Agricultural Department

Care of Farm Machinery.

We have heard competent machinists say that fully one-quarter of the value of machinery was lost by a failure to keep the bearing-surfaces well oiled. Our observation is that farmers, as a rule, use too much oil on the bearings of farm-machinery and to the detriment of the bearings. They put on large quantities of oil, but not sufficiently often.

The use and value of oil are to keep the surfaces apart, so they may not grind, and to furnish a medium upon which they may slide or roll upon each other, with the least possible friction. To do this properly, judgement should be used. If too much oil be given, the surplus immediately runs away, and is lost; if not enough is given, the bearings run and wear upon each other, and are soon destroyed, or rendered so loose as to become comparatively worthless. So, the first thing to be considered is the exact quantity of oil to properly lubricate the surface without waste, and the time in which the oil will be worn away, which will be in proportion to the swiftness of the motion.

According to experiments in France, the friction of wooden surfaces rubbing on wood amounted to from one-quarter to one-half of the force employed. The friction of metal on wood was something less; while the friction of metal on metal surfaces was from one-fifth to one-seventh. Hard, applied to wood on wood, reduced the friction from one-tenth to one-twelfth of the power required to move the surfaces dry; and, on metal running upon metal, the friction was reduced to one-half of what it was before.

One of the best substances for lubricating cast iron, running upon cast iron that we have ever used is oil or lard and black lead—plumbago. The best lubricators for wrought iron axles and journals for filling bearings of machinery is pure oil, entirely free from all gummy substances.

If machinery could be kept entirely free from dust and other grit, the bearings of journals would last indefinitely. This is, however, impossible to do perfectly; but, by keeping the boxes through which the journals pass carefully covered, and by the daily wiping such particles as may get at them when oiling, great waste of power may be saved, and the value and usefulness of machinery prolonged. A case in point will suffice for all.

Good wagoners always wipe the axles of their wagons before they re-oil them; they feel, however, wipe the boxes; and yet the one is as essential as the other, and one is as easily done as the other. Take a small spindle to fit the hole in the hub. Cover it with a piece of cloth and twirling it within the hub, it is easily cleaned. This will keep your wheels true for a long time, and save much labor to your team and vexation to yourself.

Manufacturers and those who use machines well know that implements and machinery will last more than double the length of time for some farmers than for others. The reason is simple: They are carefully oiled, and as carefully kept when not in use; for any man who is careful in the care of machinery when in use is fully as sure to care for it when not in use. Such men, for instance, never have trouble with the earth holding on their ploughs: they never spend half a day scouring their ploughs on the road, in the spring; their ploughs are always bright winter or summer. Then, when the ploughs have done their spring work, clean them thoroughly, and paint the bright surfaces with kerosene and lampblack and put them where this coating may not be rubbed or gone washed away. When the bearings of machines get gummy from the use of bad oil, they clean these also with kerosene, and are always particular to get only the best oil when possible. There may be a great deal of money and horse-flesh saved by proper attention to and cleanliness in oiling farm machinery, and in properly caring for it while not in use.—*Chicago Tribune.*

The Bearing Year of Apple Trees.

The New England Farmer adverts to the fact that apple trees, as a rule, produce the largest crops in even years, and few or none in intermediate years, and remarks that the problem of controlling the bearing year of his trees is the most important matter for the apple grower to consider. The fact that apple trees bear most abundantly in the even years is generally known among orchardists, though no very good explanation of it can be offered. In 1871, for example, the crop was so small as to nothing; the 1872 it was so enormous as to be hardly worth having; and while this year it is very small. When there is a crop of apples the vital force of the trees are drawn upon so heavily that little is left for perfecting the fruit buds for a succeeding crop, for these fruit buds are all made the year previous to the bearing year. There are exceptional orchards which bear most heavily in the odd year. One New York apple grower has acres of trees whose habits have been entirely changed by picking the fruit as soon as it was set, thus losing of course one crop. Other orchards have been changed in their bearing year by the cultivation of the soil and by fertilizers. Popular the importance of study of the matter with the view to bringing about a change, in practice.

The Boston Cultivator says:

[illegible] extent of the [illegible] well, so far as [illegible] concerned. For home [illegible] even if [illegible] year—[illegible] operating on apple [illegible] raw and [illegible] forms [illegible] freely paying [illegible] than the cost of [illegible] uniformly [illegible] of the [illegible] of the orchard [illegible] attention [illegible] to the production of [illegible] crop. For