Make Money by Reducing Expenses

J. H. Grishale, Director, Dom. Exp. Form, Ottawa In the last 12 years, by the introduction of largo machinery, we have reduced the whole cost of farming operations at the Central Experimental Farm by nearly one-half. We have out off at least 40 per cent, and at the same time we have increased the returns from these fields by 100 per cent.

The two-furrow plough will cut the cost of ploughing in half if we have the right kind of horses. A man with a single walking plough and two small horses can do only so much pleughni: in $\pm day$. Let us suppose it is 1.5 acres. I know that with three good heavy horses, such as every farmer ought to have, we can plow three acress with a two-furrow plow and it will cost only half

as much an acre. If plowing an acre with a single plow cost \$2 I believe that with a two-furrow plow it will cost only \$1. That is our experience at Ottawa. And if we use a steam plow or traction engine it is cheaper still, Lut I do not say that it is a dvisable for the ordi jary farmer to try 'hat. We find we can plow the land for less than \$1 an acre by gasoline or steam. But every farmer ought to have a tvofurrow plow.

IMPROVEMENTS IN THE DISK PARROW When we get the land plowed the next thing is to disk harrow it. suppose every farmer has a disk harrow. It has undergone a revolution in its construction. The average disk harrow of 20 years ago was a little bit of a thing with 12 or 14 disks that joggled along on top of the ground and we thought it was doing fine work. The disk harrow we have to-day is as much superior to the common old disk harrow as the first disk harrow was to the stiff tooth harrow of 20 years ago. We have disk harrows to-day that will cut the cost of cultivation in half. We have large disk harrows for three horses and four horses.

It costs us to prepare the land ready for the seeder 90 cents an acre with a small disk harrow, 70

cents an acre for the three-horse disk harrow and 45 cents an acre with the big disk harrow, double cutaway. The large harrow costs a very little more than the common disk harrow. If there are holes or stony portions it all miss little spots, but the double cutaway disk harrow works satisfacicrily and will do the work in half the time that a single disk harrow will, and it will do a better job.

EFFICIENCY JUST ONE-HALF

How many times have we seen a farmer walking behind an eight or 10-foot harrow and a good team in front when he might as well have been walking behind a 20-foot one. There is not even the excuse of uneven ground because the harrow undulates. Of course that is objectionable in a small field.

Then again we should use big harvesting implements as well as big seeding implements. Up to three years ago we used at Ottawa at 22-point marker for the seeder. Three years ago we introduced the 20-point marker that does just about twice as much as the 12-point. We used to be able to sow 10 acres with one man and two horses; now we sow 20 acres with one man and three horses and do the job just as well.

Now don't these look like big figures? They

FARM AND DAIRY

are startling. But any of us can apply them on our own farms to-day. If our farms bring in \$1,000 is in to worth while considering changes, which, by a gradmal introduction, will cost practically nothing, can bring the income up to \$1,500or \$1,000, and do the work at less cost. These are considerations which are worth every farmer's attention.

My Favorite Implement T. Baker, Durham Co., Ont.

There are many farm implements that commend themselves to my admiration, but of all up-to-date farm machinery the seed drill is one of the most useful, time and labor-saving implements we have. When the writer was nine or 10 years old, which is nearly 50 years ago now, as soon as



Deep Plowing Calls for Great Power and Improved Implements

Our farmers are getting away from the idea that shallow plowing is desirable on all solls. We realise that on cortain solls deep plowing that increases the space savailable for root growth and enables the soil to retain a maximum amount of moisture. Is better than euting a this furrow. The disk plow and traction engine as here illustrated makes very doep plowing easily possible.

sowing started he was compelled to quit school and follow the harrows. Some land at that time was single plowed, some plowed light with the gang plow and for much of it a heavy pair of harrows was used before seeding. Then the grain was sown by hand. I followed with the harrows. If grass seed was sown the men sowed that the opposite way from the grain. I again followed with the harrows.

I have sown many hundreds of acres of grain since with an up-to-date seed drill; cultivating and sowing the grain and grass seeds with once going over the ground, one man doing as much and better work in one day than one man could do in three days in the old way.

AIDS IN EARLY SEEDING

It is an incontrovertible fact that the soner grain and seeds are sown after land is ready, the more sure we are of a good stand and a good crop. The seed drill enables us to finish seeding much sooner than the old way. This is a great preuniary advantage as we get a better crop, besides having more time to devote to other pressing work.

A seed drill can be used for many purposes besides sowing grain. With the spring teeth it (Continued on page 14)

June 6, 1912.

Conveniences in My Stable* S. A. Northcott, Ontario Co., Out

It is profitable from a financial stand joint, but ter for the stock, and a great deal easier and sate factory for us farmers who look after stock we have modern conveniences in our stables. For carriers, litter carriers, water arstems from whis stock can get their supply at will, and cenus floors, are things that can be added to any stak at a comparatively small outlay; especially if the work is done in winter or alack time.

The cost of these conveniences will deped a good deal on the layout of the buildings. If *i* person is building a new barn provision shauld be made for modern conveniences and the state arranged to be convenient. I observe, haveen, that buildings built some years ago, although

substantial, were not as a rule built with an eye to convenience. I have had to deal with one of these Larns.

JUST WHERE IT IS WAYED. I have rearranged my barn as stable so that feed and stras ca be put down where it is handy to use in the stable. I also have 1 meal bin (capacity 150 bushea) in a convenient place in the stable, into which the meal runs by gravity from the grinder in the gravary above.

Ensilage, cut feed, roots, etc. are all conveyed from the feed row at the end of the stable to the soci by means of a feed carrier of m own manufacture. Those on the market were far too small to reit my requirements, and with the us I have one person can feed a larg number of cattle in a short time. This carrier, including time is making at §2 a day, cost §8. The track, which is steel, cost eight cents a foot, including hangers. DOBSN'T REMOLE & WHERLAMENT

I have a Beatty Bros. line carrier and track all through is stables, box-stalls, and pig per The manure is drumped direct fra the carrier on to sleighs, truck or spreader, taken direct to the field and spread. In cold wather the load is kept in a slod. At

other times it is outside and the carrier is ra out on a swing pole. This carrier adds enjoynent to a part of the chores that otherwise is draded, especially when a wheel barrow has to be run through snow banks or mud.

The floors in my stables were at first pavel with cobble stone. It was impossible to main them absolutely clean. I have had these floor all covered with coment. Cleaning the stables is now an easy matter.

These improvements I have mentioned add : great deal to the conveniences of the stable. But none of them are equal to a complete water ustem. I use both well and eistern water. The power windmill on the barn pumps the water from the barn well into an elevated tank in the barg and the pumping windmill at the house pump the water from the house well into the house tank are to the barn elevated tank is desired.

I have galvanized basins Letween each pair of cattle. The basins are kept nearly full by mean of a float which regulates the inlet valve in the feed box. The feed box receives its flow from the (Continued on page 14)

*this is one of the series of articles that Mr. Noth cott will write as required of him by the rules of the Interprovincial Prise Parms Competition conducted by Farm and Dairy in which he was a successful comption.

June 6, 1912.

My First Seas

R. A. Penhal we bought our mi est of June. It is ed it as our busine travelling, up to the iles, with a total cas We always drove the R when we wanted it cle urselves. We had uble in learning rive. After the this time out we felt able handle the car with air degree of prof ney and took all ur instructions fre the book that can with the machine. Frequently when t

ams were busy on t tarm we used our c te deliver cream a milk to the city a keep our stock suppli with chop and br from the mill. 0 ar is not well aday ed for that kind work, but by exerc ing a little care we plong very nicely an with the team on the portant to keep the getting very loath t ransportation when he auto into requisit s are we enabled to We have a dairy f a sufficient help we to be at home to h with the aid of the

our friends and enjo frequently make roun or two occasions 56 m to our dairy work. ation is available to give our auto credit

The Pr

J. Malcolm,

I used to think t repairs for our imp sher robbery, if we time element that e the broken parts. F bors broke a cog wh er last fall. It loo when the wheel arricents. He came ove After we had talkee down and went hom Here is the way

went to the agent a urally, the agent di was a part of the sp To get it for my ne in Hamilton, Ont., \$ cents. When the had to be taken for that repair, wrap it man; then there wa from Hamilton to agent had to take neighbor on the pl take a few minutes books, and then th my neighbor waste charging 75 cents. Even in the small keeps in stock ther