

I used junk parts to build this "chore" tractor equipped with a 3-pt. hitch and large lugged rear tires salvaged from an old manure spreader. It's highly maneuverable and has great traction. I use it to pull a one-bottom moldboard plow, 6 1/2-ft. wide powered mower, 5-ft. harrow, 3 by 4-ft. cart, 1-row sweet corn planter, and 40-in. blade. The individual wheel brakes and power steering let me turn short and easy. The lugged



manure spreader wheels provide great traction. I use one lever to operate the hand clutch and another lever to operate the 3-pt. hydraulic hitch. I spent \$500 to build it. A commercial tractor with comparable features would probably cost about \$5,000.

I used 3-in. channel iron to build the frame. The rear axle was salvaged from a 1958 Pontiac car. I shortened it up to 40-in. wide. I cut the spindle off the steering column of an old Massey tractor and used it to make the front axle. The front wheels were salvaged from an old side delivery rake. The tractor is powered by a 10 hp electric start Tecumseh gas engine and equipped with a 4-speed transmission from a Chevrolet 3/4ton pickup. Power steering is provided by the car's steering pump, along with the steering column and wheel.

The hood was fashioned out of sheet metal and an old combine sieve was used to make the grille. My son-in-law painted the tractor Allis-Chalmers orange and stenciled the words "Dallas Chalmers" onto the tractor, as well as the model number "D-88" - a reminder of the year the tractor was built. (Dallas Gutzmann, Rt. 1, Box 24, Pierce, Neb. 68767 ph 402 329-6631)



I designed this drive unit for a belt-powered sawmill several years ago and have sawed over 150,000 ft, of wood with no problems at all. I was looking for something that would be easier to use than a flat belt because they would always run off the pulley and had to be so carefully lined up. I wanted to use the same tractor for handling logs and powering the saw. Now I can change from moving logs and lumber to sawing wood in less than a minute with my Massey Ferguson 285 tractor. The tricky part in designing the drive was figuring out how much tire contact was needed to transmit the power of the 85 hp. tractor to the saw drive pulley. Two tires with 1-ton dish wheels attach to 3/4-ton axle housings mounted on a 7-ft. long 8-in. Hbeam. A 48-tooth RC60 sprocket bolts to the center of each wheel. A drive chain, held tight by an idler wheel, runs between the two sprockets.

A splined pto stub shaft is welded to the center of the lowest sprocket to hook up to the tractor pto. The tires each have about 10 psi air pressure so they'll grip the pulley. The tires heat up just enough to help them pull good. The wheel assembly hinges at the bottom so down pressure can be applied to both drive wheels with an adjusting bolt. You can't just hook up the tractor directly to the saw drive shaft because it would turn the saw backwards. My drive unit reverses the saw

I've made five different units for neighboring farmers and they're all working fine. We did a patent search and there's nothing like it on the market. (Contact: FARM SHOW Followup, G.A. Seay, Rt. 2, Box 91, Moneta, Va. 24121 ph 703 297-5385)

Thank you for publishing the best and most useful magazine that I have ever seen. Past articles put me in touch with Dave Geister of Prescott, Wis., and Ken Winans of New York, who have both come up with new uses for old tires and machines for converting them into valuable after-market products. With the help of these two men, we set up our own business chipping, slicing and shred ding old tires. We're now in production of "rubber rock" for use as dairy bedding, cushioning under playground equipment, landscaping, etc., and interwoven rubber mats for use in livestock trailers, truckbeds, and as floor mats. Other products we produce include rubber roofing and shingles, private driveways, road surfacing, mud flaps, as well as any number of custom products. We opened up a plant outside of Pattonville, Tex., and built much of our equipment ourselves. The great thing about this business is that people pay us to take their tires, which are our raw material. We charge people 50 cents per tire if we pick them up and 25 cents if they deliver.

Best wishes and keep up the excellent work. Your magazine is helpful to so many people throughout the United States. (James E. Jones, Lifelong Tire Recycling, P.O. Box 78, Pattonville, Texas 75468 ph 903 785-5859)

I have been interested in patents since I was 10 years old. Now that I run my own mechanical design shop, securing patents is vital to my business. Several years ago I applied for my first patent and became involved with a patent agent who proved to be very sloppy. I decided I was better off on my own. Since that time I have filed several more patent documents, for myself and others, and have learned several simple and important angles that most first time patent applicants can use to advantage.

I make a lot of use of the U.S. Patent Office's Disclosure Document Program. For \$6 you can file an easy-to-prepare description of your invention as proof that you had invented it as of the disclosure filing date. This document will be held for two years by the U.S. Patent Office and protects you until you file an actual patent application.

It is not for everyone but I believe strongly in filing and processing my own patents. An individual can deal directly with the U.S. Patent Office. He can talk directly to the examiner working on his patent application. I find the staff at the Patent Office (U.S. as well as Canadian) to be very helpful. Filing fees are insignificant relative to the normal fees charged by patent agents. For me, the speed of processing has been dramatically quicker. And you always know what's going on. Many books are available on processing your own patent. Even if you do hire an agent it's important to know something about what the agent is out to accomplish. Thus buying one of these books may be money well spent.

Here's a cost-saving technique I use to

minimize the risk of blowing money on a patent application. The U.S. Patent Office lets you submit quite rough diagrams with your initial application and gives you great freedom in altering the written portion of your application after filing. The filing fee is \$185, much less than the cost of a regular patent search. I send in a very quick application, simply making sure that all relevant points are covered by print and diagram and that everything is clearly stated. I waste little time on total perfection. The Patent Office responds with their criticisms and sends back copies of all patents that could affect the success of the application. I may at this point see that the application should be abandoned or, if it appears there is a good chance for success, it will be clearer exactly how I should organize my final application. Some people may wish to hire a patent agent at this time. The point is, I can test the chance for success at a very realistic cost and only proceed once it looks promising.

One thing to keep in mind is that a patent is of no value unless it involves a commercial payback. You should keep that in mind at all times when determining whether to pursue an idea. (George Manning, Box 6001, Saskatoon, Sask. S7K 4E4 Canada ph 306 382-5465)

This 10-ft. long flatbed for 1-ton pickups is designed with a pair of toolboxes on each side that leave the bed completely free for hauling cargo. The innovative flatbed also



has a fuel tank built right into it. The front toolbox is 5 ft. long, 20 in. high, and 20 in. deep. The rear toolbox is 2 ft. long, 18 in. high, and 18 in. deep. Each box can be locked with a key.

My unit is mounted on a 1976 Chevrolet C-30 1-ton long wheelbase pickup equipped with rear dual wheels. However, I can build them to fit any brand of pickup. The tank can be plumbed into the pickup's fuel line or used with a 12-volt pump to transfer fuel to another vehicle. A 4-ft. wide 'ladder rack' mounts in the rear stake pockets when needed.

An 8-ft. long flatbed for a short wheelbase pickup sells for \$3,495 and a 10-ft. long flatbed for a long wheel base pickup sells for \$3,995. (Ray Hart, Hart Mfg., Box 74, Webb, lowa 51366 ph 712 838-4488)



Here's a photo of our dinosaur metal sculpture - we call him "Herkimer" - at the entrance to our farm, which we have operated since my family moved here from Kansas in 1880. I made the sculpture from a variety of machinery parts, including: a track rail from a 1928 Caterpillar, rotary hoe spines, disc blades, burr from a 1912 feed mill, beater knife from a bean thresher, pony shoes, roller chain, and axle spindle, sickle guards, Deere combine rub bars, plow beams, moldboards, lightbulbs, and other miscellaneous parts. It took 330 welding rods to put it all together. At 10 ft. tall and 13 ft. long, he makes a real interesting roadside attraction for people passing by. (Clarence Rattray, N. 12121 Wood Rd., Reardan, Wash.)



Enclosed is literature and a brief description of a new product I developed here on the farm. It is a shelf bracket that attaches to a regular steel "T" post to hold an electric fencer or battery, or both. I got the idea while putting a fence around some big bales to keep them away from cattle that I was turning into a stalk field last fall. I needed a guick and easy way to get the fencer up off the ground and there was no wood surface to attach it to. I took the idea to a local manufacturer and they agreed to produce it for me. Production models simply slip down over the top of the post and automatically selflock into place at whatever height desired. No tools needed. A nylon strap holds the fencer in place. Sells for \$8.00. (Pat B. Meade, 1651 Stone St., Milo, Iowa 50166 (ph 515 466-3512)



We think many of your readers will be interested in our new motorized scooter with a 2cycle engine. It weighs just 25 lbs. (folds for storage) and is easy to get on and off. You could carry it to the field in your tractor or combine cab and use it to get back and forth between home. It has 12 1/4-in pneumatic tires and gets over 125 mpg. Top speed is 16 mph and it's much easier to handle than a 10-speed bike. There are no gears to shift the throttle controls speed through a centrifugal clutch. It's got a band brake on the rear wheel. Recommended carrying capacity is 300 lbs. Sells for \$395. (Jerry Baker, Earth Visions, Inc., P.O. Box 632310, Nacogdoches, Tex. 75963 ph 800 447-5668 or 409 569-9594)



This wire unrolling bracket, which weighs only 5 lbs., fits on the carrier bracket on our ATV's. It hooks to the rear bar with an angle iron bracket - requires no bolting. Works great for unrolling new or even old rerolled rolls of wire. It's handy for putting up a new fence, making repairs on fences, or for setting up temporary cattle fence around corn fields. (Marvin Singry, Rt. 1, Box 10-A, Hazel, S.Dak. 57242)

Continued on next page