



Bi-Fold Door On "Machine Shed" Barn

Bob Kalkwarf, Belmond, Iowa, converted an old dairy barn into a shed for his combine by removing about 2/3 of the hay mow floor and installing a 24-ft. wide, 16-ft. high home-built bifold door.

Kalkwarf used steel tubing and sheet metal to build the door.

"At a cost of just \$514, I spent only about one sixth as much as I would have on a commercial bi-fold door of comparable size.

"The 32-ft. wide, 40-ft. long barn wasn't usable for machinery storage because overhead clearance was only 8 ft. I removed enough of the hay mow to get my combine and header inside. I had to tie the eaves together from one side of the barn to the other with steel cable so

the sides of the roof wouldn't spread out once the hay mow was removed.

"I needed a bi-fold door because there wasn't enough wall for a sliding door. It would have taken a lot of extra framework to support a sliding door and I couldn't have built it myself."

Kalkwarf opens and closes the door by pushing a button. A 3/4 hp electric motor powers a gearbox that winches in four cables that run through pulleys to the bottom of the door. He came up with his design after seeing a commercial bi-fold door.

Contact: FARM SHOW Followup, Bob Kalkwarf, 1363 Quincy Ave., Belmond, Iowa 50421 (ph 515 444-4641).

Leaf Picker-Upper Makes Yard Cleanup Easy

Ohio inventor Louis Daniel was tired of the hassle each fall of picking up big piles of leaves by hand for disposal. He decided to build a machine that would make it easy.

His leaf picker-upper is powered by a 3.5 hp. gas motor that drives a horizontally-mounted 10-in. dia. fan rotor with four 4-in. wide blades. It sucks leaves up through a length of 4-in. plastic hose and blows them up through 4 by 5-in. metal ductwork to an overhead bin made out of a portion of a 50-gal. oil drum. A 5-gal. metal bucket attached to the bottom of the bin forms a neck around which a burlap bag fastens with a screen-door type spring. The framework is made of scrap angle iron, steel fenceposts, and other scrap metal.

The unit weighs about 200 lbs. and rides on 6-in. lawn mower wheels. It's got a fold-down handle made from lawn mower grips.

"It's easy to operate. I just rake leaves into a pile and suck them up through the hose into the bag. Changing bags takes



no longer than changing a vacuum cleaner bag," says Daniel, noting that his leaf picker-upper is particularly useful sucking up leaves and pine needles from around landscape shrubbery. "I'm not aware of any leaf bagger on the market even remotely similar to this unit."

Contact: FARM SHOW Followup, Louis A. Daniel, 925 North Brush, Fremont, Ohio 43420 (ph 419 332-7910).

Pto-Driven Wire Roller

Edward Houle, Pickardville, Alberta, can roll up a half mile of 4-wire fence in a couple hours with his home-built wire roller that he built for \$75.

He pto-drives an old automotive rear end (Houle notes that a truck's 4:1 gear ratio would be ideal) with a wire spool on either end of the axle. The center portion of each of the two spools is made with 20° angled pipes that slope toward the

center. The end disc on each spool slips off by removing three nuts. The angled piping on the spools makes it easy to slip off the wire rolls. Each spool holds up to a half mile of wire.

"It really works like a charm," says Houle.

Contact: FARM SHOW Followup, Edward Houle, Pickardville, Alberta Canada (ph 403 349-2346).

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Harold M. Johnson, Editorial Director



He Added Hopper Extensions, Big Augers To His Deere Combines

The hopper extensions on David Fathauer's Deere combines look like they were built at the factory but the Lake City, Ill., farmer added permanent extensions himself along with built-from-scratch 15-in. dia. unloading augers.

He boosted grain-carrying capacity on his 1978 Deere up to 370 bu. and increased capacity on his 1970 Deere to 335 bu. His home-built unloading augers unload each combine in about 2 1/2 min., depending on grain moisture. The

augers are powered by hydraulic motors mounted at the ends of the augers. He drives hydraulic pumps off the combine engines, controlled by electric clutches.

Built from tube steel and sheet metal, the bin extensions flair out from the side of the combines. Round portholes cut into the sides of the extensions let the operator know at a glance how full the bins are.

Contact: FARM SHOW Followup, David Fathauer, Lake City, Ill. 61935.

