

New-Style Manure Spreading Nozzle

"It eliminates the cropstreaking pattern you get with conventional manure spreaders," says English dairy farmer C. E. Walley who is hoping to license for manufacture a unique spreading nozzle to be fitted to any liquid manure spreader.

Liquid manure enters a cyclone in which it starts to rotate. A high speed spiraling motion is developed as manure escapes through the outlet in the center. "This creates a vortex about 50 ft. across which leaves a perfect spreading pattern on the field," explains Walley. "The conventional spreader mechanism with a jet impinging on a splash

plate is prone to leaving streak or strip marks on the field, especially with thicker fertilizer material. With this cyclone device, streaks are impossible."

The outlet is 6 in. across, compared with the normal jet opening of only about 3 in. Consequently, foreign objects, such as rocks or stones, are allowed to escape without blocking. The new-style nozzle can be used on either pneumatic or non-pressurized spreaders, according to Walley.

For more details, contact: FARM SHOW Followup, C. E. Walley, Cotton Abbotts, Waverton, Chester, England (ph Chester 35753).

"Hybrid" Car Combines Gasoline, Electric Power

"It's a parallel drive setup that harnesses the power of gasoline and electricity," explains Randy Olson, White Rock, S. Dak., a college student studying for an engineering career.

Randy Olson says his "hybrid car", a Volkswagen bug, works well for short-trip driving, gets 42 mpg, and reaches a top road speed of 50 mph.

The car operates essentially on its 16 hp gasoline engine but, when additional power is needed, the electric system switches on automatically and helps out — for acceleration or hill climbing. Olson said acceleration rate is 0 to 30 mph in 10 seconds. The car has a manual overdrive switch.

The booster electric motor is a 400-amp (10 hp.) aircraft starter/generator and the gasoline engine is 16 hp. The batteries can be recharged by the gasoline engine in case the operator runs out of electricity

on a trip. The car will run without any electric power, says Olson, but performance is poor due to reduced available horsepower.

The car cost him \$1,500 to build, but \$200 was saved by buying the gasoline engine at a wholesale price and installing used batteries (six 6-volt deepcycle). The electric motor's power is transferred through a belt drive to the shaft of the main motor.

Olson says his hybrid car concept is more practical for short-trip driving. He is making available a complete set of plans, including theory, test, pages of mechanical drawings and 8 photos, for \$20. A simple information packet is available for \$1.

For more information, contact: FARM SHOW Followup, Randy Olson, White Rock, S. Dak, 57277 (ph 605 537-4732).



Some of the best new products we hear about are "made it myself" innovations born in farmers' workshops. If you've got a new invention or favorite gadget you're proud of, we'd like to hear about it. Send along a photo or two, and a description of what it is and how it works. Is it being manufactured commercially? If so, where can interested farmers buy it? Are you looking for manufacturers, dealers or distributors?

Harold M. Johnson, Editor

One Answer To Moving Big Augers

Louis Saurette, of Ambigny, Manitoba, bought a 10-in., 51-ft. auger and soon found out it was difficult to move around on soft ground or snow. So, with the help of his sons and a friend, he mounted the auger on an old 44 Massey tractor.

Louis uses the tractor both to guide the auger and to run the pto. He mounted the pto and transmission from an old combine on the tractor. "The hydraulics of the tractor run an orbit motor on the winch to lower and raise the auger. We also mounted the auger hopper on caster wheels, which makes it possible to move the auger



anywhere without removing it," he concludes. The auger is not rigged for over-the-road travel.

