

# PART OF THE PAST

## Harrisburg Area Museum

### BINDERS AND THRESHERS

Issue 2019-3



The Binder at left is a fairly recent model shown working in a field in England. It looks much like the one I remember from the 1930's. I can not remember if ours was a left hand cut or right hand! Our mowers and early swathers were all right hand cut machines. The British do things differently...like drive on the wrong side of the road...so who knows.

The binder originally used wire to tie the bundles. This was obviously not a good idea and twine was soon substituted. But that required some way to tie the string! The knotter was a fairly simple looking device but I was never able to figure out how it worked. But it did work quite reliably, rarely missing a tie.

The bundles were accumulated on a carrier (not shown in the picture). The operator would dump these in a winnrow for the shocker to collect and place in shocks. That is a job I remember! In oats or some such it was pretty easy. The oat heads would hold the bundle in shape so it could be picked up with one hand. Rye grass on the other hand was a pain! It was slick and the bundle tended to twist and fall apart. I remember one time when my cousin Wilbur and I were the shockers on a 50 acre field. We would wait for the binder to make four rounds and then we would shock those as fast as 10-12 year olds could. Which was pretty fast. Then we would lay in the shade till the binder got another set of four rounds ahead. We each would take the carrier dump from two rounds and make a shock between the two...then sometimes run to the next winnrow. Kids that age had energy! The faster we did the job the more time we had to lay in the shade.



*A Wheat shock...or as the brits say, a "stook"!*



*Beryl Kizer & Green Brothers thresher. Circa 1920's*

The thresher shown here was used by Beryl Kizer until 1940, threshing for several local farmers. Note the 'hay stack' behind. The stack was often placed in a permanent pasture field and stock allowed to feed on it during the winter. After a stack had set for several years the stock would eat caves that would reach 6-8 feet into the stack. Great fun to play in/on. If the stack was in the tilled field it would be burned when the rains lowered the fire danger.

As I remember the crew was three men with teams and wagons, one or two 'pitchers' (to pitch the bundles up to the wagon master), a sack sewer and the machine operator that watched things, greased and oiled as needed (Bearings were all wood or babbitt or maybe brass bushing) and 'set' the machine so that the sacks had a 'clean' sample. My memory may be 'off' a little but I think the sack sewer and the pitcher were the highest paid at \$.35 per hour. The team operators got paid by the day for their



time and equipment...I think maybe \$4.00 per day. Remember...this was during the Great Depression! Lots of sweat/dollar!

The pitcher would use a long handled three prong pitch fork. He would pick up the bundle with the prongs entering near the string and pointed towards the seed heads. He would pitch the bundle up so that when it fell it would land on the load. Generally the wagon master would catch the bundle in mid air with a short handled fork and flip it into place, heads in towards the center of the load so that shattering loss could be recovered. The horse team was trained to move to the next shock on a voice command. Worked pretty well. When loaded the wagon master would drive to the thresher and, when his turn came, drive alongside the thresher feeder. There he would pitch the bundles onto the feeder, heads first, in a steady stream.

The bundles would first encounter a set of whirling knives that would cut the bundle string and spread the bundle out a bit. Then on to the cylinder. This was (on a grain machine) a set of spiders with bars running across the face. Maybe 18" in diameter and 20-30" long. Usually the main drive belt would go directly to the cylinder which was the heaviest load. It would spin at maybe 1000 RPM. The bars, 8-10 of them, had cylinder teeth about 3" long bolted to the bar. Spaced 3-4" or so. Beneath the cylinder was the concaves. This was a metal block 6-8" by as long as the cylinder is wide. It also had teeth like the cylinder. The spacing and number of rows of teeth could be changed for different crops and/or conditions. As the cylinder teeth rotated they passed through the concave teeth and stripped the seed off the head where it was moved to the screen for further processing..

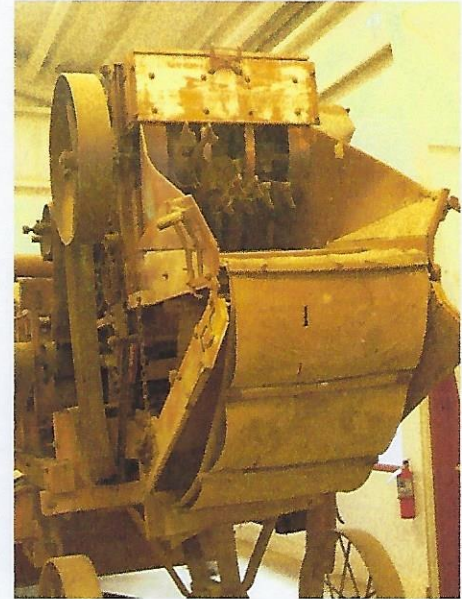


At left is a picture of the screen. It has some debris on it that should not be there. The fingers are adjustable to open/close the opening. Air is forced up through the openings to blow the chaff out and straw rides over the end with the good seed falling through to conveyors which delivered it to either a sacking spout or, in the case of more

modern equipment, a bulk bin.

As the straw exits the cylinder it is thrown up onto the straw walkers. These are long troughs which are mounted on a pair of cranks. There are several across the width of the machine with one moving (via its crank) up and back while the adjacent walker moves down and forward. Thus 'walking' the straw to the back of the machine. The purpose is to shake out any seeds which didn't fall through the concaves. This salvaged seed is then moved to the screen. The straw falls over the end and down into a large blower fan which blows it out to the straw stack via a long spout. This spout can be moved in all directions in order to make a nice even stack that will shed water. (only in case the straw pile is to be used for winter feed.)

The Museum also has a clover huller. It is much older, wooden frame machine. It is similar to the grain thresher but differs in several significant ways. The cylinder and concaves do not have teeth. They are more of a rub bar design so that the fine clover seed is rubbed out of the head instead of being stripped out. There are also a couple of re-cleaners included which give a refined cleaning to the finished seed. The combines of today will handle clover as well a grain and grass seed.



*Museum's 1937 McCormack-Deering grain thresher. The feeder is lowered for transport. Note the cutter knives in back.*

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