

to make further and permanent alterations in the plow used for this third operation. The rods between the handles should be taken out, shortened and replaced, thus bringing the handles closer together. The top section of the ditch need not then be so wide as before. It is also wise to shorten the braces that run from the head to the handles somewhat, and the wide section of the ditch need not be so deep as before. I know men who have made these permanent alterations in a plow, which they now call their "drainage plow."

This method of digging a ditch is not given as original, but as one that has been tried and has been proven eminently satisfactory. Men of wide experience, who have used various methods, and who have discarded others in favor of this one, assure me that this is the most economical they have tried. After some practice, it is found that drains can be dug at 10 to 12 cents a rod in clean soil.

The next article will give a method of finishing the ditch-bottom uniformly to the proper grade.

WM. H. DAY.

Ontario Agricultural College.

OBSERVATIONS AT INSTITUTE WORK.

Editor "The Farmer's Advocate":

As a sketch of the doings noticed and gathered during the six weeks spent at Ontario Institute meetings, permit me at first to state that the Counties of Dufferin, Peel, York and Waterloo were visited. The meetings were fairly well attended, and more than usual interest was manifested. The discussions were free and pointed, while businesslike thought was evident, with few exceptions. The continuous progress of agriculture was seen on the surface at most points, but in a few places disappointment is the only word which will fit in properly. That we, as a class, are realizing, as never before, that thought and study of conditions are absolutely necessary to win the possible success, will go unchallenged. Growing crops, however important, is only the first step towards making farms profitable. The question of what kind of stock should the crops grown be fed to, in order to secure the largest returns from the year's labors, is to be studied more and more. Here is where good judgment and searching consideration of the available and best-paying markets count for a good deal.

Another consideration of much importance occupying many minds is, What is the proper kind of an animal for me to have, or breed, to secure the greatest profit in business? In every county the leaders in agriculture are becoming specialists, with the special-purpose animal used to convert the raw products grown (and often added to by purchase) into the finished articles of commerce. Most careful attention is being paid by them to secure the animal machinery which gives the largest returns at the lowest proportionate cost. It is found that for cream production—for city or creamery—Jerseys and Jersey grades are in the lead. For milk, sent to town, city or factory, the Holstein and their grades outclass all others; and when it comes to the butcher's bullock, the Shorthorns and Shorthorn grades head the lists. The latter, properly selected and mated, will produce the high-priced steer and give a paying production of milk which tests well in butter-fat. In Peel a herd of Jersey and Jersey grades were seen, fifteen of them, which for years—before abortion played havoc—returned their owner \$90 per head per annum for cream sent to Toronto. The skim milk fed to hogs made, with roots and grain, several hundreds of dollars, all totalling up near two thousand dollars—all produced on a 100-acre farm. The possible value of skim milk in hog-production was furnished by another Peel dairyman, when he told us that he found ground fall wheat, fed to a bunch of 120-pound hogs, grown to 200 pounds, made him \$1.80 per bushel, no value given for the milk, with the pigs bought and sold at \$7 per hundred, live weight.

A Waterloo tenant-farmer told us one afternoon that the Jersey cow or grade which did not furnish him \$50 worth of cream annually, sold in Berlin town, was not kept in his herd, which numbered above twenty. A second farmer in Waterloo related his experience in feeding barley meal with swill from the home, and water, but no roots. A strict account was kept, when it was found that every four pounds of meal fed to the lot made a pound of gain in weight. The hogs sold at \$6.50, making 78 cents per bushel for the barley fed. Another experiment in Peel, carried on by one of the directors, feeding ground wheat to 90-pound hogs, was certain to give over \$1.00 per bushel for the wheat.

The spirit of investigation and getting at the cost of production is abroad. But what a contrast is met with in some parts. Great successes were noted in Peel, and yet there, in a very excellent-looking locality, the greatest disappointment was met. To find grain-growing and grain-selling still the order of the day was something to stagger a stranger; and the sure consequence was reported. While previously-unequalled prosperity has visited our Province generally, our informant assured us such was not the case among those who yet farm as was customary years ago.

Another party, driving us past a farm long rented, told us that twenty years ago \$5,000 would have been readily gotten for it. Last month it was sold for \$2,706. It is a telling fact that lands, once of the best quality, within driving distances of Toronto, in Peel and York are not worth, and do not bring the prices of bygone years. The temptation to keep on selling whole milk, timothy hay and grains in such a good market as Toronto offers, tends to keep a team or two too often on the road, and impoverish the soil at the same time. Outside of the circle mentioned, the fertility of the soil is given more study, because of necessity often, and therefore land values are not only holding up, but the better farms are held higher as the passing years bring to them greater powers of production as a result of good management.

In Peel and York, abortion in the dairy herds is causing dismay. So far no preventive is known.

Dufferin is progressing in parts rapidly, and at some points slowly. Three grain elevators at Shelburne, with, at times, streets blocked with loads of grain waiting to get unloaded, do not augur well for the future welfare of the district. How growing fall wheat, at 70 cents, on a bare, summer-fallow prepared field, as still practiced, with the hope of making it pay, can be realized, was a conundrum met in more than one county.

Waterloo is progressive and prosperous—signs of thrift on all hands. At Berlin's Saturday morning market, the greatest variety of trading, probably in all America, was seen. The hundreds (and thousands, it seemed to me) of producers selling direct to countless consumers, with no middleman and no protective tariff to curtail the profits, looked like an ideal condition of things.

Summing up all the details of our work, it may be said that we are a contented and pro-

all profit, except the expenses in running a farm. Now, I think this is a good showing, and what I have done others can do.

A PEEL COUNTY FARMER.

Peel Co., Ont.

HOW A 20-SHARE BEEF RING IS WORKED.

Editor "The Farmer's Advocate":

Having read your article re 20-share beef-ring, and the request for information regarding working of same, I may say my husband has done the slaughtering for a 20-share ring for four or five years, so I will try to explain the working of our ring. In the first place, a meeting must be held at some stated place some time before starting. Twenty members must agree to join the ring, and a man must be engaged to do the slaughtering and dividing. This ought to be done at a place convenient for all members to fetch their beef. A list is here made out, with numbers, names and dates on which it will suit each one to furnish a beast, which, in our ring, is to be delivered Wednesday and killed Thursday toward evening, the beef to be fetched home by members on Friday morning each week. Each member is to furnish an animal dressing as near 400 pounds as possible. It is to be stall-fed at least four weeks before slaughtering, and should not be more than two years old. At this meeting a certain price per pound is agreed on to settle up when beef-ring ends; our ring has agreed on 7c. per pound. The man furnishing cattle receives, besides his usual share of beef, the heart and tongue, also the hide, which my husband markets, and out of this he (my husband) retains \$2.00 as his fee. He also gets fat from intestines, etc., and the liver. If members wish to have liver, they must order same when furnishing their beef animal, and they can have it on payment of ten cents.

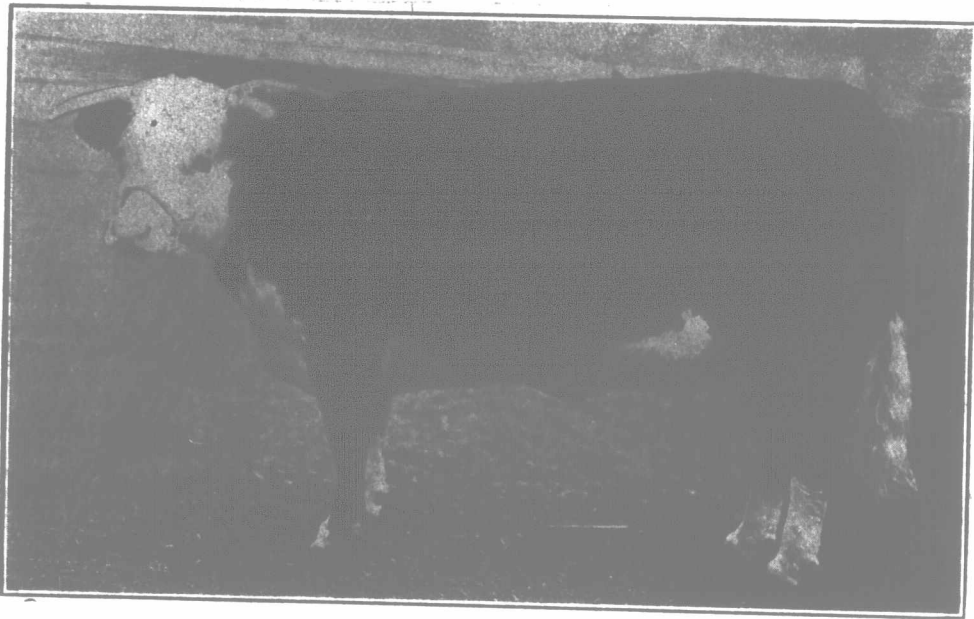
The time agreed to start our beef ring is the second week in June, at which time we always notify members. At time of starting, a list of numbers, names, etc., is tacked up in shop or room where beef is hung up. This is a reference paper for members, as the numbers on this paper show each member the number of hook where he must get his beef all through that season. There are twenty hooks, one for each member, numbering from one to twenty. Member No. 1 always receives his beef on hook No. 1, etc.

Now comes the explanation of the butcher's part.

After killing and dressing, the beef ought to hang for some time to cool off a little. We always cut up same evening it is slaughtered, as many people prefer to come quite early next morning for their beef. I send you our sketch for dividing, by which you see that one-half is divided into ten parts and steak instead of twenty. As you see by the sketch, the parts are numbered from 1 to 10. Nos. 9 and 10 do not receive any steak, as they are supposed to contain steak, so there are only 8 shares of steak cut out, which are divided between the 8 other shares. When we start, the first week we place No. 1 piece of beef on No. 1 hook, etc.

Now, to arrange it so that each member will receive a whole carcass by the end of twenty weeks, we use the following method. The 20 hooks are arranged on 2 x 4-inch scantling, and the scantling arranged in such a way that the air can circulate around the beef while cooling, so that beef will not touch wall. The hooks have nice large, plain figures (we take ours from old wall calendars) pasted above each hook. These are the numbers used by the members, also by person keeping account. At the same time, we have a small nail in wall back and above each hook. On these nails we place small pasteboard tickets, with holes punched in for changing from one nail to next. On this ticket we place numbers made with lead pencil, these numbers to correspond with numbers of sketch of beef. These are the guide for butcher in dividing, and are numbered from 1 to 10. The first week No. 1 ticket goes with No. 1 hook, No. 2 with No. 2 hook, etc. Next week these tickets are all taken off, and No. 1 ticket goes with No. 2 hook, No. 2 with No. 3, etc. This is kept up, and by the time member No. 1 gets ticket No. 10 he has had half a carcass.

At the end of season another meeting is held



Camilla.

Two-year-old Hereford heifer. First prize and reserve champion of the breed, Smithfield Show, 1906. Bred and exhibited by His Majesty the King.

gressive class. The good times are still with us, yet danger signals are faintly in sight. Ontario is held by its people in higher esteem than in the past years. The serious conditions of the Canadian West are not showing well in contrast with our Province and its temperate climate, with its splendid and solid financial foundation. We are, as we should be, a happy people, full of faith in our country, and also in our business on the ever-increasing-in-fertility farms of our good old Province.

J. CAMPBELL.

MIXED FARMING BEST FOR SMALL FARMS.

Editor "The Farmer's Advocate":

Having attended two Farmers' Institute meetings this year, and a great many during the last ten years, I have come to the conclusion that a great many speakers make a mistake in trying to impress on their hearers that their line of farming is the only one in which farmers can be successful, whether it be horse-breeding, dairying, feeding for beef, or something else. Now, I think it takes considerable money and a long time to make a success of any special line of farming, and I think, for the great majority of farmers of moderate means, a system of mixed farming is best. I will give you the sales of the produce of my farm of 100 acres of tillable land and 10 acres of pasture for last year:

2,000 lbs. butter from 12 dairy cows	\$ 600 00
Barley, hogs and other products, etc., etc.	350 00
Carrots and wheel, etc., etc., etc., etc., etc.	50 00
Little Midge cows, stockers, calves, etc., etc.	100 00
Chickens and eggs	150 00
	\$1,250 00

And the feed was grown on the farm this is