

The Care and Handling of the Self Binder

The following essays were written by students of the Manitoba Agricultural College in a prize contest put up by The Canadian Thresherman and Farmer. While these essays did not win a prize, they nevertheless are full of meat for the wide-awake farmer. They show, if anything, that the average agricultural student is just a trifle more familiar with the self binder than any other piece of machinery, and that he devotes more time and attention to it than any other farm implement.

By H. E. Potter.

The care of farm machinery in this country should be an important object, for several reasons. The present advancement of immigration shows that the West is going ahead in agriculture, and for that reason there will be a large amount of farm machinery needed. At the present time most of our machinery comes from the East or the United States, which makes it expensive. If machinery is properly cared for it is almost sure to last nearly double as long as machinery improperly used. The main thing in caring for machinery is shelter. People sometimes ask why the machinery of this country gets old looking so quickly. It has been given by good authority that 75 per cent of farm machinery stands in the fence corners or right where they are last used until they are needed again. How then can we expect our machinery to stay new looking very long? Ploughs are often left with mould boards covered with dirt, binders with the reel left on to warp all out of shape, and drill shoes all mud which is sure to rust them. Besides this care of the cheap machinery, the expensive one doesn't always seem to be cared for much better. Threshing outfits, which cost \$3000 or more, are often left right out in the open from one threshing time to the next without even caring for the drive belt or things which are sure to get out of order. Now an implement shed is going to cost considerable, but it is cheap in the long run when the cost of the machine is considered. Just a shelter to stop the sun's rays is a great advantage, even if it does not stop the wind.

The most important time of year in farm work is the harvest time, and for that reason I consider the binder the most important implement. Years ago the farmers had just a sickle to cut their grain with but it has been improved on by different machinery from time to time until we have now the great labor saving self-binder. Some people prefer the eight-foot binder, while others prefer the six or seven. Of course, the wide binders are only an advantage generally, as to fast cutting. Early frost and snow occurs sometimes in this country, so the faster the grain can be cut when its ready the better the sample is likely to be. The wide binders have a truck under the tongue to support it, and as most binders have a certain amount of side draft I consider it an important feature. It

not only takes the weight off the horses' necks, but also the side draft.

In selecting the make of binder it is desirable to look it over carefully. A binder needs to be heavy enough to stand the strain without breaking, but not too heavy to handle in the grain. It should be fixed with suitable levers so it can be easily adjusted to cut long and short grain and tie a good round solid sheaf. The way the binder works depends a great deal on the man that's handling it but the best of men can't make every binder satisfactory. Of course, the more a person handles a binder the easier it is for him to understand it. The first time a person drives a binder I think he finds out it is a rather complicated machine to manage. The horses have to be kept going straight up beside the grain, the sheaves need to be

the bolts and having the binder falling to pieces. It is not advisable to cut the grain when wet, but on account of dew or a small shower it is sometimes a little difficult to avoid. If cutting is done when the grain is wet the canvases should always be loosened or the straps are likely to break by the shrinkage of the canvas. Considerable attention should be given to the twine and knoter. Most of the parts of a binder are important, but as a binder was made to bind the sheaves, I think the way the knoter handles the twine is the most important work of a binder. Loose sheaves are an annoyance, both to the driver and the stooker. Whenever the twine breaks the driver has to get off and rethread the needle. This is not a very long job if the twine is doubled and the double end pushed through the needle first, but

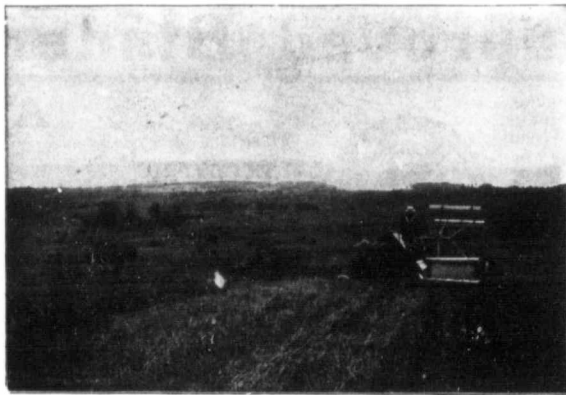
cular difference, as long as they run and carry the grain freely.

Now, considering the cutting finished, the next thing is to leave the binder in proper shape for the next fall. If there is not a shed to put it in it should be put in as sheltered a place as possible. The canvases should be removed and repaired where they need it, then laid away in a dry place where there is no danger of mice getting at them. The reel sticks are better removed and laid down on a flat surface where they will not warp all out of shape. It is advisable to give the knoter a good oiling after using it, then the rust will not affect it nearly so bad and it is left bright and clean to start its work next season. With regard to repairing, it does not make any difference as to cost when it is done, but I think it is advisable to repair it as soon as the cutting is finished. If it's repaired then you know just what parts are affected, whereas if it's left for a while some of the defected parts may be forgotten.

By Earl Smith.

Of all the implements that are used on the average farm in Western Canada there is none that requires greater care in managing than the binder. It is an implement about which there are a great many parts to become worn or broken, the speed at which the parts travel and the constant vibration that the machine is in while in motion, all go together to make the binder one of our hardest implements to operate.

We will suppose that the binder has been housed comfortably in a weather proof implement shed during the winter and spring months and that the canvases have been protected from mice and dampness. As the month of July wears on the large fields of grain begin to wear a golden hue and it is then that the farmer begins to prepare the binder for the work that he soon expects to do with it. The machine is taken from its position in the shed into a larger space and there given a thorough overhauling. All the canvases are taken to a competent harness maker and all broken straps and slats are replaced so that they are strong and ready for a season's work. The knoter is one of the most important parts and this is given a thorough overhauling. A new bill hook is probably needed, the disk may be worn or the knife dull. These should all be repaired thoroughly as there is perhaps no part of the binder on which more work is laid than the knoter, and a



Easy Sailing and a Clean Swath.

dropped at the right time or they will get out of line and the twine, canvases, and dozens of other things all have to be watched to keep them going properly.

In the morning before starting the machine into operation, of course, it has to be oiled. It should be gone over carefully so that any of the parts will not get overlooked. If some of the less important parts are missed once it will not make any difference, only extra wear on the machinery, but if a boxing on the main shaft were let get dry it would heat and melt the babbit from the boxing in a very few minutes. After the oiling is finished I think a good practice is to take a look over the binder and tighten up all loose nuts. This may be looked upon as unimportant and waste of time, but there is very little time wasted compared with loosening nuts off

it all takes time. The knoter should be made tie fairly tight and the frame adjusted so the sheaves will be tied in the middle.

The height the stubble is to be cut depends a great deal on the length of grain. It is not advisable to cut too high, however, as the long stubble will make considerable work for the plows in getting it turned under. When the field of grain is practically all the same length the reel can be set and left practically the same, but if the length of grain varies the reel has to be shifted or there is sure to be some heads missed. It is better set just low enough to catch the heads nicely, because if it's set lower when the speed goes up a little, the heads will be thrown in on the table and it will make ragged sheaves. How tight the canvases are put on the rollers does not make any parti-