"Our **Deere** cold water pressure washer is a good machine but is not at all built for continuous use. We have a large hog farm and use a washer at least twice a week."

On the positive side, Mark nominates his **Deere** 8350 seed drill and his **Case** 1490 tractor. "The drill has large boxes, so we can seed around 10 acres without refilling on our 10-ft. drill. Gives us a very even stand. We like the Case tractor's quiet cab, the handy controls, excellent fuel economy, and nice handling. Although the power's rated at 70 hp., it tested at 80 hp."

Robert Ramm, Waterville, Wash.: "Has lots of power, a spacious quiet cab, and most of all, I like the power shift transmission. I have had no problems other than with the clutch adjustment and a few bugs. All were covered by warranty. Dealer service is good and the price was lower than comparable tractors, even used ones," says Robert about his Massey Ferguson 4880 4-WD tractor.

Lee Dadisman, Nevade, Iowa: His "best buy" is his Posi Lock gear and bearing puller. "I had to get a bearing race off a shaft so I used my new Posi Lock bearing puller. It can reach in with jaws that have a lock on them. They won't slip off as you pull the race off the shaft. An excellent tool."

William L. Kentner, Boissevain, Manitoba: "My best buy is my 1976 Deere 4430 tractor. I bought it new and it has only required regular maintenance and a few minor repairs."

Reader Letters

A recent article in FARM SHOW (Vol. 7, No. 2) describes a demonstration where old newspapers were converted to livestock bedding by processing in a modified John Deere forage harvester. The machine was operated in a stationary position, with a simple feed hopper replacing the field harvesting head.

It is our opinion that this operation, involving hand feeding of material into a modified stationary machine, presents an unacceptable risk of serious injury or death to the operator from possible entanglement in the feed rolls and cutter head.

It appears that this demonstration was conducted to promote a concept and that a minimum of effort and thought had been given to the safety implications of the adaptation of the forage harvester. The very simplicity of that machine conversion will no doubt encourage others to try it. We recognize your interest in reporting such activities to the public, however, we're also convinced that you would not like to expose your readers to unnecessary hazards.

Karl C. Anderson Product Safety Deere & Company

(Editor's Note: Calvin Kraemer, Chippewa County agricultural agent, told FARM SHOW, "The intent of the demonstration was to show farmers that they could easily convert their existing forage choppers to chopping paper for bedding. There's no question that additional guards would be needed to make the chopper safe to work around.")

Thank you for the article in your last issue on our Deep Placement Fertilizer Shoes, which place P and K about an inch to one side of the seed and an inch below when planting. Hundreds of FARM SHOW readers from all parts of the U.S. and Canada have contacted us or our dealers. Unfortunately, the price in the article was last year's price. The correct price for shoes to fit Deere Max-Emerge and Kinze planters is \$46 per row. Shoes for other models are also available.

Bob Niemeyer Niemeyer Tractor & Farm Supply, Inc. Hwy. 61 S. Bowling Green, Mo. 63334 (ph 314 324-5131 or 324-5165)

Thanks for your article on our new 3 in 1
"Pit Pal" that chops, agitates and
pumps liquid manure. We've had many
calls and letters from FARM SHOW
readers who say they've been looking
for one machine that would take care of
all their slurry problems and yet be
portable enough to move easily around
the farm. The only problem with your
article was that the pumping capacity of
the unit was misstated. The Pit Pal will

pump up to 700 gal. per minute (not per hour) out of any pit or lagoon.

Olav Isne Sales Manager Farmstar, Inc. Glenwood, Minn. 56334 (ph 612 634-4554)

Thank you for the article on Keer Shear, the powered crop divider that mounts on combine and swather heads. We've received a number of inquiries from the U.S. and Canada. However, we've moved since your report. Our new address and phone number are listed below.

Arne Johansen Danio Products Ltd. Bay No. 4 4380 76th Ave., S.E. Calgary, Alb. Canada T2C 2J2 (ph 403 236-5750)

I look forward to every issue of your magazine and the many "made it myself" ideas that I can put to use on my farm. But there's one machine I've never seen. Has anyone ever converted an old combine to a corn picker? It could be done by removing the cylinders and rasp bars, installing a husking bed, and then adding an elevator in back to hoist the ear corn into a trailing wagon.

Ken Rose Rt. 6 Wallaceburg, Ontario Canada NBH 4LO

Deere vs. Kinze

(Continued from page 5)

was similar (and thus should have been declared unpatentable) to a similar seed-metering device which appeared as a drawing in a Master's thesis written by Iowa State University student Charles Morrison in 1946 (18 years before the Keeton patent was applied for).

2. The HANSEN patent (expires Jan. 5, 1988) — Developed by Harold Hansen, former head of Deere's Planter Division, it covers improvements on the shape of the finger mechanism, and a redesign of the depressions or ripples which cause extra seeds to be dislodged from the finger. The jury ruled it invalid, noting that the specs and drawing don't clearly describe how it's made and used, and that what Hansen added was not a new invention.

3. The PUST patent (expires March 10, 1987) — It pertains to the seed furrow opening device, patented by Waldo Pust, of Savage, Mont., who sold the patent to Deere. The jury held that while this patent was valid, it was unenforceable on the grounds that it was obtained through "inequitable conduct" for failing to call existing prior art (the Oliver 340 row unit) to the patent examiner's attention.

4. The BRASS/HANSEN patent (expires March 1, 1994) — Developed jointly by Deere engineers Ronald Brass and Harold Hansen, it's an improvement of the Pust opener which added a lip to the guage wheel to firm the furrow wall, and canted furrow-closing wheels. The jury came up with five strikes against this patent in ruling it invalid, including their conclusion that the concept was featured on the old Hayes planters (which had canted rear wheels) and thus wasn't patentable as a new invention.

5. The BRASS patent (expires Sept. 28, 1993) — Developed by Ronald Brass, it pertains to the pull lever for manually engaging and disengaging the drive unit to individual planter units, such as for planting point rows. The jury ruled this invention invalid on the grounds that it was covered in prior art and should have been declared unpatentable as a new invention.

One strike against a patent is sufficient to rule it invalid. The five Max-Emerge patents involved had a total of 13 strikes against them, including the jury's finding that the Max-Emerge was on sale more than a year before one of the patents was filed, which violates a requirement for filing a patent.

Says Ray Brune, Deere's director of public relations: "We feel the decision to invalidate our Max-Emerge planter patents is in error and an appeal will be filed as soon as possible. We feel confi-



One of five strikes against Deere's BRASS/HANSEN patent on the Max-Emerge was that the canted furrow-closing wheels, claimed to be new invention, weren't new. The old Hayes No. 44 planter, popular in the 1930's, had canted wheels to provide, as the manufacturer points out in a 1935 manual on the planter . . . "a firm seedbed. The pressure of the wheels set on an angle firms the soil in a V-shape with the seed. This puts the seed in close contact with moist soil for quick germination . . ."

dent that our patents will be upheld, and that other manufacturers will continue to treat them as valid until the patent issue is resolved in the appeals process."

Deere's appeal, according to Hill, will focus largely on the Pust patent since it's critical in that it provides the Max-Emerge with its outstanding depth control, and it's the only one of the five patents which the jury didn't declare invalid. The jury did rule, however, that it was obtained through "inequitable conduct" in that certain prior art was overlooked in submitting the patent application, thus rendering the patent unenforceable. The jury ruled that Kinze hadn't infringed on this one "valid but unenforceable" patent, but had indeed infringed the other four patents. However, this became a moot point once the patents were declared invalid since an invalid patent can't be infringed upon.

Deere's appeal will be tried before the New Court of Appeals for the Federal Circuit. This body sits in Washington, D.C., but hears appeal cases (primarily those involving patents) from all over the U.S.

Meanwhile, back at Kinze Mfg., president Jon Kinzenbaw is enjoying what he calls "the freedom of finally getting this burdensome battle resolved. It's a complete victory as far as we're concerned. The big winner in this long battle is the American farmer. All we ever wanted in the first place was the opportunity to compete fair and square in the marketplace."

There are rumors that Deere will soon introduce a revolutionary air-type planter which could make the Max-Emerge obsolete in a few short years.

In questioning Kinzenbaw about this, he noted that, "Any new planter, regardless of how revolutionary, isn't likely to quickly replace the Max-Emerge concept, particularly the furrow opening and closing mechanism. The fact that this and other features of the Max-Emerge concept are now available to any and all competitors promises to make it all the more cost-competitive."