~~~ Farmer Carl ~~~



I) Farming With Horses:

Before the advent of steam and fossil fuel powered tractors, farmers employed draught animals such as horses and mules. The earliest tractors came on the scene in the late 19th century but were not commonplace until several decades later. By the middle of the 20th century one never saw a team of horses working the land except perhaps at county fairs or agricultural expositions. However, if you were fortunate to be a farm boy or girl back then, you might have seen the old tack hanging in a farm building like dusty memories from an age long past but not forgotten. And so it was that I would stand and stare at the wondrous collection of bits, blinders, bridles, buckles, collars, collar pads, hames and reins; all the equipment that was used to prepare a team of horses for field work.

My father told me of working with a team of horses as a young boy. He was not content sitting on a hard metal seat for hours. He'd jump off and go chasing after gophers or rabbits while the team kept up their dutiful work in a straight line down the last furrow. Before reaching the end of the field, he would jump back on, raise the implement out of the ground, turn the team around and get them started again. This accomplished, he'd jump off once more and resume a more entertaining activity than watching the back sides of smelly, sweaty animals.

II) Rust Belt:

No, I am not referring to those areas of the United States where industry has declined. Rather, I speak instead of the bane of wheat farmers: Leaf and stem rust. Rust is caused by a fungus, most commonly *Puccina Graminis*. It has plagued cereal grain production throughout history causing significant reduction in yields as well as the quality of the grain that is harvested. It is not as serious a problem today thanks to the development of rust resistant varieties.

One day long ago, Carl Geier hooked up his binder to cut a field of wheat. He had been watching it all summer; a season with plenty of rain at the right times. He estimated a very good yield, maybe as much as 50 bushel to the acre. He drove out to the field, likely thanking the good Lord for the blessing, and began to cut. As he looked back to see the first bundle exit the machine, he was dismayed to see it blow away with the wind. Wheat is a heavy grain. If of good quality, a bushel of it can weigh 60 pounds or more, so a bundle should easily stay were deposited. Carl hopped off the machine, plucked a few heads of grain and rubbed out the kernels. Some heads had very few and most were shriveled and small. Turned out to be a very bad year for wheat rust.

III) Threshing Bee:

Back in Carl Geier's day, cereal grains like barley, oats, rye, and wheat, were harvested in three labor intensive stages: Cutting and binding, shocking, and threshing. Cutting and binding was accomplished with a machine appropriately called a reaper-binder. One is pictured in the middle frame above. This has a reel and a sickle bar like a modern grain head for a combine harvester. The cut stems fall onto a canvas bed which conveys them to the binding mechanism. This mechanism

bundles the stems of grain and ties them with a string (binder twine) to form a sheaf. Once tied, the sheaf is discharged from the side of the binder to be picked up later by the stookers who piled the bundles vertically into shocks. When the grain is sufficiently dry enough, the shocks were then ready for threshing. Grain threshing was usually a community event since very few farmers owned a threshing machine (pictured above right). This behemoth was moved to one location on the field. Workers would then go and pick up the bundles, and pitch them into a wagon to be hauled to the thresher. There the bundles would be tossed into the working belly of the beast that separated the grain from the chaff. The grain flowed into a hopper while the chaff was expelled in a great arching stream to form massive piles of straw. Today, one may still find these threshing machines, rusting relics of yesteryear, lying abandoned and forlorn.