

## MADE IT MYSELF MODIFICATIONS

# New Equipment Built For Handicapped Farmers

A just-published manual from the ag engineering department at Purdue University details nearly 200 farmer-built modifications of farm equipment designed to make work easier for handicapped farmers.

Each of the nearly 200 equipment ideas is thoroughly explained and shown in detail in photos. A complete address is given for each farmer — inventor.

The big loose-leaf manual, which sells for \$30, is the latest in a continuing series of efforts by Purdue

University to pull together equipment ideas for handicapped farmers. The ag engineering department also publishes a quarterly newsletter, called "Breaking New Ground", which details equipment modifications and ideas.

For more information, contact: FARM SHOW Followup, Breaking New Ground, Department of Agricultural Engineering, Purdue University, West Lafayette, Ind. 47907.

The following are some of the ideas detailed in the new manual.

## Gear-Driven Chairlift

Ralph Christenson built this chair lift for his International 5088 and Deere 4640 tractors for farmers with paralyzed, or otherwise disabled, legs.

The lift consists of a plastic seat mounted at the end of a straight lift arm which attaches to a large ring gear. When activated, a 12-V starter motor powering a small gearbox drives a small pinion gear.

The pinion gear climbs up and around the stationary ring gear, lifting the arm up toward the tractor seat. To keep the seat level, the seat assembly is attached to a shaft and sprocket assembly that passes through the end of the lift arm. A



roller chain connects the seat-leveling shaft and sprocket to the gear box.

Contact: FARM SHOW Followup, Ralph Christenson, Vari-Pol, P.O. Box 56, Badger, S. Dak. 57214.

## Grain Bin Manlift

The frame of the lift consists of 2 pieces of 2-in. channel iron that bolt to the grain bin at 5 different points. Four roller bearings attached to the platform ride up the 2-in. channel, pulled by a cable winch driven by a 1/3-hp. electric motor. From the top of the lift, the operator takes a catwalk to other bins.

Contact: FARM SHOW Followup, Henry Larson, Bement, Ill. 61813.



## "One Arm" Hammer

A magnetic head with three different sized nail slots lets Larry Streff use a hamer with one hand. Hammer claw is specially curved to make nailing easier.

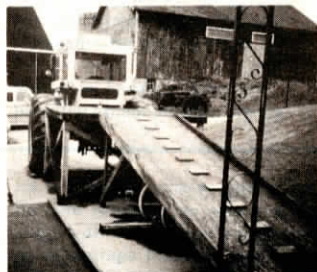
Contact: FARM SHOW Followup, Larry Streff, SR Box 88, Heartwell, Neb. 68445.



## Tractor Access Ramp

Tractor ramp provides easy access to cab by wheelchair. Ramp to platform consists of four 4 by 8-ft. sheets of plywood. The 8-ft. wide platform was made from 2 plywood sheets on a wood frame. Wooden step blocks on ramp provide traction for person pushing wheelchair up ramp.

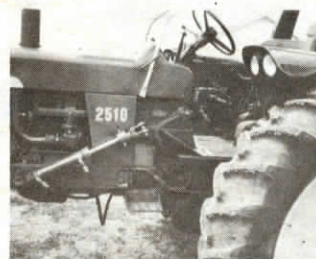
Contact: FARM SHOW Followup, Warren Kock, Rt. 1, Miles, Iowa 52064.



## Add-On Hydraulic Clutch

Two-way hydraulic cylinder mounts on tractor frame below clutch and connects to clutch pedal with chain. Hydraulic valve and lever were installed to the right of the seat on the Deere 2510 so the operator simply uses hydraulics to activate the clutch. Clutch spring helps return clutch to engaged position.

Contact: FARM SHOW Followup, Al Copeland, Rt. 8, Greenfield, Ind. 46140.



## Portable Electro-Hydraulic Platform

Lift platform lets Bob Medd get into his Deere combine and tractor cabs. He also uses it for servicing equipment or for reaching anything on the farm that's too high to reach from a wheelchair.

Lift is moved around by hand — pushed, or "wheeled" from seat — but lift is provided by a 12-V battery operated hydraulic pump.

The platform raises to a maximum height of 14 ft. on a large steel mast directly behind the operator. The mast telescopes as it nears the top and, for storage, it can be hinged down out of the way. The platform, equipped with three pneumatic tires in a tricycle arrangement, has a seat



into which Medd hoists himself from his wheelchair, using a lift bar.

Contact: FARM SHOW Followup, Bob Medd, Box 86, Hollandale, Minn. 56045.

## Hand-Operated Clutch/Brake

Erick Metzger built this clutch/brake lever from 3/4-in. steel pipe. A 90° elbow was added so lever extends directly toward operator. Lever fits down inside a piece of 1-in. tubing which is secured to pedal arm with 2 U-bolts. Lets pedal be used in normal manner by foot, also.

Contact: FARM SHOW Followup, Erick Metzger, 3657 Farthing Lane, Columbus, Ohio 43227.



## Electric Clutch

An electric-actuated clutch helps Dale Bronk, who has both upper and lower body impairments, operate his tractor. He operates the clutch with a dash-mounted toggle switch. A long metal pin was simply inserted in place of the clevis pin holding the clutch pedal to the clutch linkage. A 12-v. actuator installed on the tractor frame below the pin pushes on the pin to disengage the clutch and the clutch spring re-engages it. Red and green lights indicate when the clutch is in the engaged or disengaged position. Another toggle switch, also located on the panel, is used to cut off fuel supplies in emergencies.



Contact: FARM SHOW Followup, Dale Bronk, Rt. 2, Plainfield, Ill. 60544.