

Identification of Repair Parts.

After a man has spent years in the repair department of a large factory he becomes quite expert at filling very vague and indefinite repair orders. When a new man takes his place he has to spend much time solving these puzzles. Meanwhile much valuable time and money is lost both to the factory and to the customer. Delay is costly and annoying, and in nearly all cases a more explicit description of the part would have eliminated the trouble. Example, an order by telegram reads: "mail by express one sparker wheel." Repairs had been ordered by this customer before and so his engine number was found on referring to the records, still the shipper could not decide exactly what he wanted; the repair list contained no part of that name. Two solutions were possible, (1) a roller, which was part of the igniter; (2) a roller, which was part of the magneto with which this engine was equipped as the office record showed. Many people call both magnetos and igniters sparkers. They were cheap parts and he might have sent both and probably got into trouble at the same

time. He took the safe course and wired, "Give number from your repair list." This cost the company 85 cents as also did the reply which read, "Mail roller six five for engine two three six nine." This identified the engine and the part correctly. The customer in this case, as in hundreds of similar ones, could have saved time and money. Cases like this make people say the farmer is a poor business man.

Another man wrote saying how delighted he was with his engine, and ordering at the same time a new exhaust valve. The repair list accompanying his engine had at the foot of every page, "Give engine number when ordering repairs." He might have bought the engine from a local dealer now out of the business, and, therefore, no record of the transaction could be found at the factory. The company probably made several tractors of all sizes as well as portable and stationary types. Besides this remember that new models are put on the market from time to time.

What do the factories consider adequate information? They must have two things, if they have these the repair

can be furnished promptly or else their system is at fault. First, they require the serial number of the engine. This determines the size, type, date of manufacture, etc. Second, the particular part should be identified beyond the shadow of a doubt from the repair list number or by a sketch of the broken part. Suppose a cam was required; it could be laid on a sheet of paper and drawn around with a pencil and with the engine number it could be procured.

Remember that your engine is one out of thousands, and that changes and improvements are being made almost every year, so that efficient repair service is a very complicated problem at the best.

With smaller farm implements the problem is simplified to a large extent by the fact the local dealers usually carry a large stock of repairs. A man drives to town with the broken part and has it replaced with no trouble. With threshing machinery much precious time is lost every fall through downright carelessness. Remember it is very easy to blame the other fellow, but is it always his fault?

Canada's Young Farmers and Future Leaders.

Topics for Discussion.

Each week we shall announce topics for discussion in this department. A start was made last issue. Four topics will appear each week during the winter season, with the dates upon which manuscript must be in our hands. Readers are invited to discuss one or more topics as they see fit. All articles published will be paid for in cash at a liberal rate. Make this department the best in the paper. This is the boys' and young man's opportunity. Here are the topics:

1. The Literary Society.

This is a big and important question. Every community should have such an organization but many haven't. Tell readers of its value. Explain how it is managed and methods used in starting it as well as how interest is maintained. Do you have debates? Are short addresses successful? There is room in this subject for the expression of new ideas. Get copy here by December 9 for this topic.

2. The Farmer's Club.

This is a topic for many of our readers. What was said about the Literary Society applies to this topic. Outline the organization, the operation and benefits of the Farmer's Club in your community. Give suggestions as to its improvement. Copy should be in our hands by December 16.

3. Field Crop Competitions.

This is a big subject and one in which hundreds of our young men are interested. Tell us frankly what you think of field crop competitions, the rules, the judging, the effect upon crop production. If any improvements are necessary suggest them. Copy should reach us not later than December 23.

4. What is Wrong With the Community?

Discuss social, financial and other problems from a community viewpoint. Why have so many young people left the land? Why does almost every boy tire of his rural surroundings at some time in his early life? Is there a lack of proper social intercourse? Is there a lack of co-operation between the different members of the community? What is wrong? What is the remedy? Articles on this topic should reach this office by December 30.

How Many Birds do You Know?

EDITOR "THE FARMER'S ADVOCATE":

One of the several opportunities offered to farmers' sons to a far greater extent than to their city cousins is that of becoming acquainted with the birds of their country, and yet how very few do we find who are availing themselves of that opportunity. Thomas McIlwraith, in his "Birds of Ontario," describes three hundred and seventeen wild birds that have been seen in this province, and yet it can safely be said that only a very small percentage of the boys who live in the country can write out a list of fifty of our birds that they can name properly and identify in one way or another. To be sure, a great number of the three hundred and seventeen birds listed in Mr. McIlwraith's book are rare visitors in this province, but there are over two hundred that are either permanent residents, regular summer visitors, or pass through the province on their spring or fall migrations.

Books giving illustrations and descriptions of most of our wild birds can be obtained for a comparatively small amount of money, and with their aid even a novice in the study of ornithology can identify the majority of the birds that he may see. From them will be learned that a Great Blue Heron is not a crane, that all hawks are not chicken hawks, and that there is in reality no such thing as a "grey bird." A good plan is to keep a list of the birds seen in a year, and by comparing the lists from year to year, one can find out just what birds live in his locality and what are visitors. By recording the dates on which the birds are first seen one can easily tell what birds to look for at a certain time. At first the beginner will find that there are many birds he cannot identify readily, because of the fact that he has been

unable to see them plainly, but as time goes on he will learn to distinguish the majority of them either by their markings and colorings, their habits of flight, their songs or their individual peculiarities. He will know when he hears a shrill, plaintive "Oh dear, Canada, Canada, Canada," that it is a White-throated Sparrow that is advertising his summer home, he will learn that the members of the Woodpecker family fly "steady by jerks," and that the bird that teeters up and down on the shores of the ponds or creeks as if it were not evenly balanced, is a Spotted Sandpiper.

The busy seasons of the student of birds are the spring and fall migrations. By now most of our summer residents have flown south, but there are still enough birds left to provide interesting study for any boy who cares to watch them. Even in winter-time there are several different birds to be seen besides the omnipresent English Sparrow. A handful or so of poor grain or table scraps put regularly in a certain place will soon attract many of our winter residents, and anyone who takes the pains to do this will find that, like Freckles of the Limberlost, the pleasure they get from watching the birds will more than repay them for the slight trouble they have taken.

Halton Co., Ont.

F. B. H.

Experimenting With Farm Crops.

EDITOR "THE FARMER'S ADVOCATE":

Would the world be in the position it is in to-day if it were not for the different experiments that have been carried on down through the ages? We would have no telephones, steam engines, automobiles, aeroplanes, and the numerous other inventions which have brought the trade and commerce of the world to its present advanced state, and then we hardly dare think of the many improvements which may come in the next hundred years, due entirely to experimenting.

To succeed, the farmer must experiment as well as any other businessman. Thanks to our District Representative, I was this year persuaded to make some tests and the information I received paid me well. I experimented with nine different kinds of oats, seven different kinds of corn, four different kinds of spring wheat, three different kinds of barley, two kinds of spring rye, two kinds of buckwheat, three varieties of beans, and two of alfalfa. Besides this I had an experiment with thin and thick sowing of oats.

As this was a very busy summer and help was scarce along about harvest time, I did not get the weighed-up results of all the different kinds I tried, but the eye when practiced is nearly as sure as the scales, and even if I didn't get weight by pound I have my own ideas as to which is the best and which will do the best on soil in this locality.

The first experiment I mentioned was oats. For trial, I had O. A. C. No. 72, O. A. C. No. 3, Banner, Siberian, Abundance, Daubeney, Storm King, Early Dawson, (white oats), Joannette, and Pioneer (black oats). The first three mentioned were put in plots one rod by two each, then the rows were about eight inches apart. They were all hoed three times during the summer, and kept as clean as possible, giving them as much chance as possible to do well. The other seven varieties mentioned were put in two rows, each one rod long. Of the first three the O. A. C. No. 72 had by far the greatest bulk of straw, although in yield the Banner surpassed them. The O. A. C. No. 72 were also a little more inclined to rust and lodge than the Banner. However, for straw, the O. A. C. No. 72 had the Banner beaten. The O. A. C. No. 3 are not a heavy strawed oat, or not a heavy yielder, but they fill the bill for which they were originated, namely, an early oat to ripen with barley, this they did, maturing in exactly the same number of days as the No. 21 barley. This was certainly information worth having, but the chief feature of the O. A. C. No. 3 was their beautiful appearance. Right from the time they came up until they were threshed, there wasn't another kind of oats could touch them for general appearance. They all grew just the same and when ready to harvest were just as level on top of the plot as if they had been trimmed. The straw was also as white as if they had been bleached. The grain presents a good appearance after being

threshed, but they will not fill the mow or granary as last as the other two varieties.

The other varieties I tried more for their stooled qualities. The Siberian was a very good stooled, something similar to the O. A. C. No. 72, in fact you could trace the relation between the two oats. The Abundance was a very poor stooled and when sowed at the same quantity of grain per acre as the others, proved a light crop. The Daubeney was a good stooled, an early oat, and the relationship between it and the O. A. C. No. 3, could be easily traced. The Storm and Early Dawson were both, in my estimation, poor oats, light yielders and very heavy in the hull. When I sowed the two kinds of black oats, I was told one was very good and the other very common. This I found out, the Joannette being a very good yielder with a thin hull, while the Pioneer was a coarse, short-strawed oat, a poor yielder with a heavy, thick hull.

In the corn I had seven varieties. I tried this experiment out last year and the results were comparatively the same, although I had a heavier crop this year than last. The results were as follows:

Kind	Lbs. silage	Lbs. husked corn
Bailey.....	48	12
White Cap.....	49½	13½
Golden Glow.....	56½	19½
Wisconsin No. 7.....	45	18
Longfellow.....	42	13
Saltz North Dakota.....	43	11
Comptons Early.....	43	12

In weighing this corn the same number of stalks of each were weighed and husked, and in selecting, as nearly an average of each variety as I could get, was taken.

The spring wheat was something new to me. We never tried to grow it before. For varieties I had Marquis, Colorado, Wild Goose and Polish wheat. On account of the lateness and wetness of the spring, the wheat was late maturing. Wild Goose gave the best results, Colorado came second, Marquis third and Polish last. The Polish wheat was a great curiosity in this part of the country, and created a great deal of interest among the people who visited the plots during the summer.

The barley I tested out was of some interest, O. A. C. No. 21 giving the best results, California Brewing barley came next and Guy Mayle (a hullless barley) came third. The O. A. C. No. 21 took the longest of the three to mature, being three days later than California Brewing, and two days later than Guy Mayle. The O. A. C. No. 21 barley matured in the same number of days as No. 3 oats. These two varieties would make an extra good mixture for mixed grains.

The Ontario Agricultural College has originated a variety of spring rye which they advocated as a splendid yielder, and the grain is of extra quality. I tried out O. A. C. No. 61 spring rye and common spring rye. My plots were one rod by two rods and I must say the O. A. C. No. 61 is a good variety. It will yield nearly half as much again as the common spring rye, and the grain is much superior. I think that it could be profitably sown with O. A. C. No. 21 barley and O. A. C. No. 3 oats as a mixed grain crop, as the time for maturity is nearly the same, there being only a day or so difference and I do think that the grain would be valuable for hog feed.

I had two different kinds of Buckwheat, Rye Buckwheat, and Silver Hull. Personally I liked the Silver Hull. It probably would not turn out as well but the appearance of the grain was much better. It also grew up taller and was much easier to harvest.

As for beans, I had Pearce's Improved Tree Beans, Yellow Eyed beans, and Common tree beans. Pearce's Improved Tree beans were my favorite, Yellow Eyed beans were second and Common pea beans third. I liked Pearce's Improved Tree variety because they grew up well and the pods were very seldom on the ground.

For alfalfa I had Grimms Variegated and Northern

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