

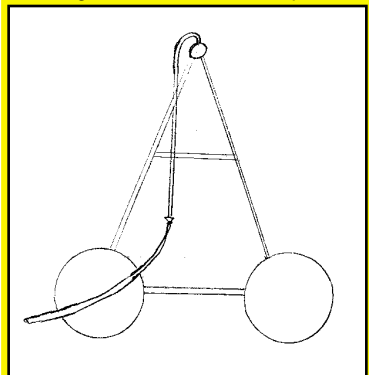
the rake keeps it from scarring trees and allows you to rake to within four inches of them.

There is a market for pine straw but there's never been an efficient way to tap into it. These machines are made for the pine straw industry. They are not modified hay machines.

Our rake sells for \$7,250 and the baler for \$9,500. (Jim Meier, Madison Tractor & Equipment, 1111 Commerce Dr., Madison, Ga. 30650 ph 706 342-2442; fax 706 342-0555)

I was recently watching an Ag Day TV program about pivot-irrigated cotton in West Texas. The show interviewed Dr. John Burke with the USDA, and they showed a thing called a "drag sock". Its purpose was to get water down to the ground below the plant canopy in order to reduce evaporation and to help increase plant pollination. I work for the Missouri Department of Natural Resources as a CAFO inspector, and we get a lot of complaints about odors. When I saw the drag socks I knew they would have great potential for controlling odors caused by land application of animal waste. The idea is to dribble lagoon effluent out the end of the tube and onto the ground, where it's below the plant canopy and therefore results in reduced odors. You'll also reduce nitrogen volatilization and water evaporation.

You take a length of canvas and sew it into a tube which you attach over the drop-down nozzles on the center pivot. The weight of the canvas doesn't matter except that heavier weight canvas will probably last longer. The tube should be 2 to 4 ft. longer than the distance between the nozzle and the ground, so the tube can drag out behind the center pivot.



This idea will work on crops like alfalfa and soybeans. I don't know how it would work on a tall crop like corn. The main thing is to make sure you get a good distribution of effluent across the field so there's no runoff. It may require increasing the number of drop-down nozzles or teeing off drop-downs. The soils should be relatively dry to soak up the lagoon effluent. There's a bit of flooding under the sock, but it won't flood an area like a traveling gun will. (George Parsons, 1203 SW 90th Rd., Asbury, Mo. 64832 ph 417 842-3368; E-mail: katyscantina@tiadon.com)



I'm sending you a photo of the homemade dethatcher that I mounted on front of my Deere RX95 riding lawn

mower. I use it to aerate my yard while I clean up trash left over at the end of winter. Leaves, twigs, and trash are vacuumed into a container on back. I made the dethatcher by mounting a series of teeth in two rows on a small metal frame that attaches to the front part of the mower. I use a lever located in front of the steering wheel to raise or lower the dethatcher. It really works good. (Richard Zwieg, 22 7th St. N.E., Watertown, S. Dak. 57201 ph 605 886-8418)

Thank you for the write-up in your last issue on how I modified a 1959 Volkswagen pickup to look like a small



semi truck. I thought you might also be interested in the farm machinery toys I've built, including a one-of-a-kind potato harvester and an 8-row potato planter. The planter is the most complex model I've ever built and has about 3,000 pieces in it. It's on display at the National Farm Toy Museum in Dyersville, Iowa. The potato harvester has 2,600 pieces in it. The Michigan Potato Industry displays it at meetings all over the U.S.

I've built over 100 different models of machinery, most of which are one-of-a-kind. What makes my models unique over all other toy builders is that I build only with steel, and I weld or bolt every



joint. The planter model has more than 1,000 welded joints on it. Every piece is cut out of a sheet of 18 ga. cold rolled sheet metal. I even build the engines piece by piece out of steel, ending up with over 75 separate pieces on each engine. I don't use any brass, plastic, or glue on any of my models.

This is my part-time hobby and people have contacted me from all over the U.S. to build rare models that the toy companies have never produced. (Don Campbell, Box 132, Gaylord, Mich. 49734 ph 517 732-3946; E-mail: koli@voyager.net; Website: www.expressodesigns.com/minimachine/)

I'm proud of the side car I made for my granddaughter's bicycle. I call it the "Tiny Totter". It's supported by a 20-in. wheel



and quickly attaches to the bike with two metal pins and a spring-loaded latch. No tools are required. Shields prevent the



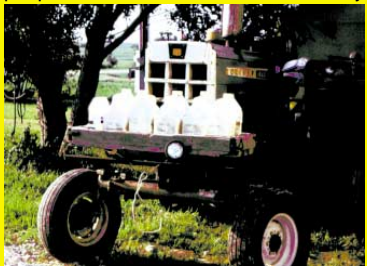
I have an extra large garden where I grow a lot of potatoes. To haul them around I built what I call a three-wheeled 'garden hauler'.

The machine's cargo box is 3 by 8 ft. long by 8 in. deep, with a perforated floor and an endgate on front. It mounts on the frame of an old Allis Chalmers garden tractor. Power is supplied by a 5 hp Briggs and Stratton gas engine which mounts under the box.

child from sticking his fingers into the wheel spokes. The two pins form a hinge, allowing the bike rider to lean the bike in either direction. If the rider leans the bike to the left or right the side car will remain level. Even if the rider tips the bike all the way over, the side car will remain upright.

It handles beautifully. Compared to pull-behind units, it's much easier for the rider to see and talk with the child and also much safer because he doesn't have to turn around. It doesn't make the bike much harder to pedal because the add-on wheel is toed in slightly which eliminates any side pull. The addition of the side car actually makes the bike more steady than it was before. A poly hood over the child can be tilted forward or backward by turning a knob. (Harold Fratzke, 234 Shoreview Dr., Cottonwood, Minn. 56229 ph 507 423-6341)

I mounted a 4-ft. long, 18-in. wide box with 6-in. high sides on front of my Oliver 1650 tractor to serve as a general purpose carrier. I use it to carry



everything from rocks to bags of seed to full or empty pesticide containers. The box is set inside an angle iron frame that's bolted onto the tractor frame. I've used this box for many years. It's really handy. (Dan Knaphus, 66110 150th St., McCallsburg, Iowa 50154 ph 515 434-2668)

My home-built outside wood burning furnace is designed to burn less wood than conventional furnaces and is virtually smoke-free. It also leaves hardly any ashes. The unit is made of 1/4-in. thick boiler plate and has a stainless steel firebox. It measures 2 ft. wide, 3 ft. high, and 2 ft. deep. It'll heat a 2,000-sq. ft. house at 78 degrees for up to three days during the winter on just one wheelbarrow full of wood. The key component is a tortuous flow box for the smoke that

There are two large drive wheels in front, and a single 8-in. high castor wheel on back. To drive the rig I stand on metal steps located just behind the castor wheel. I use the tractor's original throttle lever to control the speed, and a homemade traction lever to stop. I also use the machine for all sorts of jobs. (Vernon Hauge, 10684 Whitewillow Rd., Morris, Ill. 60450 ph 815 736-6177)

extends up through the unit to the flue on top. It burns with a clean blue flame - a process that's being patented. No catalytic equipment is used. Temperatures in part of the tortuous flow



box can reach up to 1,500 degrees, which breaks down the smoke molecules to eliminate smoke. In fact, I can put my nose right over the stack and not smell anything. Gas coming out of the wood gets the proper amount of oxygen which is why the wood burns clean.

I've made both hot water and hot air versions for neighbors. Now I'm looking for a manufacturer. (Elmer Laitinen, 8731 East Monroe Road, Wheeler, Mich. 48662 ph 989 842-1257)

I built a wooden loading ramp on skids that lets me easily load garden tractors, rototillers, and other equipment into



pickups. The ramp is about 10 ft. long and just a little wider than the pickup. To use it, I simply open the pickup tailgate and back up to the ramp. I do a lot of repair work on garden tractors for neighbors so it really comes in handy. I built it entirely out of 2 by 4 scrap lumber so it didn't cost much to build. Another advantage over commercial ramps is that I don't have to carry two separate pieces around all the time. It's also safer because it sets solid on the ground and