Digger consists of two heavy tines on a 3-pt. mounted frame. A hydraulic cylinder, which takes the place of the center arm on the 3-pt., tilts the teeth up and down.

EFFORTLESSY EXTRACTS BIG ROCKS

3-Pt. "Boulder Digger"

There's almost no limit to the size of rock you can lift out of the ground with this new 3-pt. mounted "boulder digger".

Arnold Jorgenson, Powers Lake, N. Dak., got the idea after adding a couple teeth to a 3-pt. mounted bucket he had built many years before.

"We have a lot of rock in this area and, until now, we mostly just picked what was on top of the ground. We farmed over and around the big ones. That's hard on machinery so I was always looking for a way to get rid of them. Finally I tried putting teeth on my rear bucket and it worked great. So I had a local machine shop custom-build this rear rock digger. After digging out and hauling away at least 500 big rocks last spring and fall, we decided to offer them for sale. There's nothing else like it on the market that we could find," says Jorgenson.

The digger consists of two heavy tines mounted on a square frame. A hydraulic cylinder takes the place of the center stationary arm on the 3-pt. The cylinder tilts the teeth downward so when you back towards the rock, with the 3-pt. in the down position, the digger pushes into the ground next to the rock. Once you're up against the rock, you use the cylinder to rotate the teeth upward to loosen the rock. At the same time you drop the 3-pt. some more, or you may have to drive ahead a little and back up again, allowing the digger to work further under the rock. Then you can lift the rock out of the hole and haul it off the field on top of the tines. The tines can also be used to drag dirt into the hole to fill it.

Sells for $800.

For more information, contact: FARM SHOW Followup, Arnold Jorgenson, HC2, Box 47, Powers Lake, N. Dak. 58773 (ph 701 464-5506).

CAN LIFT OFF A CAB OR REMOVE ENTIRE FINAL DRIVE ASSEMBLY

First-Of-Its-Kind Farm Shop Crane

"It's the first portable crane built specifically for farm shops," says Grant Hanson about his "expandable" shop crane that'll remove entire tractor axle assemblies without removing wheels for brake or final drive work and also reaches up high enough to lift off cabs.

Hanson is a traveling farm mechanic who makes on-farm service calls with a converted medical ambulance (Vol. 14, No. 5). He tows the crane behind. "There's almost no job it can't handle. It'll cut hours off many jobs because the base can be expanded or contracted to work in or around tractor wheels, making complicated jobs easier than ever to perform."

The crane has a telescoping mast that'll lift off any tractor cab without problem. The base is narrow enough to fit between the rear wheels of a tractor set up for 30-in. rows, but can be expanded wide enough to straddle the wheels from the side to lift off an axle assembly. A pair of wheels on the mast end make it easy to steer the crane by hand. A powered "assist" wheel helps move heavy loads.

"Most shop cranes sit idle collecting dust because all of the cranes on the market are manufactured for automotive or truck use," says Hanson. "They work great for lifting engines out of tractors, but only 20% of the service work on tractors involves engines. The other 80% is done on the transmission or final drive assembly. Unfortunately, all of the other cranes are built with a one-piece solid-welded frame of fixed width that can't straddle the tractor's rear wheels. My crane has two 4 by 6-in., 18-in. long expandable beams. By removing two pins the beams can be slid out to widen the distance between the legs. Fully expanded, the crane can straddle a 20.8 by 42 tire without touching it.

"When the telescoping mast is fully raised the end of the boom can reach 16 ft. high, yet when the mast is at its lowest point the boom will fit under most doorways. Also, the steerable mast end makes it easy to move the crane. Other cranes have castor wheels that sometimes make them difficult to steer. My crane has no castor wheels. I use my left hand to push the mast while I steer the wheels with a jack handle in my right hand."

A chain runs between the left and right wheel, working like a tie rod to keep both wheels moving in the same direction. To steer the crane Hanson inserts the bottle jack handle into a tube that extends above the right wheel.

An "assist" wheel that mounts back by the mast normally rests 1/2 in. off the floor. Hanson turns a screw that forces the wheel down onto the floor. He then uses an electric drill to drive a shaft in a gearbox that powers the wheel. "It works great for the final inches of movement that are necessary during engine splining or final drive installation. Reversing the drill turns the assist wheel in the opposite direction so I can back up the crane."

The crane is equipped with an 8-ton bottle jack. A sprocket on the mast acts as a locking device and also is used to "telescope" the mast.

Hanson says he's considering custom building his prototype crane for $2,000 to $3,000.

For more information, contact: FARM SHOW Followup, Grant Hanson, 200 14th Ave. N.E., Glenwood, Minn. 56334 (ph 612 634-4681).

Self-propelled sheller mounts on a GMC truck frame and is powered by a 327 cu. in. engine. Schroeder switches driveshafts when changing from road travel to shelling.

BUILT FOR WORK, NOT LOOKS

Home-Built Corn Sheller Shells 250,000 Bu./Year

Alfred Schroeder has been custom shelling corn for 27 years, always using equipment he built himself. His latest self-propelled machine is such an eye-catching collection of miscellaneous parts he can stop traffic on just about any highway he drives down.

He takes the rig all over Carroll County, Iowa, traveling at speeds up to 45 mph. Depending on how much help is available, he can shell 600 to 1,200 bu. per hour. "We shell 200,000 to 250,000 bu. of corn each year," he told FARM SHOW.

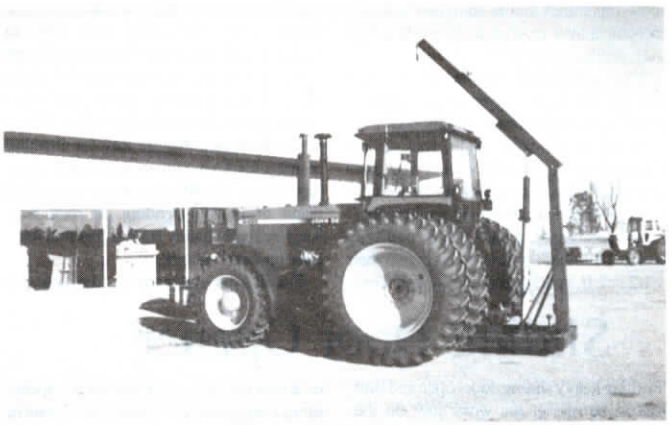
To build the machine, Schroeder started with the chassis from a 2-ton 1954 GMC truck. A Chevy 327 motor with a 4-speed transmission provides the power. Both road drive and shelling are belt-driven. It's set up so that when changing from road travel to stationary shelling, he simply switches driveshafts. The motor runs at 2,100 rpm's when shelling, burning 2 1/2 to 3 gal. of gas per hour.

The cab was built out of two junked tractor cabs. The sheller is an antique "pre-1942" Minneapolis Moline B2 separating unit. A husk blower, mounted just behind the cab, was taken from a MM 1210 sheller as was the ear corn hopper. A self-cleaning screen from a Gleaner combine mounts ahead of the radiator.

There are two hydraulic pumps. One powers the steering and raises the hopper while the other powers the unloading auger and runs 4 to 5 sections of drag. He has also built 3 independently-powered drag augers that can be positioned around the machine. A big blower pipe blows husks into a high-sided 8 by 14-ft. husk wagon. Cobs unload out the side into a wagon and shelled corn is augered out the back. Both the cob elevator and the unloading auger swivel 180°.

The only change Schroeder says he'd make on the machine would be to make the wheelbase a bit longer since it carries a lot of weight on the rear end.

Contact: FARM SHOW Followup, Alfred Schroeder, Rt. 2, Box 189, Breda, Iowa 51436 (ph 712 673-2381).



Crane "narrows up" to work from behind tractor or the base can be widened to lift off entire wheel assemblies, straddling tractor wheels from the side.