

grains, but I don't want it. I tried up to three and four kernels and it takes longer to ripen. Two trees may be planted in one hole with as equal prospects of success as two grains of corn in one hill. If you want fodder that is another story. To finish this way deep plowing may to some extent take the place of cultivation, but cultivation, however intense, can never take the place of deep plowing. I don't say this because I am bigoted; I only want the truth. I take hours to go back and forward to see how many experts decide on that question. Then I reason it up and try it in a small way. There are very few writers who "hit" this part of the country.

Corn and all alfalfa is what we shall have to depend on here. We have peculiar seasons. I have seen some springs here very dry. Last year was the only year out of four that I saw the prairies green all summer. Corn will make a good summer fallow using judgment for the season. I tested it last summer to see if there were not as much moisture in corn land as a piece I fallowed. It was a piece of land in which the wire-worms ruined the corn in the spring. I turned to and gave that piece that the wire-worm ruined, a thorough discing. I know the moisture stood at the top of the subsoil all summer. There is something to take note of here. If we have five or six weeks of hot dry weather, a man wants to watch how the moisture is in under the dust mulch. Sometimes evaporation is rapid. It will cause a crust to form and establish capillary movement and evaporation. Then one should get a disc or cultivator and break that crust. I found last fall when I plowed that where I had grown corn it was as moist as where I fallowed. I wanted to prove what Prof. A. M. Ten-Eyck, of Kansas, says; namely, "In the year 1900 all extra cultivation failed to increase a crop on wheat land. Land which had grown corn the previous year without extra cultivation gave a yield of 25 bushels of wheat to an acre. Wheat after potatoes yielded 24 bushels to the acre, while the wheat land beside only gave 7 bushels to an acre, while wheat after cultivated summer fallow gave 29 bushels to an acre."

If we can grow Will's Gehu (a Dakota corn) in 70 or 80 days, we can get two crops out of three without a fallow, we can put our land in clover if only for one season and we can plow it in and improve the soil. The reason why I have written so much on corn is that it has been raised in the driest years in Colorado. E. R. Parsons said he could hardly believe it until he tried it, but it grew with only three inches of rainfall.

You must look ahead for this dry country, else it may be like the early history of Colorado. Keep on digging on alfalfa, corn, brome grass and rye grass.

Medicine Hat, Alta. WILTSHIRE LAD.

#### Taking Wild Oats from Seed Wheat.

EDITOR FARMER'S ADVOCATE:

The time is now at hand when seed wheat will be run through a mill, and to those farmers who own a Chatham mill, and are dissatisfied with the poor job it does in taking out wild oats from wheat, the following plan in running it will make it do satisfactory work; in fact it will do as good work as any machine on the market, and as good, if not better than the vaunted oat separator, that only gives a 99 per cent. job. A man wants a 100 per cent. job when he has to deal with wild oats.

Place the sieves according to instructions for cleaning spring wheat for seed, and when putting in the top sieve take a piece of calico or a flour sack and put it entirely over the top sieve. Press the sieve into place. Lock up. Then take a pair of shears and cut away the cloth along the sides till about half way. Then cut across the cloth half moon shape so that about one third of the sieve is covered. The cloth is then under the hopper and extends from it a short distance. The result is the grain from the hopper falls on the cloth and is shaken gently along; the wild oat has time to get on its side and slide gently along the sieve and go over the end. All the trouble is in dropping from the hopper. The wild oat will drop through. Put seed through twice and the grain will be clean and so free of wild oats that one can easily pick out the odd wild oats when treating the seed with formalin. There are farmers who know about the use of a cloth on the sieve, but there are many who do not. The writer never heard of it and had to study the problem for himself. I watched the mill and saw where the weak point was and tried the cloth and did a first class job.

There are many farmers who have Chathams lying around and don't use them, but have an improved machine. To those who have a Chatham and have got to use it, or who contemplate buying another machine, try the cloth on the top sieve first; put the seed through twice; use judgment in running it; and do not turn too fast or run the grain through too fast. Clean seed is one great help to a clean crop.

I guess this plan of using a cloth under the hopper would apply to any machine if the construction were on something like the same plan. Valley River, Man. L. BROWN.

#### The Annual Meeting of the Winnipeg Industrial.

The sixteenth annual meeting of the shareholders of the above association was held in the City Hall, March 1, for the purpose of hearing the report of the president, manager and directors and to elect new directors. The following constitute the 1907 directors, who at a subsequent meeting re-elected George H. Greig as president; G. H. Greig, I. M. Ross, D. E. Sprague, Wm. Brydon, Wm. Whyte, A. A. Andrews, Sanford Evans, F. W. Drewry, Wm. Martin, A. L. Johnson, J. E. Ruby, Daniel Smith, G. J. Maulson, G. F. Galt, J. T. Gordon, Joseph Maw, Hugh Sutherland.

The statement of receipts, and expenditures shows that careful management has enabled the association to turn the corner and start upon an era of prosperity.

The statement of receipts showing a total of \$77,556.86, included the following:

By shares, 1st and 2nd call	\$ 28.00
To grants—	
City of Winnipeg	7,500.00
Provincial Government	3,500.00
Subscriptions to prize list—	
Dominion Shorthorn Breeders' Association	750.00
C. P. Railway Co.	388.00
Dominion Swine Breeders' Ass'n.	200.00
T. Eaton Co.	200.00
Lord Strathcona and Mt. Royal	100.00
Imperial Bank of Canada	100.00
The Oglivie Flour Mills Co.	100.00
Robinson & Co.	70.00
The Holstein-Friesian Ass'n.	50.00
The Canadian Hereford Breeders' Association	50.00
D. R. Dingwall, Ltd.	50.00
McLaughlin Bros.	50.00
The Canadian Ayrshire Breeders' Association	25.00
The Canadian Hackney Ass'n.	25.00
J. Y. Griffin & Co.	25.00
The Western Packing Co.	25.00
The Canada Malting Co.	25.00
Miss Campbell	5.00
Total	\$2,526.00

To Miscellaneous (including proceeds sale of dairy exhibits, \$1,178.05)	\$4,980.21
Entry fees	4,816.65
Rent of grounds on percentage	277.05
Privileges	12,049.60
Advertising	1,243.00

Admissions—	
Gates	\$18,636.75
Season tickets	619.00
Six for \$1.00 tickets	2,647.00
Grand Stand	14,303.85

	\$36,296.60
Dog Show	289.10
Art Gallery	222.40

	511.50
1905 Accounts	1,500.00
Lighting	328.25

	\$77,556.86
Balance	2,394.54
	\$79,951.40

The expenditures for 1906 included the following for prizes: 562 horses entered, \$4,312; 183 purses, \$6,902.75; 40 cattle, \$3,679; 148 sheep, \$558; 266 swine, \$1,138; 873 poultry, \$765.75; 151 dairy products, \$866.75; 52 agricultural products, \$605; 13 plants and flowers with specials to professionals, \$256; 26 birds and honey, \$42; 563 ladies' work, \$400; 342 fine arts, \$488; 66 schools and children's work, \$187.50; 114 dogs, \$330; Driving club, \$300; trap shoot, \$150;

prizes for athletic sports, \$137.75; Market Gardeners' Association (for display of vegetables), \$300; prize badges and ribbons, \$223.70; medals, \$228.50; diplomas and engrossing same, \$140. cups, \$253.

The slight decrease in the amount received for admissions is easily explained by the fact that the duration of the fair was but six days, whereas in 1905 it was eight days. On Thursday, Citizen's Day, the turnstiles registered 44,000; thus without estimating season ticket and pass holders, the attendance exceeded by 12,000 the largest one day's record of any previous exhibition, which was 31,241 in 1905. Unfortunately the weather was most unfavorable on Americans' Day, rain falling continuously.

It is the intention of the management to get over some exhibits of pictures from the Old Country and also one of the crack naval bands. Improvements are to be made looking to the increased comfort of the live stock men, and better opportunities for bringing their stock before the notice of those attending the show. Greater efforts than ever will be made to make the fair a success and a pleasure to attend.

## POULTRY

#### Incubating and Brooding Poultry.

I want to preface my remarks by saying that in going into a number of precautions, which I may do, I do not wish to appear to frighten anyone with regard to the question of artificial incubation. We have yet to learn a good many things in reference to incubation, and yet it is astonishing the wonderful success that amateurs have in operating incubators.

First, there is the breeding stock from which to secure your eggs, and then there is the care of the eggs from the time they are laid until placed in the incubators, and then the care of the eggs when placed in the incubators. The question of stock may go back a good many generations. If the breeding stock has a tendency to lay eggs that are unfertile, or with weak germs, it is likely that their progeny will have the same tendency. It is not many years ago since most people kept their henhouses closed up, and were inclined to believe that warm henhouses were best. That was a mistake, and we have found that the open air henhouse keeps them in the most vigorous condition, and is one of the best things for securing real, good, strong fertility in the eggs. You should throw open the windows of your henhouse every day. Never mind how cold the weather is; as long as the sun is shining keep your hens exercising in the sunshine. It is the man who is working out in the open air who has the strong, vigorous constitution. One thing you must be very careful about is the feeding of your birds. If you feed too heavily they will lay on fat, and that will injure your breeding prospects during the next season. After you have got your eggs, the hatchability is considerably affected by the temperature to which they are exposed. It has been ascertained that the germ in the egg will incubate at the temperature of about seventy degrees. If the egg has been kept at a temperature of above seventy the germ will slowly incubate. Where we have a temperature running up to eighty and ninety, you can easily understand the damage that is done. Considerable damage may be done to eggs shipped long distances by being placed close to the stove in the express car. Then they are taken out of the car and cooled for a day or two before being placed in the incubator. On the other hand, eggs may be too cold. In the winter time you must be careful to gather your eggs two or three times a day, so that they will not be chilled.

Then the question comes of handling the eggs in the incubator, and that is a subject for a whole evening's address. If you have good strong eggs and place them under a hen, you are almost certain to get a good hatch. It is an extraordinary thing, an incubator may do well one month and the next month fail entirely. I do not think I will go so far as to say it is entirely the fault of the machine, but there is something in the conditions under which these incubators are operated that affects the hatch. Then there is the question of the temperature under which we should run these incubators. I would not advise anybody to run an incubator in any other way than under the directions of the manufacturer. He is supposed to know his incubators best. If you do not have the results that you think you are entitled to, then you should begin to experiment on your own account, and one suggestion I would make is to run your temperature a little higher than the ordinary incubator manufacturer directs. I have found that to be an advantage, especially when one comes to deal with the other side of the question, to have the minimum loss in the young poultry. You may have splendid hatches, but if your mortality in the young chicks be considerable after they are hatched, every