

VOL. VIII. { WILLIAM WELD, Editor and Proprietor } LONDON, ONT., DECEMBER, 1873. { \$1 Per Annum, Postage Prepaid. } NO. 12
 { Office—Dundas St., Opp. City Hotel. }

CONTENTS OF DECEMBER NUMBER.

EDITORIAL:—

A Retrospective View, 177; Agricultural Politics, 177; Exhibition Complaints, 178; Statute Labor, 178; The Harvest of 1873—Deficiency of Grain Crop and Supply, 178; Does Farming in the West Pay? &c., 178.

STOCK AND DAIRY:—

What it Costs to Make a Pound of Pork, 179; Feeding Value of Products, 179; The Sheep at F. W. Stone's Sale, 179; No Good Farming Without Stock-Feeding, 179; The Cost of Poor Stock, 179; Devon and Short-Horn Cows, 179; Ayrshires as Milkers, 179; Red Devons, 179; Is Pea Straw Good Fodder? 179; Churning, 180; Fool for Cows, 180; Keep Sheep, 180; Brewers Grain for Cows, 180; Short-Horn Sales, 180; Butter Factory, 180; Perfection in Butter, 180; Improvement and Increase of Stock in England, 180; Prolific Ewes, 180; Hogs—Poisoned, &c., 180.

More Laurels for Canada, 181; Do You Want to Sell Your Land? 181; Prize Essay on Hedges, 181; Pure Cold Air, 181.

AGRICULTURAL ITEMS, 181.

Top-Dressing and Salt, 181; Street Tree Planting in Michigan, 181.

AGRICULTURAL:—

Increased Production of British Farms, 182; Cost of a Bushel of Wheat in Illinois, 182; Subsoiling Land, 182; Insects and Corn, 182; Rotation of Crops, 182; Manure Cellars, 182; The Canadian Barley Crop, 182; Crops of the United States, 182; Farming Experience, 182; Hen-Manure, 182; Better Farming, 183; Agricultural Laborers in Lower Canada, 183; Agricultural and Other Notes, 183; What Subsoiling Did, 183; Manuring Wheat, 183; Salt, 183; Poor Farming in Arkansas, 184; Buckwheat, 184; The Hawk and Heron (illustrated), 184; Potato Crop in United States, 184; The Wheat Crop in Maine, 184; Clover Before Wheat, 184; The Relative Nutrition of Beans and Peas, 185; Seventh Earl of Oxford (illustrated), 185; Farming in Texas, 185; Fattening the Soil, 185; Root Crops Competition, 185; British Wheat Receipts, 185; Australian Crops, 185.

GARDEN & FARM:—Hints for the Month, 186.

POULTRY YARD:—

Poultry in France, 186; Does it Pay? 186; Gapes in Chickens, 186; Fowls Taking Cold, 186; Profitable Poultry, 186.

GARDEN, ORCHARD & FOREST:—

Lime vs. Ashes for Trees, 187; The Cherry as Timber, 187; Pruning Injured Trees and Vines, 187; Ivy for In-door Growth, 187; Golden Willow, 187; Cuttings of Grapes and Currants, 187; Conservation of Forests, 187.

CORRESPONDENCE:—

Economy in Fencing, 188; Blood or Utility, &c., 188.

UNCLE TOM'S COLUMN, 188.

MINNIE MAY'S DEPARTMENT, 189.

THE HORSE:—

Bran for Horses, 190; Physicing Horses, 190; Linseed Tea for Sick Horses, &c., 190. Markets and Advertisements, 190. Advertisements, 191, 192.

A Retrospective View.

The present number closes our eighth volume. We return our sincere thanks to all of you that have aided us in any way to carry out the undertaking of establishing an independent paper in our country, the object of which has been to establish the Agricultural Emporium and that on an independent basis.

We look back with pleasure on the results of many of the cereals and roots that we have introduced to our patrons, many of which have tended to increase your wealth and the prosperity of this Dominion. We have been the means of greatly increasing the growth of the Midge Proof Wheat in the time of need; in disseminating the Treadwell Wheat, the Diehl Wheat, and lastly the Scott Wheat, all of which have been very profitable. The Early Rose Potatoes, introduced to you by us, have been a great acquisition to the country. Among the many things introduced by us a few may not have proved quite so satisfactory.

We have fearlessly exposed the management of the old Board of Agriculture and have at the same time always striven to support the Provincial Exhibition when it was in danger of being entirely overthrown by a political design. We advocated its existence, and in such a manner as to allow all parts of the country to be enabled to have an opportunity of visiting it occasionally; whereas, if it were made a permanent and fixed establishment in one locality, the farmers within driving distance of such locality would be about the only ones to receive the benefits from it, and all other parts of the country would be taxed for the benefit of such locality.

We have not yet established a test farm on such a scale as we anticipated to have done ere this, but we are now perhaps in a better position to do so than ever before. We have had a charter granted, although the late Government may have adopted our plans, or rather attempted to steal them from us because we would not make our journal subservient to political purposes, and the present Government may be attempting to carry out such a scheme: still we are carrying on our independent course.

We have advocated encouragement to farmers' clubs and all agricultural societies such as all farmers can reach within 15 miles drive of their own farms.

We have also used our pages to endeavor to send more farmers to the Legislative halls, or even men that will really interest themselves in farmers' requirements.

We have vastly improved our paper in the editorial staff, in illustrations, in the quality of the paper, and in the quality of work done on it. Our friends have

greatly increased our circulation; and by this means we have been enabled to make these improvements. We hope to make greater progress than ever the incoming year. We thank every one of you that have aided in its support in any way.

We have labored to make this journal not a dry statistical or copied production, but have endeavored to be up to the times in all things pertaining to agricultural information.

We wish every one of you the compliments of the coming happy season, return our thanks to all, and hope we may have renewed acquaintance with old friends and many new ones before the commencement of another year. No pains on our part will be spared to make your journal a welcome and profitable visitor to each member of the household.

Agricultural Politics.

Your journal has claimed the name of being nonpolitical. It stands now a monument of wonder and surprise that it should still exist, as no paper has ever before been known to exist for eight years without being allied to or supported by either party of politicians. This journal has stood against the utmost oppression, stood against the expenditure of public money to annihilate it, and laws made to exterminate it because its originator would not consent to serve political ends that he deemed injurious to farmers.

We contend that farmers are used as mere drudges from whom to extract labor and money for the use of party politics and office seekers. We have proposed to write neither for or against either party, except as touching the interest of the farmers and from an agricultural point of view.

At the present time, when such a great change has taken place in the administration of our affairs, we deem it but right that we should express our views on this great and important change; still we know we cannot say one word without some strong partizan being offended, because the feelings on political questions are worked up to the highest pitch by the two great contending powers, and many of you are almost frantic about it; some think the ultimatum of bias must now be obtained, others that the whole country is totally lost.

The real fact, gentlemen, is that it scarce matters a straw to you which party is in power. They both pull the wool over your eyes and put their hands in your pockets. All the talk and all the speeches you hear are mere buncombe or blind guides to you. We have heard the great orators, and each appears to attempt to be fog more than the other. We look on

the whole state of our political arena as a delusion, a snare, a trap.

We believe the change of Government will do good; corruption had gone too far and is still having too great a sway, and will continue to have.

We would like to see farmers unite and select one or two men to send to the Houses of Parliament who would fearlessly open their mouths and use their votes for the interest of farmers. The two McDonalds were trained and bred lawyers, and their agricultural knowledge would not tend to our benefit, but would rather tend to keep good fat pickings for lawyers in all the forms which we are compelled to pay.

What farmer has not experienced the expense of having been summoned to attend some jury case, perhaps travelled 40 miles, perhaps 60, and most likely waited round a court house two or three weeks, and have nothing more than a \$100 debt or a family squabble to attend to, that ought to be settled by any magistrate.—There are fine pickings for the lawyers, and the farmers have to pay it.

Why are so many large salaries paid to partisans for filling offices that our sons could just as well fill at one quarter the cost. Why are farmers and farmers' sons never or scarcely ever placed in public positions? Because the cities and political men of the cities create and retain these fat offices for political patrons, and we farmers have to feed them with silver spoons, build their palatial residences for them, erect their stately buildings, and furnish them with every luxury, ornament and comfort, all for political favors. We can name such.

Some of the new Ministry may mean well, but if they will not heed what farmers say and make an effort to watch our interests, and give the farmers that just consideration and honorable, honest treatment they deserve, we say we should unite with heart and voice and ask for justice to one and all of us.

If any poor farmer has been deprived of his land, of his property, of his just rights, we say it should be the first duty of a Government in an agricultural country to see that justice was done.

It is our impression that a greater loss is sustained by the country, caused by unjust oppression on farmers and poor men, by driving them, their friends and influence to a foreign country, than all the good that has yet been done by a Government under the name of emigration expenditure.

We speak from observations that have come under our notice, and from information received from numerous sources that have come to our office, and have never appeared in print in any of the political papers. The millions of money

occasion to use any
 e for my horses to
 healthy independent
 properties, which I
 be excelled by any
 Cattle Feed, I should
 men to use it as a
 believe it to be safe
 I hope farmers and
 e it a trial; they will
 t saving to them in
 doctor's bills. I am,
 fully, Wm. Long, Im-
 aler in Entire Horses,
 , Ont., Yonge St.

Canada only by
 MILLER & CO.,
 Agricultural Chemists
 ng St. East, Toronto,
 ply kept on hand at
 Agricultura Em-
 don, Ont. 25 cent
 ain, 1 pound, \$1
 nds.

AGRICULTURAL COLLEGE

Institute.

POPULAR INSTITU-
 teachers of established
 business experience, and
 in the Dominion where
 double entry is taught

TRANSACTIONS.

late attending a Com-
 munity winter, will find
 nise us, as they will
 e and at less expense
 ent terms are the most
 e Dominion, and the
 his is much less here

once for circular to
SWAYZE,
 Manager.

BROS.,

Dundas Street, East o
 NDON, ONTARIO.

S PREPARED TO

Churches, and Priv-
 vet, Tapestry, Brus-
 Carpets, Floor Oil
 hort notice and very
 MURRAY. July

FINNEMORE,

ND RETAIL

CHANTS.

McMASTER AND
 RATED LIQUID
 ENNETS.

CHEESE BAN-

her Cheese Factory
 on hand.

MARKET SQUARE.

, Apr & May

ANCE COMPANY.—

ets including Capital
 Income about \$10,000
 ver \$11,000,000. Over
 the representatives of
 the formation of the
 are among the advan-
 Premium; Canadian
 n Investments; Un-
 absolutely secured to
 policies non-forfeitable;
 years in force; Policies
 receive three-fourths
 Premium; Policies purchased
 thereon. Premiums
 arly or quarterly, and
 payments of all pre-
 the various systems of
 any of the Company's
 AS, Y. Manager and
 ant Secretary.

ly

Agents wanted! All
 rking people, of either
 e money at work for
 r all the time, than at
 e free. Address G.
 Maine. 5-17

STER, &c., Dundas

m-e

that Canadian farmers have been compelled to pay directly and indirectly for all these railroads and for the building up of the great wealth of thousands of the wealthiest men in our country, has all come out of our pockets blindly and in every possibly conceived manner.

Exhibition Complaints.

We hear of numerous complaints from exhibitors in the poultry department of the Ontario Provincial Exhibition; in fact, for some years past there have been great complaints made in regard to the decisions.

We regret to have to touch on complaints of this nature, but on the request of some exhibitors and from remarks by others, we feel in duty bound to call attention to the remarks made to us. We would not like to discourage or blame a single judge, as we know it is a difficult task to please all, and perhaps the judgment may have been correct: but the complaint is that an exhibitor or exhibitors have been in the habit of using particular tacks or particular leathers below the tacks, and placing the tacks in just such a position as to indicate who is the owner of such particular pens of poultry, and that birds in such coops where these tacks have been used have gained the prizes and have received more attention than the others.

We have heard this complaint from such sources that we deem it proper to call the attention of the directors to it. There is also another complaint made, namely, that an individual of some prominence in poultry circles exhibited fowls at the Provincial Exhibition and took prizes with them as his property; at one of the other leading exhibitions the same individual acted as judge, and the same poultry was awarded prizes in another person's name.

Would it not be well to enforce more stringent regulations in regard to attempted deception, and to allow everything exhibited to rest on its own merits and not on individuals or their marks.

Statute Labor.

Many a day have we spent in performing our statute labor; we have travelled many miles in a day with our company, camped out at night with axes and provisions, to make the first road through the woods from our residence to reach St. Thomas. We have for years since, with axe, plough, oxen, scraper and wagon, put in our share of that labor so necessary in a new country. Our sons now perform that part of the work.

We have acted as path-master as well as laborer; perhaps we may now suggest to path-masters, councilmen and legislators a few improvements in our present mode of applying the labor.

In some parts of the country it has now become a matter of wasting time, very little good being done; this is the case only in localities where gravel roads are made. These roads have often been made at the joint expense of all the farmers in a country: many farmers still have very bad roads, and require all the labor they can get and work voluntary labor besides, to make the roads passable.

Would it not be well to have the statute labor collected in the form of cash from sections that have had the roads made from general taxation, and expend it to make good roads in other parts of the country?

In sections, townships or counties that require statute labor done, would it not be much to the advantage of the farmer to do his statute labor in the month of October; at that time he has more leisure, the weather is cooler and he can perform more work; the ground is then moist, so that it is much easier worked, and the roads would be better, because they would have more work done on them, we mean in grading and levelling. When the labor is performed in June, as at present, it generally makes the roads rough, heavy and bad during the summer, when otherwise they would be good. Besides, in June the

farmers are all busy with the cultivation of their crops. The statute labor is now performed just at the time when the root crops require attention. We believe the alteration of the time in performing the statute labor would tend to increase the yield of many acres of roots, and tend to keep the land cleaner and more fit for cereals; roots and cereals are both equivalent to cash.

In October the time could be much more easily spared from the farm, as the grain crops would all be in the barns. Do you not think the change would be beneficial?

Why has not this change taken place ere this? Can you give a reason why it should not? We believe it is simply because we farmers do not look after our own interests.

The Harvest of 1873—Deficiency of Grain Crop and Supply.

The reports of the grain crops and markets of Europe and America received.

Since our notice in our November issue on this subject, the grain deficiency of Europe has not caused any changes in the prospects of producers and consumers, while the movements of breadstuffs, and the prices in the principle markets of both continents tend to confirm the opinions we then expressed. The report of the grain deficiency in Europe has been confirmed; the deficiency is so great as to cause a demand for all the surplus products of America, and that surplus is sufficient to meet all the demands.

England is a large purchaser of foreign breadstuffs, but not more than usually so. Her required importations, judging from the latest advices, will not exceed the estimates given last month, ninety-two millions of bushels of grain—a very large importation seemingly, but in reality not large when we take into account the density of her population. At one time there were apprehensions respecting the late crops, in the more northern districts, but these apprehensions were relieved by the favorable weather, and the large home supplies sent forward to market, as harvesting and threshing progressed, produced a decline in prices. There has been since no excitement in the English market; the report has generally been—"almost no change"—"Markets quiet."

French markets have been quiet. More recent returns have served to allay in a measure, the apprehensions first entertained. The deficiency, though great, was not greater than the first reports led us to expect; and the French were early in the market as purchasers, making timely provision for the deficiency then known to exist. The French markets have consequently been free from excitement.

In the German markets only has there been an upward tendency. The Markets have so far been in favor of the purchaser. That they will continue so is a matter of great uncertainty. The deficiency must be met principally by supplies from this continent; hence Americans may rely on a ready market for all this surplus produce; what the probable amount of that surplus may be we can hardly estimate from the conflicting statements in the different agricultural and financial reports. Prices will be also affected by the financial condition of the United States. They who are in want of money cannot afford to hold back their goods from market, waiting for higher prices.

The reports from the American Department of Agriculture are, on the whole, favorable to the consumer. We append some extracts:—

"CORN.—Frosts have been early this year. These frosts were not generally of great severity, but sufficient to prevent the thorough ripening of the corn. The average condition throughout the country is 84. In round numbers the reduction in indicated product is 250,000,000 bushels.

WHEAT.—The returns of September averaged, with reference to the production of each county, indicated nearly a full round crop, the average depreciation being only 5 per cent. The returns of October are made in direct comparison with the crop of last year, involving, of course, the element of area as well as condition. The aggregate is an increase of about 4 per cent., which is equivalent to ten millions of bushels, making the promise of the crop about 260,000,000.

The Agricultural Department report, in comparing the harvest of 1873, with previous

harvests, says the present year is one of low production as regards maize, our main cereal, both in quantity and quality, while the quantity of wheat will be rather more than an average, in view of its increased area, though not equal to the great wheat crop of 1869. This result is far better for farmers and consumers than a deficient yield of wheat with a large crop of corn, as the surplus of the former above the actual wants of bread consumers is very small; but two hundred millions of bushels of corn can always be spared from a full crop without any other effect than an enhancement of prices, to a figure representing more fairly the cost of production.

The *Michigan Farmer* expresses some doubt as to the accuracy of these reports, thinking the statements exaggerated. It says:—"It has been the policy of the whole of the report, from that of the Agricultural Department at Washington, to that of the smallest Western Press, to brag over the great crop of wheat, whereas when we take out the States of Wisconsin, Minnesota, Iowa and Missouri, there has not really been any great increase in the wheat crop at all, and hardly more than the general average, and, if California does not have a surplus as great as last year's, there will not be in the aggregate any very extra production. Whatever grounds there may be for this supposed inaccuracy, the reports furnish data sufficiently approaching to reality to enable us to form a pretty correct estimate of the general results of the season. The yield in the U. S. are lighter even than an average; but this deficiency in yield will be more than compensated by the greatly increased area, so that the expectations of the crop yielding 260,000,000 bushels is not at all unlikely to be realized.

In the United States the low price, with the general state of the market unfavorable to producers is attributed, not to a great surplus produce, but to the financial difficulties of the country. *Moore's Rural New Yorker* says, "There has been a sharp decline in prices of wheat lately, brought about by larger supplies, and some little difficulty in obtaining a satisfactory shipping trade. Supplies are needed on the other side, but the irregularities growing out of our money panic restricts purchasers. Exchange is hard to negotiate with rates; added to this our freight rule high, making it necessary for shippers to insist upon lower prices for grain to make anything like a margin for operating." The *Western Farm Journal* says:—"The outlook at this date in financial and commercial matters is, to say the least, not satisfactory or encouraging for either buyers or sellers. The continued stringency in money matters, as well as the unfavorable condition of affairs, in financial circles has produced an unusual desire to sell, while buyers are slow to take hold while prices continue to decrease."

With the restoration of confidence in financial circles, we have no doubt the uneasy feeling and low prices in the grain market would be at an end for the season. To the great failures and consequent panic in Wall street, the present unsettled state of the market is owing. Vast projects have been undertaken on what has been proved to be in a great measure fictitious capital. This is the root of the matter.

Meanwhile higher prices are anticipated in England. The *Mark Lane Express* says:—"With the certain prospect of a vigorous competition, we see nothing in the future to prevent prices from advancing. There is no reason to fear that England will be unable to obtain a sufficient supply for her own consumption. With an abundant capital at command, and a free access to every country she can secure the trade of the whole world."

We repeat, the result of our enquiries are still favorable to Canadian producers. There is every prospect of an active demand for all their surplus produce at remunerating prices, though prices are now low and markets irregular.

The hog cholera is having a run in Pickaway county, Ohio. Several hundred cases have resulted fatally near Circleville.

Cattle which at the commencement of the panic were being collected at shipping pints, are being driven back to be fed again, and to await better markets.

Massachusetts finds it impossible to get young men to work her farms. The State established an agricultural college at a cost of between \$300,000 and \$500,000, and has graduated ten farmers.

Does Farming in the West Pay?

"Westward Ho!" Some of our Canadians as well as farmers from the East have from time to time been leaving their homes to push their fortunes in the west—Kansas, Nebraska, Illinois, any place but home. Hills are proverbially green afar off. The *Miner and Farmer*, an American journal, thus relates the experience of one who knows that land of promise:—"We met recently an intelligent gentleman who went from New Hampshire to Kansas fourteen years ago, and who in his business has been constantly travelling through Kansas, Iowa, Nebraska and Minnesota, and, in the course of conversation, he said, 'I have a very extensive acquaintance among farmers west of the Mississippi, and I do not believe those who have gone from the East can sell out to-day and return with as much money as the carried away. And everybody wants to sell out. Why, sir, I was offered last week for \$2,700 a farm in Central Kansas of 460 acres, as good land as lies out of doors, 200 acres of it fenced and under cultivation, with corn upon it 15 feet high, 60 acres splendid timber, and the remainder prairie, with house, barn and outbuilding upon it, and a railroad running right through the centre. I sold last week for a man 240 acres of beautiful prairie at \$3 per acre."

Such facts as the above are more convincing than any fine-spun theories. What is the use of such farms when they are of such intrinsically small value. Surely land such as described by the *Miner and Farmer* would be considered cheap in any country at such figures. The fact is that farming in the West does not pay. We have seen here at the Provincial Exhibition a good display of the products of those lands, including the tall corn, and, no doubt, it spoke well for the fertility of the soil; but with these was not a word of the circumstances that made that land worth less, acre for acre, than one-third the value of the farms in Canada. The circumstances that make the Western farms so little worth to the farmer may be summed up in a few words:—Ruinously low prices for farm produce; high taxes on everything needed by the farmer; exorbitant rates for the transportation of his produce; unhealthiness of the climate.

EIGHT CENTS A BUSHEL FOR CORN.—In this state of the farmers' war, says a New York commission merchant, it is possible that a few facts will do more to enlighten the minds of the people here than any argument. The writer sold in New York, Aug. 5, five cars, being 1,778 10-56 bushels Prime Western Mixed Corn, at 56 1-2 cents per bushel of 56 pounds. The corn was sold at an extreme price, because dry, sound, and in every way superior to the bulk of the crop now being handled in New York. The grain in question was shipped from Iowa, came into Chicago, via Chicago and North Western Railway, was transferred direct to the Erie and North Shore line cars, and arrived in New York by the Erie Railway. The freight paid was \$820.90. The expenses, including weighing and elevator, \$37.90; leaving of \$1,004.64, the gross proceeds, the sum of \$145.98 as net proceeds to Western shipper of 1,788 10-56 bushels corn—a trifle over 8 cents a bushel on board cars in Iowa.

A correspondent of the *Boston Cultivator* thus writes:—

One of the greatest mistakes which farmers make is in cultivating too much land. It is a truth which needs no argument to prove, that it is cheaper by thorough manuring and cultivation to raise 50 bushels of corn on one acre than it is by slovenly farming to raise the same amount on two. If a farmer has plenty of manure and time to give to the two, then let him plant them by all means. Now the average yield per acre of any crop throughout the country is not half what it is upon the best cultivated farms. Supposing that farmers should bestow the same attention to one-half of the acres that they now do, they certainly would be gainers in the saving of one-half of the land for wood or pasture while they would still have as much to dispose of. But it is not necessary to give the same attention; 50 per cent. more manure and labor would double the crop, for it requires the same ploughing and planting in either case. It is the thoroughness with which this is done, and the after cultivation that tells; so that by planting one-half as many acres, farmers would save one-quarter of the expense, and these two savings would make a change from profit to loss. The great trouble with farmers is that they do not make sufficient calculation for drawbacks, as bad weather, sickness, breakage, and unstable help. It would be far better to allow too much the other way, and then after their crops were thoroughly attended to, devote their spare time to improvements, such as fencing and ditching, than to be forever worried by the friction caused by being behind.



An Iowa making are g partment of breed of hog and weighed feed a spec weighed, an en as the ar all was not weight. Th corded:—

Eighty-thr 873 pounds bushel, mak corn.

Forty-seve 553 pounds bushel, mak Fifty-five wet with c pork, or 13 5-6 cents for

Forty-six meal made 5 pounds per corn.

A correspon gives his exp

To determ and corn at kept an acc with both p pigs, farrow I fed from t At that time pounds; sol pound, amo corn worth 75, leaving cows during left not a g My pigs we

My corni timothy me ten years. oned man ar cost of \$75 planting \$7 ed value of \$ \$121.75. I Estimated a every bushel for forty ce which, min \$138.25 pro

A writerr marises the from time to

I have rec mer who say giving the lo were a York week he fou This was g pounds of n 5 cents per ted him \$1. Kentucky, f that a bushel of pork. A ful weighing boiled meal Edge states, toll of mea pounds. J. put 15 hogs, pen, and fed corn in 42 d they weigh each. In t made 1,770 pounds, a re Wayne Co pounds af p a trifle over Morgan stat his pork, he Mr. Baldwin preference t and ground duced one p corn.

These sta show that th of pork in a every farme out as much he must hav must be plac fed in the r fit. A gent

STOCK & DAIRY

WHAT IT COSTS TO MAKE A POUND OF PORK.

An Iowa farmer's experiments in pork-making are given in the Report of the Department of Agriculture for 1871. The breed of hogs is not named. He had twenty and weighed them to begin with. After feed a specified amount, they were again weighed, and the increase of weight taken as the amount of pork made. Of course, all was not clean pork—it was only live weight. The following are the results recorded:—

Eighty-three bushels of shelled corn made 873 pounds of pork, or ten pounds to each bushel, making 50 2-5 cents a bushel for corn.

Forty-seven bushels of dry corn meal made 553 pounds of pork, at 11 1/4 pounds to the bushel, making 58 3/4 cents for corn.

Fifty-five and a half bushels of corn meal wet with cold water, made 731 pounds of pork, or 13 1-6 pounds per bushel, making 65 5-6 cents for corn.

Forty-six and a half bushels of cooked meal made 596 pounds of pork, or nearly 15 pounds per bushel, making 74 4-5 cents for corn.

A correspondent of the *Western Rural* gives his experience as follows:—

To determine whether I was raising hogs and corn at a profit or loss, I last season kept an accurate debit and credit account with both pigs and corn crop. I have twelve pigs, farrowed April 1; I weighed all the corn I fed from that time until I sold, Sept. 16. At that time the twelve pigs weighed 1,925 pounds; sold at four and a quarter cents per pound, amounting to \$81.81; fed 115 bushels corn worth forty-five cents per bushel, \$51.75, leaving a profit of \$30.06. We milked cows during the summer, but raising calves left not a great amount of milk for the pigs. My pigs were not of the Magie breed.

My cornfield consisted of fourteen acres of timothy meadow, that had lain in grass fifteen years. In keeping my account I reckoned man and team each at \$1 per day. The cost of ploughing, fitting the ground and planting \$72.75; cost of cultivating \$36; cost of cutting \$13; cost of husking \$45; estimated value of fodder, \$45; total expense of crop, \$121.75. I harvested 1,000 bushels of ears. Estimated amount of shelled corn 650 bushel every bushel of which I can now sell at home for forty cents per bushel, amounting to \$260, which, minus the cost of raising, leaves \$138.25 profit.

A writer for the *New York Tribune* summarizes the experiments that have been made from time to time as follows:—

I have recently seen the statement of a farmer who says he fed 13 young pigs on meal giving the lot 54 pounds per day. The pigs were a Yorkshire and Chester cross. In one week he found they gained 12 pounds each. This was getting within a fraction of 24 pounds of meat from a bushel of meal. At 5 cents per pound for the pigs, the meal netted him \$1.20 per bushel. S. H. Clay, of Kentucky, found, by accurate experiment, that a bushel of cooked meal made 17 1/2 lbs. of pork. Another writer states that by careful weighing he found that five bushels of boiled meal made 84 pounds of pork. T. J. Edgestates, that five bushels (less miller's toll) of meal boiled and fed cold made 83 1/2 pounds. J. W. Zinglar, of Indiana, says he put 15 hogs, averaging 166 pounds each, in a pen, and fed them on 142 bushels of shelled corn in 42 days. At the end of that time they weighed in the average 284 pounds each. In this case 5,600 pounds of corn made 1,770 pounds of pork, a bushel over 18 pounds, a remarkable yield. J. Silbey, of Wayne County, N.Y., reports that 412 pounds of pork made from corn cost him but a trifle over three cents per pound. N. G. Morgan states that at five cents a pound for his pork, he got \$1 per bushel for his corn. Mr. Baldwin, an English breeder, gave the preference to Indian corn over barley meal and ground peas for fattening hogs, and produced one pound of pork from two pounds of corn.

These statements says the *Stock Journal*, show that there is within a fraction of 24 lbs. of pork in a bushel of corn; and the effort of every farmer should be to endeavor to get out as much as he can of it. And to do this, he must have the right kind of hog, they must be placed in the right condition, and fed in the right manner; with a view of profit. A gentleman in our office the other day,

was satisfied, from his experience, that farmers generally feed 40 bushels of corn to secure 300 pounds of pork; and another gentleman instantly replied that his neighbors generally fed more corn for less pork. But taking this result as a fair one, 300 pounds of pork, at 4c. per pound, would be \$12, which would give, for the 40 bushels of corn, just 30c. per bushel. But 24 pounds of pork which is in the corn, and can be got out of it, means 96c. per bushel for corn, 17 1/4 pounds of pork to the bushel means 70c per bushel for corn, and 12 1/2 lbs. means 50c per bushel for corn.—*Utica Herald*.

FEEDING VALUE OF PRODUCTS.

Some one, and we do not know who, writing upon the relative value of different articles of food for stock, thinks that chemistry has caused numerous errors and mistakes to creep into the minds of farmers. For instance, by chemical analysis we learn that wheat straw contains one-third per cent. of nitrogen (flesh-forming substance) and clover hay one and three-fourths per cent.; we are led to believe that clover hay is nearly five times as nutritious as wheat straw, and that, therefore, it will take only one-fifth as much clover hay to feed a cow with as wheat straw. So with regard to roots: we learn from the chemical researches that turnips contain ninety-one per cent. of water, and only one-sixth of nitrogen. Accordingly we are induced to estimate turnips at only one half of the value of the wheat straw, or, in other words, we should feed double the weight of turnips than of straw for the same result. He thinks that every farmer who has ever practised feeding turnips will accord to them a much higher value for feeding stock than chemistry assigns them.—*Carolina Farmer*.

THE SHEEP AT F. W. STONE'S SALE.

Having attended the sale at Mr. F. W. Stone's, in Guelph, Ont., I took some notes of the condition and appearance of the celebrated Cotswolds at "Moreton Lodge," and will give them for the benefit of your readers. The "Moreton Lodge" farm of 550 acres was lately sold to the Canadian Government for an Agricultural College farm, for \$75,000. On this farm were kept Short-horns and Hereford cattle, Cotswold and Southdown sheep, and Berkshire and Yorkshire hogs. All these had been bred up by Mr. Stone to a high standard, and had become justly celebrated. Passing by the cattle and hogs, we will take a look at the sheep. I saw nearly or quite 150 Cotswolds and 30 or 40 Southdowns, and any one of the 100 or more stock-men who attended the sale will bear me out in saying, that finer breeds of these sheep cannot be found in America. In one field I saw 20 or 30 "show" sheep—marvels for fatness, size and evenness in shape. The flock of about 100 breeding ewes were in high order.

I had heard it said so many times that Canada sheep are larger, at the same age, than the same breeds when kept in the States, that I endeavored to find out by persistent inquiry whether this fact is to be attributed to climate or to feeding, or to both. This fact I ascertained—that the same shepherd would grow sheep to the same size either in Canada or in Kentucky. Size in Cotswolds (and also in the Downs) is due entirely to judicious feeding. At Guelph, maize is an uncertain crop, and is hardly ever planted, except in gardens, or for forage. But turnips can be grown in unlimited quantities, and are so grown. Mr. Stone's crop of turnips is measured by the ten-thousands of bushels. His sheep are fed in winter on Illinois corn—bought by the car load—oil cake, oats, peas and turnips, with plenty of hay and straw. In the summer, when pastures are good, they get nothing else but grass; but in the after part of the season, they get, in addition to the pasture, early turnips, or rape. This last is much depended upon, and is fed off in the English style, by the aid of hurdles. By continual liberal feeding, the "Moreton Lodge" Cotswold ewes weigh from 100 to 300 lbs. at two years old. The "shearling" and two-year show ewes reach this latter figure. Mr. Stone's shepherd told me he could make a Cotswold ewe weigh 300 lbs. at two years old, with no other grain but Illinois corn, provided he could have all he wanted of it. He gave us an axiom in breeding, that "size follows feed."—*Erie, in National Live Stock Journal*.

NO GOOD FARMING WITHOUT STOCK-FEEDING.

J. B. Lawes, the great indefatigable experimental farmer of England, gives it as his decided opinion that the fattening of animals on the farm is the only legitimate and profitable farming, and although he uses a large

quantity of chemical manures, he does it only as a supplement to increase the stimulus to his farm-yard manure. He says that for every twenty-five pounds of food devoured by an animal he leaves twenty pounds in excrement, and this is by a growing animal; if the animal is full grown, it takes no part of the food to form his flesh and bones. Hence it is that the English farmer buys young three-year old steers in the fall, to eat his cut hay and straw, oil meal and roots and in winter to fatten them for market in the spring; he well knows that the manure they make nearly pays their keeping.

John Johnston, the father of tile draining in Western New York, buys store sheep in the fall to fatten for spring market, feeding them through the winter on cut straw, clover hay, with Indian meal and Wertzel beets; and he considers the quality of their manure enough improved to pay for the meal and roots.

To put on fat to an animal requires neither mineral matter nor nitrogen, only available carbon and the elements of water.

Thus to form 100 lbs. of muscular flesh and bone in a growing animal, it takes:—water, 77 lbs.; fibrin, flesh and blood former, 22 lbs.; phosphate of lime, 3/4 of a lb.; other mineral matter, 1/4 of a lb.

As stall manure supplies the nitrogenous fibrin, the potash and a good part of other mineral substances, if there is only enough of it to dispense with concentrated fertilizers, the money they cost is saved. Yet the best farmers do not neglect to supply themselves with bone material and other commercial manures to quicken and eke out their barn-yard manures.

Joseph Harris, of Martin Farm, near Rochester, perhaps the best farmer in both theory and practice in this State, says land never should be so exhausted of vegetable matter as to require a green crop to be ploughed in; he says, feed your clover and apply the dung made from it to the field, be it meadow or fallow. But if clover is ploughed in, it should be first well limed, to promote its decomposition; and lime itself is a capital manure for the clover crop.—*Southern Cultivator*.

THE COST OF POOR STOCK.

Probably few farmers think of what it costs to keep a poor cow or a land-pike hog. They readily understand that a good cow or a hog that will dress 200 pounds at six months old is profitable stock to keep, but the fact that this gain is really an amount of loss on the poor stock is rarely considered. If a cow yields 300 pounds of butter in a year which brings \$30 and another yields 75 pounds bringing \$22.50, the loss on the poor cow is just \$37.50. The fact is, it would be a more profitable operation to give her away than to keep her, for she does not pay for her feed. The dairy business of this country is not on a satisfactory footing by any means, and solely on account of the multitude of poor cows which are kept year after year. This is a matter which ought to be looked after by the county agricultural societies. Every one of these associations should introduce improved stock, by means of thoroughbred animals, into their localities. It is a good work to elevate the ideas of farmers and to foster a taste for improvements, but to the great majority of their clients the possession of such stock or the use of it is quite unattainable, on account of the want of the necessary means. By making this a special branch of their operations, the usefulness of these societies would be much increased and their importance much enhanced.—*American Agriculturalist*.

DEVON AND SHORT-HORN COWS.

An English breeder says:—"I have kept them pure, crossed the Short Horn cow with the Devon bull, and crossed the Devon cow with the Short-Horn bull. In either way, they have made a larger return, and paid for their meat much better than the pure Devon; but by far the greatest success has been to commence with the Devon or native cow and pure Short-Horn Bull, and forever after using the Short-Horn bull. I have also used the Devon bull on the cross from the Devon cow and Short-Horn bull; but the progeny rapidly declined, and no trace of the Short-Horn remained. In these days of great consumption and high prices, it does not pay to stick to stock, the breed of which requires four or five years to mature; but I am firmly of opinion that if pure Short-Horn bulls were used on the native cows and their crosses in the different districts of the United Kingdom for a few years, our beef supplies would be doubled. Many farmers have a great horror of crossing their stock, whilst others admit that the first cross is all that they could wish, but after that it is all 'gone

goose' with the next generation. Of such would ask, Have you ever tried? and, if so, How, and, With what object in view? My theory has always been—and practice and observation have fully borne me out—that we can make almost anything we like of our flocks and herds in a few years, by fully adhering to pure male animals of the kind we wish them to resemble. If beef is our object, use pure, high-class, Short-Horn bulls always; never by any chance or pretense use a cross-bred bull, even if he be the best animal you can procure, and if the cross were only once a dozen generations back. It is the use of cross-bred males on cross-bred females that has made so many people distrustful of any but the first. I wish to lay great stress on the using of pure bred Short-Horn bulls, by which I do not exclusively mean those fancy-priced beasts that figure so prominently in the agricultural periodicals, but ones selected from a good herd, where pedigree sires have been used for at least twenty years on cows of undoubted Short-Horn blood, and that have not been artificially forced. It is not difficult to purchase hundreds of such at reasonable prices.

AYRSHIRES AS MILKERS.

Howard S. Collins, of Collinsville, Conn., furnishes the *Practical Farmer* an interesting account as to how he came to select the Ayrshires as milkers. In 1856 he commenced farming on a poor, neglected hill-side farm of 150 acres, that at the time supported only six head of stock. He began by keeping six head, soiling them in summer and steaming food for them in winter, and every year taking up some poor land to be thoroughly cleared, manured and seeded down again.

The editor of the *Duchess Farmer* states that he has visited this farm, and, though beautifully situated, has rarely seen a more promising field for testing the merits of high farming. There are few men who have studied agriculture more thoroughly than Mr. Collins, or who have carried to the task of renovating—we might almost say creating—a farm, greater skill, system, energy, perseverance and science, and he deserves his success. On this farm he now keeps fifty head of cattle and three horses. He has tried the natives, grade Devons and grade Ayrshires, and has finally decided that, for his purpose (selling milk the year round), properly selected, thoroughbred Ayrshires are the most profitable for him to keep.

Mr. Collins is a very careful and systematic man, keeping an exact account of the produce of every cow on the farm, and his statement is of great weight.

RED DEVONS.

The Red Devons possess all the requisite qualities by nature to fill the wants of mountain agriculturists. They have the blood, bone, sinew, endurance and disposition, with beef and milk qualities combined; will keep on a less quantity of food than any other breeds in hilly sections, and make a surer return to the owner, to the stock raiser or dairyman. The Devons are sure-footed, make obedient and powerful oxen, and as a general thing, are less liable to the effects of exposure and disease. The Devon also makes a better and safer cross with the native cattle, and produces a grade well adapted to mountain ranges.—*Vermont Farmer*.

IS PEA STRAW GOOD FODDER?

A correspondent says he has not found pea-straw as valuable for fodder as good oat and wheat straw. Very likely. And yet good pea-straw may be so cured and fed, as to be worth far more than any other straw, unless it is choice bean-straw. It is more nitrogenous than wheat, oat, barley, or rye-straw, and should be fed, to get out its full value, in connection with a small quantity of corn. Sheep that have a pound of corn each per day will fatten more rapidly on pea-straw than on wheat or oat straw. The better plan is to let them have all they will eat of both pea and wheat straw—say pea-straw morning and noon, and wheat or oat-straw at night. But we apprehend the trouble with our correspondent is not so much in the way of feeding, as in the method of cutting, curing, and preserving pea-straw. If the peas were allowed to grow till dead ripe, and after cutting were allowed to remain in heaps in the field day after day without turning, and were exposed to rains and dews until nearly all the soluble matter was decomposed or washed out of the straw, and half the leaves were

the West Pay?

of our Canadians East have from their homes to the west—Kansas, place but home. en afar off. The American journal, of one who knows me recently an went from New thirteen years ago, as been constantly s, Iowa, Nebraska course of conver- a very extensive ers west of the believe those who can sell out to-day money as the car- dy wants to sell ered last week for ansas of 460 acres, doors, 200 acres of vation, with corn acres splendid tim- airie, with house, it, and a railroad e centre. I sold acres of beautiful

are more convin- eries. What is the ey are of such in- ured land such as and Farmer would country at such arming in the West sed here at the ood display of the including the tall spoke well for the rith these was not that made that cre, than one-third Canada. The cir- Western farms so r may be summed ously low prices ax on everything xorbitant rates for produce; unhealthi-

EL FOR CORN.

-In war, says a New t, it is possible that enlighten the minds ny argument. The Aug. 5, five cars, ime Western Mixed ushel of 56 pounds, reme price, because ray superior to the ng handled in New on was shipped from o, via Chicago and as transferred direct ore line cars, and the Erie Railway. 90. The expenses, ator, \$37.90; leaving ceeds, the sum of Western shipper of trifle over 8 cents a wa.

the Boston Cultivator

takes which farmers a much land. It is a ments to prove, that manuring and culti- of corn on one acre ng to raise the same has plenty of manure o, then let him plant the average yield per t the country is not at cultivated farms. ould bestow the same ares that they now e gainers in the sav- for wood or pasture e as much to dispose y to give the same ore manure and labor it requires the same either case. It is ch this is done, and at tells; so that by acres, farmers would pense, and these two ange from profit to with farmers is that ent calculation for r, sickness, breakage, ould be far better to way, and then after y attended to, devote improvements, such as to be forever worried being behind.

knocked off of them before they left the field, and they were stacked in a damp condition, it is not difficult to understand why 'the sheep and the chemist do not tell the same story' in regard to the value of the straw. On our own farm we have found pea-straw from a luxuriant crop of peas, cured without rain, nearly as valuable as clover hay.—*Am. Agriculturist.*

CHURNING.

During the process of churning, a certain uniformity of temperature must be observed, or the butter will be soft and spongy, instead of being firm and compact. The agitation, also, of the cream should be regular—neither too quick nor too slow. If the agitation is too quick, the butter will make and unmake itself before the churner is aware of it, as too rapid motion induces fomentation, which, when it has reached a certain point, is entirely destructive of anything like the possibility of making even moderately good or good tasting butter. If, on the other hand, the motion be too slow, the agitators in the churn fail to produce the desired separation of the component parts of the cream, and the consequence is, that after a good deal of time spent in lazy action, the churner is just as far from his butter as he was at the beginning of his labors. The best temperature for the cream in churning, is from fifty to sixty degrees.—*Willard's Dairy Husbandry.*

FOOD FOR COWS.

Professor Cook stated before a Pennsylvania farmers' club, that in Scotland he saw in their native locality the celebrated Ayrshire cows. He described these as a small size, varying from 600 to 800 lbs., live weight, and milking on an average, twenty quarts per day. They are fed largely on cabbage, which is considered there the best food for producing milk. Our dairy farmers here would no doubt find equal benefit from feeding cows on cabbage. As with turnips, there will be no taste in the butter from the cabbage if the cows are milked before feeding them. Another fact stated by Professor Cook, was that in the best dairies in England and Scotland it was considered most profitable to give the cows all they could eat, and to induce them by change of food, etc., to eat all they could. The soiling system is of course practiced—and he had seen hundreds of cows tied up in stalls, where they are kept from year to year, no disease or other drawbacks resulting from confinement. They are not only "healthy," but "thrifty"—and never leave the stalls till they go to the butcher.

KEEP SHEEP.

Farmers should all keep sheep, so should all horticulturists and market gardeners, for the following reasons:—

There are no droppings from any animal, size considered, that will enrich as much as sheep and do it as well. There is no animal that will eat as great a variety of food, let it come as grain, herbage, roots or fruit. Most kinds of weeds are palatable; nearly all kinds of briars, cockle burrs and most other burrs cannot flourish, or grow even, in a sheep pasture. On the farms they may be turned into a weedy corn field at the proper stage of the corn, and they will destroy a great amount of weeds, very little to the injury of the corn. In a small grain field they are better gleaners than hogs. Meadows will grow good grass longer by being pastured with sheep after mowing. Pasture for horses and cattle will grow up to different kinds of weeds and become almost worthless where sheep are not kept.

In orchards they are useful and dangerous; useful in eating all fruit as it droops and destroying great amounts of troublesome insects, dangerous, for harmless as they are said to be, they will bite the back of fruit trees if they remain too long at a time.

But, joking aside, sheep of some kind should be handled on all farms. On poor, worn-out farms, if one had as many as he could pasture, and buy some winter feed, the farm would be largely the gainer and the owner no loser. There is very little inducement in plowing and working a poor, hilly farm; and on that kind of farm sheep of any kind do better than on level, rich lands.

On rich lands there will be much that is wasted every year that sheep will do well on, and if for nothing more, they serve to keep the pasture and fence corners clean.

Market gardeners can keep sheep to first rate advantage on the refuse and waste of their vegetables. The manure of sheep put in casks, watered, and sprinkled on plants will

give them an astonishing growth. Sheep well cared for will always pay, though one may not handle so much money, for there is not much outlay in feeding sheep and harvesting wool, so that when you sell it is nearly clean profit. Sheep, after six months old cannot die in debt to the owner, for the wool or pelt will pay all expenses no matter how soon they die.

The kind of sheep one should keep I will not say; for the reason that one locality is better for one breed of sheep than another. One man is better fitted for handling one kind than he would be for others. The best plan, where one wants to begin with sheep, is to ask some experienced sheep man who is acquainted with his farm, what he shall keep. If he knows no such, write to some sheep farmer, describing his land and location.—Wool growers are very willing, generally, to answer all questions.

In conclusion I may state that it was demonstrated in England forty years ago that an acre of land capable of maintaining 1,000 sheep one year, would, by being thus appropriated, maintain 1,365 sheep the next year. The same is true in other stock, though to a small degree.—*V.P.R. in Western Rural.*

BREWERS, GRAIN FOR COWS.

A correspondent to the *Country Gentleman* writes, Brewers' grains stimulate the flow of milk in a rather remarkable manner; cows will probably do better on them as regards quantity of milk than on any other feed, except, perhaps, the succulent growth of grass in June; the milk has no disagreeable taste as from turnips, cabbage, &c, but is pale in color and poor in quality, and the butter made from it is pale and of poor flavor. The cows fed on it keep in pretty good flesh especially when fed a little corn meal with the grains, which also greatly improves the quality of the milk, and is consequently practiced by the best feeders. The cows need some hay or grass or other rough fodder, in connection with the grains; otherwise they contract certain peculiar diseases; but when allowed a reasonable share—say 8 or 10 pounds per day of hay—keep in good health. For a family cow, would prefer hay, shorts, meal and roots; but grains are much more profitable to the milk man, whose chief purpose is to get a certain number of gallons per day, which shall not be condemned by the city inspector. The grains are sold at the breweries near Boston for five cents per bushel, and a cow in milk will eat about a bushel per day without injury.

Short-Horn Sales.

The sales of short-horns during the past year have been unprecedented for the high prices that have been paid for animals with long pedigrees.

The sale of Mr. Campbell's herd at York Mills, New York, reported in a former number of the *Advocate*, was the most wonderful sale of cattle the world ever saw. The sales in Canada, although not approaching that sale in prices, have been as successful as the most sanguine could have anticipated.

Here are a few figures of late sales:—

HON. GEO. BROWN, BRANTFORD.

38 cows and heifers brought \$7,560, being an average per animal of \$198.95. The highest price paid for a single animal was \$410; 12 bulls brought \$1,650, an average per bull of \$137.50.

F. W. STONE, GUELPH.

37 cows and heifers, \$12,930; average per animal, \$349.45. Highest price paid for a single animal, \$1000. 6 bulls, \$1,470; average per bull, \$245.

GEORGE MILLER, MARKHAM.

16 cows and heifers, \$6,255; average per animal, \$390.93. Highest price paid for a single animal, \$810. 5 bulls, \$845; average per bull, \$169.

WILLIAM MILLER, PICKERING.

38 cows and heifers, \$12,891; average per animal, \$339.23. Highest price paid for a single animal, \$1,260. 3 young bulls, \$415; average per bull, \$138.33.

JOHN MILLER, BROUGHAM.

19 cows and heifers, \$5,985; average per animal, \$315.

Highest price paid for a single animal, \$795. 5 bulls, \$1,125; average per bull, \$225.

The above show that even in Canada prices have ruled very high for Durhams. Mr. Brown sold the greatest number, but made the lowest average. We notice that he has since the sale expended more money for new stock than he received from his sale. He is evidently determined to make his herd equal to the best. Mr. Stone drew more American money than the others.

There is great good done by this stimulant in improving stock, but these very animals that command such great prices would be simply ruinous to 99 farmers out of every 100. They must be fed on gold and covered with printer's ink to keep the excitement and demand up to the present pitch.

Forty thousand, thirty-four thousand, and twenty-five thousand dollars were actually paid this season for single cows, one calf bringing twenty-seven thousand dollars. These prices are so much above anything within our judgment or knowledge that they appear almost incredible, and make us ask—what next!

BUTTER FACTORY.

The butter now made in factories uniformly brings a higher price than the butter made by farmers, and simply because it is better. Why it is better is what everybody making butter should understand. In the first place, persons are employed who are careful, industrious and conscientious. Secondly, everything is arranged for setting the milk properly, for keeping a given temperature, for skimming milk at exactly the right time, for churning under best conditions, and for walking, salting, packing and shipping the butter in such a way that the original elements will retain all their fine qualities. By doing these things there can be no bad, nor even second-class butter, and every pound of it is strictly "gilt-edged." As butter is usually made, fully half is poor, even during the months most favorable for making it; and for want of proper subsequent management, a considerable portion of the best half becomes no better than the poorest half. The loss to farmers generally in making butter is so great that unless they adopt better methods it will be as well to engage in some other business.—*N. Y. Tribune.*

PERFECTION IN BUTTER.

There have been in the Providence market this winter a few hundred pails of butter which have a history. They came from a single dairy in Illinois, and are uniform in quality, scarcely distinguishable, indeed, one from another, although made in summer, autumn and winter. They are sweeter, and have a fresher and more delicate aroma than any roll butter we were able to obtain last summer in Rhode Island. They contain little salt and no buttermilk. This perfect butter is churned daily from fresh milk. Here lies the secret. Milk one hour—butter the next. No setting of milk pans and skimming and storing up of cream. No subjection of cream and milk to atmospheric, electric and thermal changes. No expensive cellars with running water to secure a perpetually fluctuating pure, or, in default of the hand churning, the power churn. In place of the inefficient hand working of the butter, jaws worked by power, squeezing out the buttermilk just as the melted slag is squeezed out of the softened iron in pudding.

The dairy farm at which this butter is made has, we believe, a hundred or more cows, in addition to which milk is purchased from the neighboring farms. It is, in other words, a factory, producing butter on a large scale of uniform excellent quality. Our theory of butter-making has always been to carry the milk directly from the cow to the churn, and only to delay churning long enough for the milk to cool to the proper temperature. There would then be two churnings each day, and the quantity should be sufficient to make one or more packages for the market at each churning. Theoretically, also, the caseine should be immediately separated from the residual milk and buttermilk, and the ultimate products, butter and cheese, be the only substances remaining to be cared for, from day to day. In such a factory, power and good machinery would substitute hand labor, and a uniformly good product of butter should result. The cheese would then be of secondary, though considerable importance.

At the present time large quantities of French butter, of uniform quality are sold in the English market, at a good price. Meanwhile, American butter, in England, brings much less than its value, from the fact that no two packages are alike, even from the same

dairy. This holds good of Rhode Island butter in our own market. The butter from the same dairy, in successive weeks in summer, has hardly a recognizable resemblance. A principal cause of this diversity and inferiority of product, is the difficulty or impossibility of keeping milk and cream, in our variable climate, and in any but the best appointed dairy rooms or cellars. The remedy for this is in churning fresh milk instead of stale cream.—*Providence Journal.*

IMPROVEMENT AND INCREASE OF STOCK IN ENGLAND.

Of the great advantage of this great branch of Agriculture, the general reader may form some idea when he learns the progress made in the improvement during the last century. About the year 1740 the number of cattle sold annually in Smithfield Market amounted to about 80,000, but since 1840 they have averaged about 180,000; and not only have the sales increased in the number of the animals, but in their quality and condition, for it has been shown that the average dead weight of the animals sold in this great market, which is now, of the bullock, about 656 lbs.; of the calf, about 144 lbs.; and of the pig, about 96 lb.; hardly attained to half this average weight in the year 1730; and there is, moreover, no symptoms yet apparent of the march of improvements in our breeds of live stock being stayed, or of the great English breeders feeling convinced that the utmost limits of perfection are now attained.—*Mark Lane Express.*

PROLIFIC EWES.—We learn from *Land and Water* that an instance of the extraordinary fecundity of the Dorset breed of sheep has just been afforded in Cambridgeshire. Last year Mr. Moyes, landlord of the Bull Hotel at Cambridge, selected for breeding nineteen Dorset ewes which he had imported direct from their native county. In the months of September and October these ewes gave birth to no less than thirty-two lambs. In due time they were again put up, and this spring have produced forty-three lambs more, or in all seventy-five lambs since September last. The lambs and their dams may be seen on Mr. Moyes' farm on the Madingley road, near Cambridge, and have had numerous visitors. The sire was bred on Mr. Moyes' farm. (One (the same) ewe on each occasion dropped three lambs.—*Pravie Farmer.*

HOGS POIS-NED.—Mr. Daniel Huiatt informs the *Holt county Sentinel*, that he took home some fifty-six head of hogs, and kept them up for a few days, and then turned them into a small pasture, where they remained over one night. The next morning Mr. Huiatt found thirty-five of the number down sick and as blind as bats and frothing at the mouth. They had been eating crow-foot weeds, and it is supposed that was the cause of their sickness. Mr. Huiatt immediately applied soft-soap and grease, and the hogs have since got better.

The *Colonial Farmer* says: Notwithstanding the draft on the Industrial classes which is continually being made in the increasing demands for more railroads, more lines of telegraph, more agencies for new branches of business, more manufacturing, and more education, there never was a time in the history of the maritime provinces, especially New Brunswick when remuneration for farm products was better. Only last autumn the *St. John Telegraph* asked why not ship live cattle to England when beef was so high? And now elsewhere on this page will be found an account of cattle being shipped from Glasgow to New York at a handsome profit to the dealer.

Texas cattle are deteriorating. One of the correspondents states that their cattle do not attain the same size at the same age they once did. This statement would seem to be perfectly reliable when we consider the falling off of the grass upon which they have to rely exclusively, and when Texas men affirm "that it takes on an average, ten of our cows to give a water-bucket of milk—poor at that."—*Moore's Rural New Yorker.*

The *Stock Journal*, after giving a number of experiments in feeding corn to pigs, remarks that these statements show that there is within a fraction of twenty-four pounds of pork in a bushel of corn; and the effort of every farmer should be to endeavor to get out as much as he can of it. And to do this, he must have the right kind of hog, they must be placed in the right condition, and fed in the right manner, with a view to profit.

The Texas cattle disease has appeared in Cairo, Illinois, and vicinity, and large numbers of cattle have died lately.

The foot rot has affected disastrously the raising of sheep in Lake county, Indiana.—Potatoes were badly damaged by drouth.

Mor

The Me
few of th
Louis Ex
fourths of
the \$50 sw
\$50 sweep
sweepstak
Some of
their head
of a farm
Mr. Jol
waking up
He took o
his straw
Exhibition
both insta

Do You

We wish
new metho
wanted, &
can advert
use few on
in such a
number of
acres, and
The read
at so cheap
subscribers
column of
of the most

Do You

new metho
wanted, &
can advert
use few on
in such a
number of
acres, and
The read
at so cheap
subscribers
column of
of the most

Do You

new metho
wanted, &
can advert
use few on
in such a
number of
acres, and
The read
at so cheap
subscribers
column of
of the most

Do You

new metho
wanted, &
can advert
use few on
in such a
number of
acres, and
The read
at so cheap
subscribers
column of
of the most

Do You

new metho
wanted, &
can advert
use few on
in such a
number of
acres, and
The read
at so cheap
subscribers
column of
of the most

Do You

new metho
wanted, &
can advert
use few on
in such a
number of
acres, and
The read
at so cheap
subscribers
column of
of the most

Do You

new metho
wanted, &
can advert
use few on
in such a
number of
acres, and
The read
at so cheap
subscribers
column of
of the most

Do You

new metho
wanted, &
can advert
use few on
in such a
number of
acres, and
The read
at so cheap
subscribers
column of
of the most

Do You

new metho
wanted, &
can advert
use few on
in such a
number of
acres, and
The read
at so cheap
subscribers
column of
of the most

Do You

new metho
wanted, &
can advert
use few on
in such a
number of
acres, and
The read
at so cheap
subscribers
column of
of the most

Do You

new metho
wanted, &
can advert
use few on
in such a
number of
acres, and
The read
at so cheap
subscribers
column of
of the most

Do You

new metho
wanted, &
can advert
use few on
in such a
number of
acres, and
The read
at so cheap
subscribers
column of
of the most

Do You

new metho
wanted, &
can advert
use few on
in such a
number of
acres, and
The read
at so cheap
subscribers
column of
of the most

More Laurels for Canada.

The Messrs. Snell, of Edmonton, took a few of their Cotswold sheep to the St. Louis Exhibition. They carried off three fourths of the prizes in the class; also, the \$50 sweepstake for the best ram, the \$50 sweepstake for the best flock, and the sweepstake for the best ewe.

Some of these stock men will be holding their heads so high that no common plug of a farmer will be able to look at them.

Mr. John Watson, of Ayr, has been winking up the American manufacturers. He took one of his root cutters and one of his straw cutters to their International Exhibition, and carried off the medals in both instances. How is that for high!

Do You Want to Sell Your Land?

We wish to draw special attention to our new method of advertising lands for sale or wanted, &c., as shown on last page. You can advertise your wants for 25 cents, if you use few enough words. All that you need in such an advertisement is the Township, number of Lot and Concession, number of acres, and your own name and address.

The reason we insert these advertisements at so cheap a rate is, that so many of our subscribers are inquiring for lands, and this column of lands for sale will be to many, one of the most interesting columns in the paper.

Prize Essay on Hedges.

HEDGES SUITABLE FOR CANADA.

Fences of some sort are thought to be a necessity by all intelligent, practical farmers—to guard against intruders, to designate ownership and to assist in taking care of stock. The kind of fence used will generally be governed by necessity. When good timber existed in such quantity that it actually was a burden, as is yet the case in the back districts, the rail fence was the best and cheapest; but, in the old settled portion of our country, where it is almost void of timber, and where fences are in a decaying condition, it becomes necessary to look for a substitute. What is required is a permanent, substantial fence, and there is no cheaper or easier way to obtain it than by hedging. Hedges are far the most appropriate fences, and those formed of evergreens the most permanently beautiful. If deciduous plants are preferred the Honey Locust will answer the purpose. I am convinced from experience and observation that for a hedge plant suitable to the requirements of Canada there is none superior to the Honey Locust.

Although my experience has been on the American side, yet, when I see it make perfect and effective hedges on the rich prairies of the West and the most sterile soil of the East, I see no reason why I should not recommend it to you as a hedge plant.

The following are a few of its superior qualities:—1st. That it will stand the severest winters of this latitude uninjured; 2nd. There is no hedge plant that will grow with us and make a hedge in so short a time; 3rd. When it once becomes a fence it will with little care remain so, not like some plants, in which, when kept constantly pruned, the lower branches die out, and thus make an ineffectual hedge. Some may imagine it to be only the common locust growing here as an ornamental tree. It belongs, in fact, to a family of plants which do not sprout and upon which the borer never works. The Red Bud and Kentucky Coffee Tree belong to the same order as the so-called Honey Locust. There is a Honey Locust hedge at Elizabethtown, New Jersey, over forty years old. It is one mile in length and has always been tight and strong, and it is at this time known to be the best hedge on the Continent. The hedges of J. L. Budd, of Benton County, Iowa, some four miles in length, are also beautiful, symmetrical and a perfect protection against all farm stock. I mention these two instances because the one is in the rich prairies of the West and the other in the sterile soil of the East.

In planting a hedge the ground should be previously worked to the depth of from 12 to 15 inches. The earth should be thrown up into a ridge with the plow so that water will not stand on the surface about the roots, as no hedge plant will thrive where this is the case. In order to set the plants straight in the hedge row it will be necessary to use a line. Set the plants ten to twelve inches apart. Cultivate and keep free of weeds. They fall after setting the plants the ground should be mulched with a coarse manure or

shew light furrows thrown towards the hedge to keep the plants from being heaved out and injured by the frost. The following spring go along the hedge and see where any plants are not likely to grow, put in plants, and you will not have anything more to do but to keep the hedge row clear of weeds until it is ready to plash, which will be four years from the time of setting. Plashing is done early in the spring by cutting the plants half through near the ground and bending them over. It then presents a series of horizontal stems along the hedge line, and makes a secure barrier against intruders. Those half cut will live and grow, and from below the cut a lot of sprouts will come up, which help to thicken the hedge, making a permanent fence at once. After being thus layed down, the hedge is pruned by cutting back in the ordinary way to any shape desired.

The American Arbor Vitæ and Norway Spruce make the best ornamental hedges if kept well trimmed for yards, lawns or orchards, but they cost too much to come into general cultivation as a field fence, and are not so efficient.

White willow makes a pretty good cattle barrier, but the roots exhaust the soil and fully occupy it to the exclusion of everything else to the distance of four or five rods on each side of the hedge.

The beneficial effect upon our climate that would ensue from a general and extended planting of hedges in our country would be incalculable.

C. McCALLUM, Gladstone.

CORN AT THE EAST.

Waring, in his Ogden papers, thus expresses his feelings about the crop that every one imagines is a necessity on the farm:—

"Corn. Indian corn is the *ignis fatuus* of Eastern agriculture; a relic of the days when our ancestors had to grow it at home or go without it, a habit of the Yankee farmer, a rut of the old fogysim which hates to adopt new ways and relinquish old ones. I modestly venture the opinion that not one bushel of corn has been grown within five years anywhere in New England, New Jersey, or Eastern New York that has not cost more than it came to, and that has not been grown at a positive loss; and I think it is time for men who call themselves 'practical' to cast up the account and realize the fact for themselves. On one side we have the marked value of a bushel of Western corn and the added extra value of the better article; call it if you please \$1. Nobody pretends that it pays to grow less than 50 bushels per acre, and for all the increase beyond that you must increase the items of labor and manure in proportion, so that it will not pay to grow 100 bushels. Remember that corn is an enormous feeder, and that a full crop can be grown only with an extravagant outlay for manure, and that even the moderate corn which can be grown on rich land without much manure takes from the ground material which would bring much more money if allowed to produce grass. I have never seen a statement of the cost of producing a crop of corn for a premium in which the loss in fertility was estimated at any thing like its fair value for the growth of grass. Then take the question of labor. Labor is the mill-stone that threatens to pull us under; we can't do this and we can't do that because of the labor it would take and the high wages we must pay; yet we insist on growing a crop that costs more for labor than any other except potatoes, and labor that must be applied when we ought to be cutting our early hay in June, or attending to our root crop in the fall. Turn it which way you will our corn-growing is a mistake, and a grave one. It seduces us into breaking up grass land we might better keep good by top-dressing; it consumes labor that we need at the same season for more important work, and it eats into our manure heaps like the dry rot, instead of increasing their value as the purchase of Western corn surely would do. Corn never—corn fodder, always, say I." *Agriculturist.*

IN FRANCE the weather at latest mail advices had been favorable for the prosecution of agricultural operations, and everywhere the sowing of wheat and rye was progressing, which had checked the marketing of grain, as farmers were to busily occupied with the sowing of grain and vintage to attend to the threshing and delivery of grain. Prices, however, in reports from 54 markets were lower in 20; downward tendency in 5; quiet in 7; no change in 15; firm in 3, and an improvement in 4 of 25 to 30 centimes.—*Iowa Homestead.*

Agricultural Items.

Grasshoppers destroyed the early sowing of fall wheat in sections of north-east Missouri.

The Texas cattle fever is increasing in Cedar county, Missouri. In Jasper county the same disease is making great havoc.

Jackson county, Iowa, complains that many fields of potatoes will not yield the amount of the seed. In Clark county, Wisconsin, the crop is also poor.

The cattle fever is still raging near Fort Scott, Kansas.

The Irish potato crop is almost a failure in Southern Illinois.

In Caldwell county, Missouri, the Texas cattle fever is raging.

Corn was much injured in Douglas county, Ill., by frosts recently.

The cattle disease has broken out near Auburn, Sangamon county, Illinois.

Franklin county, Iowa, suffered severe damage to corn by recent frosts.

Corn in Scott county, Iowa, was badly injured by recent frosts, and will not yield over half a crop.

Frosts have injured much of the late corn in Fayette county, Ohio. Potatoes are affected by the same cause.

SUGAR BEETS.—The successful manufacture of sugar from beets has proved, in Freeport, Ill., an operation necessarily involving large capital. In the Freeport factory, the capital represented is about \$250,000. The machinery consists of fourteen engines and pumps, sixteen boilers of 80 horse-power each over twenty miles of piping, grinder, machine for washing, separating pans, filters, and other appliances too numerous to mention. It was necessary to import from Europe all the machinery employed, with the exception of the engines, boilers and piping. From forty to fifty tons of beets are worked up every day. Profitable employment is given to about 270 men. The pulp of the beet is used in fattening from 400 to 500 head of cattle.

THE BEAN CROP IN KENT.—A correspondent, writing from the County of Kent, says:—How your Oxford readers would stare if they could see the fields of beans here everywhere visible. Thousands of acres are raised in this County and find a ready market at Chatham, at prices seldom below \$1.25 per bushel. This year the bean crop will average probably 25 bushels to the acre, and present prospects are that the price will be about \$1.50 per bushel. Your readers must not imagine that because beans are grown here in such quantities that nothing else can be raised. I am aware that the prevalent opinion in Oxford is that land unfit for any other grain will grow white beans. This, however, is a grand mistake, as beans need fertile soil as well as grain, and a more paying crop it would be hard to find. Farmers are busy now in their bean harvest. The pulling is a very laborious task, having to be all done by hand. It is mostly performed by women and children at a uniform cost of \$2 per acre.—*St. Thomas Times.*

EXCESSIVE IMPROVEMENT IN FRUIT.

The further improved animals or plants are made, to recede from the original type, the more their organisms are weakened or rendered delicate, and, of course, subject to more causes of disease. There must be in all such improvements a point at which it were wise to stop. Over-refinement is debilitating. It follows that more diseases take place—diseases of a more complicated character, in the highly refined products of man's skill. The exceptions do not infringe the rule.

It is much the same with fruits and flowers. The most luscious apples, pears and peaches of the old catalogue have virtually died out, or have become so diseased and effete that there is no process of renovating short of reproducing by new seedlings. The bitter orange will withstand climatic influences which the edible orange cannot bear. The double oleander perishes under circumstances where the common single variety keeps alive.

So with all things. The potato rot was undoubtedly another forcible example of that unerring law of nature. The vine probably owes its disease to that same over-refinement of select varieties; and what seems to be still a greater evil, those diseases, after some time, attack the more robust organism of the original types. Artificial means, constant care and improved remedies are required to keep up the health of those products, and thus prevent the scourges of epidemics which often sweep over a district and destroy thousands of animals or plants.—*Farmer and Gardener.*

TOP-DRESSING AND SALT.

By J. J. Mechi.

Great mistakes are sometimes made by the use of nitrate of soda alone on poor lands as a top-dressing. It contains very few elements of manure, therefore the intensely green and improved color of the crop is delusive, which I have observed, and this is also the opinion of Baron Liebig (see his "Modern Agriculture," letter 4, p. 53). I much prefer and always use the best Peruvian guano, mixed well with its own weight of common salt, for in this mixture you have nearly all the elements of plants, excepting potash and silica. A comparative trial in the same field will give satisfactory evidence when the crop is harvested. With nitrate of soda the growth of straw is forced, and it is often mildewed. There are cases where nitrate of soda is advantageous, such as on soils abounding in phosphate of lime and other fertile elements.

Common salt I have used much the last twenty-five years, and am convinced of its advantages on drained and well farmed land, especially on light land; for where salt is used the moisture of the air will be more abundantly appropriated and retained. About five o'clock one fine summer morning, I noticed that where the salt had been sown the previous day, every grain of salt had attracted to itself the dew and formed on the surface a wet spot about the size of a sixpence, the ground being generally very dry. On our light lands it consolidates them and makes them especially firm and acceptable to the wheat plant, whose straw will stand firm and erect, although 4½ to 5 feet long. It is unfavorable to certain weeds by this consideration. It prevents the ravage of the wire-worm. It is especially favorable to saline plants, such as mangold, whose ashes contain 50 per cent. of salt. I never sow guano, except mixed with its own weight of salt. Like everything else, it has, I am sorry to say, greatly risen in price. I observe that all crops seem to thrive well on land near salt water, especially where the land is drained. Lumps of rock salt should always be placed in manure for horses or cattle; their instinct teaches them when to avail of it. The spring consolidation of lightland, where wheat is sown, by salting and heavy cross-killing, greatly benefits the crop; very light hand-hoeing should follow these operations, although frequently hoeing is scarcely required; Liebig in his "Natural Laws of Husbandry," cap. xii, p. 332, correctly described nitrate of soda and common salt as a chemical means for preparing the soil. Referring to the experiments, he says (p. 337): "In both these series of experiments, the crops of corn and straw were remarkably increased by the addition of common salt; and it is scarcely necessary to repeat that such an augmentation could not possibly have taken place unless the soil had contained a certain quantity of phosphoric acid, silicic acid, potash, etc., capable of being brought into operation, but which without common salt, was not assimilable." Liebig also says (p. 340): "The grass of a meadow which has been manured with common salt, is eaten by cattle with greater relish, and preferred to any other; so that even from this point of view common salt deserves attention as a manure."

STREET TREE PLANTING IN MICHIGAN.

The following is a Michigan law relative to planting trees in the highway:—Any person or persons owning or occupying land adjoining any highway, not less than three rods wide, may plant or set out trees or shrubs on each side of said highway contiguous to his land, which trees or shrubs shall be set in regular rows at a distance not less than six feet from each other, and within eight feet of the margin of the highway. Provided, that in incorporated villages or cities the Common Council of such cities or villages may fix or determine the distance that such trees shall be set from the margin of the highways. And any such person owning or occupying land contiguous to any highway, and who is assessed to any highway or poll-tax, may cause to be paid of such tax a sum not exceeding twenty-five per cent. for any year, by planting trees or shrubs in the margin of the highway, in a space not exceeding eight feet in width from the margin of the highway, which sum, when so paid, shall be credited upon his highway or poll-tax for that year. And any overseer of the highway may cause a portion not exceeding ten per cent. of the highway tax, in his road district, to be expended in setting out trees or shrubs in a space not exceeding eight feet in width from the margin of the highway.



AGRICULTURAL.

INCREASED PRODUCTION OF BRITISH FARMS.

"Worn-out soils," and "exhausted land," are phrases that have no place in the vocabulary of an advanced agriculture. Deterioration is not the legitimate result of culture. When retrograde is the rule in the rate of yield, either a declining agriculture or a primitive or unorganized one may be assumed. In all the new States of this country, it has often been stated, the yield of the principal products tends rather to decline than to advance. The assumption is correct. Should this fact be deemed an industrial disgrace and an indication of inefficiency and unskillfulness of our farmers? Not necessarily. If we regard pioneer agriculture as only an incident to land speculation—the means by which a poor and farmless man may obtain a title, at a nominal cost, to land that will make either himself or his children rich, as settlement and society perfect the advance from nominal to intrinsic value—it is seen to have a basis of sound sense. If, on the other hand, wasteful and depleting methods are continued and temporary want of system becomes habitual chaos, a stigma is assuredly placed on such practice, and the result is a disgraceful retrograde, disreputable and ultimately unprofitable. The tendency to a settled habit of shabbiness and wastefulness is so strong that the pioneer is naturally expected to sell out, remove and open more wild land before the advancing wave of even a somewhat more methodical and scientific agriculture.

If your yield of wheat, for instance, is decreasing slightly, it is not because of the absence of all progressive elements in our agriculture, but from the fact that most of it is grown on new lands by pioneer farmers for the temporary purpose of money making without regard to a slight deterioration. Nor is the decline in yield wholly or mainly the result of depletion. It is often caused by careless culture, which fails to check the growth of weeds that ultimately overshadow and strangle the crops.

It is well known that Great Britain obtains larger average yields than any other country. A small area and a large resident population have made necessary a high state of culture and increased production. Science has been invoked; English, German and French experiments have been tested; capital without stint and business acumen have aided in the effort to obtain larger supplies of bread and meat from a given area.

Where this necessity has not existed, even in the British Colonies, the yield of wheat scarcely exceeds our average. This is the case in Canada, the Australian Colonies and in New Zealand. In Europe the only close competitor with Great Britain in the productivity of the whole area is Holland, a densely peopled country, in which high culture has become the rule.

What is the present British average yield of wheat?—It is a matter of estimate. A Government census of acreage is taken annually, but not of quantity of product. Some estimates make the average 32 bushels. Mr. James Caird, who is probably as good authority as can be cited, makes it 28 bushels. In 1850 he placed it at 26½ bushels. In 1770 Arthur Young, as the result of careful investigation, made the average 23 bushels. Assuming these figures to be correct, as they are deemed to be substantially by men of the best information and judgement, the increase has been 1½ bushels since 1850 and 5 bushels in the last century. This estimate is for Great Britain. The average for Ireland is placed 24 bushels. The United Kingdom, therefore, makes an average of about 27 bushels. This is, of course, the average of a series of years, as the influence of the seasons causes fluctuations which probably cannot be measured by less than a range of fifteen bushels.—*Department Report.*

COST OF A BUSHEL OF WHEAT IN ILLINOIS.

A correspondent of the *Rural World* says the farmers of Illinois cannot produce wheat for 20 cents a bushel, nor three times that amount. He adds:—This part of the State—Richmond county—is called a fair region for wheat, but where the average yield of the State is taken, it is about fourteen bushels to the acre. This country, during the last two years, has done a fraction better.

Wheat was worth with us last fall at seeding time, \$1.50 per bushel; harvest hands were paid from \$2 to \$2.50; for a man and team we paid \$2.50 and board, and for other kinds of work in the same proportion.

I will now give the cost of raising wheat in this part of Illinois, taking one acre as a basis for calculations, and estimating the yield at 15 bushels, which is a large average for the township, county or State.

Plowing one acre.....	\$1 50
Harrowing.....	50
One & half bushels seed \$1.50 per bu. 2 25	
Drilling.....	50
Board.....	1 00
Cutting.....	75
Binding.....	75
Shocking.....	25
Hauling and stacking.....	50
Threshing, fifteen bushels.....	1 87
Hauling to market.....	1 00
Rent.....	3 00

Total.....\$14 37
Or a fraction of 95 cents a bushel.

SUBSOILING LAND.

For the thousandth time, almost, we are asked by a correspondent if we believe in subsoiling land, he stating that he "turned over some stiff clay loam, twelve inches deep last spring, and his crop upon it was vastly inferior to that on land that had not been plowed more than four inches deep." But, good friend, you did not subsoil your land at all. You trench-plowed it—turned the subsoil to the surface; and that subsoil turned to the surface in the spring was probably sodden with water, heavy, sour, and as unfit to germinate seed in and promote the growth of plants, nearly, as if it had been crushed quartz. Had you trench-plowed the land, as you describe, in the fall, the result might have been different; and yet it might not have realized the first season all you anticipated from your enterprise and industry. But had you really subsoiled it in the spring—that is, run a lifting or subsoil plow in the furrows after you had turned the soil four inches deep with the surface plow; tifting and breaking the soil, without inverting it or throwing it to the surface, to the depth named, we know, so far as one can know from similar actual experience, that the result would have been far different, and you would never have questioned the utility and profit of subsoiling such soils.

INSECTS AND CORN.

The *Kentucky Farmers' Home Journal* remarks:—
The Illinois correspondent of the *Country Gentleman* says:—"The small grains have their hosts of enemies; so have the fruits and vegetables; the commercial plants, cotton, tobacco, &c., have theirs, and notably cotton, which seems to invite depredators from the four corners of the earth—but so far corn has escaped. If the gentleman were in this section he would soon be in possession of material which would enable him to see the other side of the question. A year ago we had a patch of late corn intended for roasting ears, but owing to the ravages of a worm, which is here one of the terrors of the gardening community, the patch was completely ruined, it being impossible to find a single sound ear. Then we have the cut worm, which not infrequently is instrumental in causing the farmer to replant whole fields of corn. It thus appears that corn suffers in the young as well as in the more advanced state, to a very serious extent."

ROTATION OF CROPS.

An old French agriculturist gave the following seven rules as the fundamental principles of rotation:

1. However well a soil may be prepared it cannot long nourish crops of the same kind in succession without becoming exhausted.
2. Every crop impoverishes a soil more or less, according as more or less is restored to the soil by the plant cultivated.
3. Perpendicular rooting plants and such as root horizontally ought to succeed each other.
4. Plants of the same kind should not return too frequently in rotation.
5. Two plants favorable to the growth of weeds ought not to succeed each other.
6. Such plants as eminently exhaust the soil, as the grain and oil plants, should only be sown when the land is in good heart.
7. In proportion as a soil is found to exhaust itself by successive crops, plants which are least exhausting ought to be cultivated.

MANURE CELLARS.

Perhaps there is no one improvement that a farmer could make about his premises that would be more beneficial than a manure cellar, so arranged that the manure from the house as well as the stock could be placed together; and if pigs could be kept on it it would still add to its fertilizing qualities. Manure will always be the one thing needful for the Canadian Farmer, varied somewhat, of course, by the position in which he finds himself placed, but outside of the lately reclaimed forest lands, and apart from heavy growers on rich Intervale, where nature does the manuring, manure will always be the great desideratum, and the farmers' crops and profits and success will depend a good deal upon his command of this article, and whatever tends to economize it and protect its qualities should be a main object with the cultivator.

Manure exposed at the side of a barn from early fall till planting time, loses very materially by evaporation and by bleaching. During all the rains before winter, after each there is a little stream of dark liquid running away, which is the soluble portion of the manure; and even during winter, when the heap is frozen, the same waste may be observed after every rain storm, and although the bulk may not be much diminished, the quality is so materially.

Another loss occurs by evaporation, which is aided by the decomposition which takes place to some extent, and the direct exposure of the manure to the sun and winds.

When manure cellars first began to be used, there was a prejudice against them, arising from the supposition that a mass of manure directly under the cattle would be injurious to them, but this was found to be not so in fact. Manure placed in a cellar catches all the urine, which, by keeping the manure moist, aids in a moderate decomposition, which makes the dung readier for use to the crops to which it is to be applied, and also vastly better.

It saves labor also in removing it from the stable, which is an important consideration. The next best thing is a shed. The proof should project well, and care should be taken that no surface water can reach the manure.

THE CANADIAN BARLEY CROP.

From a statement made by Mr. Robert H. Sawder, of Whitby, Canada West, we take the following:—

Exports of barley for the United States from Canada:—
Total number of bushels in 1872, 4,331,739; 1871, 4,860,905; 1870, 5,169,255; 1869, 5,295,131.

My estimate of the barley crop of 1872, between Toronto and Kingston, for export, was 2,000,000.

The season's shipments fully established the correctness of this estimate. The receipts of Canada barley at Oswego, in the fall of 1872, were 2,630,000 bushels. Of this Toronto and all points west only contributed not quite 630,000 bushels, leaving receipts at Oswego, from points east of Toronto, about 2,000,000 bushels, or 75 per cent. of the whole receipts at Oswego, and nearly one-half of the whole exports of the Province for the entire year, 1872. The receipts from these ports east of Toronto were almost exactly the same in quantity as in 1871, and about the same as the average of the preceding six or eight years. Hence, it is clear that the decrease in the production of barley has taken place in the section tributary to Toronto, and points west thereof.

The quality of the barley crop is good; all has been secured free from sprout or dampness; the berry is plump and heavy and very uniform in size, but, unfortunately, the whole crop has been more or less discolored by rains before and during harvest.

After including various local reports Mr. Whitby says:—"It appears from above that the whole barley crop of the Province of Ontario is fully one third short of last year, which will bring our exports, this year, under three million bushels."

The reduction in the production of barley in Canada is far more than counterbalanced by the rapid increase in the growth of this grain in the Far West, where the receipts at the lake and the river ports, August 1, 1872, to August 2, 1873, were 9,129,913 bushels, as compared with 3,518,692 bushels in the same period 1869-70, showing also that there has been an immense increase in the consumption.

The almost unexampled cold of last winter destroyed a large proportion of the fruit trees all over the west. Now comes the unusually severe drought, compelling largely what the frost spared. Appearances indicate that the fruit crops in the North will be short ones for a few years, at least until a new growth of trees come into bearing.

CROPS OF THE UNITED STATES.

Reports dated October 15th, received at the office of the *National Crop Reporter* indicate the condition this year of crops as compared with those of '72 as follows:—

On corn in the States producing nearly half the entire crop of the United States there is a loss of 26 per cent.; on wheat in States producing over 40 per cent. of the entire crop the gain is 6½ per cent.; on oats in States producing 40 per cent. of the entire crop the loss is 9 per cent.; on hay in States producing ¾ the entire crop the loss is 7 per cent.; and on swine in States producing ¼ the entire crop a loss of 4 4-5 per cent. Indications are that a largely increased average of winter wheat has been sown this fall. With a few exceptions the condition of the growing crop is above the average. The report of the condition of the corn crop leads to the conclusion that the estimated losses will be further increased as the extent of the damage becomes better known. The proportion of the soft corn is very large. The report of the condition of fattening hogs from sections where the corn was most damaged by frost indicated the average weight will be less than last season. The inferior fattening quality of the grain, and the belief among farmers of higher prices for corn incline them to dispose of their stock in a comparatively immature condition. Reports from Iowa, and Illinois, indicate increasing losses from hog cholera.

FARMING EXPERIENCE.

In farming, as well as in other operations, mere theory and speculation is worth but little; practical experience is what is wanted to uphold the business. The results of experience in farm management are what farmers want to read and study. Every farmer has a system of management, which to his own mind seems most correct. It may be the system practiced by his father, or increasing to the greatest possible extent his number of acres. Now, I would never leave the old way for the new one, so long as it was certain that the old way was the best; nor would I follow the old track for reason that it was old, when convinced, after careful examination, that a new one was to be preferred.

Reading agricultural papers may perhaps be said to constitute the first step towards improvement. This reading gives an opportunity of becoming acquainted with the practical experience of farmers. It is much to be desired that more of this class of farmers could be induced to give their views. There is too frequently a reluctance to writing. This reluctance should be overcome. It is not to be expected that plain farmers should always frame sentences in the style of *literary* writers, nor is this necessary—give us the facts in an intelligible manner. Any man that can give his ideas to his neighbor in conversation, can do this, and this is all that is necessary.

HEN MANURE.

Vindex, Long Island, has ten barrels of hen manure, and now the question occurs, "What will I do with it?" Poor man! we are sorry for you; head up the barrels tight and pay the freight to our place and it won't trouble you any more. When it arrives we shall mix it with two or three times its bulk of the driest earth at hand, shovel it over and mix thoroughly, and put it in a heap, with a few inches of earth over that. If it does not heat in a few days, we will make the heap over, and wet it as we go, and cover the new heap with earth. If any ammonia escapes, put more earth on the heap. It will soon disappear as hen manure, and be incorporated with the earth, and we shan't buy any guano this year. We shall use it for corn and all sorts of quick growing crops, top-dress cabbages, and anything else for which we would use guano. As it is very strong, it will not do to put it in direct contact with the seed. If he chooses to take the trouble, Vindex can do this himself, but we would be glad to do it for him.—*American Agriculturist.*

The visible supply of grain September 27th, 1873, and corresponding day last year was as follows:—1873—Wheat, 10,668,609 bushels; corn, 12,288,020 bushels; oats, 2,357,319 bushels; barley, 1,109,717 bushels. 1872—Wheat, 5,354,720 bushels; corn, 13,690,784 bushels; oats, 4,811,406 bushels; barley, 1,666,012 bushels.

The amount of wheat in transit for the United Kingdom Sept. 20, 1873, exclusive of steamer shipments from America and sail and steamer shipments from the ports of the Baltic Sea, was 669,798 quarters, or 5,286,384 bushels.

While the farms, recently thoughtful and while organic fit the production, even more than the efforts, our country benefited, time in ever thorough work, more of great care, indeed, the better farm through better against all crops.

In the first on the farm view—show would define well contemplated good lands are always We cannot labour were employed certainties are the exact in the future past, and will many ure. We are by be farming of whether the wise. We have the seasons short-comer late in the fall, the dr before the is the harvest, or, it may land after the crop of was too we with the wet lands the farm. urging is age, and no failure them also work where failures. ticed. We light crop farmers a soil. It devoted to brings best greatest p.

The be to the give it better re an animal the cost of the opera from good Thus who stand are gramin lies, let us within out to increase

AGRICULTURE "Sept letter wh used us of this thrive Townshi tions were whom w of the Le ly dissu ing their serve un and app that of man for know n to them one of t have an From su from si reply. the outs

BETTER FARMING.

While the changes in the production of our farms, recommended by many of the thoughtful farmers, may well be encouraged and while organization may in a measure benefit the producer, there may still greater advantages be realized by the adoption of a better system of farming. Better farming we need even more than we need changes in our productions, and more than we need organized effort. Our condition will be more immediately benefited by it, and this benefit will continue in every increasing ratio. We need more thorough work in all we undertake to do—more thorough and better preparation of the soil, more drainage, more liberal manuring, great care, cleaner culture and better crop. Indeed, the better crops are sure to follow the better farming. We need to be insured, through better farming—as surely may be—against all losses from small and unprofitable crops.

In the first place, in every movement made on the farm, we should have an object in view—should have a clear idea of what we would accomplish, and then have our plans well defined—reaching towards the object contemplated. We should work none but good lands. Land here is cheap, and there are always good lands that can be purchased. We cannot afford to spend valuable time—labour which will bear a high price if it were employed in other business, upon uncertainties—upon land where paying returns are the exception instead of the rule. Seasons in the future will rule as they have in the past, and crops under ordinary management will many times prove a partial or total failure. We want to guard against these failures by better farming on good lands. Good farming on good soils meets with no failures whether the season be favourable or otherwise. We have a sort of habit of attributing to the season that which is caused by our own short-comings. We sow wheat for instance, late in the season on land too wet to sow earlier, the drought of summer parches the ground before the wheat gets a start, and a light crop is the harvest—"the season was unfavorable;" or, it may be, the wheat was sown early, the land afterwards flooded by heavy rains, and the crop of course was a failure—"the season was too wet." The fact is, the trouble was not with the season, but with the farmer. These wet lands many times are the best lands in the farm. When that better farming we are urging is practiced, the surplus water by drainage, and then by good cultivation there will be no failures. Either drain wet lands or let them alone. We can do better than to work where chances are strongly in favor of failures. Liberal manuring must be practiced. We should not be satisfied with light crops though we make them sure. Few farmers are aware of the capabilities of good soil. It matters not what crop the land be devoted to, that system of operation which brings bountiful crops brings with it the greatest profit.

The better farming we urge extends also to the stock. We need to keep better stock, give it better care, better feed, and get vastly better returns from it. There is no profit from an animal where the income barely balances the cost of keeping. We want a profit from the operation. This will come, if it come at all, from good stock well kept.

Thus while we are berating the middle-men who stand between us and the consumers, and are grumbling over gigantic railroad monopolies, let us not forget that we have the power within ourselves to better our condition and to increase our prosperity.—*Maini Farmer.*

AGRICULTURAL LABORERS IN LOWER CANADA.

Sept 15.—On Thursday, armed with the letter which his Excellency had kindly promised us on the previous day, we started for this thriving part of what are called the Eastern Townships. I am sorry to say our investigations were not satisfactory. If the farmers whom we met last week are a fair specimen of the Lower Canada farmers, I would earnestly dissuade the English laborers from leaving their present masters to come out and serve under them. Toil-worn, narrow-minded and apparently without one other idea than that of how much work they can get out of a man for the dollar they must pay him, I know of no agriculturist in England whom I would not elect to serve under in preference to them. "What are your hours?" we said to one of the farmers who intimated his desire to have an English laborer sent out to him. From sunrise to sunset during five months, and from six to six during the rest was had reply. "Then all I can say to you," replied the outspoken Warwickshire man, "is that I

wish you may get him.' 'But our pay,' continued the farmer, 'consider how good it is—a dollar and a quarter a day, with board and lodging.' 'Can't help it,' responded Mr. Arch; 'what you want is a slave, and Britons never will be slaves.' On my expressing astonishment at the absence of laborers from the farms—for, driving all day through a farming district, I saw no man at work anywhere, except here and there one whom our guide assured us was either a farmer or his son—a farmer with whom we stayed to converse assured us that they got on very tolerably. 'Yonder said he, 'is a farmer who is worth 6000 dollars and a farm of 300 or 400 acres, and all his ordinary help is one young fellow whom you see now with him. And sure enough, as we drove past, there was the tough old fellow slaving away with his rake among the Barley, and close at hand was the one farm hand. The comfortable, jolly-faced farmer of Old England need not grudge these Canadian farmers their rent-free domains. Verily there are worse things than rent audits. I have seen more haggard-faced farmers since I have been in Canada than I have met during a 40 years residence in rural districts at home. And never have I seen during the same period such miserable-looking, lank, and hopeless laborers as the few whom I have seen in the service of these terrible task masters.—*The Gardiner Chronicle and Agricultural Gazette.*

AGRICULTURAL AND OTHER NOTES.

The following characteristic letter from Mr. J. J. Mechi to the *Mark Lane Express*, although addressed to English farmers, will be found to contain much that is of interest.

"Intensified agriculture—maximum crops—what does this mean? What is it? Will it pay? Where is the money to come from? And how are people to be made to change their views and give up all old beliefs and old practices? These are all very natural queries, and they should not create surprise. The transition from natural tracks to good hard roads and canals was not an easy one; and, as to the railway and its noisy and horrible smoking engine, what town or city would tolerate such an intrusive and objectionable innovation? Well, prejudice and old custom carried the day, and so the railway had to avoid the towns and take open country. But what a humiliating and costly penalty was paid for this blind attachment to old customs and the fear of innovation, for at last the towns had to go into the country by a connecting and costly link to unite with their old enemy, and hourly and daily are the penitent regrets arising from this mistaken opposition to the great social civilization. So it is in a degree as regards agricultural improvement. It is not only the farmer but no less the land owner and the laborer who have to be converted to modern and more profitable practices. The first thing to be done is to talk and write about them and make people angry or inquisitive. Like some reform, free trade and other great political changes, agricultural reform must be carried by agitation. Carried it certainly will be, because truth will prevail in the end, and the prospect of an empty stomach is so alarming an affair that it will have a very sharpening effect upon the perceptive organs. Although my men are used to machinery they cannot help showing a dislike to the reaping machine, although I lend it to them with horses at two shillings an acre, and thus put money in their pockets; but, as that is their 'stock-in-trade,' we ought not to be angry with them, although it and the threshing-machine relieve them of their most severe labor. But we have also farmers' prejudices impeding agricultural profit and progress. How attached are many of the best of them to the old wagon, although it has been proved over and over again that carts having the same fundamental space as the wagon are most economical, both in cost, and horse and manual labor. How rarely farmers drive themselves to market on four wheels! Again, there is a mistaken attachment to the open farm-yard and its escaping manure instead of adopting the covered yard principle, although the latter is proved to be the most advantageous; but landlords, are, perhaps, most responsible for this prejudice, because, as they will not allow their tenants to sell straw for paper-making (as I do), the tenants, whose capital will not permit the consumption of all the straw as food, are compelled to use it as a mop or sop to absorb the falling rains and the washings from untroughed buildings. Landowners and tenants, too, should remember that manure is only 12s. 6d. (see Lewes), while it can be sold for paper-making at 40s. per ton, and, as food it is worth fully that sum. Covered yards require less than half the straw used in open yards. For every five tons of straw sold to a tenant to purchase and consume one ton of rape or good cotton cake or linseed cake, and both the land and the farmer's purse would be improved. Another mistaken and most unprofitable practice is that of taking

the animal to the food instead of bringing the food to the animal (I mean as regards cattle and horses) and the roaming at large of sheep which latter should be close folded within iron hurdles, removed twice daily. This reform will be a 'big job,' and a long time coming, because we were for centuries a pastoral people, and are only now emerging from permanent pasture, which still encumbers one half of the United Kingdom. Some 400 years ago there was a great outcry about its decreasing, but it was then as twenty acres to one acre of arable—now it is one for one. The same remark applies to animals as to ourselves: it cannot be right to be compelled to walk, sleep and deposit on our food.

WHAT SUBSOILING DID.

I lived twenty-two years in Castle, N. Y. Some of my land by being over-cropped became so reduced that it would not produce decent weeds. One year it did not yield barley enough to pay for harvesting. The next year I used my "subsoil plow," and obtained from the acre sixteen bushels of very fine looking spring wheat. I stocked with red clover and obtained as a result a very large crop of clover hay. It was so large that we put it into "cock" with the pitchforks. It did not cost over twice the labor to plow and subsoil that is expended on common furrow-ploughing. Hence, then, is genuine profit obtained in a very short time.—*Cor. Germantown Telegraph.*

MANURING WHEAT.

It is, we believe, the prevailing custom in Eastern Pennsylvania to spread the manure on the ground and then plow it under.

Probably the reason for so applying the manure is the fact that it is more convenient to haul the manure on solid than plowed ground, but we question if this advantage is sufficient to justify the custom. The frequent changes which we have in the temperature through the winter, and many "freezings" and "thawings" which the soil about the roots of the wheat undergoes, materially injures the wheat; when manure is applied as a top dressing—it then acts both as a manure and a mulch. In Ohio the best farmers always apply the manure on the surface after plowing (and we presume after harrowing) the ground. And farmers of experience say, the manure so applied will do twice the good that it will do plowed under.

Some farmers in Pennsylvania, who are in the habit of plowing under the manure, have an idea that the manure will do more good thus applied, as it will be nearer the roots; such farmers mistake the true philosophy of manures. Manures are not food for plants, but they contain the products or elements which, when dissolved by the water in the soil, become food for plants. Plants never feed on solid matter—they would starve and die if covered with manure, if there was no water to dissolve the products and render it available for the rootlets of the plants. If the manure be plowed under, the moisture dissolves out the products on elements of the manure, and carries them below the roots of the plant, and hence they sink down into the subsoil and are lost for that crop at least; whereas, if the manure be applied to the surface, the rains and snows dissolves out the nutritious products—they penetrate the soil, and are taken up by the rootlets of the plants. We believe farmers should test the application of manure in this way, and thus decide practically which is the best method of applying manures to the soil. In the case of wheat, the advantage of a good rich coat of manure, as an outside covering, will be great—even straw applied to the surface of wheat, has proved a great benefit to the growing crop.

The *Country Gentleman* says: Some year ago he had a farmer who spread a thin dressing of straw upon two strips of wheat early in the winter, which proved a severe one with put little snow—the "result was the mulched portions yielded at the rate of twenty-five bushels to the acre, while the rest of the field, fully exposed, was not worth harvesting."

This might be an unusual case, but we believe if farmers would adopt surface manuring they would have its benefit as a mulch through the winter and as a manure when the spring opens.

They have a Land Improvement Company in England which lends money at six and a half per cent. to farmers on real estate security.—Alderman Mechi gives an account of one agriculturist who borrowed £3500, 22 years ago. He drained his land three feet deep, and made other improvements, and now, at a cost of only 6s. 6d. per acre, his property has been permanently improved, and there has been a large increase of employed labor and of profit.

SALT.

Salt gives relish to grasses, hay and other kinds of raw food, and it acts universally as a stimulus to digestion. It gives tone to the stomach when impaired by an excess of food or labor. Experienced herdsmen have always found that it acts as a vermifuge, destroys intestinal parasites, and it is well known to be a powerful agent in taming and overcoming the natural timidity of animals. It is also well known that salt is an excellent abater of internal as well as outward inflammation; it improves the quality of excrement of animals for the purpose of manure. But in its internal uses, whether as a condiment or medicine, it should be administered in small doses. If animals are constantly allowed access to salt they will consume too much for their good, but when it is given them at intervals of once or twice a week, a small handful is sufficient for a horse or cow. In fattening calves that are weaned, fed upon gruel or other semi-liquid food, salt in small quantities should always be given, not only to prevent sickness, but to enable the animal to relish the somewhat unnatural food. Salt also in moderate quantities promotes the health of hogs. A tablespoonful once in twenty-four hours mixed with the food of each hog, will not only aid in the thorough digestion of the food, but ensure perfect health. We have not the least doubt of the efficiency of salt in preventing many of the diseases which have made such havoc among the swine in portions of the country during the past few years. When the use of salt was first introduced into the piggeries of Ireland, it was claimed that the hogs fattened on about one-half the food that was required without it, simply in consequence of improved or more thorough digestion. Were it necessary, we might quote from hundreds of our greatest agricultural authorities to show the benefits that may be derived from the free use of salt among our domestic animals. One of the best known means, both as a preventative and cure of foot-rot among sheep, is the scattering of salt over the infected land.

Salt for Destroying Insects.—It has long been known that salt operates fatally upon all cold-blooded animals that live upon land or in fresh water. Sir John Sinclair, many years ago, said that in Scotland, where the oat crop was frequently destroyed by grubs, it had long been the practice to mix salt with the seed in the proportion of one to thirty-two, but sometimes one to sixteen. If we scatter salt upon land infested with vermin it destroys them, and their bodies become the food of plants. Great care should be taken in applying salt upon growing crops, as much is sure to be injurious. One to five bushels per acre may be spread broadcast upon meadows early in spring or upon land at the time of sowing grain.

Salt for Fungoid Diseases.—Soaking seed wheat in urine or brine, to prevent smut or blight, has been practiced thousands of years, as we learn from the writings of Cato, Virgil, Pliny and Columella. Still, we frequently hear farmers speak of this practice as something new. Salt is employed wherever scientific agriculture is practiced, not only for destroying vermin, but as a preventative of fungoid diseases in cereal crops. Every means has been employed by our scientific men to positively determine its value in agriculture, and the results all tend to show that it is one of the most important mineral substances known. The use of salt upon sheep pastures has been observed in Spain and Germany from a very early period. Its efficacy against murrain or rot was known in England in the sixteenth century, and for fertilizing land it was extensively used in the seventeenth century. The long and almost obstinate indifference of our farmers in the use of salt is almost beyond comprehension, but the time must come when it will be extensively employed as a manure.—*New York Sun.*

The *Toronto Globe* reports:—"Practically, the Canadian crop of all kinds may now be said to be secured, and from the amount already threshed a tolerably fair estimate can be formed of the character. The character is all but universally allowed to be a very satisfactory one. The labor of the husbandman has been awarded with a very abundant return. We have abundance within our borders, and a large surplus to dispose of to countries not so favorably situated, or not so greatly privileged in the character of their harvest."

The potato crop in south-east Missouri was almost a failure.

UNITED STATES.

15th, received at *Trop Reporter* indications of crops as follows:—

producing nearly the United States; on wheat in percent of the entire; on oats in percent of the entire; on hay in States percent producing the average of the growing crop leads to the losses will be the proportion of

The report of hogs from sections damaged by frost might will be less inferior fattening the belief among corn incline them in a comparatively reports from Iowa, ceasing losses from

EXPERIENCE.

In other operations. n is worth but little; at is wanted to up- of experience in at farmers want to rmer has a system of his own mind seems the system practiced to the greatest pos- acres. Now, I would for the new one, so the old way was the the old track for rea- on convinced, after a new one was to be

pers may perhaps be first step towards in- gives an opportunity with the practical ex- much to be desired farmers could be in- . There is too fre- writing. This reduc- It is not to be ex- should always frame literary writers, nor is the facts in an intelli- n that can give his conversation, can do necessary.

CURE.

l, has ten barrels of the question occurs, it?" Poor man! head up the barrels sent to our place and it y more. When it t with two or three driest earth at hand, thoroughly, and put inches of earth over at in a few days, we er, and wet it as we heap with earth. If out more earth on the appear as hen manure, th the earth, and we this year. We shall orts of quick growing es, and anything else use guano. As it is do to put it in direct If he chooses to take n do this himself, but o for him.—*Ameri-*

grain September 27th, day last year was as t, 10,668,609 bushels; s; oats, 2,357,319 bush- ushels. 1872—Wheat, rn, 13,690,784 bushels; s; barley, 1,666,012

eat in transit for the 20, 1873, exclusive of a America and sail and in the ports of the Baltic ers, or 5,286,384 bushels.

POOR FARMING IN ARKANSAS.—Many of the people of our State cannot yet understand the maxim, "There is no excellence without labor." As proof of my assertion, I will describe a field of corn which I saw a few days ago, while passing through the State. The ground was not plowed at all before planting. It was marked off but one way, planted by hand and covered with the hoe. It received one, and only one ploughing during the season. The whole field, consisting of 20 acres, will yield about 100 bushels of corn. The field is not alone in its glory with the weeds, for I saw scores of others in the same fix.—*Iowa Homestead.*

Buckwheat.

In some of the most favored parts of Canada buckwheat is but little in vogue. The greatest objection to its cultivation is that it is apt to leave the seed in the ground, and it often sours other crops. Therefore its cultivation is totally abandoned as a grain crop by many good farmers. In a large part of Canada buckwheat is still cultivated as a staple for food, as the wheat crop is too precarious to depend on for sustenance much less for export. Last season we imported some of the Silver-Hulled Buckwheat. We never saw anything like it before, nor have we received a report of it from anyone who has. We supplied a great many with it last year, but have as yet only received two reports in regard to it, both of which speak satisfactorily of the yield and quality. It is smoother, brighter and cleaner than the common buckwheat, consequently the flour has less grit in it than is usual in other varieties. The grain is smoother, the straw rather finer and the grain grows lower down the stalk than in the common buckwheat. It is our impression that this will be of advantage to the farmers that use much buckwheat. We should like to have more reports in regard to it from those who have procured it. Now that the long evenings have set in we hope to have more communications from our subscribers in regard to their crops.

The Hawk and Heron.

See how Mr. Hawk makes the feathers fly. The long-legged, long-necked Heron has evidently met his fate; and he shows by the despairing glance of his eye that he knows his days are ended. In olden times hawking was the fashionable amusement. The sport consisted in catching wild fowl by hawks trained for that purpose. Hawking has now gone entirely out of practice among civilized people, although the Chinese still catch fish by means of birds similarly trained.

The grass or German pea, of which we received some this spring, has not been much of an acquisition. Excepting for green crop we do not think they will be of any value. We find that they are well known in some parts of the country, having been grown for years.

POTATO CROP IN UNITED STATES.

The average condition of this crop for all the States is 95. It is below average in all the New England States, the deficit ranging from 25 per cent. in Rhode Island to 2 per cent. in New Hampshire. In those localities affected by the drought in the latter part of the summer the late plantings were very short, but at several points in Massachusetts and Rhode Island the later crops are better than the earlier ones. In the Middle States, New York is above average while New Jersey, Pennsylvania and Delaware

are below. In several counties excessive rains rotted the crops; in others the Colorado beetle was destructive. Maryland averaged 95; Virginia 98; North Carolina 96. In South Carolina and the Gulf States the crop was average or above, except in Louisiana and Texas. In Louisiana it is observed that potatoes yield bountifully when proper culture has been bestowed upon them. In some counties in Texas they are injured by frost. The crop is below average in all the inland Southern States, the Colorado beetle being reported in several counties of Tennessee, West Virginia and Kentucky. Insect injuries and unfavorable conditions of

growth greatly affected the crop in many portions of the North-west and on the Pacific Coast, reducing the yield below an average. The Colorado beetle was successfully resisted in many counties by the prompt administering of Paris green and other remedies, in the use of which farmers have by experience acquired greater skill. In the Northern Mississippi Territories the grasshopper is reported as devouring this with other crops. In several of our reports it is noted that Peachblows and Early Rose potatoes escaped the ravages of insects and withstood the stress of drought to a greater extent than any other varieties.

A New Jersey correspondent of the *Country Gentleman* says that in his neighborhood the pea bug had been gotten rid of by threshing peas, cleaning them, and then putting them in a heap on the barn floor and sprinkling them at the rate of a quart to five or six bushels, with spirits of turpentine. Leave the peas a few days to dry, after shoveling the heap over to mix them well with the turpentine. Barrel them, and the bugs are never heard of again.

We want some good agents to work for the *FARMER'S ADVOCATE* during the winter. We will pay them good wages. Address, *FARMER'S ADVOCATE*, London, Ont.

CLOVER BEFORE WHEAT.

All who are practically acquainted with the subject, must have seen that the best crops of wheat are produced by being preceded by some crops of clover grown for seed. I have come to the conclusion that the very best preparation the very best manure, is a good crop of clover. A vast amount of mineral nature is brought within reach of the corn crop, which otherwise would remain in a lock-up condition in the soil. The clover plants take nitrogen from the atmosphere, and manufacture it into their own substance, which, on decomposition of the clover roots and leaves, produces abundance of ammonia. In reality the growing of clover is equivalent to a great extent to manuring with Peruvian guano.—*Voelcker.*

The farmers' deliveries of wheat in the 150 towns in England and Wales for the week ended Sept. 27th were 77,440 qrs., against 77,248 qrs. for the corresponding week in 1872, and 82,523 qrs. as the average for the last ten years of the corresponding weeks.

The supply for the week ended September 27th, 1873, including the farmers' deliveries in the kingdom, plus the imports, minus the exports, was equal to 423,869 qrs., against an average weekly consumption of about 423,000 qrs.

The cable reports of the 16th of Oct. state that the arrivals of both wheat and corn off coast were large, but that the number of corn cargoes on their passage had largely decreased, and wheat cargoes had slightly diminished. The large arrivals of wheat and corn off coast had caused a drooping market.—*Homestead.*

The *Manitoba Free Press* says of the crops in that Province:—"We believe the quantity of grain raised in the Province this season is much larger than that of any previous one. The yield is immense. We have endeavored to collect accurate information upon this latter matter, and the result is very satisfactory. Wheat will average about thirty-five bushels per acre, running between twenty-eight and forty-five. Oats will average at least sixty bushels per acre, running from fifty to seventy-five. The oats are unusually heavy, weighing upon the average over forty pounds to the bushel. The average yield of barley is about fifty bushels per acre. It is also very heavy, but the wet summer has detracted slightly from the proverbial brightness of Manitoba barley. The yield of roots has been something extraordinary."

Flax culture is receiving increased attention in the north-west. About four thousand acres were sown in Marshall county, Iowa, this year, and six thousand acres in Watonwan county, Minnesota. The latter is an increase of six hundred per cent. over last year.



THE HAWK AND HERON.

THE WHEAT CROP IN MAINE.

For many years but little wheat has been raised in Maine, the reason being the destruction caused by the weevil. But several years ago it was found that this pest had passed away, and that wheat could again be raised as well as formerly. For three or four years the amount of wheat sown has increased, and the crop has always been good. This year, although much more was sown than last, there will not be so much raised. In the first place the spring was exceedingly wet, and scarcely any wheat was sown early, and what was, remained

in the ground a long time before it came up. Then a mysterious something, probably a worm, whose whereabouts we could not determine, thinned out all kinds of grain fully one-half. Then it came on very dry, and the ground, especially our clayey soil, became very hard, so that the grain turned very pale, almost yellow. A few showers the first part of the summer helped it along somewhat, but it ripened prematurely, and although the heads are quite good, yet on account of the thinness of the grain, the yield is very small—probably not more than six to ten bushels to the acre.

THE RELAT

"Many are the mo... Some bean substances nearly akin... chemists c... tive analy... the same... depends u... and clima... of any an... of soil, cu... a view to c...

An exam... ever, sho... exhibit m... but the fa... are found... than cert... must take... deciding i... have less... albumen, and more...

The G... withstand... abouts sp... their hay... and root...

Sevent

The ac... illustrati... of the Sc... Oxford, p... party of... of this c...

The bu... go to... \$4,000, n... ey to r... received... in the... blemish... taking, b... brought... Col. Ta... bought... original... using h... sold him... tell, of... The... got wo... calves... sold at... \$2,000... bought... his own... not fail... mark i... herd...

The G... valuable... Horns m... ess, an... identical... the only... thought... use wit... cows.

At th... shire's, the Oxf... them w... white b... Lord D... Oxford... ers who... of Oxfo... There... importe... Lad wa... of Oxfo... mark in...

Aa g... out gen... adopted... most er... country... and ren... in ever... certain... soil; ar... will en... of capa... and ev... agricul... his soil... withou... a certa... half th...

THE RELATIVE NUTRITION OF BEANS AND PEAS.

"Many interested" ask us to decide which are the most nutritious food — beans or peas. Some beans are richer than peas in nutritious substances, and vice versa. They are so nearly akin in value in this respect, that some chemists class them together in their descriptive analysis, just as botanists put them in the same family. The difference in nutrition depends upon variety, soil, culture, and local and climatic circumstances.—We don't know of any analysis made where the circumstances of soil, culture, &c., were the same, with a view to determine the comparative nutrition.

An examination of several analyses, however, shows that in a majority of cases, peas exhibit more nutritive elements than beans; but the fact is, that certain varieties of beans are found to yield more nutritive substance than certain varieties of peas. Hence, we must take the general average of analysis in deciding in favor of peas. Peas, as a rule, have less husk, less water, more legumine, albumen, &c as much starch, more sugar and more oil.—*Rural New Yorker.*

The *Guardian* (Richmond, Q.) says:—Notwithstanding the dry season, the farmers hereabouts speak in the most satisfied terms of both their hay and harvest crops, while the potato and root crop is said to be above an average.

Seventh Earl of Oxford.

The accompanying illustration is a portrait of the Seventh Earl of Oxford, lately the property of Colonel Taylor, of this city.

The bull was sold to go to England, for \$4,000, but on the journey to New York he received severe injury in the cars, which blemished him for prize taking, and so was brought back again. Col. Taylor soon after bought him at half the original price, and after using him for a year, sold him to Mr. Wastell, of Michigan.

The Seventh Earl got wonderfully good calves. Four of them sold at Col. T.'s sale for \$2,000. Mr. Stone bought a bull calf for his own use, which cannot fail to make his mark in Mr. Stone's herd.

The *Oxford* is the most valuable trite of short-horns next to the *Duchess*, and is now nearly identical in blood: it is the only tribe Mr. Bates thought good enough to use with his *Duchess* cows.

At the public auction of the Duke of Devonshire's, in September 1871, eight animals of the *Oxford* tribe averaged \$3,000 each: among them was one roan cow, sold for \$5025, and a white bull for \$5,000; and at the auction of Lord Dunmore's herd in September, 1872, three *Oxford*'s averaged \$5,300 each, one of the heifers whose dam is sister to the dam of 7th Earl of Oxford, selling for \$6,300.

There have only been 2 *Oxford* bulls ever imported into Canada. Mr. Christie's *Oxford Lad* was the first, and Col. Taylor's *7th Earl of Oxford* the other, and both have made their mark in this country.

FATTENING THE SOIL.

An agricultural career on a good scale, carried out generally on the best practised systems adopted by the successful farmers in the most enlightened districts in this or any other country is one to be admired and brings honor and renown to the agriculturist. Management, in every respect, should be such as to make certain of not losing any of the fertility in the soil; and a thorough sound minded farmer will endeavor to fetch up to the highest pitch of capability to produce crops every field and every acre in his possession. A clever agriculturist understands the way to enrich his soil without wasting his crops to do it and without allowing his land to be idle, while a certain class of men plow under clover, let half their meadow grass rot on the ground

and cut up into chaff inferior fodder of various kinds and feed their cattle thereon in the winter, he increases his herd and flocks, and when the price of beef, mutton, etc., warrants it, buys rich food, oil cake, etc., making a profit on that, and by eating the clover and grass his smart (?) neighbors waste, and giving the food mentioned in addition, produces such a strong fertilizing manure that the land to a state of fatness which gives immense crops in return.

Cattle and sheep, the latter especially, are necessary for successful farming; the feeding of the land the sheep and, cows is of the utmost consequence; for fat land is a necessity to prosperity, while poor soil is ruin and starvation. It is this neglect to fatten the land which causes all the complaints wailed forth in print; and the stopping of the pangs of hunger of fields which have received no meal for years, by giving them their own raw productions to eat, such as plowing in clover or leaving crops of grass on meadows to rot, is sometimes like keeping a herd of swine and allaying hunger and attempting to fatten them up by feeding with their produce of young pigs! Give the swine abundance of everything to make them fruitful, and they will increase and multiply beyond the belief of those who have only been accustomed to the poverty kind of animals, supplying funds in abundance by marketing the surplus. Get

Best quarter acre carrots, three entries: 1st, Richard Manning, Exeter, 333 bush. per quarter acre; 2nd, Jas. Dickson, Tuckersmith, 264 bush. per quarter acre, 3rd, Dr. Coleman, Seaforth, 224 bushels per acre.

Best quarter acre Mangold Wurtzels, 2 entries; 1st, Richard Manning, Exeter, 418 bushels per quarter acre; 2nd, James Dickson, Tuckersmith, 344 bushels per quarter acre.

Best three acres cultivated roots, 8 entries; 1st, Richard Manning, Exeter; 2nd, Jas. Dickson, Tuckersmith.

There is no third prize in this class, but we would strongly recommend that Mr. H. M. Chesney, Tuckersmith, receive an extra prize.

We found all the land in an excellent state of cultivation, with the drills for turnips exceedingly uniform in width, being about 2 feet 4 inches apart. For Mangolds and carrots the drills were of the same size except those of Mr. Manning, who cultivated both carrots and Mangolds very successfully. One of the secrets of his success is that his drills are only about one foot seven inches apart, thereby giving him the advantage of having nearly six drills instead of four. The best crops, to the best of our information, were manured in the spring with from 22 to about 28 loads of manure to the acre, and put in the drills. This season the best crops were

AUSTRALIAN CROPS.

Advices from Adelaide, South Australia, under date of August 12th, report the exports of wheat and flour from that port for four weeks at 10,114 tons, and the total for the thirty-one weeks ended the 2nd of August, 141,000 tons. The exports to Great Britain in thirty-one weeks had been 294,002½ qrs. of wheat and 10,674½ tons of flour. It was estimated that there was still an available surplus for export of 30,000 to 35,000 tons, equal to 1,166,666 bushels. The crops everywhere in the colony were looking magnificent, and if there shall be an average yield, the result of the harvest will, it is estimated, be much in excess of last year, as there is a large increase in the acreage under wheat. The price of wheat there was 5s 8d to 6s 3d per bushel.

The *Western Farmer* says the Texas Cattle Fever has broken out again with great violence near the Hannibal and St. Joseph Railroad. Great consternation prevails and great loss is apprehended.

The same paper says that farms are now selling at from \$5 to \$10 per acre in Delaware. This is surprising as it is so near the New York market.

This paper also states that Massachusetts State established an Agricultural College at a cost of between \$300,000 and \$500,000, and has graduated ten farmers at a cost of from \$30,000 to \$50,000 each.

Some samples of splendid wheat from British Columbia were exhibited in Hamilton. The farm whence they came is situated on the northern arm of the Lower Fraser River; the ground where the grain was grown is composed of black loam, with clay subsoil, of which there are hundreds of acres. The straw was five and a half feet in length, with well filled heads. The samples of wheat shown consist of Soules, purple stem and white Poland. The grain is full and plump, and seems to have all the qualities necessary for the manufacture of good flour. Such wheat offered for sale in the Hamilton market would raise prices many cents, and cause quite a rush among the buyers. It must be remembered that it was produced at the rate of sixty bushels to the acre, and the season then was not uncommonly favorable.

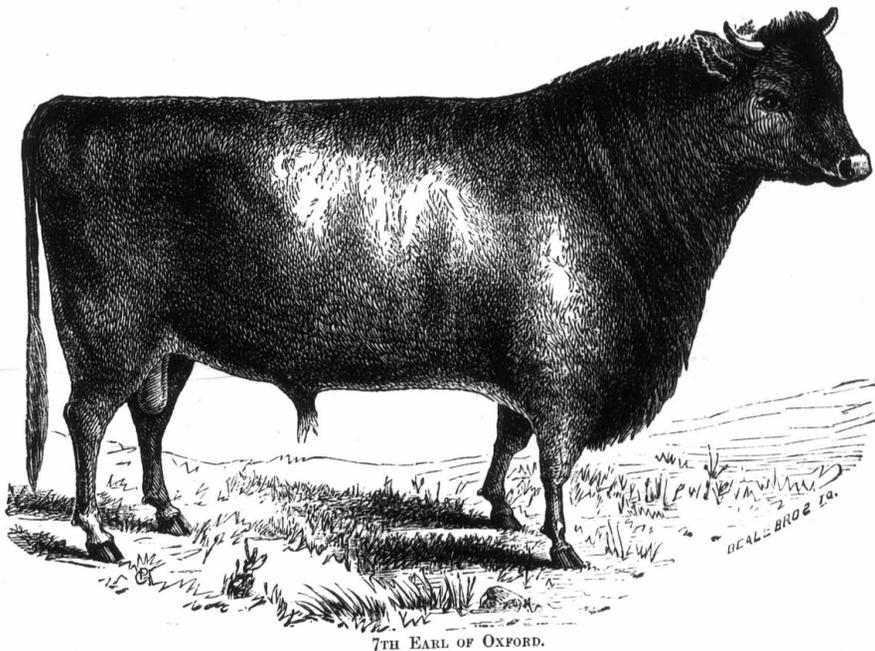
EFFECTS OF MANURE ON WEEDS.

The application of manures suited to particular kinds of cultivated plants appear to have an excellent effect in checking the growth of weeds, which would otherwise prove injurious. In regard to clover, it was found that when the land was wholly unmanured the weeds formed 57 per cent. of the entire yield; but that the application of gypsum reduced the proportion of weeds to 2 per cent. Nitrogenous manures had very little effect, and phosphatic manures but little more. We must not from this, however, consider gypsum as an antidote to weeds in general, since it is a specific manure for clover, and gives it a power to struggle successfully with the weeds and crowd them out.

CALIFORNIA pays \$1,000,000 per annum to Scotland of wheat bags.

A Herd Book is to be opened in England for the Red Polled Cattle.

It is claimed that corn in Macoupin, Christian and Montgomery counties will not yield over 25 per cent. of last year's crop.



7TH EARL OF OXFORD.

the land in such condition that it will increase and multiply its produce, and the animals bred and fattened on the production will daily and hourly feed the ground which has had its appetite sharpened by the withdrawals of the where-with to grow the crop. The live stock fattens the land with solid and liquid food in a direct manure, when grazing or otherwise consuming the crops on the soil where grown, and the return is in proportion to what there is supplied; consequently, when oil cake or any rich food is given in addition to what the soil brings forth, there is corresponding fatness and increased produce, which explains how some men prosper while others fail in trying to do so by extracting everything possible from everybody and every substance regardless of the laws of nature and the common sense so few pay any attention to.—*A Workman Farmer in Rural New York.*

ROOT CROPS COMPETITION.

The following is the report of the Judges on root crops for the south Riding of Huron Agricultural Society:—

Best acre of Swedish turnips, 10 entries, 1st, Jno. Elliot, McKillop, 1,248 bushels per acre; 2nd, David Campbell, Tuckersmith, 1,130 bush. per acre.

Best half acre potatoes, one entry, H. M. Chesney, 101 bush. per acre.

sown, as far as we could ascertain, for turnips from the 10 to about the 15th of June. Carrots as early as possible in the spring, and mangolds the same. The most successful variety of turnips sown was Carter's Imperial, which seems as far as our experience goes, this season to be the most solid, and consequently weighing heaviest, for their size.

BRITISH WHEAT RECEIPTS.

On the publication of the last batch of statistics relating to the imports of Great Britain, we attracted attention to the enormous increase of the receipts of wheat from the United States, and the very great falling off in the receipts from European countries. The returns are now published up to Nov. 31, and cover, therefore, nine months of the present year. From these it appears that, during the period in question, the imports of wheat into Great Britain have increased by over 3,000,000 hundred-weights, as compared with the corresponding period of 1872. While the proportion received from Russia has fallen from 13,000,000 to 7,000,000 hundred-weights, that received from the United States has advanced from 5,000,000 to 13,000,000 hundred-weights. The receipts from Canada have risen from 600,000 to 2,000,000 hundred-weights. The gross value of the imports of wheat for the nine months is about \$99,000,000, of which the United States takes \$42,000,000.—*N. Y. Times.*



GARDEN AND FARM.

HINTS FOR THE MONTH.

The garden has few attractions in December, and gardening is almost wholly within doors. In our Canadian climate this is more especially the case. Though our long winters deprive us of the enjoyment of the garden and its pleasant work for some months, we prefer our Canadian home and Canadian climate to the "Sunny South," with its almost uninterrupted summer weather. The fruits of our northern clime are more relished by us than the figs and pomegranats, the limes and oranges, though they too at one time possessed the valued excellence of being grown in our own gardens. And it adds no little to the superior quality of fruit in ones estimation that they are the products of his own garden, and have been brought to perfection by his own industry.

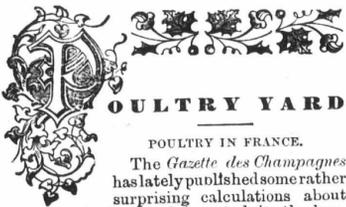
While waiting for the spring that will be with us in all her freshness in good time, we have our own indoor gardening, little as it may be, to attend to. The window garden is now the more bright and beautiful that it is for the season our own flower ground. Let us, then, make it as bright and beautiful as we can for the winter. Our flower garden—trimmed borders, growing plants and embryo flowers and fruits—we will enjoy in good time. Meantime the garden is taking its yearly refreshing sleep.

For the window garden let an east or south window be selected if possible. The south-east aspect is the most favorable, as it is most conducive to the health and beauty of plants and flowers. Light and heat are necessary for the well-being of vegetable as well as animal life. A window having a northern aspect is not suitable for flowers in winter. They need a moderate heat—too great heat is as injurious as too great cold. Some writers say that the room where the plants are kept should not be one occupied by the family, as it may be too warm—from the heat of the lamps and stove; but we do not know of any case in which the heat suitable for the health of the family was too much for the health of the plants. Last winter was one of unusual severity, requiring a more than usual heat from fires, and we do not remember having ever seen house plants more healthy and flowers more beautiful than we saw through the entire season in the dining-room windows of a friend's house, where the lamps and stoves gave no stinted measure of heat. It is necessary that the window garden should have supplies of fresh air wherever practicable, and that the leaves of the plants be washed, so as to keep the pores open. Soft, tepid water should be used. There are so many varieties of flowers suitable for growth in the window and easily propagated that every house may have its little window garden. None are more generally grown and more universally prized than the scarlet and scented-leaved geraniums. For their care the general rule holds good—let them have pure air, a moderate temperature and plenty of light. No collection of flowers is complete without the rose—"the queen of flowers." The monthly roses are beautiful window plants, the tea-scented roses especially. The heliotrope, hyacinth and verbena are all among the list of flowers best suited for the window garden. Though last on our list, the ivy, with its ever-pleasing brightness, is not the least prized. It may be grown in pots in any part of the room and trained so as to form a beautiful wreath or festoon over arching the window or doorway or encircling the picture frames.

THE FARM.—The most important part of the farm work in December is the care of the live stock. Every preparation should have been made ere this month to supply the cattle with an abundance of nourishing food. Good feeding, warm houses and cleanliness always pays well in the management of stock. The spring will find them in good thriving condition. To insure profit by feeding, stock should be taken such care of in winter that they should be in good condition when turning them into their summer's pasture, and in good condition in the fall when putting them into their winter quarters. They should never lose flesh. A good root crop bears a profit not only in the good condition of the stock fed upon it but also an additional profit in the manure heap, the farmer's safest and most profitable bank.

Wood-cutting is an item of the Canadian farmer's work. In the newly-opened sections of the country the clearing of the bush will occupy every hour not employed in more pressing business, but throughout the greater part of the country the farmers are becoming more economical of it. They learn that the forests are not inexhaustible, and think it well to husband some parts for future use. Some of the most valuable timber on the continent has been cut down for fuel and even burned in log heaps to make room for the plough. It is necessary in cutting wood for fuel as well as for the use of the farm to avoid all waste and turn every foot of timber to good account. Much can be saved even in fuel by cutting down the trees in the most fitting season and drying it under cover. And let there be trees left for shelter for stock and crops in every instance where they may be serviceable.

Ass. Ed.



POULTRY YARD

POULTRY IN FRANCE.

The *Gazette des Champsagnes* has lately published some rather surprising calculations about the amount of capital invested in the hen-yards of France and the pecuniary value of their annual product. France feeds about 40,000,000 hens, which, being reckoned at an average value of 2½ francs, (say 30 cents, with gold at par), would give a total of 100,000,000, or say \$20,000,000. About one-fifth of these hens are annually slaughtered and sent to market, furnishing 20,000,000 francs or \$4,000,000 worth of meat. Then there is an annual product of at least \$100,000,000 chickens, from which 10,000,000 producers being deducted to replace the number which have found their way to the table and another 10,000,000 for losses by accidents and disease, there remain 80,000,000 chickens, which, selling at 1½ francs apiece, yield a product of 120,000,000 francs or \$24,000,000. To these figures must be added, to represent the extra value of capons, fattened hens, &c., a sum of \$11,000,000 francs. Finally the 40,000,000 hens lay on an average 100 eggs each per year, giving a total of 4,000,000,000 eggs, worth 250,000,000 francs or \$48,000,000. The total annual value of the eggs, chickens and fowls sold in the French markets is therefore pretty nearly \$80,000,000. The number of persons employed or concerned in this trade must also be very considerable.

DOES IT PAY.

An American exchange gives the following—A well-known subscriber sends us the result of his experience with forty-eight hens and two roosters for nine months, commencing Nov. 1, 1871, and ending August 1, 1872. Here are the figures and facts:—

The cost.

24 bush. of corn at 70c.....	\$16 80
4½ bush. of buckwheat at 75c.....	3 37
70 lbs. butcher's scraps at 3c.....	2 10
6 bush. of barley at 70c.....	4 20
2 bush. of potatoes at 45c.....	0 90
100 lbs. of rye bran.....	1 25
	\$28 62

The compensation.

104 doz. eggs at 24¼c. per doz.....	\$99 77
-------------------------------------	---------

The net profit in favor of the eggs, as is easy to see, is \$71.15, and it is fair to presume that the flock was at least self-sustaining during August, September and October, so that a clear profit remains for the year. Added to the above expense should be the crumbs from the table of a small family and a pasture of three-quarters of an acre of land over which the flock rambled. It must be confessed that these forty-eight hens attended to business quite industriously and that a big average price per dozen was realized; but the figures are true and the statement perfectly reliable, and hence it will be seen that it will pay to keep hens if they are well managed. And it may not be amiss in some of our readers to note the character of the food given as well as to study the science of making hens pay their way handsomely through the world. It can be done.

BRONCHITIS IN FOWLS.

Bronchitis is an inflammation of the air tubes in the chest, and is accompanied by a cough. Probably it will appear but rarely except as an accompaniment of a 'catarrh,' of which it is a simple extension. Sometimes, when there is a wheezing and rattling, the disease is hastily declared to be roup, whereas the peculiar discharge at the beak marks the latter disease. Roup may or may not be accompanied by a rattling, but bronchitis is never attended by the roupy discharge.—*Poultry World.*

GAPES IN CHICKENS.

The fatal disease caused by the presence of the gape worm appears unusually prevalent. I have had it in my own runs, where it has attacked some Seabright bantams, but I have found no difficulty in curing it by the means of carbolic acid. So potent are the fumes of this powerful remedy and so destructive are they to parasite life that their inhalation for even a few moments seems perfectly effectual in destroying the life of the worm. It is not even necessary to employ any special apparatus. A few drops of carbolic acid may be placed in a spoon and held over the flame of a candle until the vapor is seen to rise, when the head of a young chicken or pheasant (held in the other hand) may be placed in the vapor, which the animal is forced to inhale. Care must be taken not to carry on the process until the fowl as well as the worms are killed. I find that after exposure to the fumes for a few seconds the bird may be regarded as cured, and may be seen running about well on the following day; if not, the operation should be repeated. The medicinal carbolic acid is preferable to the tarry liquid used for disinfecting sewers and drains.—*Tegetmeier in London Field.*

FOWLS TAKING COLD.

A great proportion of the ills to which fowls are subject arise from taking cold. During moulting season they are most sensitive to the changes of the atmosphere. *Land and Water* has the following timely suggestions relating to the inducing causes and the remedies:—

The earlier symptoms are slight loss of appetite, drooping of the tail and a clear, limpid discharge from the nostrils. It is entirely due to exposures to cold and damp winds and imperfect housings; but there are inducing causes frequently combined—improper and insufficient food is one which materially aids it, by rendering the system poor and weak and incapable of resisting or shaking off any kind of hardship however light. Breeding in and in, that is, from stock relating to each other, is another means by which artificially reared families are certain to become weak and the seed of various diseases quickly sown, and the constitutions degenerated with an inevitable certainty. Seeing, therefore, the means by which the stock is to be prepared for resisting the simplest disorders, should an attack come upon them in the form of a cold, take a few precautions for removing the cause if it can be found by extra dryness of the soil upon which they rest and taking special care they are not in the vicinity of stagnant moisture. There are few cases of simple catarrh that will not yield to a little more generous feeding than that they have been accustomed to. Crumbs of bread soaked in spiced ale are very efficacious, and should be given in addition to other meals if they will partake of so much. If the birds have not been carefully looked after in the first stages of the complaint it invariably runs into a worse condition. From the clear discharges from the nostrils as before mentioned it here takes the most offensive forms—becomes thick and clotted, stopping up the nostrils, and the cavities of the air passages, being highly inflamed, continue to secrete the discharge. The eyes also become inflamed, and the frothy secretion exudes from the eyelids. The face and eyelids at once become swollen and the bird cannot see to feed. Here we have a troublesome case, and, if the bird is valuable, it should be removed at once to warm indoor quarters. We do not hesitate to say that there is no more contagious disease known to the feathered tribe, and any bird so attacked should be immediately removed from the rest. There is no doubt the disease is communicable in various ways—such as drinking out of the same water vessel, the liquid being contaminated by the discharge. In the same way the food they peck over or the grass in their runs hold upon it some of the matter coughed or sneezed up. It is only with birds of value that real

attempts at cure should be made, which should be to purge out with a dose of castor oil first. Bathe the head and nostrils with a warm, weak solution of carbolic acid, but keep it from the bird's eyes. When the matter is free from the nostrils slightly syringe (with a small ear syringe) some of the solution up the same. Well dry the feathers about the head and neck. Pills of the following parts should be always at hand, and one night and morning administered while the bird is ill:—Quarter of an ounce of camphor, quarter of an ounce of valerian, quarter of an ounce of Cayenne pepper, quarter of an ounce of lobelia seed powder, quarter of an ounce of gum myrrh; make into forty-eight pills.

PROFITABLE POULTRY.

We have for some time delayed writing on the subject in the hope of finding something tangible and to the point. The *German Town Telegraph* furnishes the text, and the farmer at whose delightful home we are recruiting and enjoying life, furnishes the illus ration. The text is:—
"Farmers who are usually slow in adopting new things of any kind, understand poultry far better than any of the professional instructors on the subject. For profit, the best chickens are undoubtedly 'mongrels'—all sorts mixed up; and while giving them in winter a clean, warm house, in summer let them have a wide range and pretty much take care of themselves, except so far as regularly feeding them once a day and setting them for hatching."
Mr. Haigh, at Dearbornville, ten miles from Detroit, has a fine farm of 200 acres, much of which is under cultivation. As part of farm stock raised for profit he has of all sorts and sizes, about 500 fowls, or what is equivalent to 365 full grown ones in the quantity of food required. They have in the range of the farm, and are now fed three pecks of wheat screenings, worth 35 cents, and return an average of 60 cents worth of eggs per day.

It would be hard to tell of what breed his fowls consist, as they are made up of many. When he finds anything better than he already has, he turns it in with the general stock. Consequently he has a mixture of Game, Brahma, Poland, and perhaps some other breeds. The pure Brahmas he considers rather too tender and lazy.

From actual account with his poultry, he finds that a full grown hen, after she is old enough to lay, will net \$2 for each of the next two years, allowing 50 cents a year for the labor of caring for them, and 50 cents each for food, which he thinks is enough, besides what they will pick up of themselves. His hens begin laying in January, and will average 125 eggs in the year, and two broods of chickens, say from seven to ten for each brood.

Mr. Haigh believes in the profit of full feeding, and finds it a good protection from depredations on his crops by the hens. He has an acre of sweet corn planted near the house, which, besides furnishing what they want for the table, will, as soon as it begins to ripen, give enough food for the fowls, and they are expected to help themselves to it. Then he will scarcely feed at all until after all his corn is harvested. His plan is to kill and sell in autumn all the older fowls down to the number he wishes to winter over, which is about 200, never letting his September stock exceed about the present number.

Besides furnishing all the eggs and chickens for a large family, his sales go far towards furnishing the family groceries, and his is one of the good farmers' tables, at which there is no lack. In the fall season he gathered about six dozen eggs every evening. When one can market an article from the farm that has cost so little labor as the care of fowls, and have the returns \$5 and upwards a week, it comprises no small item.

Mr. Haigh speaks of a family of four persons in this neighborhood, who paid almost the entire amount of their grocery bills for a year on the profit of 25 fowls. He is convinced that he can raise 15 pounds of table food in eggs and flesh of fowls at a cost of 75 cents, whereas the same number of pounds of beef, pork or mutton would cost much more. Farmers sometimes get out of patience and threaten to sell or kill all the fowls on the place, yet they rarely do it. Perhaps it is because the females of the family and the children frequently take most of the care of them, and they would miss such an important item in the family living. If proper accommodations and plenty of food is furnished, their mischief is scarcely worth attention. They are excellent gleaners, and if they can find the wheat-fields after harvest, they will pick up what remains, thus saving it from utter waste.—*Michigan Farmer.*

EPIZOOTIC.—A correspondent of the *Live Stock Journal* cured this disease in three days by giving one tablespoonful per day to five fowls of the following epizootic mixture: 1 oz. spirits of nitric ether, 4 drs. laudanum, 3 drs. nitrate potass, 1 pint water; mix well.

Garden

Place a pi and it will the iron an remain brig small grain has been b of ashes h a rank gr never mat been applic grow with heads that Ashes ca ceous part and grass. woody part Ashes stir virgin soil make avail They seem mold and ply them t post, and worthless that of rel post. Ash decayi worse thar post inear fence sim excellent promote th cially, pr will stimu when the soils and Lime in ones, by capable of As a prot trees it is can be ma trees mat trees are applied w plants, b tree and valuable feeding p currant b

In an a delivered Society, ing rema As a t is in val black w rapid. Michigan next be morted of printers' ton and Michigan wherever press. Michigan of scho New Y for their ceives a color, an nut, giv decorati of late y dwelling boats a hard w its grain beautifu There cherry Even th is preci an exc office, l In e tribute ment a form th bedste mature transp monly remain youthf cherrie most s of the strawl

Garden, Orchard & Forest.

LIME VS. ASHES FOR TREES.

Place a piece of iron or steel in damp ashes, and it will soon corrode with rust. Place the iron and steel in lime mortar, and it will remain bright and the rust disappear. Sow small grain where a brush pile or log heap has been burned or where a liberal dressing of ashes has been applied, and there will be a rank growth that will probably fall and never mature. Sow the grain where lime has been applied to the soil, and the grain will grow with stout, stiff straw and plump, heavy heads that mature well.

Ashes cause a rank growth of the herbaceous parts of plants, such as leaves, straw and grass. Lime induces a growth of the woody part of plants and of the grain or fruit. Ashes stimulate heavy muck or rich and virgin soils. They appear to disintegrate or make available what is already in the soil. They seem to act specially on the vegetable mold and manures from the barnyard. Apply them to the most offensive pile of compost, and they will render it inodorous and worthless as a fertilizer, their effect being that of releasing the ammonia from the compost. Ashes used with a compost heap of decaying vegetable matter would be wasted, worse than wasted, as they render the compost inert as a fertilizer. Applied to an offensive sink, sewer or cesspool they serve an excellent purpose as a disinfectant. They promote the growth of grass and forage especially, proving valuable on low lands, and will stimulate trees, &c., to a vigorous growth when the soil is strong. They exhaust strong soils and injure poor ones.

Lime improves poor soils, especially sandy ones, by rendering them more compact and capable of retaining fertility when applied. As a promoter of health and vigor in apple trees it is one of the best applications that can be made to the soil. Under its influence trees mature well, the fruit is finer and the trees are freer from disease. Lime may be applied with benefit on most soils and many plants, but it is of special value to the apple tree and strawberry plant, while ashes are valuable on heavy or rich soils for the grosser feeding plants, such as our native plums and currant bushes.—*Cor. Horticulturalist.*

THE CHERRY AS TIMBER.

In an address on the properties of the cherry, delivered before the Michigan Pomological Society, Mr. Henry S. Clubb made the following remarks upon the cherry as timber:—

As a timber tree the cherry ranks high. It is in value and richness next to our famous black walnut, while its growth is much more rapid. The desk on which I write is made of Michigan cherry; the household furniture next best to black walnut and mahogany is made of Michigan cherry and thence transported to all parts of the world; the best printers' furniture made in New York, Boston and Cincinnati is manufactured from Michigan cherry and distributed from thence wherever civilization has carried the printing press. Cherry grown wild in the woods of Michigan is sought for by the manufacturer of school furniture in Chicago, Boston and New York as the best wood they can find for their purpose. It is easily worked, receives a good polish, has a delightful, lively color, and, in contrast with maple and walnut, gives a pleasing variety of color to our decorative cabinet and carpentry work, which of late years have introduced a new charm to dwellings, offices, stores, railroad cars, steamboats and private carriages. The wood is hard without being coarse or knotty, and its grain, though not prominent, is fine and beautiful.

There is nothing in connection with the cherry which is not of interest and value. Even the gum which exudes from its wounds is precious for medicinal purposes, and makes an excellent mucilage of daily value in every office, library or sanctum.

In every position of life the cherry contributes in some way to the comfort, enjoyment and service of man—its wood is used to form the cradle of infancy, the chairs, tables, bedsteads, bureaus, desks and cabinets of maturer years, and, when our time of final transport to another world arrives, it commonly forms the final casket of our mortal remains. The fruit is the first to tempt our youthful appetites, for who has not stolen cherries in his boyish days? It forms the most showy fruit in the market at any season of the year, only equalled by the precious strawberry. It makes unquestionably the

best canned fruit in the market, as no fruit preserves in the can its flavor and its color like the cherry. As a dried fruit it has no equal in the whole realm of commerce. For the table and for pastry the cherry cannot be excelled. For wine it is nearly equal to the grape itself, while its curative properties are universally conceded, and creates for it a universal demand. Whilst, therefore, it gives pleasure to youth, it comforts the aged and relieves the afflicted, and its rich color is the acknowledged standard of beauty on the lips of the most charming of womankind.

Need I say more for the cherry? Do not mistake me as claiming that the cherry is the panacea for every ill and the fountain of every blessing. I simply claim for it a prominent place among the fruits of our favored country, and thankful and proud should we be that we live in a land and enjoy a climate where this fruit can be grown so easily, so cheaply and so abundantly.—*Western Rural.*

ASHES IN THE ORCHARD.

D. W. Kauffman, of Des Moines, Iowa, writes to the *Iowa Homestead* that ashes are worth one dollar per bushel to put about fruit trees, and that he would not sell his ashes at that price and do without their use in the orchard. He has used ashes about fruit trees for fifteen years, and, during that time, has never seen a borer where ashes were used. The borer is a terrible pest to the fruit grower, and if all other impediments to successful fruit growing were as easily overcome and completely controlled as the borer, then fruit growing would be very successfully practised.

PRUNING INJURED TREES AND VINES.

Mr. M. B. Bateman, in the *Northern Ohio Journal*, referred to the extent of damage done to fruit during the winter and the propriety of subsequent pruning, and says:—

We find a much greater amount of injury than we at first supposed done to fruit trees and the grape vines by the freezing (or thawing) last month. It is probable that many peach and cherry trees are entirely killed and still more will have to be cut back very severely. But we advise the owners to let them alone a month or two longer till the extent of the damage can be more seen. We have known peach trees to recover when they seemed almost hopelessly ruined. All the varieties of grapes in this region are injured somewhat, the Concord least of any. But most of them will no doubt recover with only the loss of part or all the season's crop, according to the extent of the buds and the young wood. Where these are a good deal injured it is best to prune quite severely, especially old vines and such as have made large growth, cutting out a good share of the old wood and leaving the best new shoots that come out nearest the ground, and shortening these to a foot or two in length or even less if the buds seem mostly dead. Then, after the new shoots have come out in June, any remaining dead wood can be cut away.

IVY FOR IN-DOOR GROWTH.

Dr. S. O. Johnson, in the *N. E. Farmer*, says:—

In preparing our stock of house plants vines must not be forgotten, as they add so much to the elegance of a window garden. Three or four ivies are indispensable, and as many Madeira vines will not come amiss. The ivies will not ask for much sunshine, as they can be placed upon a shelf in the corner or on a stool near the mantle-piece, and can be trained over the mirrors or pictures which adorn the walls; but, lacking all these, they can be placed on blocks covered with oil cloth, wall paper or carpeting at the side of the window casement upon the floor, their branches being pinned to the windows, thus forming a graceful frame. A friend has a very large ivy of some twelve years' growth. It is planted in a wooden pail, painted green, and placed in a corner nearest the fireplace and farthest from the windows. It is duly watered with warm water, and every autumn it has an entire new supply of the richest soil it can get at the barnyard will supply. Thus treated it grows apace and makes a common sitting-room a lovely apartment. It will often send out several branches one yard in length during the winter. It is trained over two sides of the room, and entwines its graceful branches around the picture-frame of a loved son who gave his life for his country's needs, and around another who fell a victim to that fell destroyer consumption. Its long, flexible

branches are held in place by loops of green worsted braid tacked to the wall paper with nails, and its leaves are always washed with soap and water twice each year. Would money purchase that vine from its owner? I think not,—it is a part of the family, and does its work in a silent but in a perceptible manner. At this season of the year long branches of ivy are often broken off from vines when they are being transferred to winter quarters, and they can be made very ornamental by mingling their branches with bright autumn leaves that have been pressed and varnished and also with green fern leaves and leaves, and put the branches of ivy into good-sized phials of water, concealing the phials among the leaves. The ivy will put forth roots and tender leaves, and the branches can be allowed to droop over the baskets or twine round the cords which suspend them. Such baskets possess one great advantage—they require but little care, and the water in the bottles will not need to be replenished oftener than once a fortnight, then fill them up with water quite warm to the hand and it will increase their growth. There will not be any danger of such baskets being injured by the frost unless it is cold enough to freeze the water contained in the bottles, and, if cotton wool is wrapped about them, they will endure a good degree of chilling, so they can be suspended from a cold bay window or in a hall, and the water will not drip upon the carpets. They are also lovely ornaments for a sleeping room.

GOLDEN WILLOW.

The farm of Mr. Thompson, in Platte Valley Precinct, is nearly all closed with the celebrated golden willow hedge.

This willow receives its name from its beautifully golden color. When it has lost its leaves in winter it is hard to imagine a more beautiful sight than a hedge of this willow, the color being much more beautifully golden than in summer. This willow will not only make a hedge by proper care and cultivation, but it will make a good wind-break, and, in a few years, will supply all the stakes and firewood needed, owing to its rapid growth.

Mr. Thompson has some hedges of three years growth probably 12 to 15 feet in height. Part of his hedge will turn hogs, though it has not been cultivated with that object in view. Mr. Thompson introduced this willow into Nebraska, having brought eight small cuttings from his father's farm in Michigan in 1863. These cuttings he carried in a match box, and, on his arrival at his home in Valley Precinct, he planted it, and from this beginning has now growing on his farm 3 or 4 miles of hedges varying from 12 to 20 feet in height.—*C. Union Agriculturalist.*

WHAT EVERGREENS TO PLANT.

This will depend in a great measure upon the extent of the ornamental grounds. In large grounds we would admit many that we would exclude from smaller ones, and the experience of the winter of 1871-72 has led us to distrust many that were previously supposed to be perfectly hardy. The following may be still be remembered with confidence: Arbor Vite, American, Arbor Vite, Siberian, Cypress, Lawson's, Austrian or black pine, Scotch pine, white or Weymouth pine, great silver fir, hemlock spruce and Oriental spruce. These may be generally considered reliable in climates no more severe than that of Rochester.—*American Rural Home.*

CUTTINGS OF GRAPES AND CURRANTS.

Autumn is much the best time for making these cuttings; with currants particularly, nearly a year is gained. They can be made now with a fair show of success. As soon as possible, when the plants are not frozen, make cuttings of the wood of last year's growth. Cut the currant wood into pieces of six inches and the grape into lengths of two or three buds each, as most convenient. Tie the grape cuttings into bundles, tops all one way, and bury in the cellar or in a place out doors where water does not stand. If possible to work the ground, set the currants at once; if not, bury them, and set at the earliest day. Set in a trench, leaving one bud above surface, and crowd the earth well against the lower end. Put the cuttings 4 to 6 inches apart, keep free of weeds through the summer, mulch when dry weather comes and in fall set where they are to grow. Put out the grapes when the soil is warm and mellow in the same way, one bud at the sur-

face, mulch with leaves, and water if need be. Some varieties of grape cannot be grown in this way, such as Delaware and Norton. Do not set cuttings where they are to grow, but give them their first bed in a year.—*American Agriculturalist.*

PROFITABLE CRAB APPLE RAISING.

R. C. Field, of Osseo, Trempealeau Co., Wis., informs us that for several years past he has raised from 300 to 1,000 bushels of Transcendent, Hyslop and other improved crabs, and has never sold them at less than \$2.00 a bushel; selling at Eau Claire and other markets in that region. He reports an almost unlimited demand for these fruits in that region. This year his crop will be small, owing to the blight on the trees. Mr. Field is extending his orchards, expecting to have some 30 acres, mostly to crabs and Russian apples, setting some 300 Tetofski for instance.

CONSERVATION OF FORESTS.

The facts which we published some days ago with reference to the probable lumber supply of North America have an especial interest for us who live in New Brunswick, a Province which is, to a large extent, dependent on forests for its prosperity. For the better part of a century New Brunswick has been drawing on its stores of timber—exporting enormous quantities of lumber and building vessels largely for sale in the British market. The result is that one million of the seventeen million acres which it contains has been entirely cleared of trees and a large portion of the remainder so cut over that it will take years to recuperate. In view of such a state of affairs and of the probability that at no remote period the United States will be obliged to obtain the greater part of its lumber from Canada, it will be necessary for our people to exercise a watchful vigilance over their forests, and, by a judicious conservation of their resources, make them available for future use. On the Continent of Europe, especially in Germany, systems for the preservation of forests have long been in operation, and have proved so effective that large portions of the ancient forests still exist notwithstanding the density of the population around them.

The subject is treated upon in the Universities and the economics of forests is taught by the men best acquainted with the subject, as well as the influence of forests on climate, rain falls, &c. If we were to adapt our education to our country we would follow the example in this respect. The Legislature and the Provincial University should lead the way in doing so.

In Canada, besides being required for merchandize or use, trees have too often been regarded as little better than weeds, to be destroyed with all possible haste, and other causes outside of the mere destruction wrought by the axe are stripping our timber lands, the most damaging of all being fires. It will be necessary for us in future to make provision for the preservation of our timber lands, which, if properly cared for, must every year be becoming more valuable, and must be a source of future wealth. In the United States recommendations are now being made in favor of so dividing up forests as to leave large cleared spaces as barriers to fire. The Government (Federal and State) are also taking steps to promote the planting of trees on the prairies. They see how urgent the case is. What we most need is a proper system of forestry, looking towards the conservation of our forests, which, in a very few years, if properly treated, will become immensely enhanced in value. Unless this is done our industries (including shipbuilding) will suffer. The building of houses will also cost more every year, at the same time that our exports in wood will be gradually decreasing. We have still an immense extent of valuable forests. Trees grow very rapidly in our soil and climate. What we want is a proper system of forestry, and this we are entitled to have from our Legislature, our colleges and schools.—*Telegraph, St. Johns, N. B.*

PREPARING SLIPS FOR PLANTING.—The *Gazette des Campagnes* recommends to dip the extremities of the slip in collodion, containing twice as much cotton as the ordinary material used in photography. Let the first coat dry and then dip again. After planting the slip, the development of the roots will take place very promptly. This method is said to be particularly efficacious in woody slips, and to succeed well in scions of the geranium, fuschia, and smaller plants.

She advocates the idea of the teacher reading at times to the scholars, and thus showing them practically how nice good reading sounds. I would insert the whole of her letter, which is very well written, only I fear some of my little ones might grumble. Lizzie sends the following Logograph:

153. A useful little grain am I,
Behold me and 'twill make you sigh;
Behold again and hard as you may try,
You cannot help but do it till you die.



153—WHICH IS THE FASTEST?

Jenny Lought sends the following:

154. My 10, 11, 7, is a girl's name.
My 9, 5, 6, 8 is a sound the opposite of low,
My 5, 3, 9 is a bird.
My 4, 10, 1 is what ladies use in warm weather,
My 12, 19, 8 is what naughty boys call their father.
My whole is an island in the Atlantic.

Hattie Haviland sends her picture and that of her grandfather, and I will be most happy to have her in my picture, as well as her grandfather. Louisa has given way to her sister very graciously, and I still consider her as one of my nieces.

Maria Campbell, Perrytown, gives this riddle:

155. A house full, a room full, and you cannot catch a spoonful.

Lizzie Forbes, of Kertch, is one of my favorite nieces, and she sends in her photograph for the picture. Lizzie is a bright-looking, pretty little girl, and will do my family credit. She sends in some very good games.

Jennie Topping sends some excellent charades, &c., and promises to write again. Here is one of her charades:

156.
My first is often made of wax
And oft of flesh and bone,
Is often placed on letter backs
Or in arctic regions grown.

My second is a substance which
No one can do without,
And though 'tis made without a stitch
Wraps each one round about.

My whole is brought from foreign lands
To comfort ladies fair,
Who wear in these enlightened times
What mammas used to wear.

Jennie asks how to send rebuses: "Are they in figures or simply descriptions of the figures? Whichever way we can get them, niece. The figures of course, are best, but if they are very good rebuses we can go by description. I want Jennie's photograph for our picture."

Jessie Philip's answers came too late for last month. Write earlier in the month, Jessie.

Frank Smoke asks:

157. Why is oak the worst kind of wood to make a wooden leg of?

I have a letter from "Lallic," but too late for insertion.

ANSWERS TO OCTOBER PUZZLES:

126.—Be you double tea. 127.—Encyclopedia. 128.—Ruler. 129.—Looking-glass. 130.—America (a merry K). 131.—One word. 132.—Cares, caress. 133.—From S I X take I X (9), you leave S; from I X (9) take X (10), which leaves I; from X L (40) take L (50), and you leave X; that leaves altogether S I X. 134.—Kings-ton. 135.—For every grain she gives a peck.

136.
9+8+7+6+5+4+3+2+1=45
1+2+3+4+5+6+7+8+9=45
8+6+4+1+9+7+5+3+2=45

137.—If the grate be (great B) empty, (M T) put coal in (colon); if full, stop.

ANSWERS TO NOVEMBER PUZZLES.

138.—A Ditch. 139.—Grow Sir (grocer). 140.—It makes the receivers grate full. 141.—When they have an understanding between them. 142.—Because it was never seen before. 143.—Deed, Otto, Nun, Eve, Gay, Ava, Level, Donegal. 144.—I ate nothing to-day. 145.—Pennsylvania. 146.—Because it is the boot which is left. 147.—A horse shoe. 148.—When they arrived at market eggs were worth one cent each, at which price each sold part of

cup chopped currants, 1 cup sugar, 1 1/2 cups of flour, 1 teaspoonful soda. Steam three hours. Use this sauce with it:—1/2 cup of butter mixed well with flour. When thoroughly mixed pour on boiling water while stirring, sweeten, and flavor with wine or vinegar to suit the taste. I hope my friends will try this pudding, as it is a very good one.

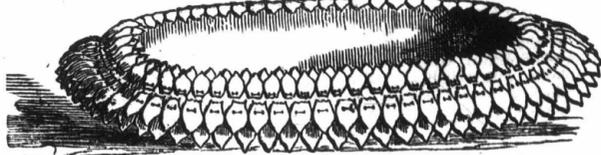
BELLA E. HESS.

CONE WORK.

The collecting of the materials for this work will add to the pleasure of a ramble in the wood. Get as many different kinds of cones, acorns, knotted ends of small twigs, nuts, &c. When you have a good collection you will have some pleasant work for the winter. I will now tell you how to go to work to make a

CONE CARD BASKETS.

Take some strong cardboard and cover it with brown paper by means of glue. Figure



Cone Card Basket—Figure 1.

I will show how to cut the cards, and stitch them together. Mind they must be stitched strongly and over and over. The shape may be according to your own taste. You now proceed to ornament it. Begin by stitching to it all around the edge with strong black thread, the scales which you have stripped off the large cones. They must be put on singly and overlap each other slightly; add a second row now, then two rows the reverse way. You will now have a space uncovered with scales. On this you must stitch all the various kinds you have, in a rich wreath or border; the greater the variety the better.

You must cover the cardboard completely. A little ingenuity will suggest many ideas which will tend to the perfection and beauty of the work.

The handle is to be done in the same way as the basket. You had better sew a couple of hoops cut from an old skirt underneath the handle to make it stiff.

CHAPPED HANDS.

Before going to bed wash your hands in warm soft water and castile soap, then dry them and rub them with glycerine. You will find that in three or four nights they will be cured and the hands soft and white.

AMMONIA CAKE.

Take two eggs, beat to a froth, 1 cup of sugar, a piece of butter as large as an egg, teaspoonful of ammonia dissolved in sweet milk, curd a very little flour. Roll out thin, and bake in five minutes.

Have no more this time.

HATTIE HAVILAND.

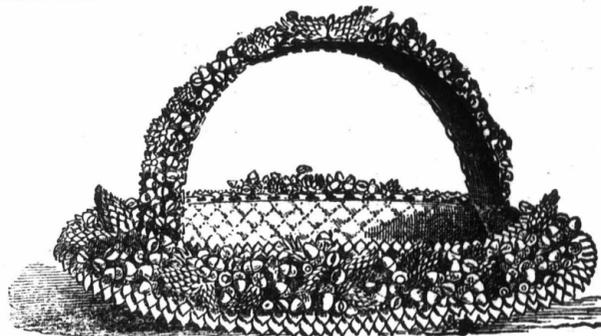
Ingersoll, Nov. 17, 1873.

Sherkston, Sept. 25, 1873.

MINNIE MAY,—I am also one of the despised male kind, but I hope you will grant me a small space in your department, as I wish to say a word to John K.—or about him rather. He asks "How shall I manage my wife?" as though said wife were a farm, and

he wished to know how to manage it to obtain the best results.

Well, my advice to John is this:—do not manage her at all, but let her manage the household affairs, for I maintain that she ought to have as much authority in the house as you have, and, perhaps, a little more, as I very much doubt if you are a fit person to conduct the household affairs. If I was Mrs. K. I should "stick up for my rights," and I think it would not be a bad idea if she would get it into her head to manage you, for I am of the idea that you are more in need of it than your better half—eh, John! You say "I know if you only take my side and show her that I must be right, &c." It is hardly likely that Minnie May or any other sensible female (or male either, for that matter) will take your side, and, in my opinion, you had better not have mentioned the matter, as you will see ere long to your sorrow. Now, Minnie May says, "I hand him over to my correspondents. The idea, indeed—obey!"



Cone Card Basket—Figure 2.

The next thing to do is to varnish your work. Use the best Copal varnish and a small brush, taking care to cover every crevice and little part. Set it aside for a day or two in some place where it will not get any dust. After this you may fix the wires.

This should be of silk or satin of a color to suit your own taste. Cut a piece of wadding the shape or size of the bottom of the basket, and also of the strips going round. Cover these on one side with the silk and stitch neatly together in the form of the basket. Put round the top an edging of narrow satin ribbon, and after having done the handle in the same way, stitch it very strongly to the basket. Put in this lining, which will fit without any further sewing.

The underneath part of the basket must have paper pasted over it to hide the stitches. The basket is now complete.

Dear Minnie May,

I have been trying so hard for the prize from Uncle Tom that I cannot send you many receipts, but I have two very good ones.

CARROT PUDDING.

1 cup grated carrot, 1 cup grated potatoes, 1 cup chopped suet, 1 cup chopped raisins, 1

Now, Minnie, I have a word to say about that matter also. You seem to ridicule the idea of woman obeying man, but I maintain that it is right enough for her to do so to a certain extent, providing he does not prove to be a tyrant. I am not a married man, but "I think" when the marriage ceremony is being performed the woman promises to "love, honor and obey." Is not that it? I don't mind what the man promises, but I suppose he makes up his mind to—well, to "manage his wife." I don't know whether this is worthy of a place in your department, but "nothing ventured, nothing gained."

Yours truly,
J. M. SHIRE.

BOYS, NOTE THIS.

Don't forget to take off your hat when you enter the house. Gentlemen never keep their hats on in the presence of ladies, and if you always take yours off when mamma and the girls are by, you will not forget yourself or be mortified when a guest or a stranger happen to be in the parlor. Good manners cannot be put on at a moments warning.

photographed this in as soon as pos-



APING MACHINE. Molly dear, so low, es me the go; comes, e see e that 'ud make

ize for the best and during the e of them printed one of my favorite did for my column. did collection of

bourne, P. Q., a al prize for send- e. Here it is: AWYER.

cing one another. tely on each row d a boy a girl— est witted of the l between the two e young folks. If e boy opposite must she replies herself he forgets to re- If a boy isques- for him. If eit, or if she for- st pay. If g od ayers understand ere will be lots of

vening, Clara?" -- I, I was taking a Of course Clara so, and has to pay nes, who do you says: "Oh, I am a-if?" "Henry, ol, now?" Sarah, a fearful dunce," "Of course not," her lawyer must pay a forfeit. It ight into the game, or witty answers. INA M. KNAPP.

as the best game following names as e very nice ones ave preferred:— ss, Lizzie Elking- they will all try

FEITS. ntful chromo, and of forfeits for in-

deuble it, a'd ten, ow first thought of ader is five. Tell

ORRITT, Belgrave. ads answers to Oc- ng new ne: rough the field I and. It was nei- one, and I took it al-ne. What was

stings, asks: hite and read all

that reading does int of attention at s, and I quite agree is one of the best woman can possess.

The Horse.

BRAN FOR HORSES.

Bran has long been considered by horse-men as the remedy for all the ordinary ills of horses, as tending to loosen the bowels and at the same time to furnish a considerable quantity of nutriment. The *Western Rural* has pointed out how, of late years, under the sharp system of our modern merchant millers, the character of bran has suffered a change. There are now various applications for taking out, from the bran, all the nutriment, leaving literally only the skin of the wheat, and rendering it so clean that it would hardly dust a fine broad-cloth coat. Bran has got to be more a mechanical irritant to the stomach and bowels of animals rather than a nourishing food, and a cleanser of the system. Dr. McClure, one of the best veterinary surgeons, who has ever practiced in England, says of bran in its adaptability to certain diseases of animals, that "Horse-men have not learned that most diseases of the horse are characterized by a weak or typhoid condition, and not by inflammatory action. Hence it injurious to the horse to have his bowels loosened or blood drawn, as he requires tonics and stimulents, with sound and substantial food. Unlock a horse's bowels labouring under inflammatory disease even, and they will not stop until death put an end to his sufferings. Feed a healthy, grain fed horse for from two to four days upon hay or bran and the animal will swell either upon breast, along the belly, sheath or all four legs; and sometimes all can be seen swollen, from the debilitating, innutritious substance called bran; and yet it is expected and believed, though never seen, that bran mashes will prevent disease and cure the sick, and that it is in every way adapted to the horse, sick or well.

"The analysis and -microscopical examinations of bran now lie before me, made by men the world is pleased to call scientific and competent; and yet we are, after twenty years' well seasoned experience in feeding horses, compelled to say that, if what is said by them of the nutritiousness of bran be true, it is then in such combination as to render it unfit for food to the horse, sick or well, idle or at work, and he will soon sink from exhaustion if bran enter largely into his daily allowance of food. A little bran with other and more substantial articles, may be occasionally given, but not in sufficient quantity to loosen the bowels, nor be counted to the horse as equal to so much other solid food, for in doing so you deceive yourselves and the horse."—From the *Western Rural*.

PHYSICING HORSES.

The giving of opening physic is necessary in several diseases. In all cases, if possible, the horse should be prepared by bran mashes, given for two or three nights, so as to make the bowels rather loose than otherwise, and thus allow the dose to act without undue forcing of the impacted feces backwards. If physic is given without this softening process, the stomach and bowels pour out a large secretion of fluid, which is forced back upon the rectum, and met by a solid obstacle, which it takes a long time to overcome, and during that interval the irritating purge is acting upon the lining membrane, and often produces excessive inflammation of it.

Purging physic should generally be given in the middle of the day, after which the horse should remain in the stable, and have chilled water as often as he will drink it, with bran mashes. By the next morning he will be ready to be walked out for an hour, which will set the bowels to act, if they have not already begun. It is usual to tie up the tail with a tape or string, so as to keep it clean. The horse should be warmly clothed, and if the physic does not act with an hour's walk, he may be gently trotted for a short distance, and then taken home; and, if still obstinate, he may be exercised again in the afternoon. As soon as the physic operates pretty freely, the horse is to be taken into his stable, and not stirred out again, under any pretence whatever, forty-eight hours after it has "set," or, in common language, stopped acting.

When the purging has ceased, the mashes may be continued for twenty-four hours, with a little oats added to them, and a moderate quantity of hay. The water, during the whole time, should be in small quantities, and chilled; and the clothing should be rather

warmer than usual, taking great care to avoid draughts of cold air. Every horse requires at least three days' rest for a dose of physic, in order to avoid risk of mischief.

The ingredients of which the physic is composed, as well as the dose, will vary according to circumstances; the nature of the ailment, the animal's constitution, size, age, breed, temperament, &c., being taken into consideration! Mares near foaling should not be subjected to physic.—*Prairie Farmer*.

LINSEED TEA FOR SICK HORSES.

Linseed tea is not only a valuable restorative for sick horses, but is exceedingly useful in cases of inflammation of the membranes peculiar to the respiration and digestion; it shields and lubricates the same; tranquilizes the irritable state of the parts, and favors healthy action. Aside from the benefit we derive of mucilage and oil which the seeds contain, its nutritive elements are of some account, especially when given to animals laboring under soreness in the organs of deglutition, which incapacitates from swallowing more solid food. In the event of an animal becoming prostrated by inability to masticate or swallow more food, linseed may be resorted to, and in case of irritable cough the addition of a little honey makes it still more useful. In the latter form it may be given to animals laboring under acute or chronic disease of the urinary apparatus, more especially of the kidneys. To make the tea, put a couple of handfuls of the seed into a bucket, and pour a gallon and a half of boiling water upon it. Cover it up a short time, then add a couple of quarts of cold water, when it will be fit for use.

TO TRAIN A DRIVING HORSE.

In teaching a young horse to drive well, do not hurry to see how fast he can trot. Keep each pace clear and distinct from the other; that is, in walking, make him walk and do not allow him to trot. While trotting, be equally careful that he keeps steady at his pace, and do not allow him to slacken into a walk; the reins, while driving, should be kept snug, and when pushed to the top of his speed, keep him well in hand, that he may learn to bear upon the bit, so that when going at a high rate of speed he can be held at his pace; but do not allow him to pull too hard, for it is not only unpleasant, but it makes him difficult to manage.—*National Live Stock Journal*.

IN CANADA we have made great progress in the breeding of horses, and in no country in the world could animals be found combining so happily speed, stay and endurance. When the Hussars were going away, they acknowledged that they obtained their best chargers in Canada; and it is impossible to drive along a country road without seeing one span of horses after another pass, which would be equal to any purpose for which a horse is required, short of racing against thoroughbreds. There will happily be no temptation with us to fall into the mistakes which have been committed in England. On the contrary, it may be worth our while to consider whether we could not profitably export horses to Europe. There is a great demand for the very sort of animals we could supply. Italy goes to England for horses, and it would be as cheap to send a horse from Toronto to Liverpool as from Hull to Civita Vecchia. It is clear that in England at present there is a good market, and the only question is whether the margin of profit would be sufficient to cover the cost of transit and still leave a balance such as would tempt the speculator.—*Globe*.

Long continued observations show that harness and other leather exposed to the action of ammonia, continually given off in stables, becomes weak and rotten sooner than other leather. Even when care is taken to protect them with greas this takes place. Prof. Artus recommends the addition of a small quantity of glycerin to the oil or fat employed in greasing such kind of leather, asserting that it keeps it always pliable and soft.

One Saturday lately the most novel shipment of live-stock that ever was seen passed through Hamilton by the Great Western Railway. No less than 7,700 live hens were purchased, caged and shipped in Kansas, where they were bought at an average of \$1 per dozen. The man in charge of them says they will bring 18c a pound live weight in New York.

Cattle are dying of Spanish fever in Sangamon county, Illinois.

FRUIT CROPS.—The prospects for fruit growers this year are very discouraging.—Grapes are very generally killed in Ohio, and blackberries in the Eastern States. The strawberries here were dried up by the drought, and prices hardly averaged ten to twelve cents per quart. Pears were badly cut by late frosts.—Mr. Batcham writes from Ohio:—"Our apples will be a very short crop, as well as the smaller fruits generally. I have never seen so poor prospects for fruit growers."—*Horticulturist*.

BREAKFAST.—EPPS'S COCOA—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws, which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavored beverage which may save us many heavy doctor's bills."—*Civil Service Gazette*. Made simply with Boiling Water or milk. Each packet is labeled—"James Epps & Co., Homoeopathic Chemists, London." Also, makers of Epps's Milky cocoa (Cocoa and Condensed Milk.) 72-1-v

London Markets.

Nov. 21st 1873.

GRAIN.	\$ c.	\$ c.
White Wheat, Jehl.....	1 15	to 1 18
" Treadwell.....	1 12½	to 1 14
Red Winter Wheat.....	1 00	to 1 08
Spring Wheat.....	1 12½	to 1 14
Barley.....	95	to 1 00
Peas.....	53	to 57
Oats.....	35	to 36
Buckwheat.....	65	to 65
Corn.....	55	to 56
PRODUCE.		
Fleece wool.....	37	to 38
Hay.....	16 00	to 18 00
Potatoes, per bushel.....	50	to 60
Apples.....	30	to 75
Onions.....	1 00	to 1 00
Turnips.....	20	to 25
Carrots.....	20	to 25

New York Markets.

New York, Nov. 20.

Flour is steady to-day. \$5.35 to \$5.95 for superfine state and Western; \$6.25 to \$7.25 for common to choice extra state; \$5.50 to \$5.70 for common to choice extra western. Wheat market decidedly firmer, at \$1.44 for No. 2 Chicago; \$1.47 for No. 2 Milwaukee. Corn, a light supply, and advancing, at 69c to 70c for prime western mixed. Oats reported firmer; sales at 51c to 55c for western mixed; 56c to 58c for white-do. Butter, 32c to 34c. Cheese, 13c to 13½c.

Chicago Markets.

Chicago, Nov. 20.

Flour steady. Wheat active and higher; No. 1 \$1.10 to \$1.11; No. 2 spring \$1.02; No. 3 do 96c; rejected 92c to 93c. Corn in fair demand and higher; No. 2 mixed 39c; No. 2 high mixed 40c to 41c; rejected 37½ to 38c. Oats advanced and in fair demand; No. 2 31½c cash. Barley dull and lower; No. 2 fall \$1.30; No. 3 spring 91c.

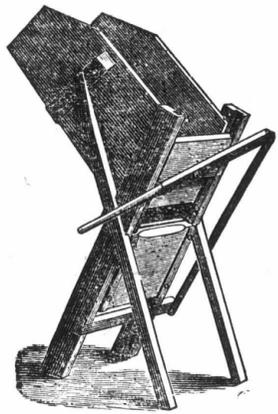
Buffalo Live Stock Market.

Buffalo, Nov. 19.

The receipts of cattle to-day, including 12 cars reported to arrive, were 2,899 head, making the total number for the week thus far 4,216 head. The market was more active to-day at weak yesterday's prices. About 1,000 head were disposed of. Sales include 218 Illinois steers, ranging from 1,042 to 1,428 lbs, at \$4.12½ to \$5.50; 343 Indiana steers, ranging from 1,164 to 1,411 lbs, at \$4.45 to \$5.87; 308 Ohio steers, ranging from 1,340 to 1,571 lbs, at \$5.50 to \$6.12½; 54 Michigan steers, ranging from 1,086 to 1,204 lbs, at \$4 to \$4.25. Sheep and Lambs—The receipts of sheep and lambs to-day, including reported arrivals, have been 6,600 head, making the total supply for the week thus far 12,800 head. The market opened active at about last week's prices, with an improved feeling. Sales of 750 Canada sheep and lambs, ranging from 76 to 115 lbs, at \$5 to \$5.87; 1,500 Michigan sheep, ranging from 76 to 95 lbs, at \$4 to \$4.12½.

COTTON YARN.

WHITE, BLUE, RED AND ORANGE. War ranted the very best quality. None genuine without our label. Also, BEAM WARPS for Woolen Mills. W.M. PARKS & CO., New Brunswick Cotton Mills, St. John, N. B.

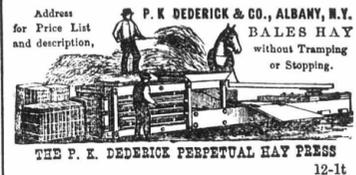


EMPIRE ROOT CUTTER, [PATENTED 1872.]

FIRST PRIZE AT PROVINCIAL EXHIBITION, 1872. Lately improved and a large quantity on hand. Will be sent free to any station on the G. W. R. R. on receipt of \$6 by m/c. A Royalty plate on each cutter; plates for sale, or distant counties to those wishing to manufacture—Also, my LAUNDRY FRIEND CLOTHES WRINGER at \$7, the easiest working new in use. Warranted to give satisfaction. T. FORFAR, Waterdown, Ont. 12-11



Published Quarterly, at 25 Cents a Year. First No. for 1874 just issued. A German edition at same price. Address—JAMES YICK, Rochester, N. Y. 12-21



My business is to supply what every good farmer is anxious to get, the VERY BEST of vegetable seed. I grow a hundred and fifty kinds on my four seed farms, right under my own eye, MAKING NEW VARIETIES A SPECIALTY, besides importing their choicest varieties from European growers. A fine selection of flower seed will also be found in my Illustrated Catalogue, which will be issued in January and sent FREE to all applicants. My customers of last season will receive it without writing for it. JAMES J. H. GREGORY, Marblehead, Mass 12-11

OFFICE OF THE AGRICULTURAL MUTUAL Assurance Association of Canada.

London, Ont., 29th Oct., 1873. Notice is hereby given, that the Board of Directors have this day declared an assessment of 50 per cent., payable on or before the first day of January, 1874, to be levied on all Premium Notes embraced between Policy No. 70,476 and No. 73,589 inclusive.

The assessment this year is at the same rate as for many years past, and experience justifies the belief that this rate will never be exceeded. By order of the Board. D. C. MACDONALD, Secretary. 12-11

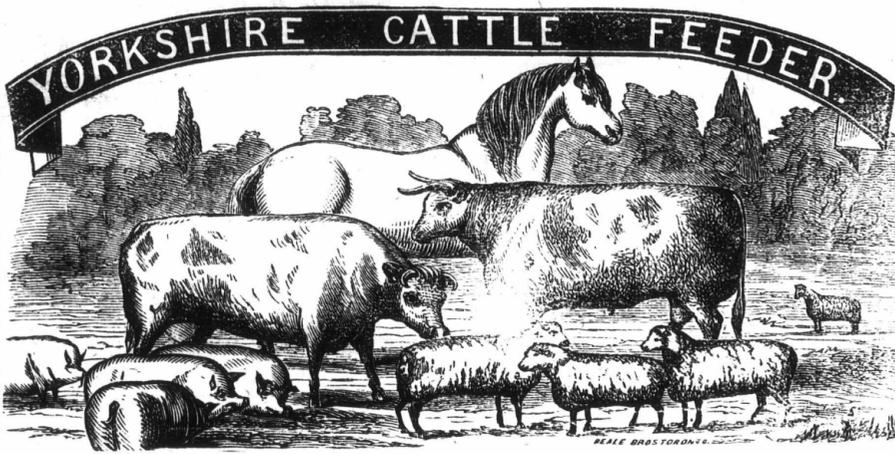
Card... BREED... WILLIAM... R. S. O'NEIL... J. S. SMIT... JOHN RE... G. WELDR... GEO. JAI... J. BILLI... H. E. IRV... N. BETH... DAWES &... J. PINKH... R. D. FOL... WALTER... JOHN CR... JOSEPH... RICHARD... W. LANG... A. PARK... JOHN CU... J. FEAT... JOHN J... J. MAIN... GEORGE... JAMES... GEORGE... JOHN S... THOS... BRODIE... W. HOO... H. H. S... J. MIL... R. LEA... G. MOR... JOHN S... F. W. S... JAMES... J. R. H... FOR SA... Catalogue...

TESTIMONIALS FROM THE
HON. G. BROWN and others.

Bow Park, Brantford, 7th July, 1873: Messrs. Hugh Miller & Co., My Dear Sirs.—Your Yorkshire Cattle Feeder is all and more than it is represented to be; a table-spoonful daily works marvels; it sharpens the appetite, helps digestion, and gives a healthy tone to the whole system. Yours truly, GEORGE BROWN.

Bangor, Pickering, April, 1872: Hugh Miller & Co.—I have used your Yorkshire Cattle Feeder to cattle that I was anxious to make up quickly. It had the desired effect, and is the best thing I ever used. I strongly recommend farmers to use it. SIMON BEATTIE.

Lansing, March 29th, 1872: Hugh Miller & Co., Toronto, Sirs.—After using your Yorkshire Cattle Feeder this winter for my stallions, I must say that it is a first-class article, not only as a Feeder, but as a regulator of the system. I



have not had occasion to use any other medicine for my horses to keep them healthy. Independent of its feeding properties, which I think cannot be excelled by any other so-called Cattle Feed, I should advise all horsemen to use it as a regulator, as I believe it to be safe and efficient. I hope farmers and others will give it a trial; they will find it a great saving to them in fodder and doctor's bills. I am, yours respectfully, WM. LONG, Importer and Dealer in Entire Horses Landing P. O., Ont., Yonge St.

Prepared in Canada only by
HUGH MILLER & CO.,
Agricultural Chemists
167 King St. East, Toronto.

A full supply kept on hand at the Canadian Agricultural Emporium, London, Ont. 25 cent packages contain 1 pound. \$1 boxes of 5 pounds.

LONDON COMMERCIAL COLLEGE
AND
Telegraphic Institute.

THIS DESERVEDLY POPULAR INSTITUTION is conducted by teachers of established reputation and extensive business experience, and is the only Business College in the Dominion where Book-keeping by single and double entry is taught on the improved plan of REAL BUSINESS TRANSACTIONS.

Farmers sons who contemplate attending a Commercial College during the coming winter, will find it to their advantage to patronize us, as they will thereby obtain a better course and at less expense than elsewhere, for our present terms are the most favorable ever offered in the Dominion, and the cost of board and incidentals is much less here than in larger cities.

For full particulars send at once for circular to
GEO. A. SWAYZE,
6t Manager.

ABBOTT BROS.,
CARRIAGE BUILDERS' Dundas Street, East of Wellington Street,
9 LONDON, ONTARIO.

THE SUBSCRIBER IS PREPARED TO fit up Public Buildings, Churches, and Private Residences with Velvet, Tapestry, Brussels, 3-ply Kidderminster Carpets, Floor Oil Cloths and matting at short notice and very moderate prices. R. S. MURRAY, July

HEATH & FINNEMORE,
WHOLESALE AND RETAIL
SEED MERCHANTS.

SOLE AGENTS FOR McMASTER AND HODGSON'S CELEBRATED LIQUID ANNATTO, RENNETS.

SCALE BOARDS, CHEESE BANDAGES, and all other Cheese Factory requisites constantly on hand.

KING ST. - MARKET SQUARE.
Nov & Dec Feb, Mar, Apr & May

CANADA LIFE ASSURANCE COMPANY.—Established 1847. Assets including Capital Stock 2½ Millions. Cash Income about \$10,000 per week. Sums assured over \$1,000,000. Over \$900,000 have been paid to the representatives of deceased policy holders since the formation of the Company. The following are among the advantages offered:—Low rates of Premium; Canadian Management and Canadian Investments; Undoubted Security; Policies absolutely secured to Widows and Children; Policies non-forfeitable; Policies indisputable after 5 years in force; Policies issued on with profit system receive three-fourths of the profits of the Company; Policies purchased or exchanged or loans granted thereon. Premiums may be paid yearly, half-yearly or quarterly, and 30 days of grace allowed for payments of all premiums. Tables of rates for the various systems of assurance may be obtained at any of the Company's offices or agencies. A. G. RAMSAY, Manager and Secretary. R. HILLS, Assistant Secretary. 1y
Hamilton, July 3, 1873.

\$5 TO 20 per day. Agents wanted! All classes of working people, of either sex, young or old, make more money at work for us in their spare moments, or all the time, than at anything else. Particulars free. Address G. STINSON & CO., Portland, Maine. 5-1y.

LANDS FOR SALE COLUMN.

Condensed Advertisements of Farm for Sale, Farm Wanted, and Stock (single animal) for Sale or Wanted, or Township Show Notice, when not exceeding 20 words will be inserted for TWENTY-FIVE CENTS EACH, PREPAID. One cent and one-half will be charged for each additional word over 20. These condensed advertisements are arranged under special headings. None others except the four classes mentioned above, will be inserted at these rates.

52 ACRES IN GORE OF LONDON, two miles from city. Price \$90 per acre. Stone house, frame barn, well fenced, well watered, in a good state of cultivation. Terms—one-third down, the balance on time at 6 per cent. Apply at this Office.

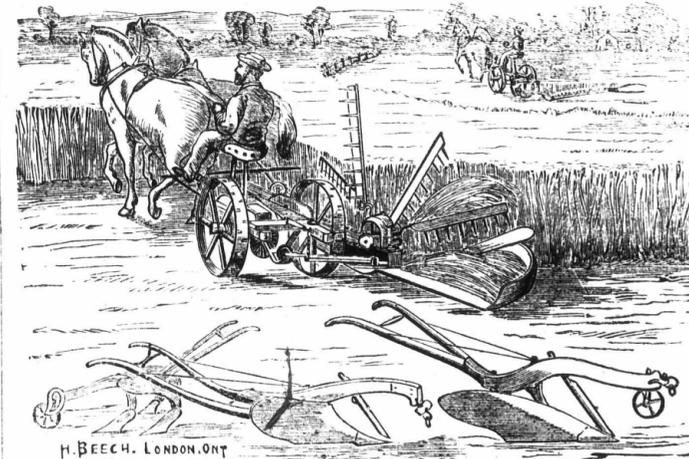
DUNWICH TOWNSHIP, Lot No. 8, on the Talbot Road, 50 acres good soil. Frame house; barn and drive house; good orchard grafted fruit; spring water runs all the year round; well fenced, in good cultivation. Within one mile of Wallace-town.

100 ACRE FARM FOR SALE.—One of the best farms in London Township, on a gravel road, within 10 miles of this city. Good barn, stable and residence. 125 trees in Orchard. 15 acres wood. Creek runs through it. Price \$6200. A rare bargain; apply at once. Address W.M. WELD, Agricultural Emporium, London, Ont.

50 ACRES FOR SALE IN DORCHESTER Township, 10 miles from London, 3½ miles from Dorchester Station. Price, \$3000. Six acres wood. Frame House, 6 years old, painted and papered throughout. Good stone cellar. 4 acres good and large. 125 trees in Orchard. Barn about 45 feet long, with good granary attached. A good creek runs through the farm. Corners on two gravel roads. Well fenced.

Apply at Farmers' Advocate Office. If by mail post paid, and enclose stamp for answer.

C. D. HOLMES, BARRISTER, &c., Dundas London, Ont. m-e



JOHN ELLIOTT,
MANUFACTURER OF
REAPERS, MOWERS, DRILLS, PLOUGHS, GANG PLOUGHS,
CULTIVATORS, SULKY HAY RAKES,
and various other Implements.

Mr. Elliott purposes manufacturing THRESHING MACHINES the ensuing season. Address—JOHN ELLIOTT, Phoenix Foundry, London, Ont

LET US
TRADE AMONG OURSELVES.

NOW THAT P. E. ISLAND is united with the Dominion of Canada, there is no reason why the trade between her people and the people of this Island should not be

LARGELY INCREASED.
The barrier of duties has been removed, and commerce is unrestricted. All merchants and manufacturers now have to do is to

Make Their Wares Known to the trade. For this purpose, the ARGUS is recommended to business men as THE BEST ADVERTISING MEDIUM IN P. E. ISLAND.

It has now a circulation on the Island of nearly 2000, and is daily increasing. The ARGUS is a large eight column journal, is printed on good paper and with new and fashionable type. It is furnished gratuitously to almost every reading room in the British Provinces, and is hourly growing in public favor.

Terms Reasonable and Contracts Faithfully Performed.

All communications, &c., address
J. H. FLETCHER,
Editor and Proprietor.
Charlottetown, P. E. Island, 1873.

OCEAN PASSAGE.—Persons intending to take a trip to the Old Country, will find it to their advantage to go by the Steamers of the National Line large, safe and comfortable vessels. Fare low. Apply to F. S. CLARKE, next door to the Adv. Office, London.

W. BELL & CO.,
GUELPH, ONT.



PRIZE MEDAL
Cabinet Organs!
AND MELODEONS.

Sole Proprietors and Manufacturers of
"THE ORGANETTE,"
Containing Scribner's Patent Qualifying Tubes.

AWARDED THE ONLY MEDAL! Ever given to makers of Reed Instruments at Provincial Exhibitions, besides Diplomas and First Prizes at other Exhibitions too numerous to specify

CAUTION!
As we have purchased the sole right of manufacture Scribner's Patent Qualifying Tubes, for the Dominion of Canada, we hereby caution all parties from purchasing them elsewhere, as they will be liable to prosecution. We have copyrighted the name of the

"ORGANETTE,"
For our instruments containing this wonderful improvement. Any manufacturer infringing on this copyright will be prosecuted.

Illustrated Catalogues furnished by addressing
W. BELL & CO., Guelph.
A. S. WHEATON, Agent, 107 Dundas Street London.

CABLE SCREW WIRE BOOTS & SHOES the best in the World. CHEAP at CRESSALL'S PENITENTIARY STORE, 11-y Dundas St., Cor. New Arcad

The Fruit Recorder and Cottage Gardener will be sent 3 Months FREE. For 12 months \$1.00 per annum. For 6 months 50 cents. For 3 months 25 cents. All orders must be accompanied by the name of the subscriber. We don't ask any one to subscribe for our paper until they are to get IT ITSELF. Price Yearly, Small 12-1/2 cents. Large 25 cents. Single copies 10 cents. Single language fruits always on hand. Price 25 cents postpaid. A.M. PURDY, Palmyra, N.Y.

SHORT HORN BULL FOR SALE. Aged 1 yr. For particulars apply to G. JARVIS, Byron.

THE FARMER'S ADVOCATE.

Published by WILLIAM WELD, London, Ont., Canada. The leading agricultural paper of the Dominion. Subscription, \$1 per annum in advance; \$1.25 and all expenses of collecting, in arrears.

ADVERTISING RATES.—The regular rate for ordinary advertisements is twenty cents per line of solid nonpareil for each insertion. Special Editorial Notices, 50 cents per line. Condensed advertisements of farm for sale, farm wanted, and stock (single animal) for sale, or wanted, or township show notice, when not exceeding 20 words, will be inserted for twenty-five cents each, prepaid. One cent and one-half will be charged for each additional word over twenty. These condensed advertisements are arranged under special headings. None others except the four classes mentioned above will be inserted at these rates.

occasion to use any
for my horses to
healthy. Independent
properties, which I
be excelled by any
Cattle Feed, I should
men to use it as a
believe it to be safe
I hope farmers and
it a trial; they will
t saving to them in
ctor's bills. I am,
lly, Wm. LONG, Im-
aler in Entire Horses
, Ont., Yonge St.

Canada only by
MILLER & CO.,
Agricultural Chemists
ng St. East, Toronto.

ply kept on hand at
Agricultural Em-
don, Ont. 25 cent
tain 1 pound. \$1
nds.

**& CO.,
ONT.**



**EDAL
Organs!
DEONS.**

Manufacturers of
"ANETTE,"
ent Qualifying Tubes.

ONLY MEDAL!
ed Instruments at Pro-
s Diplomas and First
oo numerous to specify
ON!

sole right of manue
Qualifying Tubes, for
we hereby caution all
em elsewhere, as they
We have copyrighted

"ANETTE,"
ing this wonderful im-
urer infringing on this
inished by addressing
& CO., Guelph.
, 107 Dundas Street

**E BOOTS & SHOES
HEAP at
TENTIARY STORE,
Cor. New Arcad**

d's office Gardener
FRANCO 18
year to ad who
at office of aciv-
ak any one to
paper until they
are to get. 11
ITSELF. Price
Year. Small
structor is a
that talks in
just how to grow
ance for home
A.M. PURDY, Palmyra, N.Y.

FOR SALE. Aged 1 yr.
G. JARVIS, Byron.

ADVOCATE.

WELD, London, Ont.,
gricultural paper of the
\$1 per annum in ad-
vances of collecting, in

he regular rate for or-
wenty cents per line of
insertion. Special Edi-
line. Condensed adver-
farm wanted, and stock
r wanted, or township
eding 20 words, will be
nts each, prepaid. One
charged for each addi-
These condensed adver-
under special headings.
four classes mentioned
ese rates.

INDEX MISSING

INDEX MISSING



VOL. IX.

To C

In our last
all of you,
were paid or
are not expect
proper time a
sent to all the
of the envel
nearly all of
for the presen
return our sin
remittances.

We are ple
pressions of
of the letters
those who ha
to our list.
opes to come
some are wa
with their
this week to
each, and if
will give us
paper.

There are
are too far in
again appea
We do not
which woul
template, un
so, but in j
punctual pay
pay sent in
not be enfor
six months i

It has bee
this journal
new seeds th
for cultivat
have introd
great advan
more.

The great
time is a ne
will prove b
The Fife or
general satis
still does we
most discar
McCarling,
cultivated w
some parts
others the n
t c, the Sibe
have all re
utter cond
Farrow whe
we have in
about the s
yielded a li
rieties of
tivated this
shrunk tha
satisfied wit