens in place by sliding over the pins and under the shoe.

Side-Kicks fit most plows from 6

Electronic Grounding System

John M. Graham, manager of Electronic Grounding Products, St. Louis, Mo., says his company's Electronic Grounding System (EGS) has been on the market since 1983 and is guaranteed to reduce stray voltage to levels inconsequential to the health and performance of dairy cattle and other confined animals. EGS equipment attaches to the neutral bar of the farm electrical service. Ground rods install 300 ft. or more from the dairy barn. Resistance is amplified to draw stray voltage away from the farm's electrical equipment to the earth. The device detects voltage going back to the neutral and routes it to the grid. Some 50 EGS systems have

already been installed successfully in Wisconsin. The system costs about \$6,000. Some experts say "equipotential plane grounding systems developed at the University of Wisconsin (see accompanying story), can eliminate stray voltage in many cases. However, if the stray voltage problem is outside at a waterer, feeder or silo unloader, equipotential, grounding cannot always help.

Contact: FARM SHOW Followup, John M. Graham, Electronic Grounding Products, Blackburn Division, 1525 Woodson Road, St. Louis, Mo. 63114. (ph 314 993-9430).

ATTACHES TO SNOWPLOW FRAME

New Front-Mounted Forklift For Pickups

"It turns your pickup into an all-terrain forklift," says Tom Chapek, Cadott, Wis., who, along with Vern Peak, invented the new front-mounted "Uni-Lift".

"You can put the unit on any pickup that can be equipped with a snowplow. Our forklift replaces the snowplow, using the same mounting brackets," explains Chapek. "With our new invention, you have forklift capability anywhere that you can drive your pickup. It has a 1,000 lb. lift capacity and works great for moving pallets of seed corn, and oil barrels around the farm. A local contractor uses it to move materials such as rafters, shingles and plywood from where they've been unloaded off a truck to the building site. It can also be used to handle big round bales weighing less than 1,000 lbs."

The inventors are developing two different models—one hydraulically powered and the other electrically powered. The electric model has a 9

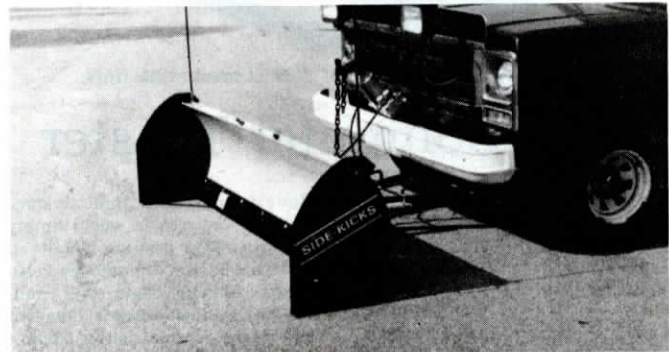


Forklift attaches to any pickup snowplow mount.

ft. lift and the hydraulic version has a 5 ft. lift. On both models, the adjustable teeth lower to the ground and slide off for transport.

Chapek and Peak are working on getting the Uni-Lift into production.

For more information, contact: FARM SHOW Followup, Tom Chapek, R.R. 1, Box 87-C, Cadott, Wis. 54727 (ph 715 289-3789).



"Side-Kicks" work especially good for custom plowing parking lots.

to 8½-ft. long that are under 27-in. tall. Each Side-Kick weighs 32 lbs. A set of two sells for \$349.95.

For more information, contact:

FARM SHOW Followup, Side-Kicks Co., 385 S. Wolf Rd., Wheeling, Ill. 60090 (ph 312 537-8668).