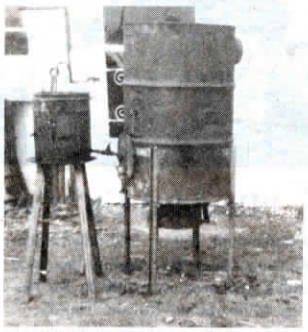
Made It Myself

(Continued from previous page)

Waste Oil Stove Heats Oil, Then Burns Vapors

"I recently sold one to a guy who said he would have had to spend $4,000 for a factory unit. He saw mine and he bought it on the spot," says Kirk Deardorff, Hale, Mo., about his waste oil stove that uses an innovative burner design that burns oil vapors rather than the oil itself. In addition to dirty waste oil, the stove also burns hydraulic oil, fuel oil, cutting oil, and diesel fuel.



Deardorff got the idea by accident several years ago when a bucket with a little bit of oil in it got too close to a trash fire. When flames "whooshed up out of the bucket", he realized the bucket had heated up and turned the oil to vapor. He spent the next several years experimenting until he came up with a design that allows the oil to vaporize before it's ignited.

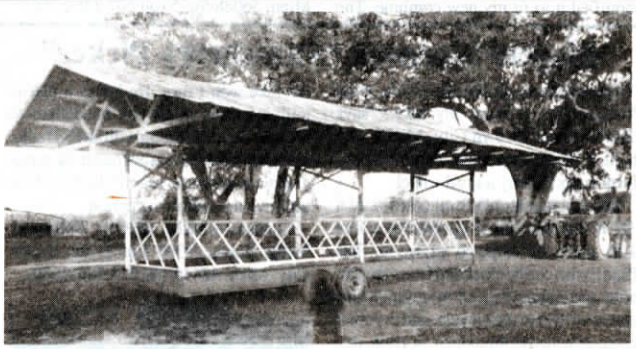
The vapor burner is mounted inside a 55 gal. drum. The oil supply tank is mounted separately outside the stove but close enough so the stove keeps the supply of oil warm. The oil feed line that runs from the supply tank to the burner runs through the flames to preheat the oil before it's fed to the burner. Because the feed line is always full of oil, the pipe doesn't get red hot even though it's in the middle of the fire.

The burner looks like the drum inside a washing machine. Oil drips onto the bottom of the burner and flames come up out of the center of it. Both the burner and the feed pipe can be easily removed for cleaning. All waste oil gets filtered through a window screen as it's poured it into the supply tank.

Deardorff has sold a number of stoves to neighbors and also sells plans. Because the stove is not UL-approved, he says it may not be compatible with insurance policies in an insured shop.

"Everyone's amazed at the heat it produces. Fuel consumption is about 1/2 to 1 gal. per hour. It burns so clean almost no smoke comes out of the chimney," says Deardorff, who sells the stove for $100 with a 10-in. burner. Do-it-yourself plans sell for $5 ($6 Canadian).

For more information, self-addressed stamped envelope to: FARM SHOW Followup, Kirk Deardorff, Box 164, Hale, Mo. 64643 (ph 816 565-2924).



Portable Covered Bale Feeder

Jan De Jong, Grand Ridge, Fla., built a portable big bale feeder that protects cattle from rain and sunshine and lets him move to a new location when the ground gets wet around the feeder.

"With my old big bale feeders, I had to wait till all the hay was gone before I could move the feeder. Now I can move whenever I want to. I have 11 or 12 dry lots. This feeder lets me use them all," says De Jong, who milks 180 head 4 times a day.

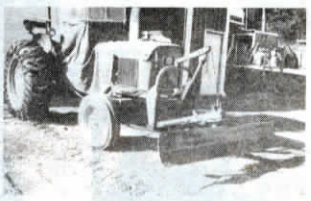
The frame of the feeder, which is 7 ft. wide and 25 ft. long, is made of heavy steel I-beam with channel iron cross pieces forming the ends and floor. Galvanized steel tubing was used to make side panels, which swing outward to load big bales into the feeder. The tin roof was built with wood trusses and overhangs the sides of the feeder by about one cow length, providing shade from rain and the hot Florida summer sun. The feeder rides on a pair of trailer home axles. De Jong designed his own quick hitch so he can simply back up to the feeder and raise the 3-pt. to hitch up and tow the feeder away. He can put four 1,000-lb. bales in the feeder at once, or three larger bales. He says there's room for about 40 cows to eat at once.

The portable feeder worked so well De Jong says he recently built a second portable feeder that'll hold 2 bales and feed about 22 bales at once.

Contact: FARM SHOW Followup, Jan De Jong, Rt. 1, Box 651, Grand Ridge, Fla. 32442 (ph 904 592-2398).

Front-Mount Tractor Snowplow

"I didn't like having to go backwards to plow snow, especially since I have a long driveway and a big barnyard to clean," says Max M. Hoy, Warren, Penn., who figured out how to mount a snowplow on the front of his Deere tractor.



Hoy built a frame that bolts to the front of the tractor, with a lift bar protruding out from the top of it. A single cylinder attaches to the lift bar and is anchored at the base of the add-on frame. A chains runs from the end of the lift bar to the pivot point on the plow. The plow attaches to the front frame with two pins.

"Takes just minutes to put it on or take it off and the lift frame doesn't get in the way when doing other jobs."

Contact: FARM SHOW Followup, Max M. Hoy, 2012 Jackson Run Rd., Warren, Penn. 16365 (ph 814 489-3118).

Slick Way To Front-Mount Plow On Older Deere Tractor

Power lift rocker shafts that were designed to raise and lower cultivators, plows, planters and other attachments on many older Deere tractors can be used to front-mount snowplows, according to a Michigan farmer.

Eugene Johnson, of Rapid River, mounted an 8 ft., 9 in. blade on the front of his 1943 Deere "A". The plow is mounted on a frame that's attached to the power lift rocker shafts. "With the pto on and the clutch engaged, you depress either pedal under the seat and the plow lifts and stays in the up position until it is again tripped to lower it to the ground," says Johnson.

He made his own rocker shaft arms using two 12-in. long sections of 2 1/2-in. sq. tubing. The long lift arms were made of 1 1/8-in. dia. reinforcing rod with a 1 1/4-in. length of water pipe slipped over it to add additional strength.

"To get lifting action on the plow, I mounted a 3 by 3 1/2 by 1/4 in. angle iron to the front of the tractor using existing boltholes. I mounted a 1 1/2-in. dia. shaft to this to hold the 90° offset arms that are linked by a length of chain to the push arms on the plow. The upper part of the 90° arms are 12-in. lengths of 2 1/2-in. sq. tubing while the lower arms are 5 by 1 1/4 by 1 1/4 by 1/4-in. channel iron, 18 in. long with two 1/2-in. rod braces. These lift arms easily raise the plow. There are "T" slots in the lower 18-in. arms so the length of the chain can be adjusted. There are also chains on either side attached to the frame of the tractor at the base of the radiator to prevent side sway when plowing.

"The push arms on the plow are 2 1/2-in. sq. tubing mounted on a 1-in. dia. cross shaft mounted under the tractor at about the point where the engine meets the transmission. Existing boltholes on the frame make it a convenient spot to mount braces that support the shaft. I also had to build special brackets at the front to mount the blade on the push arms.

Contact: FARM SHOW Followup, Eugene G. Johnson, 8290 27.4 Lane, Rapid River, Mich. 49878 (ph 906 474-6932).

"Packing Crate" Garden Tractor Cab

"I made a cab for my Deere 314 garden tractor using metal tubing from the crates used to ship garden tractors to Deere dealers," says Louis Kadlec, Pisek, N. Dak.

"I covered the tube frame with 1/8-in. thick plexiglass, using metal screws and large washers to attach the plexiglass directly to the frame. I made holes in the plexiglass with a special drill bit that doesn't crack it like ordinary bits. The plexiglass is fastened directly to the frame. The roof of the cab is a sheet of plywood.

"A hinging bracket at the rear of the cab is bolted to the tractor through holes drilled in the rear of the fenders. I fasten down the bracket, tip the cab up into position, and bolt on a brace that fastens to the tractor by the battery box. Three bolts hold the cab in place. I'm 75 years old and

I have no trouble putting it on or taking it off.

"The cab works great for blowing snow. It's not heated."

Contact: FARM SHOW Followup, Louis Kadlec, Box 7, Pisek, N.Dak. 58273 (ph 701 284-6244).