Deck-mounted bracket supports a pair of small rubber caster wheels on front of mower, making it easy to turn.

Add-On "Easy Turn" Mower Wheels

After having lymph node surgery on both arms, Grady Glenn found it painful to turn his Murray push-type lawn mower around 180 degrees in order to mow the next pass.

To solve the problem, the Odessa, Texas man used scrap metal to make a deck-mounted bracket that supports a pair of small rubber caster wheels on front of the mower. The mower's front wheels are raised up off the ground, so that the add-on wheels support the entire weight of the mower's front end.

The bolt-on bracket supports a vertical pipe with a shaft that rotates freely inside it. The lower end of the shaft is bent about 90 degrees where a short horizontal shaft is welded onto it, making a T configuration to which the add-on wheels are attached. Each wheel is held on by a washer and cotter pin.

The add-on wheels can be raised or lowered to whatever cutting height Glenn wants, by simply inserting a nail through the "hold" below the bracket. The mower's front wheels never touch the ground.

"I can turn the mower 90 degrees with no effort, as the add-on wheels rotate 360 degrees if needed," says Glenn.

Contact: FARM SHOW Followup, Grady Glenn, 412 E. 47th St., Odessa, Texas 79762 (ph 432 366-5273; Gaglenn3@aol.com).

Pruning Ladder Makes Tree Trimming Easy

Mel Primrose of Westlock, Alberta, loves his new tow-behind pruning ladder because it makes tree trimming jobs so much easier.

Primrose made an 8-ft. wide cart, using scrap metal and rototiller wheels, and then mounted a 20-ft. extension ladder and a toolbox on it. He pulls the rig around his yard with his riding lawn mower and simply backs it up to whatever tree needs to be pruned.

"Because the ladder is rigidly mounted on the trailer frame, it never has to touch the tree," he explains.

Primrose also made his own pruning shear with a 12-ft. handle for reaching even higher. He cut a 10-in. table saw blade into two pieces, which he then used to form the jaw. The shear is controlled with a rope that runs through a piece of plastic pipe on the side of the handle.

"I keep the pruning shear on the side of the ladder when I'm not using it," he says. "It just snaps into a holder. For transporting other pruning tools and a safety belt, I made a toolbox from sheet metal and mounted it on the cart frame. I keep my power pruner in there, too."

Tow-behind pruning ladder rides on an 8-ft. wide cart. Primrose pulls the rig around his yard with his riding mower.

Contact: FARM SHOW Followup, Mel Primrose, Site 10, Box 1, R.R.#1, Westlock, Alberta, Canada T7P 2N9 (ph 780 349-2477).

Wheel Blocks Keep RV's, Trailers Level

Blocking and leveling an RV, travel trailer, or other rig is a lot easier with the "B-Level" wheel blocks invented by Brian Bain of Barrhead, Alberta. He came up with the idea after he grew tired of putting boards under the wheels. He and his wife, Vicki, enjoy camping and say it was always hard to get just the right combination of boards to successfully level their fifth wheel trailer.

The B-Level is a lightweight, two-piece device made of strong, cross-link plastic that'll support up to 5,000 lbs. Each set weighs less than 15 lbs. and is easy to fold up for storage.

"You just set them either ahead of or behind the wheels on the low side, and then pull the unit forward or back it up onto them," Brian explains. "Because there are three stages to it, you have between 1 and 4 in. of lift, depending on what you need. It only takes a few seconds, and your trailer is simultaneously leveled and blocked."

Bain's device can also be useful for winter storage of the RV, to keep the wheels off the ground.

He's currently producing the B-Level in the color red, but plans to change to yellow. Either color makes it less likely that it'll be forgotten by campers when they head out for home.

The invention is designed to work on single or tandem axle RVs. If there's more than 3 in. of space between the trailer tires (halfway up), an insert is required and Bain can also supply this.

Depending on his own changing costs, Bain sells the patent pending B-Level for between $110 and $130 (Can.), plus shipping. They can be ordered directly from him.

Lightweight, two-piece device lets you simultaneously level and block your trailer. It folds up for storage.

Contact: FARM SHOW Followup, Brian and Vicki Bain, R.R.#1, Barrhead, Alberta, Canada T7N 1N2 (ph 780 674-2799 or 780 307 4161; only1@telus.net).

"Reverse Refrigeration" Cools And Heats

Creative ideas come at the darnedest times. Kevin Flammang was filling a bowl with ice cream when he noticed the heat coming from the freezer vent. He started jotting down notes about capturing heat with a refrigeration system. Those notes formed the basis of a company called Waters Hot, Inc. to use the concept of a freezer compressor as a type of heat pump.

"We call it reverse refrigeration," says Flammang. "Imagine taking the guts out of a refrigerator or freezer and reconfiguring them. Instead of using refrigeration to cool, we use it to heat."

Flammang's more technical term for his invention is Reverse Ambient Solar Energy Reclamation System (RASERS). He calls it that not because it is a solar power system, but because it can capture thermal energy provided by the sun. It can also capture thermal energy produced by a factory, livestock facility or anything generating hot air or water. Just as a refrigeration compressor pulls heat out of a compartment and dissipates it to the environment, the RASERS system pulls heat out of the environment and directs it to contained water or other fluids.

Flammang's system consists of an evaporator panel, a compressor and a heat exchanger. Unlike the evaporator panel on a freezer compressor, the RASERS panel does not encompass the compressor, but is remote. Instead of a fan drawing air across the evaporator coil, the panel can be placed in waste air or wastewater streams, on buildings or on rooftops, or anywhere else there is a waste thermal energy load.

Refrigerant gasses in the evaporator panel capture the thermal energy and are transferred to the compressor where the expanded gasses are compressed to liquid, resulting in a substantial increase in heat in the refrigerant liquid. The hot liquid is then passed through a heat exchange where another fluid such as water or glycol absorbs the excess heat, raising its temperature. At the same time, the temperature of the refrigerant liquid is reduced, and it is recirculated back to the evaporator panel, and the process repeats.

Flammang reports that his RASERS compressor requires only 18 to 21 amps of electricity compared to a typical air conditioner compressor of the same rating which draws 35 to 40 amps. The efficiency, he says, is due to the remote location of the evaporator panel and reduced stress on the compressor due to the unique design. "Other companies have tried and failed, but they were stuck in their boxes of what refrigeration can do," explains Flammang. "With our reverse refrigeration, we heat water by absorbing heat from air as cold as -20° F."

He says the nearest technology to a RASERS is a ground sourced heat pump.

Remote evaporator mounts anywhere.

Differences include lower cost, as loops in the ground are eliminated. Flammang estimates his unit can be installed for a few thousand dollars less.

RASERS are in place in test homes and commercial settings, including the Waters Hot production facility. RASERS are not intended to be stand-alone heat sources in most regions of the country. In tests, RASERS are operated in conjunction with existing heat sources. Flammang reports energy savings of 45 percent compared to a resistant heat (electric), forced air furnace operating by itself. Supplementing a natural gas fired furnace with a RASERS reduced gas needs by 87.15 percent over gas fired alone. In the case of a Laundromat, Flammang reported that preheating water going into a natural gas fired boiler showed a 63.6% savings in gas and an overall savings of 30% in energy costs.

RASERS system saves as much as 45 percent on heating costs, says Flammang.

Waters Hot is in the process of setting up franchise dealers around the country. Pricing will be determined by size and purpose of the units.

Contact: FARM SHOW Followup, Kevin Flammang, 3480 440th St., Orange City, Iowa 51041 (ph 712 737-2066; fax 712 737-2916; kevin.flammang @ watershotinc.com; www. watershotinc.com).