Homemade Crop Drying Furnace

It only took Allen Reichley, of Winfield, Penn., an hour to build the crop-drying furnace he rigged up in his farm shop. After watching a wood-fired dryer drying corn at the mill where his brother worked, he decided to build one for his own drying system. Materials included two barrels, a length of old water pipe for the smoke stack, and some concrete blocks to support the unit. For fuel, Reichley gathers up a couple pickup loads of wood scraps.

He first removed both ends from one barrel and split it down the side. To make the firebox, about two-thirds of one end of the second barrel was removed and that barrel laid on concrete blocks in front of the dryer fan. The split barrel was spread and placed around the firebox as a heat collector. Holes were cut in the tops of each barrel and the smoke stack attached to the firebox barrel.

An electric fan pulls air through the heat collector to speed the drying process. Air temperature entering the dryer is usually about 10-15° above outside air when a strong fire is maintained in the firebox, says Reichley. Ashes are permitted to build up in the firebox. This provides a good bed for the fire, and helps prevent burnout of the barrel.

During the drying season a new fire is started each morning, and fresh fuel added about once an hour. Reichley usually lets the fire burn out at night rather than trying to keep it burning around the clock. In his setup, nearby buildings help protect the burner from wind. If there's a strong wind, he lets the fire burn out or doesn't start it at all. He cautions that wind could fan or scatter sparks from the firebox, and suggests using a wire mesh screen over the open end of the firebox to help control flying sparks.

After grain dropped to 17-18% moisture content last fall, firing the burner was stopped and only the fan was used to pull grain down to safe storage moisture. Although the dried corn had a smoky smell, there was no apparent damage and no dockage when it was sold. Reichley has several ideas in mind for improving his original burner. First, because the outer heat collector was somewhat smaller than the fan inlet diameter, a significant amount of unheated air was drawn into the fan. Consequently, Reichley suggests using a larger barrel to match the 30 in. dia. of the fan housing. Making the heat collector longer than the firebox might also help reduce the air restriction caused by the inner barrel, he points out.

Automatic Implement Hitch

"This automatic hitch for hay or chopper wagons puts you in the driver's seat and leaves you there," says Robert Rimmey, inventor of the Rim-A-Matic implement hitch that lets you hook up or unhook wagons right from the tractor seat. The device is patented, and he is now looking for someone to manufacture it.

The hitch works on a simple mechanical principle. It consists of (1) a metal guide mounted on the tractor or implement drawbar, and (2) a spring mounted on the wagon tongue that holds it up level with the hitch. When you back up to the wagon, the tongue follows along the guide until it is lined up and then springs into place.

To unhitch, the driver pulls a rope that disengages the pin before he pulls away. The hitch is designed to fit almost any kind of chopper, baler, corn picker or other implement, says Rimmey. It can be used for several wagons or implements hitched in tandem.

Interested buyers or potential manufacturers can get more information by contacting FARM SHOW Followup, Robert R. Rimmey, 103 Race Street, Box 375, Millheim, Penn. 16854 (ph 614 349-8041).

2-Wheeled Unroller Cuts Feeding Losses

By Jack Snyder

J. Russell Hargan, of Vine Grove, Ky., has designed a simple 2-wheeled device that he mounts on his tractor for unrolling big round hay bales. Hargan says his method makes feeding time an easy chore and greatly reduces his hay losses.

The dual-wheel assembly was constructed from 5 in. by ½ in. scrap iron rigidly fastened to the tractor and two 20 in. dia. wheels mounted 20 in. apart on a truck axle, with pipe fittings for spacers. The tractor bumper was removed and the wheel assembly mounted in its place. The tires are mounted about 12 in. from the ground.

As the tractor is driven forward at 3 to 4 mph, the dual wheels rotate backward against the bale to unroll it smoothly and quickly.

There are several advantages to Hargan's unrolling process, as opposed to some other methods of feeding big round bales:

- Cattle line up along the unrolled bale to feed with a minimum of crossing over and hay tramping, thus reducing feed losses.
- Feeding sites can be easily altered to reduce soil compaction and trampling damage to the grass stand.
- Spreading manure is accomplished.
- It is an inexpensive, quick and easy way to feed cattle.
- Cattle need not be confined to a designated feed area.

Hargan's home-made unroller is not patented and he has no plans to manufacture it on a commercial basis.