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**AND HOME MAGAZINE**

VOL. XVIII.

LONDON, ONT., DECEMBER, 1883.

Whole No. 216

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

FOUNDED 1866

**THE FARMER'S ADVOCATE**  
—AND—  
**HOME MAGAZINE.**

WILLIAM WELD, Editor and Proprietor.

The FARMER'S ADVOCATE is published on or about the 1st of each month, is handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for dairymen, for farmers, gardeners or stockmen, of any publication in Canada. Impartial and independent of all cliques or parties, the FARMER'S ADVOCATE aims to present to the farmers of Canada with an unbiased judgment the agricultural news of the day. Voluntary correspondence containing useful and seasonable information solicited, and if need, will be liberally paid for. No notice taken of anonymous correspondence. We do not return rejected communications.

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**Our Monthly Prize Essay.**

Our prize of \$5.00 given for the best essay upon *The Advantages of Maintaining Township Exhibitions*, has been won by H. F. Honsberger, of Springfield, Ont., and appears in this issue.

A prize of \$5.00 will be given for the best essay on "*How Many Successive Crops of Green Fodder can be Raised in one Season.*" The essay must comprise the most suitable crops for both light and heavy soils, yield to be expected, and method of cultivating, and must be handed in before the 15th of December next.

A prize of \$5.00 will be given for the best essay on the *Cheapest and Best Method of Fencing*, and how can the cost of such be lessened. The essay to be accompanied by a rough sketch of the fence recommended, and must be handed in before the 15th January next.

**The Farmer's Hand Book for 1884.**

In reply to many enquirers, this book will be issued on or about the 15th inst. The demand for copies has been very good, and as the number is limited, all subscribers or agents who wish copies must order at once to secure them.

The orders have come from all quarters, from British Columbia to Nova Scotia, and all unite in stating that this record of farm operations, receipts and expenses, will be invaluable to every enterprising and intelligent farmer, gardener or fruit grower.

**Agents Wanted in Every County.**

We want live, energetic and reliable agents in every county to canvass for subscribers, to extend the circulation of this paper, believing that it will be of material advantage to the new subscribers, as well as to the proprietor. We will pay a liberal commission to agents who will devote their time to the work of canvassing for it. Circulars describing our premiums more fully, with extra copies, illustrated poster, &c., sent free on application. Address simply **THE FARMER'S ADVOCATE,** London, Canada.

**Nibs by the Way.**

Poor policy to winter poor stock.  
Charcoal prevents disease in swine.  
Boys and girls should not miss school.  
Berkshire hogs being lean, make good bacon.  
Chamber-lye is said to cure yellows in peaches.  
Frequent changes of food for fowls are indispensable to success.

It is good for soil to have a little snow turned under in plowing.

In whitewashing your henry put some kerosene oil with the mixture for the benefit of the hen lice.

Keep steel bits in a warm place until wanted for use. It is cruel to put a frosty bit into a horse's mouth.

Get your buildings insured. If you neglect to do it you will rank well among the nineteenth century fools.

In the Far West a man advertises for a woman "to wash, iron and milk one or two cows." What does he want his cows washed and ironed for?

If you would have sound horses keep their litter dry and clean. If they are allowed to stand on manure that is heating and fermenting, it will result in soft hoofs and lameness.

Feed regularly and by daylight. Noon is the best hour for feeding roots and grain. Whenever a sheep is lame examine its feet. It is either a bad hoof or foot rot, and requires immediate attention.

After killing hogs do not permit their carcasses to freeze. Freezing expands the flesh, makes evaporation more rapid and they lose several pounds in weight. Leave them out just long enough to freeze before cutting up.

A writer says that peach trees should be mulched with coal ashes during the winter, at the rate of three or four bushels to the tree, deepest about the trunk, and sloping away three or four feet. The effect is to retain the frost in the spring and hold the trees in check from starting so early as to have the buds killed by the late frosts.

Mr. Wm. Saunders, of the Government Gardens at Washington, U. S. A., expresses a fact revealed by experience as to "small, runty fruit trees" in nursery rows. He, like many other planters, has found that these unpromising specimens, rejected by ordinary buyers, "are sure to make the best growth in the long run," and prove most enduring and productive.

If large trees are to be removed, December is a good time to begin the operation by excavating a large hole where the tree is to stand, and digging a deep trench around the tree at some little distance from the trunk. Then when the ground is thoroughly frozen, the tree, with the solid lump of earth adhering to its roots, may be removed and set in its new home with perfect safety.

Influenza is one of the most prevalent diseases at this time of the year. The first stage of the disease is generally mild, and will readily yield to careful nutritious diet, such as warm mash, oatmeal gruel, suitable clothing and proper ventilation. If the respiration is troubled and the extremities cold, give a sedative medicine, rub the legs with dry mustard, bandage with flannel and send for an expert.

The editor of the *South and West*, of St. Louis, Mo., writes:—"Your paper is a marvellous combination of excellence and cheapness. Long may it live."

## Editorial.

## Agricultural Prosperity.

It is almost axiomatic to say that the welfare of the whole country depends upon agriculture—on the production of mother earth. Agriculture is the foundation of everything, of national and industrial prosperity. Trade is only the handmaid of agriculture, and hence it should be the wish of everybody for "God speed the plow." It is an old maxim that God helps those who help themselves, and although agricultural prosperity depends to a certain extent upon the climate and propitious seasons, there is a large amount of responsibility placed upon individual exertions, intelligence and thrift. In reviewing the past year the agriculture of the country has been fairly prosperous; undoubtedly the season in Ontario was too humid, and the unpropitious winter and spring had ill effects. Fall wheat was a failure, indeed, but then a great deal of this was owing to poor cultivation, bad drainage, and a lack of rotation of crops. Wheat growing, without any alternate, has been practiced too much, and hence it could not be expected, according to progressive agriculture, that continuous wheat growing would last in the older cultivated lands of this country. For six years the fall wheat crop has been good, but continual wear on one crop, taking the same elements of plant food from year to year from the soil, has exhausted some portions of them. The elements required for wheat are not those required for clover, oats and roots, and hence a poor crop of wheat this year might have brought forth an abundance in some other crop. It is an old saying that "one man's meat is another man's poison," and certainly it has its counterpart in the vegetable kingdom, and it has been strongly argued by a school of botanists that the poisonous exhalations and residues of one plant were food for another. However, prosperity and advanced agriculture go hand in hand. It has always been our aim to impress upon our farmers in Canada the advantages of a mixed husbandry, so that the crops cannot all fail at once. Besides, a husbandry varied enlarges a man's conceptions, and he is able to judge of more than one thing. Of course specialists are required in different lines of agriculture, but in this country the general farmer is the one that prospers. This may be illustrated by the fluctuations that take place in any given line of agriculture: Wheat pays one year, and everybody grows this cereal; the cheese business has prospered, and everybody makes cheese and butter; hogs pay for a year or so, and then the country is flushed with pork, &c. Then a reaction on something sets in, the supply is greater than the demand, and then somebody loses. In a country like this, which is capable of such varied productions, agricultural prosperity will depend upon a mixed husbandry. Where this has been practiced during the present season there has been prosperity. If wheat was a poor crop, oats were enormous, and the barley crop is good. First-class horses are in good demand; cheese and butter high. If crops and prices are compared it will be found that for the past year a mixed husbandry, taking the whole country, has produced average results; and for success for the future and national prosperity the ADVOCATE recommends to its readers to study agricultural economy, a mixed husbandry, and trying to make two blades of grass grow where only one grew before. This will produce prosperity.

## Shooting the Small Birds.

Farmers are greatly to blame for permitting the wholesale destruction of insectivorous and other birds which takes place on our public holidays. More especially was this noticeable on the recent Thanksgiving Day, when the country was overrun by youths and men carrying all sorts of firearms, from the latest pattern of breech-loaders down to the antiquated musket. Every description of bird unfortunate enough to cross the paths of these pot-hunters, was blazed away at, not the slightest thought being given as to whether it was useful to the farmer, and of a class protected (save the mark!) by law. It was in the eyes of the shooters something to fire at and help to swell their bags, and, in nine cases out of ten, to be flung away after being exhibited as evidence of the prowess of the sportsman, they being of little or no value for food. Now, the great majority of the birds killed were woodpeckers and other insectivorous birds, and the killing of a single bird means the multiplication of thousands of insects. It is no wonder that insect pests are yearly on the increase and more difficult to combat, when the very means provided by nature to keep them in check are ruthlessly destroyed to provide very questionable amusement. Had these innocent creatures been permitted to live and propagate, it would not be a great length of time ere we should have abundance of feathered friends anxious to do their duty in keeping down our insect enemies. Whereas, if this wholesale depletion is permitted the consequences will be very serious. Yet, in the face of this, many farmers encourage the wanton work, instead of prosecuting the offenders or prohibiting them crossing their lands. We are quite aware that the majority of farmers will hesitate before taking such steps, because they do not wish to be considered mean by their acquaintances. Far better that than be robbed of their true friends, the birds. Let these farmers ponder over the question, how many grubs and insects one of these birds will consume in a day, and then calculate how many in a year; they will be surprised at the quantity? Then think over the number of eggs these insects will lay in a single season, and it will not take him long to arrive at the conclusion that he had better protect the birds.

Both in Canada and the States it has been clearly demonstrated that in orchards and other places where the birds had been encouraged and protected, good crops had resulted. This subject is one that we earnestly recommend for discussion by the "Farmers' Clubs."

## On the Wing.

CHICAGO.

We arrived at this city on Thursday morning, the 15th November, being the second day of the Sixth Annual Fat Stock Show, and entered the building about 9 o'clock. The Exposition building was fitted up for the stock show; so large is this building that only half was required for the exhibit of the fat stock, which was well arranged, conveniently situated, and kept in excellent order. A large square was enclosed in the centre of the building in which the cattle to be judged were taken. This was kept clean by having about six inches of sawdust laid over the floor. All droppings were immediately removed. We passed up and down the long tiers of stalls, then through the sheep and hog pens; next to the stalls of the breeding stock of cattle and horses that were offered for sale, most of which were to be sold by public auction on different days. Some hundreds of cattle were to be seen here, the majority being Shorthorns, although there were a large lot of Polled Angus, Galloways and Here-

fords; these last mentioned belonged to H. M. Cochrane, of Compton, P. Q. A few Ayrshires and Polled Norfolk cattle were there for sale, but these two last mentioned lots were inferior looking specimens. The horses offered were principally Percherons and Clydesdales.

We were amply repaid for our journey, for such a grand sight of really pure beef animals we had never before seen gathered together. In our opinion they surpassed the exhibit of last year; although the sheep and hogs shown did not equal the exhibit of last year. The Shorthorn exhibit alone was quite a show, for such numbers of magnificent animals of great weights at such early ages were to be seen; we doubt if ever such another exhibit has taken place. The mind of the public has for a long time been centering on this class, and here they have eclipsed everything. We might be inclined to call this the climax of the Shorthorn exhibitions, because they now stand pre-eminent. We presume that three-fourths of the fat stock exhibited was of this class and by far the majority of the prizes were gained by them. No doubt there are more of this class in America than of any other pure bred class. They are driving out all other classes. The Shorthorn associations, private enterprise, and the Government expenditures have brought them to the front, and there they are likely to remain, and deservedly so, unless we can show reasons why other stock should claim attention. When an admirer of beef has seen the perfection to which Mr. Gillett has brought his car loads of beef animals which he has exhibited for years, and knowing that he has thousands of similar animals raised to such perfection that no pure bred herd in the world can compete with them in lots, ages and individual animals, and still have no pedigree, he will believe that the climax for the Shorthorn has arrived; that they stand the Kings of stock at the present time. Notwithstanding this, they have rivals of no mean order, and the time has arrived when we must consider whether too much attention has not been paid to one class. The lordly qualities of the Polled Angus and their beautifully marbled beef, and the Herefords and their fattening propensities, are rivals not to be despised. In many localities these will be preferred, but comparatively few of them were to be seen at this exhibition, although the few that were there carried off high premiums.

Our great dairy stock are not pre-eminent as beefing animals, their nature being to divert the beef and fat producing properties into the milk pail; thus in the fat stock exhibit there is not to be seen a single Ayrshire, Jersey or Guernsey; perhaps there was a Holstein. There was a small West Highland animal, but so small as only to bring contempt on that class. The old stock from which the celebrated roast beef of old England is reported to have been in great favor, was not to be seen, that is the old English, long-horn Durham. A very useful, profitable and favorite class has not yet been exhibited on this continent, that is the Welsh cattle; they are very hardy, black cattle, having short horns. The Sussex and Devon cattle were not represented. The time may come when these cattle whose names are never heard may be in demand, and higher prices may perhaps be received for them than the Shorthorns, but in this country they are so little thought of as not to be deemed worthy of a place in the prize lists.

The most conspicuous animal was a large, red, grade ox; he was raised in Illinois, and weighed 3,290 lbs; age, 3,133 days. He was not so symmetrical as many of the other animals; his great height and size drew the attention of all.

STOCK YARDS.

In the latter part of the afternoon, bound for the stock yards, we got on the street cars, which, by the way, are run without horses. A large wire rope being kept in motion by stationary engines, is placed below the ground to which the cars are attached or detached at the will of the driver. A train of from two to four cars are taken at a time, and a large number of these trains are attached to the rope, and are running at different distances apart, as required. We arrived at the stock yards, and a place of wonder and astonishment this is. A large exchange building is erected here for business; this is filled with the drovers transacting business. Cow boys are seen galloping up and down the alleyways between the cattle pens. They ride a mustang, having the Mexican saddle and wooden stirrups; they carry a short handled whip, with a very long and thick lash, with which they are quite adepts, so as to make a crack that sounds like the discharge of a gun, but sharper. This whip they use on driving the cattle and hogs; it fairly wakes up a lazy hog, and he quickly opens his mouth and jumps when he gets a cut. The noise of a lot of the cow boys' whips, and the squealing of the droves of hogs as they are driven along the alleyways, is quite deafening, and a little suffices. The hogs are being driven to the slaughtering houses, where they are rapidly killed, dipped, dressed and run on a tramway to the refrigerators. The number of cattle and hogs killed daily at this place is enormous.

The stock yards cover 380 acres of land, all planked and fenced with very strong fencing. One-third is covered with roofing. There is a covered roadway erected on posts, passing over the yards, to drive the stock from different parts of the yard to the slaughtering places. The extent of these yards and the enormous space, the great facilities for unloading, handling and keeping this immense business in order, is quite bewildering.

We ascended the waterworks tower on the grounds to take in the view; no description can convey to you the magnitude of this, the largest stock yards in the world. The rapidity with which the work is done, the enormous refrigerators for cooling and keeping the beef, the immense slaughter houses, the numerous trains being loaded and unloaded. We were informed that upwards of 5,000 hands are employed in these yards, and all are as busy as bees. The yards were very profitable to the original proprietors, and returned a large dividend; but the stock has been watered, that is, instead of being \$4,000,000, it has been increased, without any further calls on payments, to \$13,000,000. Those original stockholders who have held their stock have made fortunes, but those who invested in the watered stock only realized 3 per cent. last year. This is not because there is not profit enough from the charges made to the drover for the use of the yards, which is only 25 cents per head, but the money has been made from the prices charged for the hay and grain consumed in the yards, and in the supply of this the Company have the monopoly by law. Near the grounds the Company have a large stable in which are kept a few remarkable specimens of the bovine tribe; conspicuous among these animals is a grade Hereford having three horns, two in their natural position; the third one ascends from the centre of the top of the head between the other two horns; but to you the most interesting animal would be an enormous ox, standing four inches higher than the largest one at the great exhibition. He weighed in the

spring 3,500 lbs., but he is now getting old and lame, and was always an unmanageable animal. Nevertheless, the largest beast in this the great American stock centre, is Canadian bred, being a native of British Columbia.

We return to the city and stop at the Grand Pacific Hotel, which to enter and see the crowd in the immense hall, one would think it was an exchange or a monster commercial market. It is a great centre for the stock men, and here they congregate from all parts of the world. We met an Englishman just taking a look at the country. He had been often at Smithfield Market Fat Stock Show, in England, which is considered by butchers to be the best in the world. Yet this Englishman says this Chicago stock exhibit surpasses it. We enquired of a Scotchman, who has frequently attended all the leading stock exhibits both here and in Europe, and he considered that in some respects the Chicago exhibition excelled the Smithfield one, but on the whole he thought the matured British animals were the finest.

In the evening we were present at a meeting of the representatives of stockmen from the different States, having been called together by the Commissioner of Agriculture, G. B. Loring, to consider what steps should be taken regarding the stamping out of contagious diseases in the United States. We hope and believe that they will succeed in the undertaking, and that the funds devoted to aid that purpose will not be frittered away in building up or strengthening rings to work against the farmer's interest.

Several meetings of different Stock Associations were held at the Palmer House. On the morning of Saturday we went to the exhibition building again, but such a crowd of children we never before met. It was with some difficulty we succeeded in passing in with the crowd, and when inside our progress was so slow that we concluded to leave and return in the afternoon. The cause of our leaving was that the whole of the school children of Chicago (50,000) had the sway. Just fancy this immense number of happy children out *en masse* for a holiday! They were as thick as bees everywhere; elbowing, laughing, running or jumping; they were pulling the wool of the sheep, or in the hog pens, or kicking the cattle, or beating the big drum, or flinging the corn and roots about. In fact, they had full possession, much to their edification and amusement, but to the inconvenience of herdsmen, who tried to protect their stock or attend to them. An auction was announced and attempted, but the boys made more noise than the auctioneer could, and occupied the space that the cattle and buyers should, and the auction was necessarily abandoned. We returned in the afternoon and found our Canadian exhibitors well pleased with the laurels they had gained.

The prize list was a very liberal one, and was raised without taxation of any kind. Those interested in the city of Chicago, contributed largely; the different stock associations combine and give prizes or supplement them. For instance, the Illinois stockmen gave additional prizes for stock raised in that State. The Stock Breeders' Associations in Ohio and other States do the same, and others give to any particular class to which they require special notice to be drawn. These, together with the fees for entries, and the prices paid for admission by visitors, enable the association to give substantial prizes. These premiums, together with the honor and advantages which they give to the winners, are sufficient inducements to bring stock from long distances, some of the choice animals being brought from England and Scotland. The winner of one grand sweepstakes

being a grade Hereford, it is regarded as a great victory by the Hereford breeders.

The colors of the prize tickets are different from the Canadian. For instance, the latter are 1st, red; 2nd, yellow; 3rd, blue; whereas the Chicago tickets are 1st, blue; 2nd, red; 3rd, white.

Perhaps it will interest you most to know the prizes carried off by Canadians. Clarence Kirklevington (of which an illustration appeared in the February issue, page 45 of this journal), belonging to the Canada West Farm Stock Association, of which Mr. John Hope is manager, carried off, in the Shorthorn class, 1st prize for the best steer or spayed heifer two years and under three, and sweepstakes for the same. Also sweepstakes for best steer or spayed heifer two years and under three, judged by butchers, as well as the sweepstakes for the same judged by feeders.

This Association also carried off first prize for grade Shorthorn cows, aged three years or over, as well as the sweepstakes in that class with Canada's Pride, a splendid animal, being a perfect model, and considered to have a great chance of taking the prize for the best animal in the show.

The Hon. H. M. Cochrane took a prize for his Hereford, Longner Monarch, and first prize for his two-year-old Polled Angus cow, Duchess 2nd, this animal approached nearest to the highest standard of perfection for a butcher's beast; also, first for Polled Angus steer or spayed heifer two years old and under three, with Waterloo Jock.

The magnificent steer, Black Prince, exhibited by Geary Bros., London, Ont., was awarded first prize in the Polled-Angus class, for three year-olds and over; also, the sweepstakes in that class and the sweepstakes judged by butchers for best steer or spayed heifer, aged three years and under four.

The grand sweepstake prize of \$100 and gold medal for the best steer, spayed heifer or cow, was awarded to Roan Boy, a grade, said to be one-half Hereford, one-fourth Shorthorn and one-fourth native.

Canadians secured several prizes for long-wooled sheep.

The Awarding Committee in its final report of the Fat Stock Show incorporates the following recommendations:—If feeders desire to keep their cattle for feeding beyond two years, the most profitable results have been obtained where the animals have been liberally fed the first year on a coarse diet that will develop bone and muscle upon which to build the matured carcass. The most economical production of beef does not always result from strong feeding of grain or concentrated food during the first twelve months of age of the steer.

A VISIT IS MADE TO ILLINOIS MILK CONDENSING FACTORY.

This is the largest milk condensing factory yet established in the west. It is situated in the town of Elgin, which is a prosperous town. In the 39 miles run from Chicago the land is more rolling, stony, and more timber has grown on this land than any of the Illinois land through which we had previously passed when going to St. Louis or St. Paul. Consequently we should conclude that this would be a much better spot to introduce the dairy business than where the land is too flat, where rocks cannot be found, and water neither so plentiful nor pure. On leaving the station it was not difficult to find the factory. We could see numerous milk wagons going and returning. We followed the laden wagons and soon arrived at the premises. Here we saw fourteen milk wagons waiting their turn to unload. We entered into conversation with some of the farmers, one of whom said he had established a butter factory on his

farm about two years ago, and his farm was five miles away. We asked him why he was bringing his milk here. He said they were paying such a good price for the milk that he thought it would pay quite as well to sell his milk and save himself a great deal of labor and trouble. Another farmer, who came seven miles, said he got a better price and more regular pay than he could get at the cheese factories, and the cheese factories here sometimes got a lot of their milk through the summer and broke down before paying them for the milk. Several cheese factories had been established in the locality, but when the condensing factory was established the cheese factories were compelled to shut up, as the Condensing Company pay a higher price for the milk than the cheese makers could give. We proceeded to the office door, and found the following in large letters painted over the door:—"Strangers or visitors are not admitted." But we were courteously shown through the works, and all the information asked kindly given to us. The establishment is built of brick. The milk is taken in by two special experts, whose sense of smell and sight are acute. These men stand at the receiving platform and take off the lid of each can, immediately place it to the nose, and instantly pass it. They take off the lids and pass them through this test as quick as if the test was not being made. Should any be found to have an improper odor it is immediately returned to the wagon; an inspector is sent to the farm to examine the cows, the feed, the water, and ascertain the cause. The patrons are to allow the purchasers of the milk to make examinations. They are not allowed to feed still stuff, slops or turnips to their cows. They are to have a supply of water of an even temperature for summer and for winter. The pastures are to be kept free from foul weeds, and every precaution taken as to cleanliness and care of the cows. If proper care is not taken the Company will not take the milk, which is occasionally tested to ascertain its quality and to detect any attempt at fraud by watering. After the lids have been taken off a load, they are passed to the washers, who scrub and scald them. The cans are then emptied, and the cans handed to the washers, who scrub and scald them in a remarkably short time. They are then returned to the wagons. The milk is next passed into open boilers and brought to a boil. It is then passed into a copper vessel in which is a large coil of copper pipe. Here the milk is subjected to greater heat, and the water is rapidly evaporated. Four quarts are reduced to one quart in these retorts. There are four of them. The condensed milk is then run off into common sized milk cans, which are then placed in cold water to cool the milk, which is kept in motion and stirred by machinery. As soon as it is cooled the cans are run into the packing room. Here they are emptied into the packer, which is a reservoir having two little engines worked by steam. Under this packer four cans are placed, and the engines just force enough into each can to just fill it and no more. Women are here, some feeding the packer with empty cans and others packing the full ones on trays. The trays are carried to the solderers, who put on the lids and fasten them down. The cans hold a pint each. They are packed in lots of four dozen, and bring in this form \$8.25 for the four dozen. This factory is now taking the milk of between 4,000 and 5,000 cows. They use thirty barrels of sugar per day, and employ over 100 hands, the greater number of which are women. Everything is kept scrupulously clean. The women's aprons were spotlessly white, although working at this greasy, sticky substance, more resembling honey than milk, and the little fires

with the soldering irons used so dexterously and neatly that they don't soil their white sleeves or aprons. One would think there was a premium paid to those that kept the cleanest aprons and sleeves, and a discharge to the one that allowed her sleeves to become the dirtiest. The Company is erecting additional works, and is about to increase its business. This Company has three other condensing factories in the United States. The price paid per gallon for milk at this factory is:—13 cents for November; 14 cents for December, January, February and March; 12 cents for April; 11 cents for May; 9½ cents for June and July; 10 for August; 12 cents for September and October.

#### The Season.

The past season has been a fairly prosperous one for the agriculturists of Canada, looking at it on the whole. In Ontario there has been a deficiency in the wheat, potato and apple crops. Clover seed has been a failure. To counterbalance this the hay and oat crops have been unusually heavy, and pastures have been luxuriant. Dairy products have commanded excellent prices. There has been unusual demand for horses. The crops in the Maritime Provinces have been generally good, and in Manitoba a large quantity of wheat has been raised. There has been no serious loss from disease of farm stock, and the market of the world is open for our meat surplus, either alive or dead. The outlook for the future is promising, particularly so for the stock and fruit raisers of the east and the wheat growers of the far west.

A remarkable change has taken place this year, which is deserving of your consideration, that is, the spring wheat has been more remunerative than the winter wheat in Ontario. We doubt if this has been the case before for the last twenty years. Spring wheat has been gradually becoming more profitable in Western Ontario for the past three years.

We make these remarks in the same manner as we write our general editorials, that is, from impressions generally received from conversation, observation and travel. Possibly statistics might show a different aspect of affairs.

The pea bug has been less injurious to the pea crop than for years. It will be of great advantage if we can depend on that crop as formerly; the past season inspires hope for the future of the pea crop. In some localities credence has gained ground that the genuine Irish potato blight affected the potatoes, but we are of opinion that the potato crop in the West has been more injured by an early frost and a peculiar murky atmosphere, and that we need be in no apprehensions in regard to the future success of that crop because this year's crop has been a failure in some localities.

The dairy interest has been highly remunerative. Both butter and cheese have commanded good figures. Attempts are about to be made to awaken greater interest in butter-making. The creamery system, as practiced in Quebec and in some parts of Ontario, appears to be doing good work; but too sudden and expensive changes require caution and good management.

The apple trees have had their leaves injured by insects for the last two or three years. The crop has been greatly shortened—in fact, comparatively ruined during the past two years; but the leaves are looking healthier this autumn. This gives us hopes of a fruitful year in 1894.

The wheat crop in Manitoba, and the apple and potato crops in Quebec and the Maritime Provinces are much better than in Western Ontario this

year. We do not look on the failure of the wheat crop in Ontario as an unmixed evil. It will tend to teach many farmers the lesson we have long since contended for, that is, more grass and less wheat. Grass, stock and dairy products are the branches for farmers in Western Ontario to give attention to. The North-west can raise wheat cheaper than we can. We can excel in root crops, fat stock, raising horses and cattle, butter and cheese, poultry, apiary and fruits.

#### Feeding Hogs.

BY SEABURY.

As the scarcity of corn and other coarse feeds this winter will necessitate the closest economy on the part of those who have hogs to feed and winter, and as we know many are being sold (only half fat), and many more at whatever they will bring, for the reason that the owner has nothing to feed them on—this wholesale selling off will reduce the stock of hogs very much for the coming year, and those who can manage to keep their young pigs and hogs may be well repaid. With these facts in view, I will throw out a few hints, and if they are of any use to one of your readers I shall feel repaid.

Hogs and young pigs require a warm, dry place to sleep in; this is quite as necessary as feed, and those who have their hogs well housed will find that a very great saving in feed. Hay is good for hogs, and those who have good, fresh, sweet hay, cut green, will find this a big saving in feeding hogs. Cut the hay short with a good cutting box, and mix with bran, shorts or middlings, and feed as other feed. They will soon learn to like it, and if soaked in swill, or steamed with a few mangles or turnips, and bran or shorts, it will be highly relished by them. Use the same hay that you feed to your horses. You will find that it will save corn, shorts or other feed, and will make flesh as rapidly, and keep them in good thrift. Try it.

#### Exhibiting Fat Stock at Our Fairs.

It has always appeared to us that fat stock should have no place in our general exhibitions, such as our Provincial, Western and Industrial Exhibitions. At all these large amounts of money are given each year for fat stock. Look at the prize lists, for instance, this year, and of what consequence was the exhibit? Nothing. A few men—well, hardly can the noun be used in the plural; one man and the Model Farm had the whole fat stock exhibit to themselves at every one of the shows. It was simply fobbing in all the money without competition. Whether fattening cattle to excessive proportions don't pay, it was noticeable that one stock herd won all over Ontario last year. In one sense to show how much tallow can be developed in an animal is not recommendable any way. Profitable feeding is what should be looked at; animals that could attain the best mixture of fat and lean, sufficient to become marketable and profitable beef. Very few connoisseurs even would like to digest a piece of one of these prize fat oxen, and for general purpose beef it is utterly useless. To show to what dimensions an animal can attain, and what development can be made, is all right; that is, we mean showing systematic feeding, what the anatomy of an animal can develop by feeding so much albuminoids (flesh formers), and so much carbo-hydrates (fat formers).

As a scientific experiment in chemistry and anatomy, these fat monsters are illustrative, but let them be by themselves. Let fat stock shows be solely for this, and then the normal condition of an animal be shown at our regular exhibitions. In

fat stock shows, too, the normal condition of an animal should take consideration. Stall-fed, blubbery beef is not healthy, nor is it profitable. What the best style of beef for use should be, is what we want to know, and not how much fat an animal can lay on. The beef that can be laid on any table and be the most nutritious, and, at the same time, flavorful without excess of fat, is what we want; we don't want over-fed, rank beef which fat stock shows produce—No! That exhibition animals are no test with their loaded sides of fat is patent. For profit, they are not there, if extra feed and attention be considered. As a scientific experiment of what dimensions an animal can assume by stuffing, a fat stock show is just the thing, and should be confined to such. But agricultural exhibitions should be confined to showing what a plain, practical farmer can do in the way of exhibiting well-bred, profitable animals in the various classes in a normal condition.

Let the fancy fat breeders go by themselves and make the best they can; but our agricultural exhibitions should go no further than merely offering prizes for breeding stock, and good, marketable shipping steers, &c. If anything, as we have remarked, fat stock, as shown at our special shows, are anything but profitable, and the end attained is not for the advancement of the general farmer, for animals fed to the point of winning at a fat stock show do not pay in any sense for breeding; they are useless, and, for consumption, the greater proportion of the meat is too rank for wholesome food and healthy digestion.

#### 1883.

The present number closes the 18th volume of this journal. This volume contains the largest amount of reading matter and a more costly lot of illustrations than any previous one. The circulation has increased more than in any previous year, and notwithstanding the expensive improvements made, the price has not been increased. We believe we have fully completed our promises to you, and have every confidence in your appreciation of our labors and of the labors of our contributors, and believe we are furnishing you with better value for one dollar than any other dollar expended from the farm.

We have every confidence of receiving the continued patronage and support of all well-wishers to our general agricultural prosperity. If there has been any oversight or omission in neglecting any important, useful or beneficial step, plan or undertaking, or if any errors have occurred, our pages have always been open for our subscribers to aid or correct us. No valuable correspondence is neglected. This is your paper, and in it you have the opportunity of aiding your interest and the interest of your fellow beings. We believe we have honorably and honestly fulfilled our duty to you, and have fairly offered you all an opportunity to help one another in the most independent and honorable manner. If any have improvements to suggest in the management of our agricultural affairs, and fail to give them publicity, so that they may be discussed, you are not, we think, doing justice to yourselves or the country.

We return our sincere thanks to every subscriber and every contributor, and have great confidence in soliciting your continued support, hoping to continue to improve your journal as much in the future as it has been improved in the past. We hope to make the 19th volume much more valuable and interesting to you than any previous one. Do your duty! Persevere and succeed. Wishing you all a Merry Christmas and a Happy New Year. Adieu, 1883!

### Special Contributors.

#### Chicago Fat Stock Show of 1883.

[FROM OUR OWN CORRESPONDENT.]

The Sixth Annual American Fat Stock Show, held at Chicago, was the largest, to say the least, that has ever been held on the continent. The entries were much fuller and there was a much better assortment of stock than in former years. The attendance of visitors was good, and the financial outcome of the show was all that the managers could desire. So much for the show in general.

The awards, in some cases, perhaps as a rule, were very fairly made, but in the minds of good judges there were some notable exceptions. In former years the Hereford men have complained that they did not get fair play, but this year they had no complaints to enter, and the Shorthorn men, on the other hand, felt that they were not equitably treated. Perhaps it is as well that it was so, as the Hereford men will be encouraged to take hold with renewed vigor, while the Shorthorn men will certainly have to stir their stumps a little. They have been winning their laurels too easily in late years, and it has been suggested that they were becoming a little careless. However, this will wake them up, and next year they will probably be prepared to make a fight worthy of their breed.

The first honors of any consequence in the show were taken by Canada. The imported Polled-Angus steer Black Prince, said to be owned by Hugh Nelson, of England, entered by Geary Bros., of London, Ont., took the sweepstakes for three-year olds in the finest ring of Shorthorns and Herefords that was ever gotten in one ring at this show. The triumph was regarded as a big one by the admirers of the hornless blacks, and so it was. The best breeders of the country had their choicest animals pitted against him, but the doddy carried off the ribbon. By the way, there was an amusing incident occurred in this connection. One of the city reporters, in referring to the honors won by this animal, concluded by saying: "And upon this animal's horn was hung the blue ribbon." He probably did not know a Polled steer from a horned goat.

Mr. Culbertson's (of Chicago) steer, Roan Boy, got the grand sweepstakes, and the Hereford admirers were much elated over it, but it was not a clean victory, as the animal was thought to have as much, or more, Shorthorn than Hereford blood in his veins.

The white Shorthorn, Clarence Kirklevington, of Bow Park herd, was a beauty, and was thought by many to be entitled to favorable consideration by the sweepstakes awarding committee.

Some of the judges well said, that in view of the large number of prime animals shown, the premium list should have been three times as large as it was.

The Potts sweepstake steer at the Kansas City show did not cut much figure here. Evidently there is a difference in judges.

Space forbids premiums in detail, but the battle of the breeds was stronger than ever, and, on the whole, the Herefords came out with the most honors.

During the show various important meetings were held. The Illinois Shorthorn Breeders, Secretary, J. B. Hostetter, Mt. Carroll, Ill., decided to assess each member to raise a fund for duplicating the premiums taken by Illinois Shorthorns at the show. Breeders of Polled Suffolk and Norfolk cattle formed the "Red Polled Cattle Club." The Hereford breeders met, but did no important business.

The Berkshire breeders had an interesting meeting. The secretary is P. M. Springer, Springfield, Ill.

The Norman horsemen had an enthusiastic meeting, and a grand banquet. T. Butterworth, Quincy, Ill., is Secretary.

The Holstein Association, Thos. B. Wales, Iowa City, Iowa, Secretary, held a good meeting.

There were several hundred Shorthorn cattle sold at auction in the show and at Dexter Park.

Thos. B. Wales sold a herd of Holsteins at \$300 to \$400, with Mercedes 3rd, calved Feb. 24th, 1883, to Smith & Powell, Syracuse, N. Y., at \$4,200. Tall price for a youngster.

Another herd of Holsteins sold at \$100 to \$200 per head.

It is predicted that the present abnormal prices for Herefords and Polled Angus, will result in a bad break, sooner or later. There is no doubt that prices are foolishly high. It is the best time in the world to invest in Shorthorns.

The contest of carcasses was sharp, but the Shorthorns came out with flying colors. The Shorthorn steer "Starlight," owned by Potts, captured the blue ribbon in his class and the grand sweepstakes for carcasses.

M. H. Cochrane's Polled-Angus steer, "Waterside Jock," 999 days of age, took first premium for carcasses in his class; and Fowler & Van Natta's Hereford steer "Harry," 718 days, took first in his class. "Waterside Jock" weighed 1,815 lbs., and had made an average gain of 1.82 lbs. "Harry" weighed 1,405 lbs., and had gained 1.97 lbs. per day.

One or two of the chronic complainers in the Hereford ranks were terrible wrought up over the sweepstakes for carcasses going to a Shorthorn.

After all, the honors of the show were very evenly distributed among the breeds. "Black Prince," Polled Angus, took sweepstakes for three-year old; "Roan Boy," grade Hereford, grand sweepstakes for best animal, and Potts' "Starlight," Shorthorn grand sweepstakes for best carcass of beef.

There has been a good deal of talk about the Holsteins as combined milk and beef cattle. They do make beef, perhaps, more and better than Jerseys, but it is of a very indifferent kind. Little need be claimed for them on that score.

For milk and beef combined, the Shorthorns and Polled-Angus are unquestionably the breeds.

There is a boom on Hereford and Polled-Angus stock that cannot last. At least, so think some careful breeders of those strains. For large herds to sell at auction at an average of \$500 to \$600 per head for beef breeding, is not justifiable. There may not be as bad a break as there was on Shorthorns some years ago, but there is almost certain to be a considerable break. Two to three hundred dollars per head is a sound range for fine stock, and prices above are exorbitant and abnormal.

The brick dust coloring matter on some Michigan Shropshire sheep at the show, was disgusting in the extreme. What, taste and what fools some breeders must think people are!

As the season has arrived when subscribers renew their subscriptions, we will be glad to receive your renewal. If you appreciate and approve of the paper, there is a very practical way in which you can show your appreciation, namely, by securing a new subscriber—some one who is not taking it now. We agree to refund the subscription to any dissatisfied subscriber, so you need have no hesitation in asking any one to subscribe. The safest way is for you to send a money order where convenient. A registered letter is also safe. To avoid mistakes be sure and sign your name, and write the name of the post office where you receive your letters; mail your subscription yourself, and direct to this office. Errors have occurred which have caused trouble, when remittances have been trusted to a third party. Use the envelope sent, and try to be ready to enclose one new subscription with your own. Our premiums except the Farmer's Hand Book, are not for sale.

### The Colling Bros.

Inasmuch as the breeders of Shorthorn cattle have been taught to revere the names of Charles and Robert Colling as the first great improvers of the race, we have deemed it of interest to reproduce the engraving shown herewith from Vol. I of Mr. John Thornton's *Shorthorn Circular*, published in London some sixteen years ago:—

Robert Colling, the elder of two brothers, was born at Skertingham, in 1749, and when a youth was apprenticed to a large grocer; but his health being delicate he returned home and joined his brother Charles in partnership, until Charles went to Ketton, and Robert took the Barmpton farm in the spring of 1783. Having previously resided at Hurworth, he often visited Mr. Colley, and imitated many of his principles of farming, more especially turnip growing, and in later years his own farming at Barmpton became high and excellent in every degree. For many years his Leicester sheep, which were obtained from Bakewell, were more successful than his Sherthorns, and his ram shows or lettings were continued for many years.

Mr. Wiley, of Brandsby, took sheep of him for fourteen years in succession, and upon one particular occasion asked him what a good Shorthorn should be like. Pointing to one of his finest tups, called Shoulders (from the excellence of that point), Mr. Colling advised him to breed his cattle like that. A favorite expression of his was to liken his cattle to a barrel; he did not approve of the breast being very prominent, preferring it rather short but very thick and wide, especially between the fore legs, as he generally considered beasts with very prominent breasts had thin shoulders and chine, and lacked width and substance in their fore quarters. It appears that some of Robert Colling's earliest stock came from Millbank, of Barningham, about 1780. These were supposed to be the best Teeswater cattle, and noted for their excellent grazing properties. The original of the Yellow Cow by Punch came from this stock; and her descendants were Venus, lot 19; Clara, lot 29, and Diamond, lot 62—all sold for high prices in the 1818 sale. Of Diamond Mr. Dickson, in an essay on judging, said that he was small, of beautiful symmetry, and a perfect model, with a thick, fine coat. The Yellow Cow by Punch, bred a heifer by Favorite (252), which heifer was the dam of the celebrated "White Heifer that Travelled." No record gives the date of this white heifer's birth, (supposed 1806), but the fashion at that time of feeding to an enormous weight, and the success of John Day in his wanderings with the Durham ox, induced two butchers to purchase her for exhibition. Unlike John Day, they left no pamphlet of the "pure genuine breed," nor of their travels throughout the country. A small hand-bill alone told of the merits of the White Heifer, and ran as follows:—"To be seen at the stables of the Three Kings, Piccadilly, near the Gloucester Coffee House, the greatest wonder in the world of the kind, the wonderful Durham fat heifer, of the improved Shorthorn breed, which weighs 306 stone (8 lbs.), bred and fed by Robert Colling, of Barmpton, near Darlington, in the county of Durham. She is sister (half sister by the sire) to the Durham ox and favorite bull, Comet, which was sold for 1,000 guineas at the sale of Charles Colling, Esq., at Ketton, for which 1,500 guineas has since been offered. This heifer is now the property of Messrs. Robinson & Spark. It is particularly worthy of notice that this justly-celebrated heifer was a twin."

From Sir William St. Quintin, of Scampston, Robert obtained his Wildair tribe, from which he

believed the renowned Hubback (319) was descended. It was a favorite sort at Barmpton, and produced among other noted animals the bull Marske (418), used by Mr. Bates on his Duchesses.

The "American Cow," at the base of the Rose of Sharon and Cambridge Rose pedigree, was bred by Robert Colling, and got her name, it is said, from going out to America early in the century. When the stock of Red Rose and Moss Rose became of such note she was taken back by Mr. Hustler to England, and produced at Acklam, in 1811, Red Rose by Yarborough (705), for which Mr. Hustler is said to have refused \$2,000, and which Mr. Bates bought in 1819.

On Tuesday and Wednesday, Sept. 29th and 30th, occurred the great Barmpton sale, when 61 head of all ages sold for about \$39,250, an average of say \$640 each, which although less than had been obtained at Ketton in 1810, there is every reason to believe it was a better sale. In 1810 things were at war prices and everything high, while in 1818 there was peace, and a general depression upon agriculture. The bulls are said by Mr. Wetherell to have been the finest lot he ever saw at one sale. They doubled the average of the cows, and, taking the highest priced family at Ketton against the highest priced one at Barmpton, we have the following result in favor of the Barmpton stock:—At Ketton, the Phoenix tribe, sixteen (including Comet), averaged \$1,105; at

to buy the cow and her heifer. After some haggling on each side the purchase was made, and Favorite, *alias* Lady Maynard, (Vol. 1, 2, 3, page 164) by R. Alcock's bull (19), and her daughter, Young Strawberry, went to Ketton. Mr. R. Colling told Mr. Wiley that his brother's and his own cattle were never better than anybody else's until they got Maynard's two cows; and Mr. Bates wrote that Mr. Maynard gave him a long pedigree of the cow Favorite (Lady Maynard), going back to the time of the murrain (1745).

Hubback (319) was quite probably the first bull that Charles Colling used at Ketton. The mass of conflicting evidence for and against this bull, published in the *Farmers' Journal*, about 1820-21, would fill a small volume. It is difficult to get at the truth of his history. Mr. Wright says that Charles Colling, going into Darlington market weekly, used to notice some excellent veal, and upon inquiry ascertained that the calves were got by a bull belonging to Mr. Fawcett, of Haughton Hill. This bull was Hubback (319), who was then serving cows at a shilling each. Mr. Waistell and Robert Colling bought the bull together for ten guineas, in the spring, and in the October or November following (accounts vary as to 1783 or 1785), Charles Colling gave eight guineas for him. At the end of two years the bull was sold to Mr. Hubback, Northumberland, after whom he was called. He died about 1791.

Hubback was said to be a small yellow, red and white bull, and the quality of his flesh, hide and hair seldom equalled. He was bred by John Hunter, of Hurworth, in 1777, and got by George Snowdon's bull out of the daughter of a cow bought from Mr. Stephenson, of Ketton, from whose stock Foljambe's dam came. Mr. G. Coates, who saw Hubback, mentions him as a yellow red bull with a little white, head good, horns small and fine, handling firm, shoulders rather upright, girth good, loins, body and sides fair, rumps and hips extraordinary, flank and twist wonderful.

Foljambe (263) succeeded Hubback, but after all Favorite (252) was the sire most used. He was by Bolingbroke (86) out of Phoenix by Foljambe, daughter of Mr. Maynard's cow Favorite. Mr. Coates thought him a large beast, light roan in color, with a fine bold eye, body down, low back, and other parts very good. Mr. Waistell said Favorite was a grand beast, very large and open, had a fine brisket, with a good coat, and was as good a handler as ever was felt. His dam, Phoenix, was a large open-boned cow, and coarser than her dam, while her son (Favorite 252) partook more of her character, and possessed remarkably good loins, long level hind quarters, his shoulder points stood wide and were somewhat coarse and too forward in the neck, and his horns, in comparison with Hubback's, were good and strong. His sire, Bolingbroke (86), was by Foljambe out of Young Strawberry, the heifer bought of Mr. Maynard; in color he was a blood red with a little white, and the best bull George Coates ever saw. Favorite (252) (born in 1794, died in 1809) was used indiscriminately upon his own offspring even in the third generation.

Robert, the elder, died unmarried in 1820, aged 71 years. Charles died, without issue, in 1836, aged 86. In a comparison of the two herds, a well-known judge who knew and saw both, has said that Robert's cattle were not so good as his brother's. Although they were large, even larger than the cattle of the present time, they lacked that superlative quality which distinguished the herd at Ketton.

The Collings and their great master, Bakewell, like many other pioneers, builded wiser than they knew. Their experience and results have been the "stepping stones" upon which subsequent breeders have perfected the breed of Shorthorns. —[Breeder's Gazette.



CHARLES AND ROBERT COLLING.

Barmpton, the Red Rose tribe, eleven (including Lancaster, \$3,100), averaged \$1,350, and the thirteen favorite Wildairs averaged \$710.

Mr. Robert Colling has been described as a stately, reserved man, the opposite to his brother Charles, kind in his manner and straightforward in all his dealings, keeping a good house and high company, and was liked by all who knew him. Robert was one of the earliest disciples and most intimate friends of the great Bakewell, and there is little doubt that Bakewell's great principle of in-and-in breeding was carried out most successfully by the Collings. Father to daughter and mother to son, were the principal direct alliances, and the system was continued so long as robustness and form were upheld.

Charles Colling, "father of the Shorthorn breed," was originally in partnership with Robert, but they afterwards separated, Robert going to Barmpton, and Charles to Ketton, in 1783. Gabriel Thornton, father of Robert Thornton, Stapleton, Yorkshire, went with Mr. Charles as farm manager, having previously lived since 1774 with Mr. Maynard, at Eryholme. Some remarks of Thornton's concerning Mr. Maynard's cattle led Mr. and Mrs. Charles Colling to ride over to Eryholme that same year. When they arrived, a handsome cow that Miss Maynard was milking attracted their notice, and Mr. Colling offered to

## PRIZE ESSAY.

## The Advantages of Maintaining Township Exhibitions.

BY H. F. HONSBERGER, SPRINGFIELD, ONT.

In order to show the advantages of township exhibitions, and meet the arguments which are brought forward by those persons who advocate their abolition, I shall first enumerate the objects and benefits of agricultural exhibitions in general; and then endeavor to show how these objects may be attained by township exhibitions, and in what respect they are productive of greater results to the farmers in general than exhibitions held on a larger scale.

No person who has watched the improvements of agriculture in our young Dominion, for the last quarter of a century, can fail to notice that our agricultural exhibitions have wielded a powerful influence in its advancement, or deny the fact that our legislators have acted very wisely in aiding them liberally.

The following are the chief objects for which our exhibitions are held, viz.: The encouraging of breeders to import pure-bred stock from foreign countries, with a view to improving the stock of our farmers, and making this branch of husbandry more profitable to them; the improvement of our methods of cultivating the soil by bringing together for competition the products of our farms, and awarding prizes to the best samples; the bringing together of farmers and their families, to vie with each other in producing and exhibiting the best animal or article in each class, whether it be in live stock, grain, fruit, and farm produce of any kind—the result of the farmer's industry, or any article of use or ornament exhibited as a sample of the skill of his wife or daughter; and last, but not least, the promotion of a friendly intercourse between farmers, and the awakening of that interest in their occupation, and ambition to excel in it, which follow as a result of competition for prizes with others, and the emulation of those who are successful.

No one can deny the fact that these objects have been attained in a great measure, as it is shown by the increased interest which is taken in agricultural exhibitions by our farmers, and the superiority of the exhibits. The chief arguments brought forward by those who advocate the abolition of township exhibitions are: "That there are too many of them, and that it would be preferable, and productive of greater results, to have one exhibition for a number of townships, or one for each county."

They tell us that in many townships the number of farmers who take an interest in exhibitions is so small that the amount of money given in prizes is not sufficiently large to induce them to exhibit, and that it would be a great advantage in this respect to have only one exhibition for each county, or at most, one for a number of townships.

Now, we must acknowledge that there is a great deal of truth in their arguments when we look at the condition of many of our township agricultural societies; but the question arises, "is it necessarily so, or is it owing to the fact that the objects and claims of agricultural societies and their exhibitions, have not been impressed upon the minds of farmers as they should be by the officers of societies, nor their advantages fully set forth?"

Having pointed out what I consider the chief objects and advantages of exhibitions, I shall endeavor to show that we cannot derive the greatest possible amount of good from them if township exhibitions are not maintained. Each exhibition, from a world's fair—open to every country of the globe—down to the township exhibition, has its own sphere of usefulness, and does a work which cannot be done by any other exhibition. A comparison of the products of different countries, and competition between them for prizes, or medals, indicative of superiority in their products and manufactures, is certainly beneficial in many respects; and while this is true in regard to the productions of different countries, it is equally true in regard to the productions of farmers living in the same township.

The Provincial and all of our large exhibitions are doing a work which cannot be done by county or township exhibitions.

Our Province would not occupy the proud position which it holds at the present day, nor be so noted for its fine horses, cattle, sheep, swine, poultry, grain, fruits, etc., were it not for these exhibitions, as they encourage stock-breeders and farmers to import superior animals and new varieties of grain and seeds, and, by careful attention, to improve them and surpass each other by taking the highest prizes when competing against the whole Province.

Our Provincial Exhibition has done much towards the improvement of our live stock by breeders, which would never have been done by county or township exhibitions, and yet, I think I am safe in saying that township exhibitions have done a work equally as great, by showing to the farmers in their own immediate localities the advantages of rearing pure-bred animals, and encouraging them to procure them.

But we are told by some persons that one exhibition for each county would be equally as beneficial, or more so, than one for each township. This I claim is a mistaken idea for the following reasons:—

There are, in each county, men who make a hobby of some particular branch of their business. One man gives his whole attention to the rearing of fine horses; another to cattle; another to sheep—each striving to excel in that which pleases his fancy.

Again, we have a man who devotes his whole time to the care of his orchard, and prides himself on his success in raising fruit, while his neighbor, who looks upon him with a certain amount of contempt as he sees him trimming the trees for the better development of his fruit, or searching for the worm which he fears will destroy the tree, chuckles to himself as he thinks of the mammoth squash which he is growing in some secluded spot on his farm, away from the sight of his neighbors, and with which he intends to astonish all who may attend the county fair. Now, this is perfectly right, and we find that those men who follow some particular branch of farming, and give it their whole attention, are most likely to succeed. Yet, the fact that these men generally carry off the prizes at county exhibitions—each in his own line—prevents a great many farmers of a class who most need the encouragement of agricultural societies, from becoming members and taking an interest in them.

The wide-awake farmer, who figures most prominently at the county exhibition, does not need the stimulating influences of an exhibition as much as the farmer who is not so ambitious, and takes an interest in them only when he expects to be repaid by winning prizes, and the latter is therefore far more likely to be benefited by a township exhibition than by one held on a larger scale, where his chances of success are far less.

Another reason why township exhibitions are more beneficial to the class of farmers who most need their advantages, is that in many counties there is a vast difference between the different townships composing it, in the quality of the soil and circumstances of the farmers who inhabit them; consequently those who labor under these disadvantages very often take little or no interest in a county exhibition, whereas they would take a lively interest in a township exhibition, and derive its benefits, as they would then be on an equal footing with all competitors. Again, the majority of our farmers are more easily persuaded to become members of an agricultural society in their own township, than of one at some distance from their homes, as there is less trouble and loss of time in conveying articles for exhibition, and they are more interested in competing with those persons with whom they are acquainted, and are more likely to be encouraged and follow the example of successful farmers in their own neighborhood than of others.

Let it not be understood that I am opposed to county exhibitions, for this is not the case, as I am of the opinion that they are instrumental in doing much for the advancement of agriculture; but for reasons already given, I claim that township exhibitions benefit a large number of farmers belonging to the class already referred to, who would take no interest in a county exhibition.

The want of success of many agricultural societies is not owing to a lack of advantages which might accrue from them, but may be ascribed to the lack of interest on the part of farmers who do not realize the advantages which they and their

children might receive from them. If we as farmers realized the benefits derived from exhibitions, and were fully alive to our own interests, there would be no falling off in the number of members of our agricultural societies, as is often the case, but an increasing interest, which would convince any person that township exhibitions are productive of much good. Another chief cause of the failure of some township societies, is the fact that our sporting men figure too prominently among the list of officers, and consequently the exhibition is turned into what might be called an "Agricultural Horse Trot," in which fast horses are the chief attraction, and a great part of the prize money is devoted to that class, while other animals and farm products are a secondary consideration. Nothing is more certain to break down a society, or lessen its usefulness, than this course.

The majority of our farmers are not very deeply interested in fast horses, and have the good sense to decline giving their support to a society whose officers have for their object the enjoyment of a good day's sport, at the expense of those whom they can induce to become members.

I do not condemn the giving of prizes for speed in horses, but mention this as I am satisfied from my own observations that the carrying to excess of this state of affairs has caused the ruin of more than one society. The officers of our agricultural societies should be the men who take the greatest interest in the advancement of agriculture, and who will spare no pains in building up the society and carrying out its objects.

If we wish to make our exhibitions what they should be, and derive from them the benefits for which they are intended, we as farmers must learn that we should encourage and take an interest in them, not only for the sake of winning prizes, but for the advancement of our noble occupation, and for the encouragement of our young men whom we expect to be the successful farmers of the future.

When this is the case our agricultural societies will prosper, and we shall not be at a loss to know the advantages of maintaining township exhibitions.

## Poultry.

## Old Hens.

The old hen seems to be attacked from all quarters, and the objections to her are based upon two reasons, the first of which is that a hen will not lay as many eggs after the first year she begins laying, and the second is that disease is more liable among old hens than pullets. The first objection is not always a potent one, and very often the hens lay better during the third year than the second. Much depends upon the time of hatching the pullets. The pullet hatched as late as May will be beaten her first season of laying by the old hen badly, and if she commences her second year it will be with the disadvantage of moulting when the weather is cold. Old hens have been known to lay well and regularly until quite advanced in age, and the calculation which has been made by some genius and given forth, that old hens are unprofitable as layers, has been accepted more on faith than observation. Our experience teaches that some old hens will lay more than pullets, and that some pullets will lay more than old hens. The trouble with old hens is that they are liable to become too fat on very high feed, but if they are fed with judgment they will equal the pullets without doubt. So far as being more liable to disease than pullets there are also exceptions, and if the matter can be given a fair test it will be found that the chances are equal.

As to which are better for breeding we venture to say that more eggs will hatch that are laid by old hens than by pullets, and this is a great deal in favor of the old hens. We think hens should be kept until the spring in which they become three years old, not that they are then useless, but because the pullets have reached a more mature age, and this plan of dividing the hens into three periods, instead of two, will no doubt be found better. The breed, also, has something to do with the merits of pullets and old hens. A Leghorn or Hamburg pullet will lay more eggs in a year than an old hen of the Brahma, Cochinchina, or Plymouth Rock breeds, but an old hen of the Leghorn breed will also lay more than the pullets of the larger breeds. Crossed hens will often be found good layers for a long period, but the cross should be a judicious one.

### Stock.

#### Maplewood, the Farmstead of Messrs. Dawes & Co., Lachine, P. Q.

The accompanying illustration, drawn by our artist, represents but a very small portion of the stock or buildings owned by Messrs. Dawes & Co. at Lachine, P. Q. This shows one of the cattle barns and the piggery. In the foreground is their remarkably fine 3-year old Hereford bull, "Hostage" (6493), the 5-year old cow, "Miss Nobleman 2nd," and 4-year old cow, "Miss Nobleman 9th." Messrs. Dawes & Co. imported 8 very choice animals in 1881; they have now 17 head, and have sold 7. They have not purchased any Herefords on this continent. It would be difficult to find a choicer lot. On the farm are six Polled-Angus females and two bulls.

These gentlemen have long been noted breeders of horses, both heavy draft and thoroughbred, and

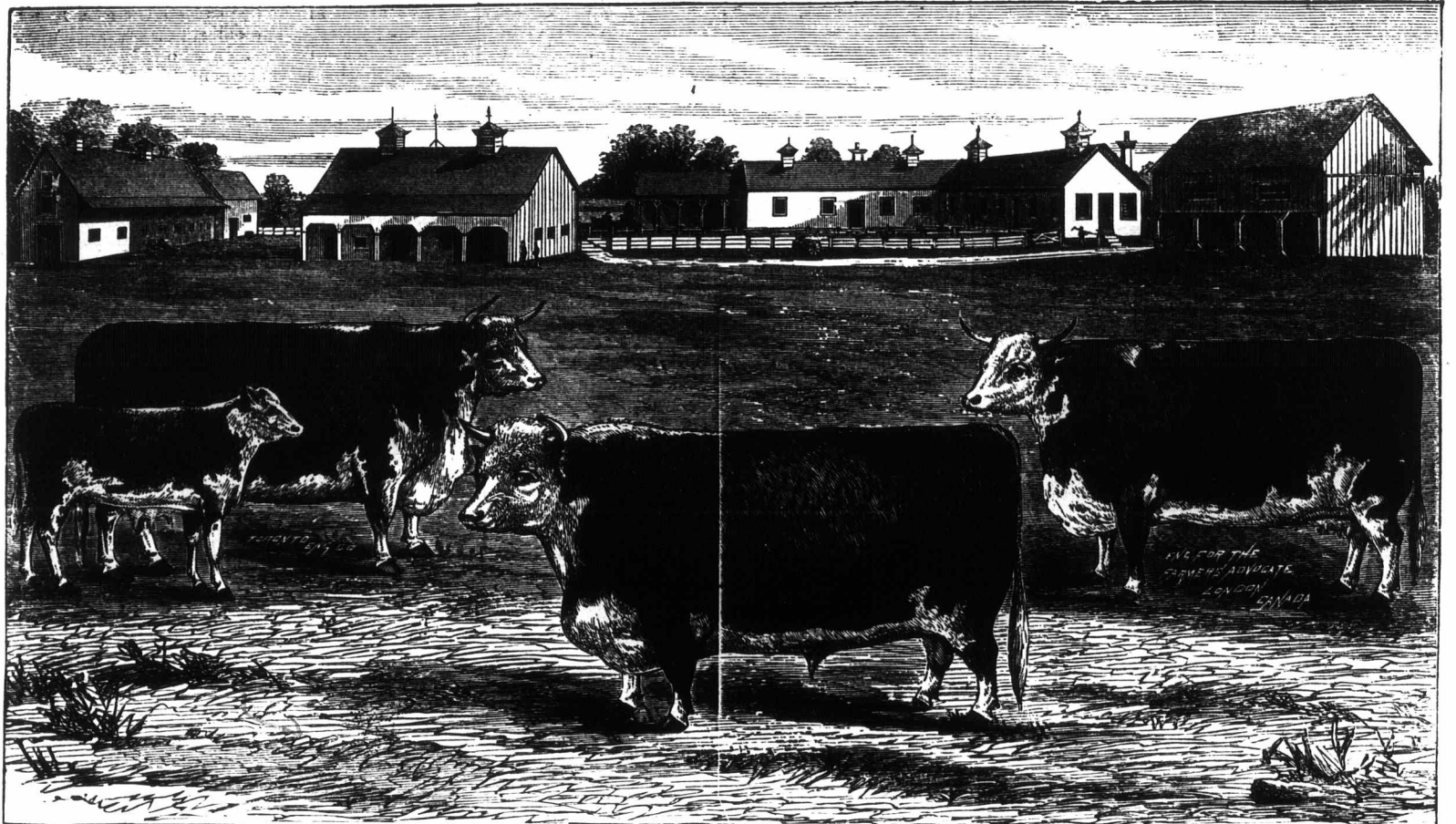
tember last. Two very fine blood stallions are kept on the farm. "Tubman" is a very large, handsome, well-formed, strong, bright bay, stands 16½ hands high, and is a horse worth breeding from. He is considered one of the most valuable horses ever brought into Canada. Messrs. Dawes & Co. have recently purchased and imported the very celebrated horse, "Moccasin," a dark brown, 16 hands high, having a remarkably fine record.

The farm consists of 360 acres of very rich, fertile land; in some places it is rather stony. About 240 acres are under cultivation—hay, grain, etc. The remaining portion is in woods and used for pasture. The farm is situated only about 10 miles from Montreal. We have been acquainted with these gentlemen for many years. When any of you wish to procure either stock or horses, we know of none with whom we would more strongly advise you to communicate, as they have always seemed to have the very best. You can rely upon what they state.

three days, so as to mingle the oil with it, thus taking it away from the air, it would not probably become tainted. For the above reason, where pork is taken out of the brine every day or two, thus stirring it, it rarely spoils, unless the brine is very dirty. Another preventive is to put such an amount of salt on top of the meat, that the brine will not come to the surface, but be covered by the salt. This prevents contact with the air and keeps it from becoming tainted.

### Varieties of Food.

While farm animals, as compared to their owners, are very plain livers, doing well on two kinds of feed, still, as with men, they vary in digestive and assimilative powers; and it is well to consider the winter season as the trying period for farm stock, for there is no denying that upon nearly all farms it is such. Farmers do not usually overstock during the pasturing season, provided it is favorable for grass, but when winter comes it is different. The flesh and fat made from grass alone is invariably of that character termed soft; and when winter first comes, this soft deposit, the fatty



HEREFORD CATTLE,  
THE PROPERTY OF MESSRS. DAWES & CO., MAPLEWOOD, LACHINE, P. Q.

have raised some very fine carriage horses, which have commanded very high prices. Many of their thorough-breds have made their mark on the turf. When passing through their fields we admired the gentleness of the colts—the thorough-breds—which came to be petted; and some would allow the legs to be raised and handled like old horses. But the Clydes were not so friendly; despite the greatest kindness, the Clyde colts will not allow themselves to be handled or petted. They do not associate so readily with man. The blooded horse partakes more of the nature of the dog, becoming attached to its master. This never showed itself so plainly to us before. On the farm are five pure Clyde mares. This season Messrs. Dawes imported one of the best two-year old fillies they could procure. Her name is "Gallant Maid," bred by Mr. Robertson, Mitchelltown, Renfrewshire, Scotland, where she obtained many prizes, for one of which there were no less than 49 competitors. She took first prize at Toronto in Sep-

### To Keep Salt Pork from Spoiling.

BY F. D. CURTIS.

Farmers often wonder why their pork spoils in summer when there is so much salt in the brine. It makes no difference how much extra salt there may be in the brine, or how strong the brine is, if the grease and impurities in it, which always rise to the surface, are allowed to remain there for any length of time the pork will be injured. The grease and other impurities on the surface coming in contact with the air, they decay, which produces putrefaction, and this in turn taints the brine, which of course affects the pork. It is plain, then, that no amount of salt or strength of brine will prevent this result, unless the grease and other impurities mingled with the brine are removed.

The most effectual preventative is to boil the brine before warm weather sets in and skim off the oil and impurities which will rise to the top. The salt in the brine may be cleansed in the same way by boiling it with the brine and stirring it frequently, which will cause all foreign substances to rise to the top. If the brine on top of the meat should be frequently stirred every two or

portion, shrinks, and unless the feed be generous, it is quickly absorbed, going into the blood to meet the demands made by the inclement conditions.

Winter feeding, properly done, is far from being the complicated process that it was a few years ago supposed to be. That is to say, there was a time, not far back, when many considered that not to grind and cook the feed, especially for swine, and to some extent for cattle also, was considered lacking in enterprise. Some of those who advocate improvements in any department involved in the management of farm stock, have failed to find that grinding and cooking, especially the latter, has paid them for the time and money expended; but there is no question about its paying the farmer to buy ground feed at the mill for cattle feeding; especially so in the case of breeding stock and young growing animals, for in feeding whole grains to a limited number of animals during the winter, it is not usually practicable to have a following of swine about the stable, to consume the voided whole grain. Furthermore, it is liable to be a fatal arrangement for the swine, permitted as they are, under such a plan, to nest in the manure pile, thus engendering bronchial or lung troubles. A wise selection and administration of food will



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avail little except under extravagantly liberal feeding, unless fairly comfortable shelter is provided, something to stand between the hide and hair of the breast and the inclemency without. Any attempt to make a selection of food that will, under any honest showing, make it appear that it is more economical to feed against the weather than to shelter against it, will fail signally. Any man who thinks that cooked food, fed hot, will aid an animal to resist cold, is in error. The selection of food for winter use is simple, provided shelter and bedding are supplied.

Wheat is found to contain ten parts of flesh-forming material, while it is stated to contain 70 per cent. of starchy material. Upon this latter the ability to stand cold largely depends; hence the value of wheat offal, especially the richer portions of it, should be estimated at a high figure. Even bran is well known to breeders to be far more satisfying to cattle and other stock than it has usually been credited with being. While nothing approaches oats for horses, in conjunction with a small quantity of hay, if they are required to make time on the road, or pull heavy loads, so nothing excels the offal of wheat, with a sprinkling of corn

**Going to the Horse Fair.**

Herewith we give an illustration of this celebrated picture, by Rosa Bonheur, and which is justly regarded as the chief work of the artist, whose fame is world-wide, and who stands unrivalled as a painter of horses. She received her first instruction from her father, an artist of considerable merit, but she owes her remarkable success in the delineation of animals to a constant study of living subjects. The artist worked eighteen months on the picture of the Horse Fair. It was a leading attraction at the Paris Exhibition in 1853, and also at the great Exhibition at London in 1855.

For the original of this picture, the late and well-known A. T. Stewart, of New York, paid \$40,000. Mrs. Stewart kindly allows visitors on certain days to view this and other valuable pictures in her gallery.

The advanced condition of agriculture at the present day makes us practically manufacturers, as well as farmers. The crops we grow—our hay, grain, roots and purchased food are the raw products, our animals are the machines that manufacture these materials into human food. Just now, at the beginning of the winter, with our stock wholly dependent upon the hay and grain and other fodders which we have or may purchase for their daily rations, how to feed them with the greatest economy and thus realize the largest possible profits demands intelligent study. It is certain that in the sharp competition of the present, if we succeed we must avail ourselves of every element of success. There has been in the past few years marked progress in the care and feeding of stock; yet there is need of still further advancement in this direction. Too many farmers waste largely the nutritive materials in the food by injudicious feeding. They do not understand the value of feeding specific foods for definite purposes.

There has been recently many carefully conducted experiments and much labor devoted to the study of cattle foods and feeding. The results



THE HORSE FAIR—BY ROSA BONHEUR.

meal and oil cake, or cotton-seed meal, for cattle; and the same is true of breeding swine.—[National Live Stock Journal.

The Queen has been very successful at local shows during the past summer with her polled cattle, reared at Abergeldie Mains, and she has given instructions to Dr. Profelt to select three of the best specimens of the herd for presentation at Smithfield. Her Majesty is anxious, says the *World*, to possess a herd of "polls" second to none in the country, and has given her commissioner *carte blanche*, whenever he sees a favorable opportunity of adding to the stock, on no account to neglect it. Abergeldie has already excited the envy of the Deeside farmers, and the personal interest the Queen takes in her cattle has led them to regard her almost as one of themselves.

"Swell head" has developed among cattle at the stock yards. The first scientific examination of this disease in this country was made under the direction of the United States Treasury Cattle Commission. It was decided that the disease is the result of lodgment of microscopic plants in the teeth. When the disease extends to the jaws it nearly always proves fatal. It can be communicated to man.

**Profits from Stock Food.**

Farmers often seem to disregard the fact that profit comes largely through saving. We may labor hard and grow abundant crops and harvest them securely, but if foresight and economy are not regarded in their use and disposal satisfactory results will not be realized. The season now closed has rewarded our labors with bountiful harvests. We are desirous of getting all the profit we can from our labor and we should thoughtfully consider how we may dispose of what we have securely stored in barn, bin and cellar to the best possible advantage, regarding not only the immediate cash returns, but considering also the future condition of our farm operations.

In our widely extended country, practical experience has demonstrated the fact that our agriculture, to be self-sustaining, must be based upon stock-husbandry. There are, probably, localities where crops may be sold directly from the farm, and barn manures and chemical fertilizers purchased and used to maintain the fertility of the soil, but these localities are limited, and the rule that stock husbandry is a necessity in our agriculture may be safely regarded as one of the few fixed facts in our agricultural creed.

have been tabulated and farmers who wish to keep abreast of the times in their profession, and who realize the importance of comprehending the needs of their stock and thus be able to supply each class of animals with just those rations required for specific purposes for which they are kept, will, by the study of these experiments, gain much useful information that will aid them as practical feeders.—[Maine Farmer.

One of the best cheap devices for keeping stock warm in winter is to put up a frame, cover it with poles from the woods and build a straw stack over it, leaving an opening on the side opposite the direction of the prevailing winds. With plenty of straw a shed of this character is as warm as a basement barn and much cheaper, and can be made by any farmer. It does not even require a hammer and nails, though with these and a few boards the work can be made more attractive in appearance.

It is not safe to feed potatoes, turnips or other small roots to cows without slicing. Cattle chew food very little before it goes into the stomach; hard roots are just the shape to readily choke them,

## The Dairy.

## How Long should Cows be Retained in the Dairy

BY L. B. ARNOLD.

Now that the milking season is about completed, it is a good time to look over the herd and see what changes it is advisable to make for the coming year. Cows that are becoming aged do not pay to winter. They lose more by depreciation in value than they return in profit on their keeping, unless they are extraordinary milkers. Those who make the most money by dairying turn their cows before they can properly be called *old*—while they will fatten readily and make good beef. Holding on to them too long spoils them for this purpose. The flesh of old animals is tough and insipid, and full of gristle or cartilage, and it costs very much more to put fat and flesh on them than on younger animals. It is true with animals generally that as they advance in years, assimilation goes on more slowly, while waste is more rapid, and digestion slower and less complete. Depreciation in the power of assimilation begins as soon as animals get their growth, and even before. A pig ten or twelve months old does not assimilate with as much vigor as one two or three months old, although it will continue growing slowly for some time longer. A pig two months old will put on a pound of live weight from the consumption of ten pounds of milk. At twelve months old it will require from fifteen to twenty pounds of milk to make the same gain. The life of the domesticated hog is short and soon terminated, at the best, and accordingly it begins early to depreciate in the activity of its vital forces. The bovine race have a longer period of longevity, and their vital activity does not begin to abate so soon, but it begins to depreciate before growth is completed. It has been found by beef producers that it costs more food to effect a given weight of gain upon a steer five years old than upon one two or three years old, and more even on a three-year-old than on a two-year old steer. Meat-producers are all leaning toward the practice of making meat from young animals, because they make it at less cost than older ones. The dairyman should not lose sight of this general rule in the operation of the vital forces of the animals under his care. Making meat and making milk are similar operations, and depend on the same vital forces for their accomplishment, and the intelligent dairyman may well expect that similar results will occur in his line of production that do in meat-production, and it is so. It costs more to make milk from old cows than it does from young ones having the same milk-producing capacity. The period of profitable milking does not terminate at the same age with all cows alike. Some hold out longer than others, but, as a rule, the best effects do not often reach beyond the eighth year of the cow's age. The quantity of milk given generally keeps up till a cow is about ten years old, and sometimes it will considerably longer; but after a cow has reached her eighth year her milk is produced at a greater cost of feed, and after that age it costs more to fatten her, and her flesh depreciates in quality, so that some of the most thorough-going dairymen think it the most profitable to turn them at eight, while they will fatten easily and make good beef, than to retain them till their milk and flesh and feeding capacity all fail together, as they will usually do at about the age of ten. The body of a cow that is kept till her milk fails is just about lost. It is really not worth anything as a basis for putting more flesh on. If anybody outside of the dairy can make any use of

her so as to give something for her, he is the man to handle her. The dairyman had better let her go for whatever he can get. It will not pay him to feed her for fattening. She will eat herself up, so to speak, before she is fit for food. I have tried this way of disposing of superannuated cows several times, and always lost by it. The cost of fattening was more than the animals would bring after feeding, and if disposed of to a local butcher there was very sure to come back a growl about the quality of the meat.

The best disposition I ever made of cows to be turned off, was to turn them at eight or nine, keeping them farrow the last year I intended to milk them, and feed and fatten while milking them. The milk helped to pay for the feed for fattening, and sometimes for the whole of it. The milk, under high feeding, gradually reduced in quantity and became very rich and valuable. I have had it rich enough to get a pound of cheese from seven and a half pounds of milk, and a pound of butter from twelve and three quarter pounds, the cows fed being common natives. Milk so rich as that does not require a large quantity to pay the cost of keeping and give the owner a clear profit on the gain in weight and quality of flesh.

If there are in the herd milkers of doubtful merit, they had better be turned now at the beginning of winter, no matter how young they may be, and their keeping saved for the support of the better milkers. If there is any question about their being paying milkers, they should not, like criminals, have the benefit of the doubt. They had better be weeded out, and only such ones kept as the proprietor is sure will give him a profit. This is what a dairy is kept for, and the proprietor should take no chances on questionable merit, for he cannot afford it. Nor can he afford to winter more animals than he can keep well. If he has too many cows for his stock of fodder, and has none but good ones, it is far better to reduce them to the number he can carry through in good condition, than to squeeze through the winter by pinching along till the whole herd comes out in the spring with only a hide and a bony frame to start on for a summer's work. It don't pay to pinch cows at any time, and most assuredly it don't pay to pinch them in the winter. It is better to err on the side of safety in this question of how many cows to winter, and have a little fodder left over for another year, and the herd come out in good condition, than to have the skin and bones of a herd left, and their fodder and flesh all gone before grass comes. In the spring of 1882, I made cheese in a number of factories in Eastern Ontario from the milk of such cows, which was so poor that the patrons said they could not make butter from it, and it took 11½ pounds of it to make a pound of green cheese. As grass came in it gradually improved in quality, but the profits of the first half of the season were entirely lost by over-stocking the previous winter. A timely weeding out at the beginning of winter would have brought the remainder of the herd through in good condition, and would have given their owners more milk and of better quality, and a profit instead of a loss.

Official reports show that there are about 600 creameries in the State of Iowa, and the yield of butter is estimated at 100,000,000 pounds per annum, which, at twenty-five cents per pound, amounts to \$25,000,000. The cheese product is valued at \$2,000,000, making a total of \$27,000,000 from that branch of industry alone. Iowa has one-thirtieth of all the milch cows in the United States.

The following are said to be the rules of the Hollander respecting his cows: When you see a good cow, buy her. When you have a good cow, keep her. When you find you have a bad cow, sell her.

## The Province of Quebec Dairymen's Convention

Was held at St. Hyacinthe, P. Q., commencing on the 15th inst. After the usual routine

Hon. Mr. de Labruere, explained the object of the meeting, which was to study the best means of developing the dairy interest in the Province of Quebec. Science, he said, was necessary to agriculture. If so many lands were barren in our country, it was owing to a lack of agricultural knowledge among our farmers. If the French Canadian agriculturist worked his farm with more science and more reason, he would not be obliged to emigrate to the United States. The best means of checking emigration would be to give a sound agricultural education to farmers' boys. The most important branch of agriculture in Quebec was the dairy.

Mr. Barnard, Vice-President, made some remarks on the Canadian dairy. He said it was necessary to obtain good milk to manufacture good butter or good cheese. To obtain good milk farmers must give rich and abundant food to cattle. Canadian cattle are not of an inferior race. Some Canadian cows give one pound of butter to 9½ pounds of milk, while the best in America gave but one pound of butter to 10½ pounds of milk. If a farmer feeds his cows on straw during the winter he cannot expect them to give much milk in the spring. A cow will give one-third of what she can give with ordinary food, but with rich nourishment she will give three times as much. Canadian farmers export so much hay to the United States, and sell so much grain on the market, that nothing is left for the cattle.

Mr. J. A. Couture, quarantine inspector, then read a paper on cattle. He said the best breeds of cows for producing butter were the Jersey, the Guernsey and the Canadian, and for cheese the Ayrshire and the Holstein. In order to prove the superiority of the Jersey cow, it is reported in the *Breeders' Gazette* that the cow Mercedes, belonging to Mr. I. B. Wanes, in 31 days gave 99 pounds of unsalted butter. The Canadian breed, he said, has nearly disappeared from the Province, but there remain still a few cows in the district of Quebec. That race of cows descends evidently from the Jersey and the Guernsey. It was highly important for dairymen to preserve and improve the breed of their cattle. He thought that with proper care Canadian cows would compare with imported breeds.

Mr. S. M. Barre, professor in the Dairy School of Ste. Marie de Beauce, then addressed the convention on the advantages of butter-making by the centrifugal process. He gave the result of comparative experiments of producing butter from milk in six different ways. These methods were divided as follows: The deep setting in the ice during ten hours; the same process during 34 hours; water at 50 degrees Fahrenheit; the pan system; the centrifugal system, and the churning of milk. These experiments were made at Copenhagen, by Professor Fjord, under the auspices of the Royal Society of Agriculture of Denmark. It took about one year to make them, from April, 1882, to March, 1883. Two kinds of milk were used in the experiments, milk from one single dairy and milk obtained from several dairies, in order to find out the effect of cooling and transportation on the skimming. An average rendering of 2 to 3 per cent. was obtained in equal conditions with the milk from private dairies, which had not been cooled or transported. This inconvenience might have been remedied by warming the milk before skimming it. In the case of the milk from private dairies, the centrifugal system rendered more butter than the following system, viz: 20 per 100 more than the deep setting in ice during ten hours; 12 per 100 more than the deep setting in ice at 33° Fahrenheit during 10 hours; 30 per 100 more than cold water at 50°; 11 per 100 more than the pan system, and 8 per 100 more than the churning of milk. After the results obtained in Europe and those obtained in this country, there is no doubt that the centrifugal system is bound to supersede all other known systems for skimming milk, and producing a greater quantity and a better quality of butter.

Mr. W. H. Lynch addressed the Convention in French. He said that the bringing out of Professor Sheldon had the effect of satisfying the people of Canada, there represented, that nothing they could send us from England is calculated to help us; it also had the effect of drawing attention to the simple utensils before the meeting that had been exhibited so long as two years ago in the Lower Provinces, and which are now endorsed by authorities, Canadian, American and English, and

have been sometimes in successful operation in parts of Eastern Townships. He explained that he occupied a different position from the other authorities. Butter making hitherto has been a matter of experience, judgment and manual skill. It was a coy art, hard to catch and not easy to hold. The object of the speaker had been to make this useful art a matter, not so much of manual skill, as of mechanical aids. In this he believed he could demonstrate that he had succeeded. Butter-making was essentially a mechanical process, and it was by taking advantage of that fact that he accomplished what had been done. It was a strong point gained that with improved implements and taking advantage of what the farmer already knows of the subject, one day was enough to place an outfit in successful work-hands of the average farmer, and thus practically place a model dairy in all the farm-houses of the country.

The Secretary informed the meeting that Mr. Lynch offered a prize of \$50 for the best Canadian milch cow. The prize would be awarded to the cow which would give the most butter in two weeks. He also offered two prizes, the 1st \$30, and the 2nd \$20, for the best butter manufactured with utensils of his invention. He pledged himself to buy all the butter which would be manufactured at the contest at the rate of 25 cents per pound. This dairy contest will be held next summer.

#### Improvements in Dairying.

A new method of treating milk has been introduced in some of the Vermont dairies, which is attracting considerable attention. The milk is put into several horizontal cylinders of iron, around which steam is turned until the milk is raised to a temperature of 105 degrees. The steam is then turned off, and cold water is introduced, which brings the milk down to a temperature of 40 degrees, which requires about four hours time, at which point the milk will have decreased in volume eight and a half gallons to every thousand pounds of milk. At the same time the cooling process is begun, air-pumps, connected with the milk cylinders, are set in motion, exhausting the air till the gauge shows a pressure of thirteen pounds, when the operation ceases, and the milk rests in the vacuum the remaining part of the twenty-four hours. The benefit claimed to be derived from the vacuum is the freeing of the milk from offensive odors and destructive germs, and the securing of a more rapid and perfect separation of the cream by the removal of the pressure of the atmosphere. At the end of twenty-four hours the milk is drawn away from the cream into a vat for making cheese, and if treated as in the ordinary "acid process." Meantime the cream is churned sweet, and the butter-milk added to the skimmed milk for the cheese. The cream is churned at 58 degrees, salted an ounce to the pound, stands twenty-four hours, and is then re-worked and packed. The butter is colored, the butter-maker remarking that "the cream being raised in the dark made coloring necessary." By this method they secure from the same 100 pounds of milk, four and one half pounds of butter and nine and one half pounds of cheese. Some analyses of Professor Sabin, of the University of Vermont and Agricultural College, show a remarkable separation of cream, only one and a half per cent. of fat remaining in the skim milk.

The Dairy tells us that a cement floor is not the best for a dairy, as it absorbs the drippings of milk and becomes foul in a short time. Bricks are as absorbent as cement. A good floor can be made of matched boards with tight joints, and painted so that it will not absorb any moisture. And the drippings which fall from the churn can be washed off such a floor without leaving any trace. But the best floor for a dairy can be made of flags, with close joints set in cement.

The Dairyman says: The towel is not usually included among dairy utensils, but it is really a very important one. It is used ostensibly for the promotion of cleanliness, but is, in fact, too often made the very reverse of this. It is not unusual for dairy towels and wiping cloths to be in a very foul condition—a state in which "stink" is a mild term to apply to them; and it is with these that the last touch is given to the pails, pans and strainers. It is because they are saturated with grease and sour milk that they are thus fragrant. No cold water and soap will thoroughly cleanse them. Boiling water is needed, and the cloths should be thoroughly washed and rinsed in this, and then finished in cold water.

## The Horse.

### The Care of Horses.

There is a great deal to be learned about taking care of horses by our farmers during winter months. Our climate is rigid, and if the truth was known more horses are killed every year through carelessness than by old age or hard work. At this time of the year there are a great number of horses dying—and it is so every year—and it is all for the want of proper care. There is a great abuse of farmers' horses in winter, especially when marketing. For instance, they are driven a long distance with heavy loads and on bad roads; they are halted at wayside inns and allowed to remain outside without any shelter for ten or fifteen minutes, not even blankets or anything else; then a lot of cold water is given them, and again the animals are driven off at high speed, and are again drawn up at another stopping place, heated and sweating, and allowed to remain out without blanket or anything to cover them. This treatment not only destroys a horse's constitution, but it is inhuman; and really this treatment of horses can be seen every day of the year. Take our markets again for example, and here are horses standing for hours with loads of produce on our principal markets without blankets or anything else to protect them. We can safely say that there is more horseflesh sacrificed every year by the lack of proper attention to horse hygiene by farmers than would pay a big per centage of the profits of the farm. Good horses pay; they are a staple; they are gold in any market, and the care of horses should even in an economical point of view be sufficient incentive to every farmer to use his horses well and take good care of them.

### Neglect in Rearing Young Colts.

The food fed to young colts is frequently of a very inferior character. In the winter season they are often obliged to subsist exclusively on the nourishment obtained from some old straw stack, with an occasional feed of rotten potatoes, frozen turnips, etc. It should not be lost sight of, that the functions most active in young, growing colts, are the organs of digestion and assimilation, hence derangement of the digestion is quite common to colts fed after this fashion, and is frequently seen in the numerous cases of lameness, hidebound, general oedema, diarrhoea, worms, lice, etc., etc. In this spiritless state catarrh and other disorders of the respiratory organs are commonly produced from the influence of cold and wet and insufficient food.

Bad food, rapid growth, and the vicissitudes of wet and cold, are the common origin of tubercular disease. In the case of colts that have undergone two or three winters of this shortsighted system of feeding, having their skins rigid, sticking, as it were, to the ribs, the hair dull and dead-like, and when the summer's keep on good pasture fails to recuperate them, it is easy to judge as to the nature of the disease. Farmers who make the grave mistake of neglecting to supply the necessary nutriment for the young, growing animal, no doubt imagine that the summer's keep well compensate for the partial starvation during the winter season. But the growing animal requires food, not only to sustain itself, but to maintain its growth. The organic materials of a living body are constantly changing, portions of it becoming effete and being taken away, while new parts are endowed with the property of life, and are built up in their places. The living principle is permanent, while the material changes and the reparatory process can not be maintained in its integrity unless the body be supplied with food adequate to its peculiar wants. This should contain a large supply of the phosphates, from which bone is formed; and of gluten, or fibrin, by which the muscles are developed. These materials are obtained from bran, corn, natural and artificial grasses, roots, etc. In the absence of materials of this kind the bones do not

increase in size, and the muscles are not sufficiently developed, hence the common origin of so many ill-shaped, long-legged, light-carcased horses, that invariably have to be sold for almost nothing; and as a result, the owner never realizes any profit for all his trouble and expense.

Farm stables are not only often heated to excess by being overcrowded, but they are foul and vitiated from gases or vapors of a positively noxious quality, engendered from the decomposition of the litter, feces, and urine, together with the exhalations from the lungs and skin. The deleterious operation of effluvia arising under these circumstances may be short of a directly poisonous effect, yet it gradually undermines the health, and can only be counteracted by a more efficient means of ventilation and cleanliness. A distinction should be drawn between a hot stable and a foul one, as the former is capable of producing one series of effects, and a foul one another. In the foul stable there is heat and impurity arising from the same source, and operation and combination, and producing not only a tendency to inflammatory diseases, but others of a more serious character. It commonly happens that a variety of agents and circumstances may be required to act in combination to produce some diseases; thus, horses that are badly fed and overworked by day, are very likely to be exposed to heated, unventilated stables at night, and these are the common victims of diseases of the lungs, farcy, glanders, and specific ophthalmia.—[National Live-Stock Journal.

### Shoulder Lameness.

Shoulder lameness of horses is not of nearly so frequent occurrence as is generally imagined; but sometimes the difficulty in ascertaining the real seat of lameness, when situated in the foot, has occasioned many an ignorant smith to refer the complaint to the shoulder; and the poor animal has in consequence been doomed to undergo the painful operations of blistering, firing and rowelling. It is of considerable importance, therefore, to be able to distinguish sprains of the shoulders from other ailments. Mistakes will seldom occur if attention be paid to the following symptoms: When a horse is lame in the shoulder he drags his toe along the ground, from inability of the muscles of the shoulder to lift the foot from the ground. If he lifts his foot high, the shoulder can not be much affected. On walking down hill, he catches up the leg with considerable quickness. He will frequently stumble on going up hill, and will make a shorter step with the lame leg than with the other. He goes equally lame on soft or hard ground, which is not the case when the lameness is in the foot. In shoulder lameness there is no difference in the temperature of the two fore feet.—[Breeder's Gazette.

If you have not already plenty of good stallions in your neighborhood to breed from next spring, don't wait until the season for breeding is here before you begin to think about the matter. If you are not able or do not care to invest as much as some first-class horse will cost, mention the fact to some enterprising neighbor, or two or three of them for that matter, and see if you cannot arrange for the purchase of a horse that will pay a good return on the amount invested, and the trouble, and by so doing enhance the value of your horse stock from fifty to one hundred per cent. in a few years. It is time now to begin to map out your arrangements for next year's breeding, and the sooner you begin the better it will be for many and various reasons. You can select with more deliberation, and if one firm can't suit you, you have time to visit another. You will have time to acclimate a horse and become accustomed to his habits and requirements before the rush season begins. The matter of advertising is no small consideration, as farmers who know positively that a worthy horse is within reach are likely to breed more mares. All the advantages derived from taking hold of such a work would take up more space than we could devote to it, but the principal point should not be lost sight of—that of inaugurating such work, and of doing so at once.—[Stockman.

The value of straw is greater than most people realize. A ton of straw, for feeding purposes, is worth two-thirds as much as a ton of hay. Three tons of straw are equal to two tons of hay. Very few farmers would place a value as high as this upon it, because it is generally fed so slovenly. Feed straw from mangers, and its value, as compared with hay, becomes more apparent.

### The Farm.

#### Construction of an Octagon Barn.

There are various plans for laying out and building barns of this shape, in all of which the principles are the same. There is a concrete or stone foundation wall which may be either below ground for a cellar, or partially below it for a basement, or wholly above it for a stable, an inclined way being built on two opposite sides, to give access to the barn floor. Upon this foundation the sills are laid, the corners being made at an angle of 135 degrees, instead of 90 degrees, as in a square building. There are no cross-beams necessary except upon the floor, there being eight bents in the building, all on the outside, the plates being mortised exactly as the sills are, and the posts placed with regard to the necessary doors and windows, and the strength necessary to support the roof and stiffen the building. As many braces as may be thought needful may be used, but the braces must all be on the lines of the walls, and none of them cross braces. The roof is an eight sided cone, strengthened with purlin plates, and may be open at the centre for a cupola or ventilator. The joints of all the plates and the sills will be at an angle of  $62\frac{1}{2}$  degrees, instead of 45 degrees as in a square building. This form of the frame will give a roof of the strongest kind; one that cannot spread, if well put together, and one that offers less resistance to the wind than any other form of elevated roof. Inside of the barn there is nothing to interfere with the piling of grain or hay to the roof, and a wagon may be driven anywhere upon the floor. The plan of the basement is shown at figure 2, *a* being a passage for the cows, and a drive-way for removing the manure; *b, b*, are the stalls for the cows, of which there are 52, having the feed trough towards the centre, and all reached by an inner drive-way. There are six stalls, and a room at each end of the stalls for harness. At *c* is a place for storing plows, carriages, wagons or machines. A drive way, *f, f*, passes through the basement from east to west. As many windows as needed may be built in the wall. The sills of the barn are laid upon the wall, as already mentioned; the posts are 28 feet

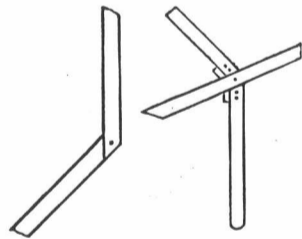


FIG. 3.—CORNER JOINT.

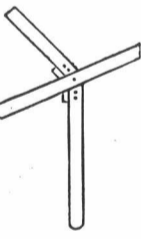


FIG. 4.—CORNER BRACE.

high, and the plates upon these support the rafters. The plates are fastened together at the ends by being halved, and the corners fastened by half-inch iron bolts, as shown at figure 3. At each corner is a brace of 8x8 timber, bolted to and through the plates by  $\frac{3}{4}$ -inch bolts, and strengthened by an iron plate on the inside, through which the bolts pass. The shoulders of the corner rafters rest upon these braces and plates, as shown at figure 4. These rafters are of 6x12 timber. Purlin plates of 8x10 inch timber are bolted under the rafters, and are fastened together at the corners in the same manner as the plates. The intermediate rafters rest upon these purlins. Iron tie-rods may be used to strengthen the rafters and hold them together, if thought necessary. Figure 1 shows the elevation, with a portion of the roof removed to show the manner of laying the rafters and bridging them. A crown rim is bolted to the rafters at the point of the roof, or rather the rafters are bolted to the crown rim, which supports a cupola. The cupola is fifty feet from the door of the barn, the

roof rising 22 feet, and the post being 28 feet high. The floor of the barn is laid upon beams, supported by brick piers or timber posts in the basement. A line of beams may be laid above the floor on either side, above which floors may be laid; the space thus made may be used for granaries, or storage of farm tools and machines, or other cumbersome property.

It is a most injurious practice to tramp on gravel walks if they become soft in fall and winter. Boards should be laid on them. These boards may

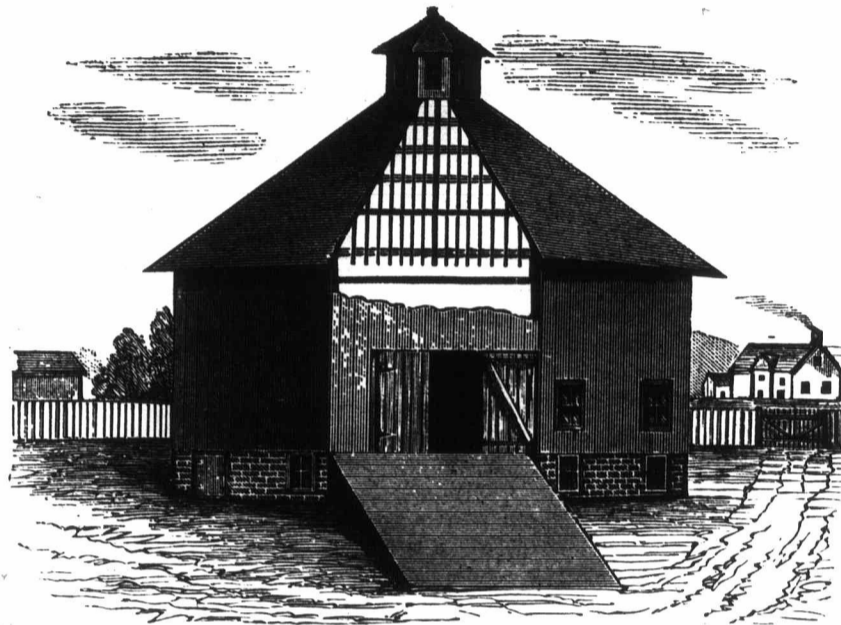


FIG. 1.—ELEVATION OF AN OCTAGONAL BARN.

be laid away under cover to be used each successive year. A piece of scantling should be placed under the boards, to which it should be nailed at intervals of a few feet. Two or three or four narrow boards, six or eight inches wide, tacked on to the scantlings, are preferable to one wide board.

#### Smothering Wheat.

Last year there was abundance of evidence to show that the wheat plant had been what, in common parlance, is called smothered by the ex-

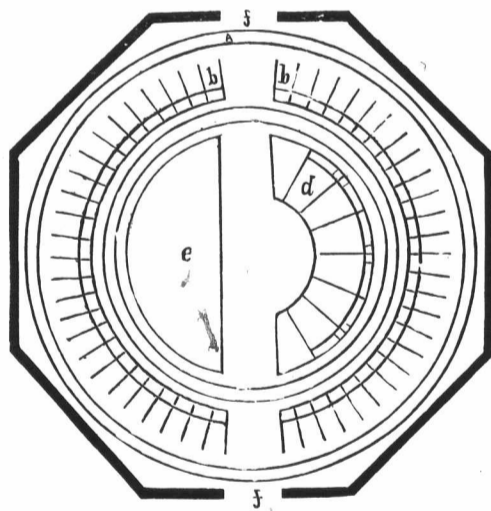


FIG. 2.—PLAN OF BASEMENT.

cess of snow and snow drifts. The common cause of drifting is fences, and especially those running north and south, which catch the storms and pile the flakes, as the wind is from east or west. All along fields where the fences run in this direction the snow last year was piled up seven and eight feet high, and this bank extending to a long distance. The almost total exclusion of air for a long time of course deprived the plant of that support which comes from the atmosphere. Plants receive about seven-eighths of their nutrition from

this source, and hence it can easily be seen that a snow bank that remains any length of time upon wheat will result disastrously. The common enemy of smothered wheat is the way fences are put up. A common rail fence and board which run north and south catch all the drifts; then the remedy is simple, either let down the fences, say three rails, on the west, and this will bring the snow on a proper level. The line of the dynamic current of winds rarely goes under three feet, and hence a few rails off a fence would allow the snow in motion to pass by. In board fences it can be seen that the upper two boards make the drifts. Wire fences, on this account, whatever their other drawbacks may be, allow of no drifts. On roads running north and south, we are of opinion that it would pay municipalities to put up secure wire fences for the accommodation of the public, and in the interest of the travelling public. Last year several municipalities paid out more in shovelling drifted roads, owing to fences, than to build a wire fence would cost.

The wheat this fall is backward and probably the same injury might not result from drifting as the early sown portions last year. The early sown and large-growth plants always suffer most from a heavy weight of snow. If there is a plentiful supply of straw we would recommend mulching, drawing out any spare straw and covering the wheat plant. This is an excellent protection, and is also productive in a manorial point of view. When the ground is frozen hard, or fairly dry, a

great lot of straw can be spread in a short time. We know whereof we speak. A farmer in the vicinity of London has made a practice of mulching his wheat, and keeping it clear of snow drifts, and his wheat crop is never a failure, with other conditions of culture and supplying manure—plant food.

#### Fruit for the North.

The Agricultural Department of Ontario some time since determined to institute a test to decide whether Russian fruit trees could not be successfully cultivated in Muskoka and N. W. Ontario. Accordingly about two months ago the Hon. Jas. Young, Minister of Agriculture for the Province of Ontario, authorized Messrs. Saunders and Beadle, of the Provincial Fruit Growers' Association, to select and order a number of Russian fruit trees, shrubs, &c., to be brought over to this country. These gentlemen, accompanied by Mr. Goldie, of Guelph, recently had an interview with the Treasury Department, and stated that they had obtained a moderate supply of apple, plum, pear, and cherry trees, as well as seeds of other hardy trees and shrubs. These had been obtained from Professor Fischer, of Boronesk, a place in Russia of about the same latitude as Moscow (55 degrees north), and from Dr. Shroeder, of Moscow, who has charge of the Government Gardens there. Some were also had from the Government Gardens at Warsaw. Communication with these gentlemen was recommended by Mr. Charles Gibb, of Abbotsford, Quebec, and by Professor Budd, of the Iowa Agricultural College, both of which gentlemen were in Russia last year, and are sanguine that the districts in question, Muskoka being 500 or 600 miles, and the whole of Ontario three and four hundred miles further south than the latitude of Moscow, will be well suited for the production of these trees. It is intended to make the test in the first instance at the Agricultural Farm at Guelph. These trees are able to stand a very low degree of temperature in Russia, and produce fruit of very fair quality. The experiment, at any rate, will cost little, and it is one well worthy of being tried. The Committee of the Fruit Growers' Association are said to be sanguine of satisfactory results. If their expectations are fulfilled the issue of the experiment cannot fail to exercise an important influence upon the future of Muskoka and North-West Ontario.

**Hop Raising.**

BY "E. O. L.," VERNON, VERMONT.

**SOIL AND PREPARATION.**—Hops grow on almost every variety of soil, but for the best success, select such as produces the best crop of corn. Soil that is very wet in any season should be thoroughly underdrained. Very stony lands are objectionable, both on account of the difficulty in setting the poles and the liability to injure the vines by the unsteady course of the plow or cultivator. The location of a hop-yard should, if possible, be sheltered from the prevailing winds, by a hill, or a forest, or a belt of trees. Inasmuch as the hop sends its roots deep into the soil, and as the same yard is usually kept bearing several years in succession, deep tilling and thorough enriching at the outset, are highly important. Old mowings, with a tough sward and stiff, clayey soils, should be plowed in autumn, either with a subsoiler or double plow—one share simply turning the turf, and the other covering it with the remaining soil. In the spring, let the manure be applied as liberally as the supply will afford, and thoroughly incorporated with the soil by harrowing, first with the furrows and then crosswise, preparing the ground as for corn.

**KINDS AND PROPAGATION.**—We have at least three distinct varieties of hops, characterized as follows:—In the most common kind, both vines and fruit are of medium size; the hops have a mild flavor, and part very easily from the stems. Another kind is distinguished by its large, rank-growing, rough vines, dark green foliage, large, squarish, and strong-flavored fruit, sometimes three and four inches in length, and hard to pick. The third variety is known by its red vines, fruit rather below the medium size, hard, of a golden color, and mild, agreeable flavor. The first of these is known in New York market as the "grape" variety, and the second as the "Pompey" hop. There are no imported hops in this section that I know of. Hops may be propagated from seed, but the best way is from root-stocks or underground runners, which are taken from yards one year or more old. When the hops are dressed out in the spring, these root-stocks are brought up by the plow or hook, and should be pulled up, as far as they can be easily, and cut off. Afterward they are collected and buried, so as to keep them fresh until wanted. When the ground is prepared for planting, the root-stocks are unburied, the bruised or decayed portions cut out, and the remainder cut into slips, containing at least two sets of buds; these should be sprinkled with water and kept moist until planted. About two barrels of root-stocks, as taken from the yard, will plant an acre. The root-stocks of the male or staminate hop should be kept by themselves. Four hills of the male hop to the acre are sufficient.

**MARKING OUT AND PLANTING.**—Having decided which way to set the poles, with a horse and light plow furrow for the rows, seven feet apart. Then furrow crosswise for the hills, seven and one-half feet apart. For the sake of appearance, as well as for convenience, let the furrows be perfectly straight, and cross at right angles. Then furrow or mark for one row of corn (I prefer corn, though any hoed crop may be planted with hops,) each way between the hop rows. Drop one shovelful of well-rotted manure, or compost, and also manure for the accompanying crop at the same time, if it is to be treated in this way. As the manure should not be long exposed, let both hops and corn be planted as soon as possible after the manure is dropped. In planting hops, it is more convenient to work across the

rows. With a hoe, mix the manure with the soil, and part it, so that the slips when covered shall be three or four inches below the level. Put four slips in a hill, lengthwise of the row, with part of the buds turning one way and part the other.

**FIRST YEAR'S TREATMENT AND PROCURING POLES.**—At the first hoeing, care should be exercised with the hop-hills, lest the tender sprouts just coming up be cut or broken; pull out the weeds with the fingers. At the second hoeing, each hop-hill should contain one or more thrifty sprouts. It does not pay to set poles the first

to set the poles firmly. Set two poles in each hill, about fifteen inches apart and straight in the row; if they are crooked, let them bend from each other. No two poles should be so set as to touch, as they would either be tied together by the vines, or the vines would be injured by the rubbing of the poles together in the wind.

**DRESSING OUT.**—As soon after the poles are set as the ground is in good condition to work, with a horse and light plow go two or three times in a row crosswise, and three or four times in a row lengthwise, according to the amount of weeds and grass in the field. Turn the soil from the hill with care, lest you plow too deep next to the hills and injure the roots. Then with a hop-hook, or hoe, remove the manure and a portion of the dirt from the crown of the hill, taking care to destroy all weeds. In trimming, cut off all the root-stocks and save them for planting; they generally find a ready sale at one dollar per bushel.

**TRAINING UP THE VINES.**—As soon as the vines are long enough put them on to the poles so that their twining follows the sun, and keep them tied up until they are eight or ten feet high, when they will generally take care of themselves. It is well to look the yard over as often as once a week, and attend to the vines that may be cut off.

**PICKING.**—Hop-harvest generally begins here during the last week in August. Hops should be picked free from stems and leaves, except very small ones, and dried as soon as convenient. If kept too long, they will heat and turn black when dried. In picking, we use bins about eight feet long, two and-a-half feet high at the top, and two feet at the bottom. The object in having the bins narrower at the bottom is to render it more easy for the pickers to stand close to them. At such a bin, three girls and a man can work to good advantage.

**DRYING.**—In emptying the hops upon the kiln be careful not to step upon them, or crowd them down, for in that case they will not dry uniformly.

Level them as evenly as possible with a rake, to assist which the side-boards may be marked around upon the inside at different heights, and then the hops can be leveled to the mark. A fire should be started in the stove ten or twelve hours before the first hops are put on, in order to get the stove-room and dry-room thoroughly warmed. As soon as the hops are put in, a brisk fire should be started, and kept up until they begin to be dried through, when less fire will answer until they are dry enough to take off, generally from twelve to eighteen hours. I do not stir my hops until they are dry, or until I can find no hop within which the stem is not shrunk; then I shove them off into the store-room, either with a rake, or shovel made of thin boards.

The hop-house here described is 22x32 feet, with a kiln 16x16, and a walk entirely around it. The store-room is 12x22, and 2½ feet lower than the level of the kiln, which is 11 feet from the ground. The dry-room should be double boarded or lathed and plastered all around to the eaves, and next the store-room to the ridge. There should be a ventilator directly over the kiln. The store-room should be boarded on the inside next the dry-room, and a

space left for cool air to pass up, as indicated by the arrows in Fig. 2. This prevents the hops in the store-room being dried continually by contact with the dry-room.

The price varies more than that of most other kinds of produce. Sometimes it is very remunerative, and at others not sufficient to half pay for raising. When worms begin the work of destruction after the vines are on the poles, dig them out. It is best to dress-out such yards in the fall.

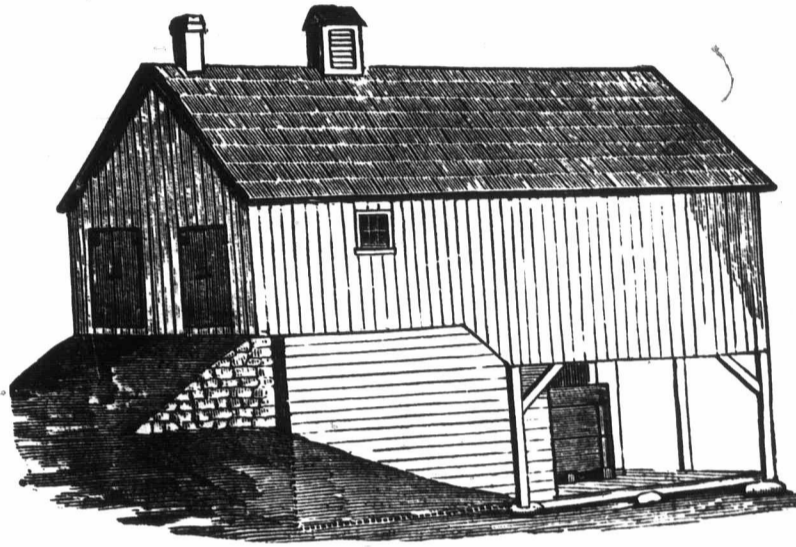


FIG. 1.—ELEVATION OF HOP HOUSE.

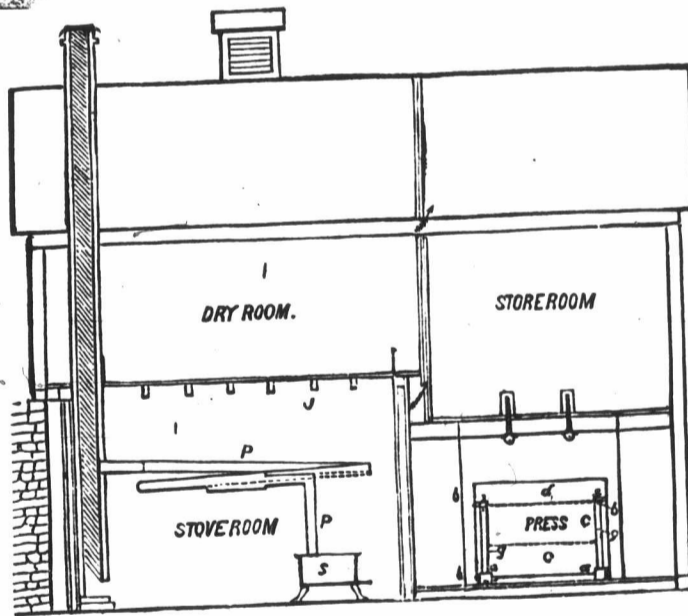


FIG. 2.—SECTION OF HOP HOUSE.

Showing stove, dry, store and press rooms. S, stove. P, pipe. C, movable sides of press. d, upper plank of press. g, g, posts to support sides of press. b, b, iron rod which connect the bed-sill with the strong beams above.

in the spring, as the holes can be more easily made then than when the ground is fully settled. A convenient bar for making the holes would be about four and-a-half feet long, made from an iron rod one inch in diameter. Fifteen inches from one end it should be enlarged and formed two and-a-quarter inches square, and gradually taper to a point, which should be steel. If the enlargement were polished, and the other end of the bar slightly enlarged, it would be found to work more easily. Make the holes deep enough

### Making Manure.

From this time out until next spring is the farmer's manure harvest, and upon the careful husbanding of this will depend to a great extent his harvests of grain and other productions. Our farmers depend nearly altogether on barn-yard manure.

The barn-yard and the stable are the cheapest laboratories for making plant food. In the stable plenty of straw should be used for bedding; don't stint this; an abundance of this not only adds to the comfort of the animals, but it also acts as an absorbent for the liquid manure, which would otherwise run away and be lost. Again, liquid manure—urine—is richer than solid excrement in the elements of plant food, as nine is to seven, so it can be seen how important plenty of bedding is, even as an absorbent. The saturated portion of the bedding should be removed every morning and piled, and if plenty of straw is at hand throw layers of dry straw between the wet. This will again act as a further absorbent, and retain your liquids. There is a great knack in making manure. Half the fat of a dung pile is lost from want of proper attention, and being ignorant of its chemical elements, and we might say mechanical. Everybody knows the volatility (flying off) of ammonia, and it is the most costly element in plant food; and yet half of it is lost every year in our stables and barn-yards for the want of proper attention to absorbents and the manure heap. The escape of ammonia and the running away of liquids, is what depletes the farmer's manure. Absorbents and tanks will save the latter, and the chemical action of sulphate of lime (Paris plaster) will arrest the former. When you see the manure heap smoking, and there is a hartshorn smell around your stable and dung heap, free ammonia is escaping—the best of your manure. In this case keep a barrel of gypsum ready at hand and sprinkle your manure with it, and this valuable element—nitrogen—is arrested, and adds to the richness of the mass by turning the ammonia that otherwise would have escaped into sulphate of ammonia, which is a valuable manure. Let every farmer keep sulphate of lime—Paris plaster—gypsum—they all mean the same thing) about his stables all the time, and he will be amply rewarded. By careful attention to the science of the manure pile, our farmers can vastly increase the value of the annual supply of plant food to their soil. The study of manure making, or plant food, has been very much neglected; you can find any amount of science displayed in what cattle, sheep and pigs should be fed, but how many know how crops grow and feed, and what kind of manure they want?

The manure made this winter will be the main factor in producing future crops, and let it be well attended to. The straw-stack, besides the stable material, will have to be made into manure; and there is often a great neglect here. Material that should be converted into a dung supply is allowed to remain unused in a shapeless mass, and the land around starving. Straw stack manure, of course, is not the best, but it is better than none. Use it for bedding, or tramp it down; make it into manure. We would certainly recommend making as much manure in sheds and under cover as possible; oxydation does not take place so rapidly, or the elimination of gases. Get your manure in as compact a shape as possible; allow no drainage or evaporation. Manure, like good bread, may be spoiled in the making. If decomposition is too long, the essential elements have departed in a gaseous form; if applied too soon, or not sufficiently rotted, the plant food is not available to the plant at once, and hence the growth of a crop is lost for that season. Having food that is at

once available to the plant is where the science comes in the application of manure. If possible, then, don't keep it in the yard too long, that much evaporation will not take place before it comes in contact with the soil. And after it has been made, say during the winter months, it should be drawn out and put on the land as near the surface as possible and covered, and here the full benefit of well-made manure will be found.

Harris, in his "Talks on Manures," says:

"WHAT IS MANURE?"

"What is the good of asking such a question as that?" said the Deacon; "we all know what manure is."

"Well, then," I replied, "tell us what it is?"

"It is anything that will make crops grow better and bigger," replied the Deacon.

"That is not a bad definition," said I; "but let us see if it is a true one. You have two rows of cabbage in the garden, and you water one row, and the plants grow bigger and better. Is water manure? You cover a plant with a hand-glass, and it grows bigger and better. Is a hand-glass manure? You shelter a few plants, and they grow bigger and better. Is shelter manure? You put some pure sand round a few plants, and they grow bigger and better. Is pure sand manure? I think we shall have to reject the Deacon's definition."

Let us hear what the Doctor has to say on the subject.

"Manure," replied the Doctor, "is the food of plants."

"That is a better definition," said I; "but this is really not answering the question. You say manure is plant-food. But what is plant-food?"

"Plant-food," said the Doctor, "is composed of twelve elements, and, possibly, sometimes one or two more, which we need not here talk about. Four of these elements are gases, oxygen, hydrogen, carbon and nitrogen. When a plant or animal is burnt, these gases are driven off. The ashes which remain are composed of potash, soda, lime, and magnesia; sulphuric acid, phosphoric acid, chlorine and silica. In other words, the 'food of plants' is composed of four organic, or gaseous elements, and eight inorganic, or mineral elements, of which four have acid and four alkaline properties."

"Thank you, Doctor," said the Deacon, "I am glad to know what manure is. It is the food of plants, and the food of plants is composed of four gases, four acid and four alkaline elements. I seem to know all about it. All I have wanted to make my land rich was plenty of manure, and now I shall know where to get it—oxygen, hydrogen, carbon, and nitrogen; these four atmospheric elements. Then potash, soda, magnesia, and lime. I know what these four are. Then sulphur, phosphorous, silica (sand), and chlorine (salt). I shall soon have rich land and big crops."

HOW THE DEACON MAKES MANURE.

"I think," said the Deacon, "you are talking too much about the science of manure making. Science is all well enough, but practice is better."

"That depends," said I, "on the practice. Suppose you tell us how you manage your manure."

"Well," said the Deacon, "I do not know much about plant-food, and nitrogen, and phosphoric acid, but I think manure is a good thing, and the more you have of it the better. I do not believe in your practice of spreading manure on the land and letting it lie exposed to the sun and winds. I want to draw it out in the spring and plow it under. I think this long, coarse manure loosens the soil and makes it light, and warm, and porous. More than half of my manure is handled but once. It is made in the yard and sheds, and lies there until it is drawn to the field in the spring. In proportion to the stock kept, I think I make twice as much manure as you do."

"Yes," said I, "twice as much in bulk, but one load of my manure is worth four loads of your long, coarse manure. I think you are wise in not spending much time in piling and working over such manure."

LIQUID MANURE.—Few farmers try to save liquid manure in liquid form. It is too much labor to spread evenly on the land. Nevertheless those farmers make a great mistake who did not save it by absorbents, so that it will go on the land and help the crops.

### Window Gardening.

#### Temperature.

The temperature at which to keep the room will have to be governed by the kind of plants under cultivation. If there are more or less of all kinds, keep the temperature as near to an average as possible. Some are hardy, and others tender. The best plan is to place the thermometer in the window or conservatory, and see what part of it is the coolest; then place the hardy plants there. They will do much better than if set in a warm place. The half-hardy ones are those that need a little more heat than the others, but not as much as the tender varieties, and should therefore be placed in a little warmer part.—Tender plants are those with which amateurs have the most trouble. They must be kept in the warmest part of the room or window, but still where they can get the sun and light; otherwise there will be trouble with them. Begonias, etc., belong to this list.

Try and keep the temperature of the room as near 40° as may be at night, and about 65° in the day; if it is getting much warmer, open the window for airing, from above, a little. Keep the thermometer in a shady place, so as to keep the exact temperature of the room. See that the plants have a little air in the day. The object is to not accustom them to a warm temperature, for when this is once commenced you will have to keep it up, and if you fail to keep it up, you may be sure of losing your plants the first cold day. It is the sudden change from 70° to 25° or 30°, which kills plants; therefore accustom the plants to a cool temperature, and if a very cold chilly night should come, you will not lose so many, and may be not any. Therefore be cautious in the beginning, unless you have the facilities for giving plenty of heat; then let them have from 65° to 80° in the day, with a variation of 10° to 20° lower at night.

#### Watering.

Watering is of great consequence to plants, and it should be looked to with more care than is usual. A great many ladies kill their plants by extreme kindness; that is, they keep on feeding them until the plants get too much water, when the roots rot and the plants die. Then they come with a sad story and wish to know who is to blame for this, insisting that they have done all they could for their plants—probably too much.

The time to water and quantity needed can be readily determined. Stir the soil in the pot with your finger, and if the soil is dry, of a whitish color and dusty, it needs watering; if black or dark colored and sticky, it does not need watering. If very dry, fill the pot as full as you can, but then do not water again until it is again dry. This watering may last an hour, a day, or a week; it depends upon the temperature of the room. The warmer the room, the quicker the soil gets dry in the pot, and of course the oftener it must be watered, and *vice versa*. But nevertheless the plants must be looked after every day, to see if watering is needed; but never give water if it is not required.

#### Sun and Light.

As a general thing, plants can not have too much sun; most of them may have all they can get. But a few, such as Lycopodiums, etc., do not need so much; indeed if they do not get any, no harm ensues. I have seen fine plants of this kind growing under the benches of the greenhouse, where they received no direct sun, and but little fresh air. The branches and leaves of plants kept in windows naturally turn toward the sun and light and thus become one-sided. It is a mistake to endeavor to force them to grow otherwise by frequently turning them, as in the continued movement of the plants to follow the light they become not only weakened, but distorted in shape. It is better, therefore, when plants cannot receive a vertical light, to allow them to spread out as inclined, forming one good face or tier of healthy foliage toward the window; to raise well balanced heads under such circumstances is almost out of the question. Place them as near the glass as possible; of course windows having a southern aspect are the most desirable.

### A Bulb Winter Garden.

A correspondent of *Vick's Monthly Magazine* thus describes a beautiful bulb garden made at little expense and trouble, and which richly rewarded both outlays:—

The first of last December I took a revolving wire plant stand, with three brackets; in each of the brackets I placed old oil cloth, then I filled with soil to the depth of three inches. In the top one, which was the smallest, I planted three Hyacinths, in the next, one dozen Tulips (Duc Van Thols), with Crocuses between; in the third and largest, nine Hyacinths and plenty of Crocuses; gave it a thorough watering, covered with paper and set it in a cool cellar, and patiently waited for nature to perform her perfect work. In six weeks the little white rootlets began to creep through every crevice in the worn cloth, and I thought it high time to bring it out to the light of day and receive as much of the blessed sunshine as possible. I gave it the most favorable spot in my dining-room, the temperature was kept moderately cool, the bulbs were covered with more soil, and over all a thick covering of fresh, velvety green moss. This of itself was an attractive object, but nothing to be compared with what came after. The stand was freely watered, and with what rapturous joy we greeted the appearance of the Tulips! First, one little head peeped up, then another and another, and in two weeks' time their gorgeous coloring reminded us of birds in tropical climes. Then the dear little Crocuses began to throw up their grass-like leaves, and next came the vase-like bloom. Last, but far from least, came the long looked for Hyacinths. Verily, in this instance, "patient waiters were not losers." How eagerly each member of the family watched their growth, and predicted from the color of the foliage what the flower should be! It was the first object of interest in the morning and the last care at night, and when the long rich spikes of beautifully colored flowers were in full bloom, we said, over and over again, who would be without flowers in winter! Every guest and chance visitor pronounced it the most attractive spot in the house. The little children would come, at the close of school, to see our wonderful winter garden. It was not only a continual delight to my own family for six weeks, but a bright spot in a long winter for all who saw it, and won the declaration, "I'll have one like it," from the lips of home and flower lovers. I think my success depended upon three things, having the bulbs well rooted when brought to light, keeping them in a cool atmosphere and well watered. After the first cost and labor it was little trouble, and the stand could be filled with such bulbs as one might fancy.

### Chrysanthemum Show.

The New York Horticultural Society held its exhibition of chrysanthemums, Nov. 7th and 8th.

With perhaps the single exception of the dahlia, there is no cultivated plant that assumes so many colors, ranging from crimson, orange, pink, and white, to purple and carmine. Though the show was limited to one kind of flowering plant, there was no lack of diversified forms. The three leading classes of chrysanthemums were well represented, namely, the Chinese or larger flowered and the oldest sorts; the pompon or small flowered kinds, and the more recently introduced Japanese varieties, distinguished long and graceful florets. These three classes, with the anemone flowered sorts, in all their variety of form, foliage and colors of the flowers, served to fill the large hall with a most attractive and interesting autumn display.

In England there are over twenty societies devoted entirely to the culture of the chrysanthemum, and the prizes offered at the exhibitions are very large and the competition correspondingly active. We are but in our infancy in the growth of the chrysanthemum; but if we may judge from the fine plants shown at New York, there is a bright future before the American florist in this line. Some one has well said: "After all the glories of the season the chrysanthemum crowns the year." The public in general should give more attention to this splendid autumn flower, coming as it does when other flowers are gone, and yielding a great variety of brilliant colors. If the present exhibition induces people to look with more favor upon the chrysanthemum, it will have served an excellent purpose.

The chrysanthemum is hardy, and on this account the keeper of a flower garden is inclined

to set it out and let it shift for itself. Under such treatment it will do only fairly well. By careful potting, the plants grown in the open ground may have their time of blooming much lengthened. They will wilt at first, but if well thinned out and placed in a shady room for a few days, they soon revive. After blooming is over cut away the tops and place the pots in the cellar, not letting the earth around the roots get "killing dry."

The chrysanthemum is a plant upon which the art of training may be practiced with much success. Some very fine specimens were exhibited trained up with a single stem to the length of three or four feet, at which height the top is formed in a miniature tree, and covered with the heads of flowers. The leading forms into which chrysanthemums are trained are the "convex," the "standard," and the "pyramidal." In the first form the plant is trained to a low wire frame, by frequent pinching of the young shoots, and the whole top of the plant is made to spread out over a larger surface. In the "standard," as above noted, a single stem is preserved and trimmed up to the desired height, where the head afterwards forms. The "pyramidal" has the single main upright stem, but the side shoots are allowed to grow from its whole length, with their ends pinched enough to give the desired shape.—*The Country Gentleman*.

### History of the Chrysanthemum.

The chrysanthemum, concerning which so much interest is shown just now, has an interesting history. In 1764 it was brought to Europe from China and planted in the Botanic Gardens at Chelsea in London, where, however, it attracted little notice and soon afterward died out. In 1789, according to *The Gardener's Magazine*, a French merchant named Blanchard imported some plants from China to France, and the next year they found their way to England, where they were sold at a high price, and grown in a greenhouse. In 1795 there was a chrysanthemum seen in blossom in Mr. Colville's nursery in the King's Road, Chelsea. The flowers were small and of a dark purple, only half double; the petals were ragged and uneven. From 1798 to 1822 sixteen varieties were introduced from China. After that we got on faster, and in one year alone (1824) twenty different sorts were imported. It was not, however, till 1830 that seed was first saved in the south of France; much finer blossoms were thus produced. In a few years' time chrysanthemums became so numerous that the old nomenclature—white clustered, aster flowered, marigold flowered, quilled yellow, tasselled pink, etc.—had to be superseded as inadequate, and each was dignified with a distinct title.

### Farmers' Clubs.

We give below the following preamble, constitution and by-laws, which will need but slight modification to meet the wants of the members composing a progressive "Farmers' Club."

#### PREAMBLE.

We, the citizens of —, being desirous of promoting agriculture, horticulture, and the mechanic arts, and of co-operation in the acquirement and diffusion of practical knowledge pertaining to the farmer's occupation, agree to form ourselves into an organization for this purpose, and to adopt the following constitution:—

#### CONSTITUTION.

1. This organization shall be known as the — Farmers' Club, No. 1.
2. Its object shall be the improvement of its members in the theory and practice of agriculture.
3. Its members, additional to its original members shall consist of such persons as shall receive a two-thirds vote for admission, and pay the sum of one dollar.
4. Its officers shall consist of a president, vice-president, secretary and treasurer, who shall jointly constitute the executive committee, and be elected annually at the January meeting.
5. Its meeting shall be held monthly, and at such other times as the president may deem necessary for the good of the society.
6. This constitution may be amended at any regular meeting, said amendment having been proposed at a previous meeting.

#### BY-LAWS.

1. The president shall preside at all regular meetings of the Club and of the executive committee, and shall have power to call special meetings.

2. The vice-president shall have like powers with the president, and preside during his absence or disability.

3. The secretary shall record the proceedings of the club, and conduct its correspondence.

4. The treasurer shall receive all moneys, and pay out the same on a written order of the president.

5. The meetings shall be held on the first Saturday of each month, at such places as shall hereafter be determined upon.

### Farmers' Clubs.

DEAR SIR,—Knowing the deep interest you take in any movement which will benefit the agricultural community, I have great pleasure in sending you the annexed "proposed amendment" to the laws relating to sheep and dogs in the Ontario statutes (as at present in force), according to a resolution moved, seconded and carried unanimously at a well attended meeting of the "Thames Farmers' Club," of Dover and Raleigh, on the 22nd ultimo:—

Moved by Milton Bachus, seconded by Gilbert Dolson, "Resolved, that copies of the above proposed amendment to the law as at present on the Ontario statutes relating to sheep and dogs, be sent to the editor of *THE FARMER'S ADVOCATE*, London, for his opinion, and if approved of insertion in his valuable journal, also to the clubs to the east of us for their opinion and co-operation in procuring the necessary alterations in the law to enable the profitable industry of sheep breeding to be prosecuted without the present damaging results from the numbers of worthless curs at present scouring the country." Carried unanimously. At the beginning of the year I sent you a short account of the object and organization of the Thames Farmers' Club, which, since then, has steadily increased in vigor and numbers, until it now has a numerical strength of 54 active members, of which eight are the original members who first organized the club. The club meets fortnightly on Monday evenings, and after the usual routine of business has been gone through, the subject of the evening is taken up and discussed—it being always some subject important to the farming community; for instance, *The advantages resulting from underdraining the land*, which created such an interest that the discussion was continued for several nights, with the result that wherever there is anything like a decent outlet there will be a decided change for the better in the state of the land and a great run on the tile-makers. Amongst other subjects, attention was called by a member of the county of Kent, and, in fact, by the whole country, by sheep killing dogs, which has resulted in a great number of farmers discontinuing the valuable industry of wool-growing. On the 30th July, it was moved by John Hagg, seconded by H. Pattinson, that the question of sheep killing dogs form the subject for the next meeting, both mover and seconder giving serious examples of the great loss sustained by the farmers and the country by the killing of sheep by dogs, amongst others the loss sustained by Geary Bros., of London Township, of valuable thoroughbred sheep. The subject having been opened up, culminated in a committee being formed to examine the statutes and draft amendments to the Act as at present on the statutes to remedy the evil, which has resulted in the amendments or alterations proposed; and it was the unanimous feeling of the meeting that the law cannot be too stringent, and that in the words of one of our members, that "the sheep industry is more valuable to the country than dog breeding."

#### SHEEP AND DOG ACT AMENDMENT, AS RECOMMENDED BY COMMITTEE OF THAMES FARMERS' CLUB.

CLAUSE I.—Resolved, that all the words after amended in the first clause be struck out, and the following substituted: "License fee of two dollars for each dog and five dollars for each bitch; also, that the owner be compelled to put on each dog or bitch a collar bearing his name, in addition to an annual tag furnished by the municipality."

CLAUSE III.—Resolved, that the following be added to the 3rd clause: "And shall also issue the necessary license and municipal tag."

CLAUSE IV.—Resolved, that the 4th clause be added to by the following words being inserted after the word more: "And shall take out a license and municipal tag for each dog or bitch in accordance with Clause I."

CLAUSE VI.—Resolved, that to Clause VI. shall be added after the words liable to, the following: "A penalty of five dollars for each dog or bitch."

In addition the Committee recommend that there shall be added the following Clause between Sections 4 and 5: "Every dog or bitch found at large without collar bearing owner's name and municipal tag attached, shall be liable to be destroyed." All of which amendments were adopted after being moved and seconded, clause by clause.

H. R. PATTINSON,  
Secretary T. F. C., of D. & R.

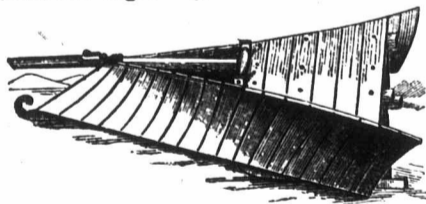
[In our opinion Farmers' Clubs are of great value and do much good. We shall be pleased to hear from them at any time, especially so when the subjects discussed are of such importance. We think that if the owners of the dogs could be assessed with the amount of damage done, it would have a more beneficial effect than raising the tax upon dogs as above suggested.—Ed.]

**BENEFITS OF FARMERS' CLUBS.**—The N. England Farmer believes that there is no one thing that will do so much to broaden the vision and develop the character of a farmer so as to enable him to completely fill the place in society that he should be competent to fill, as the well organized and well sustained farmers' club. The club gives one something useful to think of between the meetings. It excites investigation and encourages study and experiment. It brings men and women together who otherwise would hardly keep up a neighborhood acquaintance. In a meeting convened for gathering the best thoughts from all, the over-conceited learn modesty and the timid gain confidence, while all grow charitable towards others with whom they may on some points disagree.

### Sdints and Sdelps.

#### A Snow Plow.

The snow plow here illustrated is built so as to be fixed upon the forward part of a double sled. The frame is made of 4x4 oak scantling, and is similar in form to a double mold-board plow. One runner is fixed to the forward part, at such a distance below the edge of the plow as to raise it to clear obstacles such as stones or frozen mud which may be in its way. Four inches would probably in general be a safe distance. The hinder part of the plow rests upon the sled as shown in the engraving, and is bolted to it. A



long tongue is fixed into the place of the ordinary one, and is fastened to the front of the plow by an iron strap, which is bolted to the frame. The hinder portion of the plow may be covered over with boards, and a seat fixed firmly upon it. When it is used, it is best to load it as much as possible. The sides of the plow are made of half-inch oak or basswood strips, steamed and bent into shape. The outer surface of these strips should be dressed smoothly, which will make the draft easier.

#### Pig Scraping Table.

This table can easily be made by a handy man. It is formed by bars of wood fixed into a frame.



By using a table of this description when scraping pigs, the water and hair fall to the ground.

### Correspondence.

**NOTICE TO CORRESPONDENTS.**—1. Please write on one side of the paper only. 2. Give full name, Post-Office and Province, not necessarily for publication, but as guarantee of good faith and to enable us to answer by mail when, for any reason, that course seems desirable. 3. Do not expect anonymous communications to be noticed. 4. Mark letters "Printers' Manuscript," leave one end open and postage will be only 1c. per 1/2 ounce.

We do not hold ourselves responsible for the views of correspondents.

SIR,—I had a pig which I kept in the stable all summer until a few days ago. I killed and dressed it, but its whole body was full of scarlet patches, from the size of a five cent piece up to that of two hands. Its snout, legs, sides, belly and back were just full of them. I fear it was the measles. It was, however, only skin deep, and there can nothing be seen in the flesh, and its liver and heart are all right, but its lungs were somewhat spotted with dark red spots. It was fattened on corn and the waste from the kitchen. What do you think it was? Will it be fit to use or not? By answering the above questions in your next ADVOCATE, you will confer a favor.

A. T. A.  
Aughrim P. O.

[The description given is not sufficient to enable us to give a positive opinion, but we should think your pig had suffered from scarlatina, or some disease of the skin, or the animal having been fed upon corn, which is very heating to the blood, and perhaps the pen being close and not kept clean, and the inhaling of the ammonia caused blood poisoning. If the hog was affected by any disease, it would be positively dangerous to use the flesh for food. Better have the carcass examined by a doctor or veterinary surgeon.]

SIR,—In the Sept. No. of the ADVOCATE, page 276, you give plans and dimensions of a hennery, but I think it will not work. You say "pitch of rear roof is 6 ft." and "height of building from ground to base of roof is 6 ft." How can this be, when it is 13 ft. to the apex of roof, and plan shows rear roof going up to the apex? If the height of building from ground to base of rear roof is 8 ft., it will work, and what is cut off 12 feet boards will do for the 4 feet front. Again, with pens 9 x 8, how can each pen have a run of 33 x 12 and 15 feet?

J. A. M.  
Wingham, Ont.

[Our correspondent is correct as regards the cutting of the board. The architect made an unfortunate error. With respect to the runs. If the illustration be carefully examined, it will be seen that the runs are angular, and of course extend beyond the length of the building, which will fully explain the anomaly.]

SIR,—You requested me to let you know how the Mulberries done with me. I am happy to state that the whole nine plants you sent me have done exceptionally well.

R. T.  
North Gower, Ont.

SIR,—1. Would you be so kind as to give me an account, in the next issue of the ADVOCATE, of how to make a hot-bed, and the time to make it? 2. What care do berry bushes and grape vines that were planted this fall need? 3. I have a horse that keeps his tongue out when driving. Could you or any of your readers give me a plan to stop him of the habit? 4. What would be the most profitable stock to raise from a whole bone mare, fifteen hands high, well made and fine bone? 5. Do you recommend keeping blankets on horses in the stable? Are they more likely to take cold when driving?

W. A. C.  
Strabane P. O., Ont.

[1. Early spring is the best time to make a hot-bed. We will give instructions, with illustrations, in a future issue. 2. Mulch them well, and if in a very exposed situation they will require protecting with straw. 3. It is a bad habit that some horses contract. You can procure a flat bit at the harness-makers, which will do a little towards preventing the animal putting his tongue out, but there is really no cure. 4. Your question is contradictory. The mare cannot be whole bone and fine bone. If she is the former, put her to any of the draught class, according to her size. 5. This will depend on your stable. If it is a warm one then the horses are better standing without blankets, unless the weather is extremely severe.]

SIR,—Please answer in your next issue what you consider the best book on veterinary, or if there are separate books on the horse, cow, sheep, pigs and poultry, and what you think are the best, where they can be got, and the price.

E. K.  
Amberley.

[Law's Veterinary Adviser. See our list of books.]

SIR,—In reference to tape-worm in sheep, perhaps the following regarding "Tænia" in the human subject, may not be out of place: In a recent number of a pharmaceutical publication, a case is described of the dangerous poisoning of a gentleman by a drachm of oil of male fern, followed ten hours after by a dose of castor oil, in reference to which it quotes the following from the London Medical Record: "According to E. Dieterich, the frequent failure of oleoresin of male fern as a remedy against tape-worm, is to be ascribed to its irrational administration. It has become known that the popular 'worm doctors,' who use almost exclusively the oleoresin of male fern, and who hardly ever meet with a failure, administer the remedy in conjunction with castor oil, instead of following it by the oil after one or two hours, as is usually done by practitioners. The object is to bring the extract in an unaltered or undigested condition, into contact with the worm. The experiments which have been made by mixing one part of the oleoresin with two parts of castor oil have been very successful; and this mode of administration deserves, therefore, the preference. Oleoresin of male fern is apt to derange the stomach, but when enveloped partly in the oil, is likely to pass it more rapidly, which is another advantage. The unpleasant taste may be disguised by filling it in capsules of about forty-five grains each. The dose may be regulated from six capsules to seven or eight, according to circumstances. It is advisable to empty the bowels the preceding day by castor oil."

T. W. R.  
P. S.—As the political papers now claim that Professor Brown speedily cured the lambs on the Provincial Farm, would it not be the proper thing for him to give the people his method of treatment?

T. W. R.

SIR,—Please give your opinion on the following: At the South Leeds County Fair, a special prize was given that read as follows:—"For best herd of thoroughbred Durham cattle, not to consist of less than one bull, cow and calf." Two entries were made, one consisting of only the three mentioned in prize, the other had a herd of nine, with the three specified included. The judges ruled that they had no right to consider the merits of more than the three animals specified, in arriving at a decision, and gave the prize to the man who showed only three, regardless of the larger herd. Did these judges do right or wrong?

Gananque P. O.  
J. B. W.

[The prize list called for a herd of not less than three animals. If the larger herd had more animals of merit they were certainly entitled to the prize.]

SIR,—Can you or any of your many correspondents tell what will prevent worms in flour; the flour is kept in bags tightly tied, standing on end, in a close bin; they are small, white worms, they are a great nuisance, as we have to sift all the flour before using. Please answer in December number.

Agincourt P. O.  
[They are called mill-worms, and are to be found, more or less, in all mills or flour stores. The only cure for them is thorough cleanliness; probably your bin has been too long in the same place, and most likely, if removed you will find many of the worms underneath, which have lived and multiplied on the droppings of the flour, or likely they have come from the place where the flour was made, which perhaps is not kept over clean.]

SIR,—Will you state the day the annual agricultural meetings take place in January, in your next number?

CONSTANT READER.  
[For the township on the second Wednesday, and for the county on the third Wednesday in January.]

[Several interesting communications are unavoidably crowded out of this issue, and will appear in our next.]



The Household.

Catarrh.

Catarrhs should receive careful consideration, instead of the neglect which they generally meet with until they have fastened on the part affected so much as to excite the attention, and perhaps alarm, of the sufferer. Here, however, we propose to say a few words about the causes of chills.

A person in good health, with fair play, easily resists cold. But when the health flags a little, and liberties are taken with the stomach or the nervous system, a chill is easily taken, and according to the weak spot of the individual, assumes the form of a cold, or pneumonia, or, it may be, jaundice. Of all causes of "cold," probably fatigue is one of the most efficient. A jaded man coming home at night from a long day's work, a growing youth losing two hours' sleep over evening parties two or three times a week, a young lady "heavily doing the season," and young children at this festive season overfed, and with a short allowance of sleep, are common instances of the victims of "cold."

Luxury is favorable to chill taking. Very hot rooms, soft chairs, and feather beds create a sensitiveness that leads to catarrhs. It is not, after all, the "cold," that is so much to be feared as the antecedent conditions that give the attack a chance of doing harm. Some of the worst colds happen to those who do not leave the house, or even their bed; and those who are most invulnerable are often those who are most exposed to changes of temperature, and who, by good sleep, cold bathing, and regular habits, preserve the tone of their nervous system and circulation.

Probably a good many chills are contracted at night or at the fog end of the day, when tired people get the equilibrium of their circulation disturbed by either overheated sitting-rooms or underheated bedrooms and beds. This is especially the case with elderly people. In such cases, the mischief is not done instantaneously, or in a single night. It often takes place insidiously, extending over days, or even weeks. It thus appears that "taking cold" is not by any means a simple result of a lower temperature, but depends largely on personal conditions and habits affecting especially the nervous and muscular energy of the body.—London Lancet.

Health Alphabet.

The Ladies' Sanitary Association, of London, gives the following simple rules for keeping health:

- A—s soon as you are up shake blanket and sheet;
B—etter be without shoes than sit with wet feet;
C—hildren, if healthy, are active, not still;
D—amp beds and damp clothes will both make you ill;
E—at slowly and always chew your food well;
F—reshen the air in the house where you dwell;
G—arments must never be made too tight;
H—omes should be healthy, airy and light;
I—f you wish to be well, as you do I've no doubt;
J—ust open the windows before you go out;
K—eep the rooms always tidy and clean;
L—et dust on the furniture never be seen;
M—uch illness is caused by the want of pure air;
N—ow to open the windows be ever your care;
O—ld rags and old rubbish should never be kept;
P—eople should see that their floors are well swept;
Q—uick movements in children are healthy and right;
R—emember the young cannot thrive without light;
S—ee that the cistern is clean to the brim;
T—ake care that your dress is all tidy and clean;
U—se your nose to find if there be a bad drain;
V—ery sad are the fevers that come in its train;
W—alk as much as you can without feeling fatigue;
X—ercises could walk full many a league.
Y—our health is your wealth, which your wisdom must keep;
Z—eal will keep a good cause, and the good you will reap.

We have received a very interesting book, entitled "Sunrise," from Wm. Briggs, publisher, Toronto. Our thanks are also due to Oliver Ditson & Co., for several choice selections of music.

Family Circle.

THE OLD CHALK PIT.

It had long been understood in our family, the Merstons of Ivy Tower, that I, Gerald Merston, and Maud Ravenhill, the orphan daughter of our late rector, were one day to be man and wife. On my final return from college I beheld her a charming girl of seventeen, and had inconspicuously laid my heart at her feet.

My choice had not been disapproved by my father, for Maud Ravenhill, with her gentle manners, pure womanly contour, and graceful demeanour, was a special favourite of his; but the inhabitants of Ivy Tower whispered that it was a lucky thing for the rector to have won the Squire's son for his child.

Luckily, I loved Maud in my quiet way so intensely, that had I been the highest in the realm I should yet have considered it was she who conferred the honour on me.

It was settled that we should marry on my darling's attaining the age of twenty; and I saw no reason to alter this, when, a year previously, my father died suddenly, leaving me sole master of Ivy Tower. Maud was content to abide by the arrangement originally made; while I, of a studious disposition, was calm and happy amidst my books, blessed with the knowledge of my betrothed's undivided affection, and the anticipation of that day which would bestow upon Ivy Tower Manor so fair a mistress.

Thus stood matters when, one black December evening as I sat after dinner by my study fire, the footman brought me a letter. It was from my cousin Philip, who, some five years before, had gone to India. The post-mark, however, did not bear the name of that distant country, but London.

Taking off the envelope, my nerves thrilled with pleasure at the contents, for Philip and I had almost regarded each other as brothers. His letter ran—

"DEAR OLD BOY,—

"Here I am in Babylon. A slight touch of liver enabled me to get leave of absence from India, and, entre-nous, I am much obliged to my liver. I arrived yesterday; and, taking the risk of being snubbed as an unwelcome guest, shall follow my letter to Ivy Tower as speedily as possible. I quite long to grasp your hand again, old fellow, and look into your grave, kindly, studious face.

"Your future visitor, "With or without permission, "PHILIP MERSTON."

A pleased smile softened my "grave, studious face" as I sat pondering over this epistle, thinking how surprised he would be to hear of my approaching marriage—as yet unknown to him—wondering what he would think of my darling Maud, and she of my handsome cousin.

I was aroused by a loud knocking at the hall door, and the next moment Philip's familiar ringing laugh was echoing through the house; then my hands were grasping his, and I was bidding him welcome.

"Why, Gerald, how jolly you look!" he cried. "It does one's sight good to see your grave old countenance with a smile on it!"

"And you, Philip, save for a tinge of bronze on the cheek, are handsomer and look as young as when you left," I rejoined.

"No fun, dear boy!" he laughed. "Fun! I leave your glass to decide between us," I smiled, regarding with admiration his bright, genial countenance, with its long brown moustache and broad forehead, over which his curly hair fell in profusion. "Philip," I added, gaily, "you are the real type of a muscular Christian. I don't fancy there is much liver complaint about you."

"Well, no," he answered, with a whimsical laugh; "or, rather," he continued, as, flinging himself into a chair, he burst into such a contagious fit of merriment that I heard the footman going into convulsions in the hall, "my liver complaint all disappeared directly I put foot on English soil! Is supper ready, dear boy? I'm as hungry as a hunter. By the way, there used to be excellent shooting at Ivy Tower."

"So there is now," I answered, as, hooded, and in no sportsman's mood, I can see the game without, as Hood wrote, thinking of "my dog and gun." But they are quite at your service, though you will find the birds rather wild!

"I'll try my luck to-morrow," he remarked; "and promise, Gerald, to keep your larder supplied for at least three weeks. I've had much capital practice in India."

The announcement of supper here put an end to the conversation. The evening which ensued was a merry one. Philip was full of anecdote of Indian adventure, consequently the hour was late before we separated.

When, next morning, I descended to breakfast, I found he had nearly finished his; while his shooting attire, and the sight of a gun on a chair by his side, told me he was bent upon fulfilling his promised slaughter of my innocent pheasants.

"You're late, old fellow!" he exclaimed, rising. "You studious people never know the real enjoyment of healthy life! You burn the midnight oil, and waste the morning in bed. Bah! sluggard! I'm off, you see!"

"Yes," I smiled; "and I sigh for my game! By the bye, Jim, the keeper, tells me he is going to take you to the Hesperop preserves as the best. In that case, you will pass Fairlight Cottage. Jim will show it you. May I trouble you to leave this letter there?"

"Certainly!" he replied, slipping it into his pocket. "Don't fear; I will not forget. Ta—ta, until dinner."

With that, he passed from my sight. Philip had not been a week at Ivy Tower before a suspicion entered my mind that he loved Maud Ravenhill. I was led to this belief by the fact that, though he went out to "slaughter the pheasants" regularly, he always returned with a very poor game-bag.

Innocently enough, I questioned Jim, who remarked that, though Mr. Philip went out, he was not all the while shooting, as he absented himself from the preserves for an hour or two together, leaving his gun behind.

"Where the deuce can he go?" I ejaculated, involuntarily. "Jim couldn't tell; and I determined to question my cousin myself. I did so the next morning at breakfast.

The colour leaped into Philip's bronzed cheek, as, almost angrily, he asked, with a covert sneer, "My dear Gerald, for how long have you taken to spying upon other people's actions?"

"Philip!" I exclaimed. "Well, it is spying," he retorted, hotly, taking his gun, "to examine your hirings respecting the proceedings of

your guests! But, there," he added, with an abrupt laugh, as he strode from the room; "those who ask no questions, hear no lies!"

I was vexed and humiliated, for Philip was right. What business of mine was it where he went?

None. Nevertheless, I wished I had informed him that Maud Ravenhill was my affianced—I cannot tell why I had not—on his arrival.

That evening, as the winter twilight was settling down over a thick, noiseless carpet of snow, which covered the land, I was aroused, while reading in my study, by a tap at the door. I bade the person come in, and Jim, the game-keeper, entered.

"Please, sir," he said jerking his finger to his forehead, "I hope you'll excuse me to Mr. Philip; but I've been waitin' for him in the south preserve nigh since three, and am so froze that I durstn't wait longer!"

"What! Has he kept you such a time, Jim? Yes, I'll excuse you!" I said; adding, unconsciously, half aloud in my surprise, "Wherever does the fellow go to?"

"I think, Squire, I can tell you," broke in the gamekeeper, hesitatingly, as he again touched his forehead. "It be to Fairlight Cottage!"

"Fairlight Cottage!" I ejaculated. "How do you know that?"

"Why, Squire, yesterday I took the liberty of following

I started to my feet. "How dare you play the spy upon my cousin, Mr. Philip Merston?" I cried, indignantly. "Quit the room instantly, and be thankful I do not add 'Leave the house!' If it be only there Mr. Philip goes, I—I know that already! Leave the room!"

Amazed, deceived by my manner, the man hurriedly departed.

Dropping back into the chair, I covered my face with my hands. How was it this information appeared no news to me? A vague sensation possessed me that long ago—in my dreams, perhaps—this had all been acted out before; that all along I had been dimly conscious he was to rob me of the only woman I could love!

Seizing my hat, I opened the library window, and passed out into the night.

As I have previously stated, the snow laid thick; and noiselessly I hurried along under the trees, the grotesque-shaped branches of which moaned over my head, and tossed like the gnarled arms of wood gnomes performing some mystic rite.

Where was I going? To meet Philip; to tell him everything; and to learn why he went to Fairlight Cottage!

I strode on, my blood at fever heat, yet my brain strangely calm.

"It will be all right!" I muttered, striving to convince myself. "It must be all right!"

Further yet; further—across a wide stretch of moor, to the left of which laid the yawning mouth of an old, long disused chalk pit. Still no Philip!

My heart rose with hope. "Was he, after all, really at Fairlight Cottage?"

The words were hardly formed, when the cottage came in view. As I gazed at it, the door opened, and two persons came out into the small front garden. I stopped.

The white snow around the figures—the light issuing from the open door behind—revealed them plainly.

They were Maud Ravenhill and Philip. A brief while they stood together; then I saw him draw her closely to him. The next moment they had parted.

Maud fled back into the cottage; and Philip, with bent head, came quickly on—to his fate.

As he advanced I slowly retreated, walking backwards, my eyes fixed upon him. Not until he was within a few paces of me did he look up.

I halted, for I was close to the old chalk pit. Our glances met. A second he regarded me in surprise; then, breaking into one of his pleasant laughs, exclaimed, "Why, Gerald! what on earth are you doing out here on such a night?" Then, as he beheld my features more distinctly, he cried, "Hullo, old boy! what is the matter?—what has happened?"

"Nothing very much!" I rejoined grimly. "It is not a new story. Listen, and I will tell you!"

With that—rapidly, concisely, in hard, cold tones, though my veins throbbed with fire—I told him everything. When I had finished, he shook like a woman.

"Can it be?" he ejaculated. "Maud Ravenhill the one to whom you are engaged, Gerald! In pity—pity to both of us—say I have not heard you rightly!"

"Your ears have not deceived you!" I answered. "Maud and I are betrothed!"

"She—she never said this!" he began; then almost fiercely, he continued, "Gerald, all this is your own fault. Why did you keep the name of your affianced bride a secret?"

"I know not," I replied, involuntarily; "in any case, it is she who should have informed you."

"She should, but she did not!" he retorted, pacing to and fro. "Oh, this is terrible!" he cried, aloud; "how could it all have come about?"

"How, indeed?" I laughed, scornfully. "How? Thus," he replied, abruptly facing round. "When I took your unfortunate letter, she was in the garden, I saw her, and—I loved her. I contrived to see her again, and again, until, one day, I told her of my affection; and—"

"She accepted you!" I interrupted, furiously, my passion breaking through control.

"No. Weeping bitterly, she confessed that she had done me a cruel wrong; that there were reasons why she could not wed me; reasons I one day must hear. Then she implored me to go—to leave her. I could not, for her tones, which she could not govern, showed me her love was mine—that separation was death to both. Seeing that, I vowed to win her. I continued my visits. I forced myself into her presence; and to-night—"

"Well," I said, hoarsely; "to-night?"

"She has consented to be mine, if I will take her from Ivy Tower!" he replied, his voice dropping.

I rejoined, quietly, as if his statement had been of the most mater-of-fact description. "But now that you know all, Philip Merston, of course you will give her up?"

"Give her up!" He looked into my face. I shall never forget the expression of his. How handsome, how convulsed with agony it was! How his brown eyes riveted mine!

How long his answer seemed coming! When it did, he spoke it hurriedly, and as a cry.

"Gerald, I repeat, you alone are all to blame for this. 'Ah! you do not care for her as I. You share your affections with your books, while she is all the world to me!"

"Will you give her up?" I reiterated. "No!" he exclaimed, firmly. "I cannot. For her sake, for her happiness, I will not! Gerald, her love for you was a girl's passion, which she has outgrown. Her heart is no longer yours. Be merciful to her, as to yourself."

He was wild and thoughtless in his agony, else surely he would have left those words unsaid. They unloosed the madness I till then had kept controlled. The fevered blood mounted to my brain. My soul was full of jealous hate for the man before me.

"If that be so," I cried, my nails clutched to my palms, "if you have supplanted me in her heart, Philip Merston, henceforth there is deadly feud betwixt us. Neither shall I wed her."

With that, I leaped towards him. My frame was slight and weak, but he must have thought of that, and in the unequal struggle he conceived about to ensue, puffed me, for retreating, he exclaimed, "Keep off, Gerald! On my life, I would do you no harm! To fight thus is absurd; I have double your strength!"

I laughed derisively, and yet advanced. As I did so, I remembered the old chalk pit which now laid behind him, its treacherous edge hidden by an overhanging mass of half-frozen snow. It must have been a fiend that whispered the temptation—that told me my revenge might be accomplished without aid of mine.

Looking steadily at him, I advanced. Still he retreated. How near he was to the edge now! I saw the dull gray line which indicated the fearful chasm; yet my lips were mute with rage.

"Philip," I ejaculated, "as you value your life, give up Maud Ravenhill!"

"I cannot—I must not!" he repeated. "Yours Gerald, is the fault."

I sprang towards him.

"Beware!" he exclaimed. "Gerald, when once I am aroused, I—"

The warning sentence was never ended. He had leaped back. His feet descended upon the treacherous snow edge of the pit. There was one wild toss of the arms, a loud exclamation, then he disappeared, and a dull, heavy crash at the base of the chasm reached my ear.

All was over. On that wide expanse of shroud like whiteness I stood alone.

I remained a few seconds, gazing at the jagged break left by the mass of snow, which, like a tiny avalanche, had been precipitated down with Philip. Then, no pang of repentance in my heart, turning, I bent my steps to Fairlight Cottage.

I can recollect, as I went, noting Philip's footprints in the snow, and thinking from their appearance that a thaw would set in before morning.

Reaching the cottage, I passed through the gate into the garden.

A light burned in the sitting-room. I knew Maud was alone, for, since her father's death, she had lived here with only an old servant who had been her nurse in infancy. Crossing the lawn, I tapped at the pane of the French window.

The curtain was instantly drawn back, the glass door opened, and Maud Ravenhill stood before me, very pale. There was reproof blended with gladness in her deep, tender eyes. Her lips were tremulous as she exclaimed, in fond reproach, "Philip, this is wrong. Why are you still here?"

Then with a stifled cry, she recoiled, ejaculating, "Gerald!"

After retreating and covering her face with her hands, as I entered, she added, "Have mercy, Gerald; you—you know all?"

"Everything!" I answered, so calmly, that it struck strangely even on my own ear.

"I know," I went on, "that you I deemed so true are false; false in heart—false in oath; a being on earth to scorn—a faithless woman!"

"Gerald!—Gerald!" she sobbed, piteously; "I merit all your blame—yes, all! He came with your letter. I thought you had told him everything. He came again and again; then I discovered you had not, and I feared to do so!"

"Because you loved him, though plighted to another?" I broke in.

"Mercy!" she moaned.

"Maud," I said, "I have just heard from his own lips that your affection is no longer mine. Answer me, mind, the truth. It will be better for us all. Is this so?"

She drooped her head; she was trembling violently.

"When we were betrothed, Gerald," she replied, in a faltering whisper; "I was very young, my father desired the union;—"

"Enough!" I interrupted, so fiercely that she shrank from me. "After a few days' acquaintance, you transferred your affection to my cousin, Philip Merston, and were to have fled with him to-night. Do you imagine, Maud, I demanded, 'I would tamely submit to be so treated?'"

"Gerald!" she cried, involuntarily dropping upon her knees. "What made him tell you?"

"Compulsion—the small sense of honour that yet remained in him!" I rejoined. "But all is over between us now. Still, you will wait in vain for Philip Merston—ay, though you wait until your hair is gray!"

She gave a sudden cry.

"Gerald," she exclaimed, turning yet paler, and grasping my arm, "there is something awful in your looks! In mercy, what do you mean?"

"Only that I have been wronged, and am avenged!" I answered, quietly. "Philip Merston is dead!"

"Dead!" she shrieked. "Philip, my own love, dead! Oh, no; it is a trick—a cruel falsehood to terrify me! He is not dead!" she then cried, starting up, her cheeks flushed.

"Gerald, confess it! You are justly angry. You have been wronged, and are talking wildly; your manner, your countenance prove it. Oh, Gerald!—Gerald! you are mad!"

"I am sner than when I first loved and believed in you, Maud!" I answered. "I repeat, Philip Merston is dead!"

With that, I passed from the room. Only once I looked back; Maud Ravenhill was prostrate upon the ground.

"Oh, Philip! Oh, my love! my darling, dead!" she moaned.

"No, no, it is not—it cannot be true!"

Rapidly returning home, I entered the library as I had hurriedly left it. I had scarcely resumed my chair, when the footman came to ask if I would wait dinner for Mr. Philip. I answered I was busy—I needed no dinner—therefore, would wait.

I was busy—I needed no dinner—therefore, would wait. I was busy—I needed no dinner—therefore, would wait. I was busy—I needed no dinner—therefore, would wait.

Did I expect to behold the spirit of my dead cousin? I am unaware. Had it been he, I could scarcely have felt more startled than I was in perceiving Maud Ravenhill.

She stood outside in the snow, just as I had seen her last, without hat or cloak, in her dark gray dress, a bright blue ribbon at her white throat, and her hair falling over her shoulders and about her neck. She was haggard with grief. Her pale lips were compressed, and her slender fingers were locked rigidly together.

"Gerald," she said, in a low voice, "tell me what you have done with Philip!"

"I drew back into the library," she followed.

"I have come to ask, and will know," she went on, "what have you done with my love?"

"I have told you," I answered, my passion breaking forth at this confession from her own lips. "You and he never again shall meet. He is dead!"

"It is not true," she retorted. "You are mad! Tell me where you have sent him?"

"It is true, and the blame is yours!" I replied. "If you will not believe, search in the old chalk pit for the confirmation of my words."

She regarded me in silence. The fixity of her glare alarmed me. Then a fierce light leaped into them, and she cried, "Gerald! if it really be that you have killed my Philip, it shall be mine to accuse and bring you to justice!"

Before I could speak, she had turned and gone back through the window. As she went, in the stillness of the night I heard her sobbing, "Oh, my Philip!—oh, my love!"

I retorted with a loud burst of laughter, and went back to the window, from whence I watched her depart. Through the dark, wintry gloom, over the white, still snow, under the trees, the tops of which were just catching the light of the rising moon, I saw her tall form gliding swiftly, her long hair streaming behind her.

"She is mad!" I laughed. "It has turned her brain! I am avenged indeed!"

At that moment a dread came over me. What had I done? I had told her where to find the body of Philip Merston, and she was proceeding in the direction of the chalk-pit. She would discover it, and, in her insanity, carry out her threat.

Immediately I was on her track. She was no longer in view, but I knew the way she had taken. Rapidly I followed, making for the head of the pit, where a steep path, rugged and perilous, led to the base of the chasm.

Headless of danger, I sprang down it; when half way, I stopped abruptly, arrested by a wild, moaning noise. Raising my head, I looked.

I saw she had found it. It laid there stiff and motionless, and beside the body knelt Maud Ravenhill—her white face uplifted, her hands wrung together in agony, while the place reverberated with the words, "Oh, Philip, Philip—my darling—my lost love!"

At the sight, the singular calmness which had possessed me gave away. Something seemed to burst in my brain. I darted down the path. The sound of the rolling stones attracted Maud Ravenhill's attention. On beholding me, she rose, and with a shriek of terror, rushed away.

"Keep back, Cain!" she cried, as swiftly darting by, she flew up the rough path. "What hast thou done with thy brother? Your death is of your own seeking!"

Until then I had hardly heeded her. My eyes were riveted upon my cousin Philip. He laid on his back—the handsome features stony still, the sightless gaze turned to the calm heavens above!

I stood transfixed; but as her final words reached me, I dropped on my knees by Philip's side. "My own lips have declared my guilt, and she—my betrothed, my enemy—has heard it!"

My awful position rushed upon and overwhelmed me. I was seized by an abject fear. I wept, I shrieked, then prayed Philip to speak—to rouse himself from that dreadful sleep! I spoke to him as if he yet lived; afterwards I laughed so loud and long, that in my ears the pit echoed as with thunder!

Suddenly I heard voices near me; lights flashed; a hand— I started up, and, confused, trembling, gazed around. I was in my library, and there—before me in the life, and healthy life, too—stood Philip Merston!

"Philip!" I gasped; then you are not dead?"

"No; I am glad to see you give a sportsman's appetite." I hungry. Your northern air Philip, bless you!—a hearty, hearty welcome! You can't imagine how delighted I am to see you!"

I cried, almost hysterically shaking both his hands; "for the truth is, I have had an awful nightmare, and all about your hour ago, on the ground. After reading it, I fell asleep, and—and it was the cause of my dream."

"Not a pleasant one, from your starting and moaning," remarked Philip. "What was it, old fellow?"

"I will tell you," I laughed, "on Christmas Eve, three days hence, and not before. This evening I will talk of nothing but yourself."

I looked substantial refreshment for Philip, over which we had a long chat. Then—yes, so much of my dream terrified me, that I determined no secrecy should exist in the matter, and even for a night. I took my cousin to Fairlight Cottage, and introduced him to Maud. On our return home, I exclaimed enthusiastically, "Now, isn't she the prettiest girl in the world, Phil?"

He laughed, looked down at the blazing logs, knocked the ashes from his chair, and said, "Gerald, my boy, I have a secret to tell you; I kept it for a surprise. I, too, am engaged, and have come back to dear England to be married; so—well, a bit that Miss Ravenhill is the prettiest girl in the world—save one."

I could not control a cry of joy at the intelligence, and congratulated Philip so heartily, that I believe he thought I had gone mad.

When Christmas Eve arrived, and a few of my oldest friends, with Maud and Philip, were seated around the blazing logs in the oak dining-room of Ivy Tower, I told my dream.

I shall not enter into the comments, the mirth, the arguments respecting the cause of dreams, to which I gave rise; only, when the attention of the others was drawn elsewhere,

Maud's tiny hand was slipped into mine, and her sweet voice whispered reprovingly, "Oh, Gerald! how could you have fancied I could ever love anyone but you—even in a dream?"

At the instant the church bells clashed forth clear and jubilant through the winter night. Still with Maud's slender fingers in mine, I arose, and grasping my cousin's hand, said, "Thank heaven, Philip, it was but a dream; and that, this day, with a clear conscience, I can wish you and all my friends a merry Christmas and a happy New Year!"

E. W. P.

**What Makes Home Beautiful.**

A well kept house with beautiful adornings, a well prepared table is pleasing to the fancy; but these outward adornings are of little worth unless there is the warm, inward cheer dwelling in the hearts of the inmates. Vain indeed will be our efforts to make home beautiful or attractive, if we neglect this most important element of all—to beautify ourselves body and soul.

A sweet loving word and a warm clasp of the hand are far more to the guest than the most elaborately embroidered lambrequins at your window or the most exquisite damask on your table. There are bare cabin homes that have been remembered with pleasure, because of the beautiful, loving presence of the inmates, while many stately palaces have left but the impression of an iceberg on the mind on account of the cold, chilly atmosphere within.

It is no use to plant beautiful flowers in the yard or lawn, or to decorate the walls of the home with rich and rare specimens of fine art, while on our faces lurks the dark, selfish frown, and we are coarse and unfeeling in our acts. A truly beautiful behavior is a thousand times more artistic and refined and pleasure giving than outward adornings made by painter or artist. Many of our homes, although not lacking in outward adornings, are dark and cheerless, because there is no sunshine in the hearts of the inmates. Let us then strive to render our homes more attractive by bringing into our lives more sunshine to warm and cheer the surroundings, ever remembering that there are many thirsty souls striving for kind looks and gentle tones. Then it is a duty we owe to ourselves and to all around us, to wear a cheerful face, and let the sunshine of love beam on our countenances.

**A Word to Mothers.**

My theory is that your child is the exact counterpart of either yourself or your husband. When children are bad the parents are measurably bad, or if they are not bad-headed they are wrong-headed. Bad seed sown in the hearts of your children is sure to spring up and bear fruit after its kind. There is only one way by which you can bring up your child well. There must be in your own life good principles, a sweet, loving and tender disposition; firm self-control, a pleasant deportment and a conscientious devotion to your own duty. No mother has a right to expect her child will become any better than she is herself. Your child's soul is like your mirror, it reflects that which stands before it. For instance, if I call my little boy to my knee in anger, I speak a loud word that bears with it the spirit of anger. I have made my child angry. My uncontrolled passion has produced anger in return. I have sown anger and I have reaped anger instantaneously. He is weak and I am strong; but though he bow his head, crushed into silence, I may be sure there is a sullen heart in his little bosom, and anger the more bitter because it is impotent. I anger the more bitter because it is impotent. I anger my child away from me and think what I put my child away from me and think what I have done. I long to ask his pardon. I call him to me again, press his head on my breast and weep. No word has been spoken, but the little bosom heaves, the little heart softens, the eyes grow tenderly penitent, his little hands come up and clasp my neck. My relenting and my sorrow, like the mirror have reflected the same in the bosom of the child. If I utter fretful words they will return to me like echoes. If I bristle all over with irritability the quills will begin to rise with my child. If you plant good seed in your child it will always produce good fruit. My theory is just this—if you would have good children you must be exactly, yourself, what you wish your children to be. If you would have pleasant words greet your ears from your child, always speak kind words yourself. If you have a bad child the fault is your own. If you wish to make your child better, the quickest way to do it is to make yourself better. You will reap nothing in your child self better. Which you have not planted there yourself. Blessings on the mother who sows the seed of a happy childhood in the heart of her child. It will spring up and bear good seed an hundred-fold.

Mrs. ESTHER CROWELL, Ashtabula Co. O.

Minnie May's Department.

MY DEAR NIECES.—Before another number of the FARMER'S ADVOCATE reaches the hands of our thousands of readers, old holly-wreathed Christmas will have come with its genial, hearty welcome to each and all. With what rapture we listen in the still night to the joyous peal proclaiming that Christmas has come again, when old Santa Claus so generously fills the Christmas stockings, and loads the glittering tree with gifts! To our minds Christmas never seems more welcome than when ushered in by snow and frost; when the snow flakes float fantastically about, and we hear the merry jingle of the sleigh-bells through the clear, frosty air. Christmas! that good old time; what cheery, social gatherings within the happy homestead does it suggest? It is a time for social greetings—when friend meets friend, brother welcomes brother, and parents their children. We cannot better describe this joyous season than by quoting a few lines from a popular American magazine:— "The lovely legends of the day, the stories and the songs, and the half fairy-love that gathers around it; the ancient traditions of dusky woods and mystic rites; the magnificence of Christian observance; the lighting of Christmas trees and hanging up of Christmas stockings; the profuse giving; the happy family meetings; the dinner; the game; the dance,—they are all the natural signs and symbols, the flower and fruit of Christmas. For Christmas is the day of days, which declares the universal human consciousness that peace on earth only comes from good-will to man."

Let us now turn our attention to Christmas gifts. I will name a few articles which may be of use to some of my nieces. FIG. 1—Shows a toilet cushion, which is made of claret-colored plush and olive woollen brocade, each color forming half the cushion. The figures in the brocade are embroidered in open stitches, with gold threads and silk, the flowers being in two shades of pink, and the leaves and stems in olive; all the figures are edged with purl (silk and gold thread twisted). The straight sides of the brocade are edged with narrow, olive fringe, which is ornamented with loops of purl, and the diagonal edge is covered by

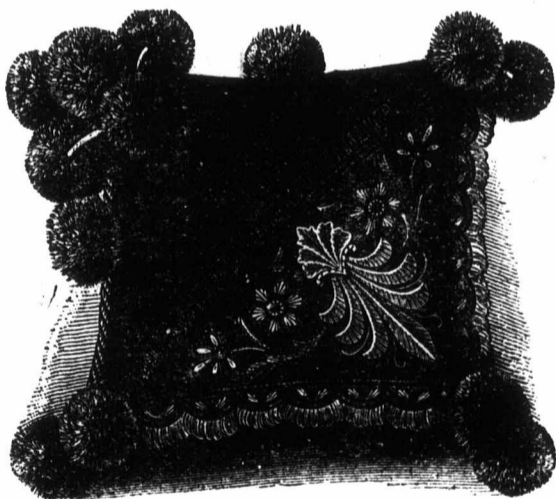


FIG. 1.

a piece of olive galloon that has a Greek border worked in purl and stitches of red silk. The cushion is edged with claret silk cord, and finished at the corners with silk ball tassels or pompons in claret and old gold. In place of the olive brocade, a plain silk or satin, say light blue or pink, with a spray of flowers painted or embroidered on it, makes an exceedingly handsome cushion. Plain glass bottles could be covered to match, if desired.

FIG. 2—Represents a shaving case. Cut four

pieces of cardboard eight inches long and six and a half wide. Cover two pieces with cambric and two with silk; on one of the silk pieces embroider a wreath of forget-me-nots and fern leaves, and in the centre work the monogram. Top—sew a cambric and silk piece together; cut colored tissue paper the size of the case, and fasten between the covers, then secure all firmly to a pencil, finishing each end of the pencil with a large, brass-headed nail. Make five tassels three and a half inches

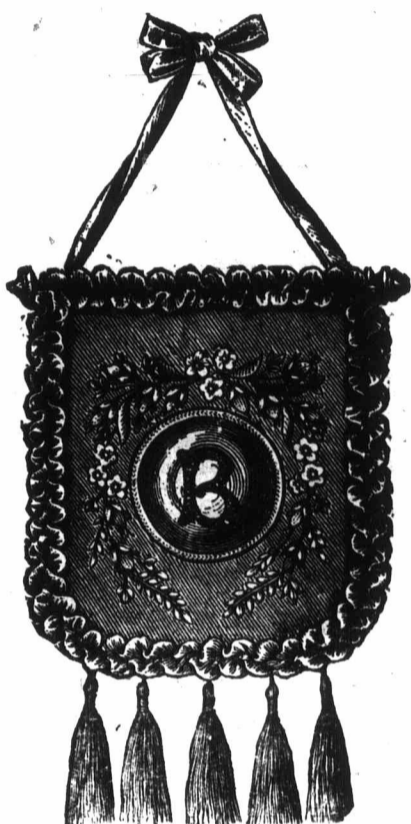


FIG. 2.

long, in colors to match the silk, cover and flowers. Finish the edge of the case with a full rushing of ribbon, gathered through the centre, drawn up full and laid over to represent shells. Hang the case with ribbon the same as that around the edge.

FIG. 3.—A baby basket. Procure a large round basket and a small camp stool. Measure the size around the top of the basket, get that quantity of material, (dotted muslin over pink or blue is pretty). Measure the depth of the basket, and allow for the scallops to fall over the edge, fasten it to the edge of the basket, and draw down tightly to the bottom in plaits. Cut a piece to fit the bottom, fasten around the edge, and finish with a box-plaiting of ribbon. Make the cushion and pockets to please the fancy. Finish the scallops with the box-plaiting, also the top of basket, if desired. Between each scallop put a bow or cord and tassel of worsted. Fasten this on the camp stool, around which put a ruffle of the material with which the basket is lined.

A beautiful tidy for the back of a large chair is made of a piece of cloth about ten inches square, on which is sewed patchwork of plush and velvet in the form of a wide-spread fan; finish the edge with lace. A pretty wall-pocket is made of a common palm-leaf fan, by binding the edge and handle with cretonne, then make a full pocket of the same, gathering it all around to fit the

lower half of the fan, then draw in the top with elastic and trim with bows of ribbon and tassels or balls at each corner of the pocket and at the base of the handle. This is very useful for holding your dusting-cloth.

A jewel or handkerchief box can be made by taking an ordinary wooden or pasteboard box and covering it with black satin; on the lid paint or embroider some pretty flowers. Cover the sides with lace, and finish the edges of the box with a silk cord corresponding in color with the flowers.

Line the inside with quilted satin. For feet and knobs use large gilt beads or buttons; the latter can be fastened on by running the shank through the corner of the box before it is covered, and secure with a small stick.

A handsome whisk holder can be made by cutting out of cardboard two palettes, measuring 9x12 inches, covering one with cotton satin, the other with plush, any desired color; then make two bands about six inches long and two and a half inches wide, covered in the same way, only before sewing the plush on the band work on it a spray of flowers; then top-sew the bands together, and fasten neatly to the plush-covered palette, letting it stand out enough to hold the plush-covered palette, letting it stand out enough to hold the whisk when dropped in at the top. Now, sew the two palettes together, and hang by a ribbon passed through the thumb-hole of the palette.

There are numberless other articles which it would be impossible to mention, but let me here suggest that Minnie May could have no more acceptable present than a long list of new subscribers for the coming year. So, to the dear Nieces who have so frequently expressed a desire to do something to show their affection for her, we say now is opportunity; besides, see the grand premium list Mr. Weld has offered. You can, then, get all your Christmas presents free, and save the trouble of making them.

In conclusion, I wish my dear Nieces, in the good old-fashioned way, a right Merry Christmas and a Happy New Year. MINNIE MAY.

Answers to Enquirers.

AN ENQUIRER.—Is it proper for a young gentleman to offer collection to a young lady whom he has escorted to church? ANS.—You may do so, if the lady seems to have forgotten her purse, or you may give a large enough piece of silver for both. If the lady appears to have come provided, do not offer any money.

C. B. R.—We can not tell you what to buy for your mother's Christmas present, for we do not know as well as you, who are near her, what kind of a present would please her the best. But we would advise you to think very carefully, and if you can remember any pretty thing she has expressed a wish for, or any little comfort which you suspect she has gone without in order that she might get something for you, try to give her that. Do not spend your money for a trinket, but get something pretty and useful at the same time, like a handsome work-basket or a soft worsted breakfast shawl, and every time mamma uses it she will be sure to remember her little girl's loving thoughtfulness much more tenderly than if you give her vases or other parlor ornaments which will be stood away on the mantle piece.



FIG. 3.

SWEET SEVENTEEN.—1. A young lady is subject to the parental rule until she is twenty-one years of age. 2. If you say in the invitation "evening party," your guests will understand it is to be full dress. The invitations must be sent in the name of the lady of the house. Be careful not to invite more than your rooms will accommodate. A hostess is usually safe, however, in inviting one-fourth more than her rooms will hold, as that proportion of regrets are apt to be received.

mine, and her sweet voice said: "how could you have said to me—'even in a dream'—is dashed forth clear and still with Maud's slender hand, my cousin's hand, said, 'it a dream; and that, this can wish you and all my happy New Year!'" E. W. P.

The Beautiful.

Beautiful adornings, a thing to the fancy; but of little worth unless cheer dwelling in the sin indeed will be our joyful or attractive, if we want element of all—to d soul.

l a warm clasp of the guest than the most umbrellas at your window-damask on your table. mes that have been re- because of the beautiful, ates, while many stately mpression of an iceberg the cold, chilly atmos

beautiful flowers in the ate the walls of the home ens of fine art, while on selfish frown, and we are r acts. A truly beauti- times more artistic and ng than outward adorn- r artist. Many of our ing in outward adornings, because there is no sun- e inmates. Let us then mes more attractive by ore sunshine to warm and ever remembering that souls at living for kind Then it is a duty we owe ound us, to wear a cheer- shine of love beam on our

Mothers.

r child is the exact coun- f of your husband. When rents are measurably bad, h-headed they are wrong- wn in the hearts of your g up and bear fruit after y one way by which you d well. There must be in ciples, a sweet, loving and self-control, a pleasant de- cious devotion to your has a right to expect her better than she is herself. ke your mirror, it reflects ore it. For instance, if I y knee in anger, I speak a with it the spirit of anger. d angry. My uncontrolled anger in return. I have e reaped anger instantane- d I am strong, but though shed into silence, I may be heart in his little bosom, and because it is impotent. I rom me and think what I ask his pardon. I call him head on my breast and been spoken, but the little ttle heart softens, the eyes at, his little hands come up. My relenting and my sorrow, e reflected the same in the If I utter fretful words they e echoes. If I bristle all over quills will begin to rise with ant good seed in your child it good fruit. My theory is uld have good children you ourself, what you wish your ou would have pleasant words m your child, always speak m you have a bad child the f you wish to make your child way to do it is to make your- ll reap nothing in your child planted there yourself. Bless- who sows the seed of a happy rt of her child. It will spring ed an hundred-fold. ROWELL, Ashtabula Co. O]

**SNOWBALL.**—Do not worry about it, for in time you will have gained confidence in yourself, and remember to be a good listener is almost as great an art as to be a good talker; but you must endeavour to seem interested in the conversation of those who are talking.

**KATIE L.**—1. We have no faith in advertisements of a matrimonial character. If not fictitious they are dangerous—snares set to catch the unwary, and no young lady could safely or consistently with self-respect form an acquaintance under such auspices. 2. It is quite usual for ladies to sing at amateur concerts both in town and in country.

**MAGGIE F. ELLIOTT.**—Your name was omitted in the Nov. No. because you did not send it with the puzzles and answers. The name and address must always accompany letters.

**T. O. L.**—1. A gentleman instinctively removes his hat on entering a room in the presence of ladies, and never retains it in a theatre or other place of public entertainment. 1. It is neither respectful nor polite to smoke in the presence of ladies, even though they have given permission, nor should a gentleman smoke in a room which ladies are in the habit of frequenting.

**LADY PEARL.**—Wanted to know how to keep hair from turning gray. **ANS.**—Cut it off, wrap it up in tissue paper and lay it away in the bureau drawer. If you prefer to keep it on your head, wash your head thoroughly as often as every two weeks, brush it well each day, use two parts of bay rum and two parts of French brandy mixed with one part of castor oil for dressing; and then if your hair keeps on turning gray, pray for grace and sense enough to enable you to wear it that way. There are women in the world who know how to grow old gracefully, but they are not found among those who dye their hair and affect youthful styles of dress.

**A SUBSCRIBER.**—1. A book of poems would be a very nice present. Write his name, and add "From," then write your own initials and the date. 2. We advise you not to use powder on your face, even "to prevent it shining when heated," for it is very injurious to the complexion, as it fills the pores, prevents their natural and essential action, and, keeping them open, thus in time enlarges them so that in time the skin is rendered coarse. 3. No attention should ever be paid to anonymous letters. The writers of such stamp themselves as cowardly. All statements in such letters should be regarded as false, and should be committed to the flames at once.

**TILL & BILL.**—1. Which is considered in better taste, marriage at the home of the bride or in church? 2. If the marriage ceremony takes place at, say nine in the morning, followed by a breakfast at the bride's father's, please give full explanation of what kinds of refreshment would be most suitable for the breakfast: also manner of serving; the parties being plain country people. 3. Is it customary to have more than one groomsmen when

there are more than one bridesmaid? Is the groom expected to give presents to the bride and bridesmaids? If so, what kind of articles would be most suitable, and at what time should they be given? 5. Does the bride make any presents at all? 6. Should the guests give the bride's presents to her, or place them on a table at her home? If the latter way, should they be displayed in the dining-room or the parlor, and how is the bride to know who is the giver of each? Also is it necessary to thank each one separately? 7. Should the bride and groom pass to the dining-room first and sit at the head of the table? 8. Should the groom wear gloves if the bride does? and if so, should they be of the same shade? 9. What do you

means. When he can afford it he gives a souvenir to each bridesmaid, and at least presents them with their bouquets; for an inexpensive present to bridesmaids a silver bouquet holder is very appropriate. 5. No, as a rule she does not nowadays; but when wealthy and so inclined she may give each bridesmaid her dress for the occasion. 6. Presents should always be sent to the bride during the week before the ceremony, the day before at latest. The card of the presenter, with a few words of good wishes, accompanies each gift, and the bride should either write a note of thanks or speak a few words in acknowledgment of each. 7. Yes; but they usually sit at the side of the table, about the centre. 8. Yes, or white. 9. Very good.

#### Recipes.

The prize of a fine meteor alarm clock for Xmas Recipes has been awarded to Miss Ferguson, of Kingstons, Ont., and that of Loveloy's Metallic weather house for the best Essay on How to spend Christmas to "A Farmer's Daughter," name reserved by request.

#### ENGLISH PLUM PUDDING.

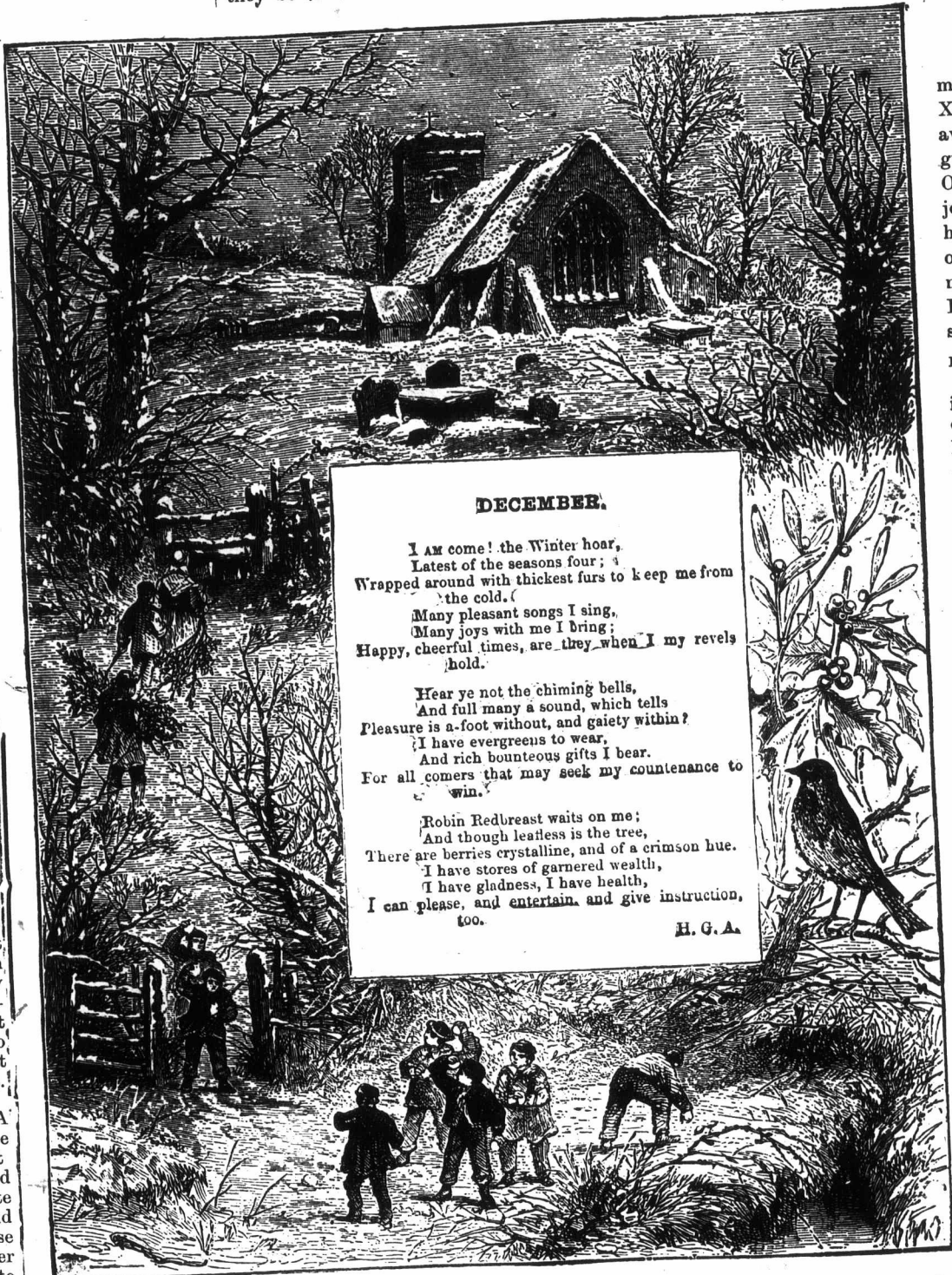
Take a pound of raisins, stoned, a pound of currants, which, wash, pick, and dry; a pound of good beef suet, minced meat and a pound of stale bread crumbs, and half a pound of flour. Mix the bread, flour and suet in a pan; beat six eggs in a basin and add to them half a pint of sweet milk; pour the eggs and milk into the pan with the suet, flour and crumbs, and beat together with a wooden spoon for some time, then stir in the raisins and currants, mixing well as you proceed; mix in also a quarter of a pound of candied orange and lemon peel, cut small, an ounce of ground ginger, a nutmeg grated, and a little salt. Next add a glass of rum or brandy. The pudding is now ready to be boiled. Put in a mould or in a strong cloth, allowing a little room for it to swell, and boil for six hours. Serve with brandy or wine sauce.

#### CHRISTMAS OR WEDDING CAKE.

Flour, butter, sugar, raisins (stoned), of each three pounds, six pounds of currants, picked, washed and dried, two dozen of eggs, orange, lemon and citron peel, of each one quarter pound, mace, cinnamon and nutmeg, of each one ounce, and one half pint of brandy.

Beat the butter to a cream, add the sugar and beat together until all is soft and light, stir in the yolks of the eggs beaten to a froth, then the froth of the whites; continue beating, mix the currants, raisins, spices, and peel cut small, with the flour on a baking board, stir this into the mixture by slow degrees, and when all in continue stirring for some time longer, then add the half pint of brandy; mix that well in. Butter two large cake tins and divide the mixture, one should be a size smaller than the other. Bake three hours in a well heated oven, and when done turn out to cool. Place one on top of the other, and ice if you choose.

think of our writing and composition? **ANS.**—1. It is more fashionable to be married at church. 2. Nine is rather early, eleven or twelve is the most fashionable hour, but one must usually be guided by trains. For a country place, cold fowl and joints, ham, tongue, and savory pies, with sweet dishes, such as jellies, creams, blancmange, custards, etc., and the inevitable cake would be sufficient. When wines are not offered, tea and coffee may be handed round. Such repasts are all placed on the table at once, and the waiters either carve at a side table or take the plates round when they have been supplied by a carver belonging to the family or among the guests. 3. It is quite usual in Canada and the States, but the English have only the best man, and our most fashionable people follow the English in this as in all matters of etiquette. 4. The groom usually gives the bride a handsome piece of jewellery, according to his



#### DECEMBER.

I AM come! the Winter hoar,  
Latest of the seasons four;  
Wrapped around with thickest furs to keep me from  
the cold.

Many pleasant songs I sing,  
Many joys with me I bring;  
Happy, cheerful times, are they when I my revels  
hold.

Hear ye not the chiming bells,  
And full many a sound, which tells  
Pleasure is a-foot without, and gaiety within?  
I have evergreens to wear,  
And rich bounteous gifts I bear.  
For all comers that may seek my countenance to  
win.

Robin Redbreast waits on me;  
And though leafless is the tree,  
There are berries crystalline, and of a crimson hue.  
I have stores of garnered wealth,  
I have gladness, I have health,  
I can please, and entertain, and give instruction,  
too.

H. G. A.

er, 1883

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### Recipes.

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### SH PLUM PUDDING.

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and dry; a pound of  
beef suet, minced  
and a pound of stale  
crumbs, and half  
nd of flour. Mix  
read, flour and suet  
an; beat six eggs  
basin and add to  
half a pint of  
t milk; pour the  
and milk into the  
with the suet, flour  
crumbs, and beat  
ther with a wooden  
n for some time,  
stir in the raisins  
currants, mixing  
as you proceed;  
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pound of candied  
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### CHRISTMAS OR WEDDING CAKE.

Flour, butter, sugar,  
raisins (stoned), of each  
three pounds, six pounds  
currants, picked,  
ashed and dried, two  
dozen of eggs, orange,  
ch one quarter pound,  
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Butter two large cake  
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### MINCE MEAT.

Mince fine one pound of beef suet and one pound of lean beef, one pound of good apples peeled and cored, chopped separately, one pound of currants well washed, picked and dried, a pound of raisins stoned and minced, one ounce of ground ginger, an ounce of orange peel, an ounce of lemon peel, cut small, a tablespoonful of salt, half a pound of white sugar, two wine glasses of brandy and one of sherry. This will keep good for months.

MUFFINS.—1 egg, 1 teaspoonful of sugar, 1 heaping tablespoonful of butter, a little salt, 1 cup of sweet milk, 2 cups of flour with  $\frac{1}{2}$  teaspoonful of soda and 1 of cream tartar mixed in well. Bake in a quick oven.

CHOCOLATE CAKE.— $\frac{1}{2}$  cups sugar,  $\frac{1}{2}$  cup butter,  $\frac{1}{2}$  cup milk,  $1\frac{1}{2}$  cups flour,  $\frac{1}{2}$  pound chocolate, 3 eggs, 1 teaspoonful cream tartar and  $\frac{1}{2}$  of soda. Scrape the chocolate fine and add 5 tablespoonsful of sugar, stir over the fire until smooth, then stir into the beaten butter and sugar, and add the other ingredients and bake twenty minutes in a moderate oven. Frost if you like.

RIBBON CAKE.—Two cups sugar, 3 eggs,  $\frac{3}{4}$  cup butter, 1 cup sweet milk, a little salt, 3 cups flour, 1 teaspoonful of soda dissolved in the milk, add a little salt and flavor with essence of lemon or almond. Put half of the above in two square pans, to the remainder add 1 tablespoonful of molasses, 1 large cup of raisins, stoned and chopped,  $\frac{1}{2}$  pound citron, sliced, 1 teaspoonful of cinnamon,  $\frac{1}{2}$  pound each of cloves and allspice. Grate in a little nutmeg and add one spoonful of flour. Put into two pans the same size and shape as those above. Put the sheets together while warm, alternately, with a little jelly or jam. Cut in thin slices for the table. Very nice.

TEA CAKE.—Bread crumbs may be made into a very nice tea cake by the addition of the same things which would make flour into tea cake. Mix two ounces and a half of crumbs with four ounces of melted butter, and to them add the beaten yolks of six eggs and a teaspoonful of grated lemon peel. Two ounces of chopped raisins, a few blanched and chopped almonds must be mixed with these, and, last of all, the whites of eggs must be added to the compound. It should be baked in a carefully prepared tin, and it is well to score it into squares before putting it in the oven.

BEEF ROLL.—Chop two pounds of lean beef very fine; chop and pound in a mortar half a pound of bacon, and mix it with the beef. Season it with pepper and salt, a small nutmeg, the grated rind of a lemon, the juice of a quarter of it, a heaping tablespoonful of parsley, minced fine; or it can be seasoned with an additional tablespoonful of onion? or if no onion or parsley is at hand, with summer savory and thyme. Bind all these together with two eggs; form them into a roll; surround the roll with buttered paper, which tie securely around it; then cover it with a paste made of flour and water; bake two hours; remove the paper and crust; serve it hot with tomato sauce or brown gravy. This may be made with raw or under-dressed meat. If the meat is not raw, but under-dressed, surround the roll with pie crust; bake, and serve with tomato sauce or any of the brown sauces, poured in the bottom of the dish; potato croquettes may be served around it.

### Queries.

JOHN C. ELLIOTT.—Address to FARMER'S ADVOCATE, London, Ont.; write your answers to puzzles neatly, giving the number of each.

A READER.—You should keep your Hyacinths after planting in either soil or water in a dark, warm place, watering them occasionally for four or five weeks before bringing them to the light. You should cut off the ends of your hair to prevent splitting.

DEAR MINNIE MAY.—Would you please tell me through your valuable paper how I could cure bird skins so as to retain the feathers in them for millinery purposes.

DOLLY, Embro P. O.

[Taxidermists have proper tools for skinning, which can be obtained at any first class hardware store; then rub well the inside with arsenic, and then allow them to dry.]

Should any of our subscribers or any member of their family wish to win some of our useful Premiums, send at once for a few specimen copies, &c.

A prize of the White Mountain Potato Parer will be given this month for the best essay on "Hints on Domestic Economy," all communications to be in by the 25th December. We can recommend this Parer, as we have one in use.

### PRIZE ESSAY.

#### How to Spend Christmas.

This subject is one which, it is evident, can be discussed only on general principles. To lay down a programme for even one family of whose circumstances, tastes and general "environment" we are ignorant, would be to court an ignominious failure. In what way, then, shall we keep Christmas? To answer, we must remember what Christmas is. It is the day celebrated by general consent of Christendom as the birth of One who came "not to be ministered unto, but to minister," and who, in pursuance of His life-work, "went about doing good." If, then, our observance of it is to be appropriate, it must be in the spirit of Him whose coming it commemorates.

When the first Christmas morning dawned upon the world, the song of its angel heralds was "Glory to God in the highest; on earth peace, goodwill to men." Giving glory to God must ever be an appropriate part of a Christmas celebration, and if within reach of church services, it is fitting for us to join in them. If we do so sincerely, we will be better prepared to sing the other strains of the angel's song—peace and good will.

It should be our endeavor, on Christmas morning, to radiate these over as wide a circle as possible, beginning with those nearest to us; and to do so our plans for the day must be laid before the previous midnight. If the members of a family are scattered, let them seek, as far as possible, a common meeting place. It will do them good to gather again, and clasp each other's hands as in the old days. If the son, in his young manhood, has gone into the world to earn for himself, let him come back to the old hearth-stone, not forgetting to bring some token (it may be little or large) of his regard for those at home. If there are children, see that the stockings are not empty when the feet are ready for them. And it were well not to stop with the stockings, but that all the members of the household should find by their plates at breakfast, or receive in any way that may be preferred, some gift, however small, expressive of thoughtful kindness and good will. Make the day one of rejoicing, and carry that out in whatever way is most to the family taste, remembering whose birthday is being honored. It is sometimes said that gifts cannot be afforded. The number of families, however, of whom this could be said truthfully, are very small. It is not the amount of money paid for the gifts, but the love of which they are the expression which gives them their value, and if nothing better can be done, a rag doll or a ball made from an old stocking wound over a cork and neatly covered, may give as much happiness as though a considerable sum had been spent for gayer toys. In the case of children, too, there is always their clothing as a resource. Whatever its quality, new clothing they must have at times. Plan to give something of that kind, then, and a new frock, or (oh, joy but once tasted!) the first pair of long boots, will be hailed with no less delight than the more costly but less useful gifts of wealthy parents. Whether the money you can afford to spend be little or much, let the aim be to make all happy. Even in the matter of money, it will be found that in this as in other things, "Where there is a will there is a way." Economise for it in some other direction, pinch if need be, but make the memories your children carry with them into the world alike of their Christmas pleasure, and of their home in general, be happy ones. They will thank you more in after years for plenty of love, than for many broad acres or thousands of dollars. It is quite possible, however, to labor and spend for Christmas enjoyment, and yet to do all in a spirit of the purest selfishness; that we and ours may have the good things of life, material and otherwise, while no thought is taken for the poor, the lonely or the stranger. While we plan the pud-

ding and prepare the roast or the turkey, can we remember no home that is likely to be pudding-less, and to which a little of our abundance, sent with care, not to hurt sensitive feelings, would bring lighter hearts and brighter faces for days to come? Are there none to whom empty chairs or other causes would make their own home sad, who might be invited to ours? Are there none whose life is passed mostly in the shadow to whom we might bring a little sunshine? If so, let us see that the one we might help is gladder for our remembrance, and we will find that our own burdens will be lighter and our own cup more full because we have thought of our neighbor. Better still, it is said that the One who was born on Christmas remembers such deeds, and that He will one day say to those who do them: "Inasmuch as ye did it unto the least of these, ye did it unto me."  
A FARMER'S DAUGHTER.

### Care of the Skin.

A beautiful complexion is regarded as particularly desirable, but cannot be obtained by gross habits of living. It is rather usual for pimples to appear on the girl's face at about fourteen years of age, and yet this does not necessarily follow. Rich and greasy food at this critical time, have much to do with these pimples, often so disfiguring.

"Cleanliness is next to godliness," and to have a clear and beautiful skin, it is needful to wash or bathe daily, in warm weather, the whole body. If one would have a fair skin, but little soap should be used, especially much of the poor soap in the market, made of rancid materials. (We, self and wife, use and think well of the "Indexical," made, in part, of as good suet as is used in making the artificial butter.)

The use of oat-meal with the water in which it has been soaked, has been often recommended for beautifying the skin, but I feel sure that its use for food would be quite as judicious, the grains, vegetables, fruit, fish and eggs, being far more favorable to the health and the complexion, than pork or much meat of any kind, or pastry. The expression "as fair as a Jewess" has a significance and force. These beautiful females owe the fairness of their complexion to the fact that their religion forbids the eating of pork, in accordance with Lev. II: 7 and 8, which they regard as binding in the present age. Much more will depend on a good diet and habits than cosmetics, though it is true that the use of "gluten" in any form is favorable, really nourishing the skin, this being a part of the wheat. Applied as a poultice to sore or abraded surfaces, or softened in water by long soaking, and then rubbed over the surface, the effect is favorable.

If one would not be freckled let her be more in the air and light—not too much of the bright sunlight if tan is feared—though that is no disgrace or injury to the health. The use of the flesh-brush, if not too harsh and uncomfortable, or gentle friction in any form, will make the skin soft and velvety, simply because in a healthy state.

### Free! Free! Free!

BOYS, do you want a Knife, some Books, or a Compass?

GIRLS, do you want the Ladies' Manual of fancy work, the Household Dictionary, or Weather House?

MOTHERS, do you want a Potato Parer, Windsor Castle, or an Alarm Clock?

FATHERS, You want the Farmer's Hand Book for 1884, the Multum in Parvo Knife, and some choice seeds.

#### ALL FREE!

All these and many other good things you may have free by sending your renewal subscription at once, and adding some of your friends' names to our list.

Every worker deserves and wins a premium. Send for our illustrated Premium List, &c.

A good way to use our specimen copies is to leave one or two for examination in the hands of neighboring families, who do not, but ought to, subscribe. Then call again and solicit their subscriptions. Our Premium List offers very tempting inducements for every girl and boy, to do some canvassing. Our premiums, as usual, are useful, valuable, and cannot be procured anywhere so easy and with so little expense.

Little Ones' Column.

O, children, little children,  
You must be good, because  
A few short days brings Christmas eve,  
And then comes Santa Claus;  
And somebody will tell him  
All that you've said and done  
For many a week, and if he's pleased,  
Heigh-ho, look out for fun.  
So, children, little children,  
Be lovely, dears, because  
A few short days brings Christmas eve,  
And then comes Santa Claus.

The Dolls' Wedding.

I am so glad that the sunshine has driven the clouds away,  
For my dolly, my darling dolly, is going to be married to-day.  
She has had a great many suitors—a dozen, I do declare—  
And only last week, Wednesday, she refused a millionaire.  
Sophie Read is his mother; she thought we'd feel so grand  
That a doll with a diamond stud should offer my child his hand.  
But Rose cares little for money, and she's given her heart away  
To Charlie, the gallant sailor, who will make her his bride to-day.

Nora has made her a bride-cake with frosting as white as snow,  
And I wove her bridal wreath from the tiniest flowers that blow;  
And brother Harry has promised (he's ever so kind, I'm sure)  
To lend them his beautiful yacht when they sail on their wedding tour.  
We make believe it's the ocean, the lake in the park, you know;  
And Charlie, the little sailor, is so delighted to go.  
Oh, my! he does look cunning in his suit of navy blue.  
His mother, my most particular friend, is little Nelly Drew.

Look! they are coming, Mary. Oh, they are a lovely pair!  
Charlie, the black-eyed sailor, and Rose with her golden hair.  
Doesn't she look like a fairy peeping out from a fleecy cloud,  
In that lovely dress and veil? But we mustn't talk out loud.  
If I could just squeeze out a tear—I suppose it's the proper thing,  
Since she is my only child—but indeed I would rather sing,  
For the sun is shining brightly, and everything seems gay,  
And to Charlie, the dear little sailor, my dolly is married to-day.

A deceptive truth.—  
"Paddy, honey, will ye buy my watch?"  
"What's the price?"  
"Ten shillings and a mutchin of the cratur."  
"Is the watch a decent one?" "Sure, and I've had it twenty years, and it niver once desaved me." "Well, here's your tin, and now tell me, does it go well?" "It goes faster than any watch in Connaught, Munster, Leinster or Ulster, not bar-rin' Dublin." "Bad luck to ye, Mike, then you have taken me in! Didn't you say it niver desaved you?" "Sure and I did—nor did it—for I niver dipinded on it."

Old Superstition about Sneezing.

Sneeze on Monday, sneeze for danger;  
Sneeze on Tuesday, kiss a stranger;  
Sneeze on Wednesday, receive a letter;  
Sneeze on Thursday, something better;  
Sneeze on Friday, expect sorrow;  
Sneeze on Saturday, joy to-morrow.

Uncle Tom's Department.



MERRY CHRISTMAS

—AND—

HAPPY NEW YEAR

to all my Nephews and Nieces. Another year has almost closed and Christmas, the season of feasting and rejoicing, is fast approaching, and I suppose all my boys and boys are anticipating lots of fun. You must write and tell your old Uncle Tom all you do during your holidays, and what little Sante Claus gave you at Xmas, and what little presents you have made, for we feel very interested in all who have contributed, and thus endeared themselves to us in the past. We hope our friendly intercourse will continue with increasing interest to you and to us. Our Nephews and Nieces, whose letters give assurance of the pleasures and instruction they have received from the paper during the past year, will, I hope, try and put others in the way of sharing in their enjoyment. This you can most easily do by speaking of the paper to your schoolmates and friends,

sending in some good puzzles for January. Now is the time to start. Let me hear from all my old as well as a great many new correspondents.

UNCLE TOM.

Puzzles.

1—NUMERICAL ENIGMA.

I am composed of 39 letters.  
We are all going to grandfather's house to spend my 7, 20, 31, 10, 15, 32, 2, 37, 15, and hope that my 11, 21, 25, 32, 16, 7, 39, 1, 36, 15 will fill our stockings with 7, 30, 17, 18, 6—4, 19, 10, 17, 15—25, 36, 12, 15, and 12, 33, 32, 11. We cannot decorate with my 8, 35, 38, 39, 24, and my 13, 10, 15, 12, 38, 29, 32, 33, 3, as our English cousins do, but will have to content ourselves with my 15, 22, 5, 36, 7, 3, and my 7, 26, 18, 1, 9, and though we are not able to get my 28, 1, 2, 15, we will enjoy my 14, 23, 22, 38, 29, 15 and my 39, 3, 13, 35, 17, 15, and have as much of my 2, 10, 17, 7, 26, 22, 10, 3, and other good things as we want, and though my 34, 6, 39, 29, 12, 10, 18, 26 is not ushered in by the 27, 1, 10, 12, 15, we may still be able to fervently wish my whole.

HARRY A. WOODWORTH.

2—OUR COUNTRY'S BURIED TREES.

1. We passed a shepherd tending his sheep.
2. Mamma, please let me go with him.
3. So Ethel married the earl after all!
4. Have you got a pin, Edward?
5. Oh yes, Pru, certainly I will.
6. The corporal derided his superior officer.
7. Instead of Mary chasing the bee, the bee chased Mary.
8. Then I will owe you ten cents.
9. When apples are scarce dare you waste them?
10. Smith has in his chest nuts of all kinds.
11. Oh! Em, lock the door, or the kitten will get in.
12. Do a kind action whenever you can.

HARRY A. WOODWORTH.

3.—My first is mightier than the sword,  
My second is nature's noblest creation,  
My third is the sailor's own palace,  
My whole is an accomplishment.

JAS. GILL.

4—DROP VOWEL PUZZLE.

sh—ll—th—r—b— — — — — t—f—d—th— — — — — r—f—m—  
—g— — — — — ft—r—g—sh—ll—p—ss— — — — — n—r  
—d—c— — — — —

MAGGIE F. ELLIOTT.

5—ENIGMA.

My first is in bun, but not in cake,  
My second is in pain, but not in ache,  
My third is in cat, but not in dog,  
My fourth is in lake, but not in bog,  
My fifth is in oyster, not in clam,  
My sixth is in sweetmeats, not in jam,  
My seventh is in ocean, not in sea,  
My eighth is in meadow, not in lea.  
My whole is a jolly good fellow, and don't you forget it!

HARRY A. WOODWORTH.

6—BEHEADINGS.

Whole I am amusement, behead and I am a girl's name, behead again and I am a verb, cut tail and I am a preposition.  
Whole I mean craft, behead and I mean to end life; behead again and I mean sick.

MAGGIE F. ELLIOTT.



ILLUSTRATED REBUS.

showing them copies of it, and advising them to subscribe for the new volume, which we hope to make still more interesting in every department. By thus extending its circulation you will be working for your own interest, because the larger the list of subscribers is the better able the publisher will be to increase the beauty and attractiveness of the paper. Next month the names of the successful prize winners of the best puzzles and the best answers will be published; also the grand prizes for 1884. So commence early by

- 1.—Edinburgh.
- 2.—Elbe, Don, Seine, Boyne, Ohio, Colorado, Ural, Neva.
- 3.—Patience is a virtue,  
Possess it if you can:  
'Tis seldom found in woman,  
Less often in a man.
- 4.—R A S H  
A L O F  
S O D A  
H E A P
- 5.—All is well that ends well.
- 6.—He that fights and runs away,  
May live to fight another day.

Answers to November Puzzles.

7.—Trot, rot, to hatred. Illustrated Rebus—Some hours we should find for the pleasures of the mind.

Names of those who have sent Correct Answers to November Puzzles.

Philip Boulton, Etta Alberta Buck, Geo. Barr, Robt. Wilson, Wm. Bowman, Maud Dennie, Addie V. Morse, Arthur H. Mabee, Richd. Kingston, Daniel B. Baird, Maggie F. Elliott, Esther Louisa Ryan, Jas. Gill, John C. Elliott, Maggie V. Smith, Hattie F. Stafford, Amelia Caperton, Thos. Doolittle, Fannie Burton, R. J. Risk, J. W. Forbes, Douglas Campbell, Sadie Willis, Charlie Fleming, Jas. Watson, A. J. Phoenix, Alice T. Simpson, Harry A. Woodworth, Minnie Montgomery, H. R. Guston, Ella Morris, Tom Murchy, Simon Cousins, Kitty Hodge, Salena Alexander, Michael Laverty, Ellen D. Tupper.

HUMOROUS.

Takes a woman to get even.—On a Lake Shore train coming into Detroit the other day were a newly-married couple, the bride appearing to be about twenty-five years old and the groom being a dapper little chap a year or two younger. A lady who came aboard at Wyandotte took a seat just ahead, and after a few minutes she heard the pair criticising her bonnet and cloak and general style. Without showing the least resentment in her countenance she turned around in her seat and said: "Madam, will you have your son close the window behind you?" The "son" closed his mouth instead, and the "madam" didn't giggle again for sixteen miles.

Artemus Ward's Programme.

[From the Cleveland Plaindealer.]

We have before us a relic of Artemus Ward. It is one of the programmes of his "Among the Mormons" entertainment, dated Sandusky, May 8 (probably 1874). We copy a few specimens: "The music of the grand piano will comprise, 'Dear mother I have come home to die by request,' etc. 'Washoe, the Land of Silver—Good quarters to be found there. Playful population, fond of high-low-jack and homicide.' 'Heber C. Kimball's Harem—Mr. Kimball is a kind husband and numerous father.' 'Selections from the Grand Piano—Mr. Forrester—Mr. Forrester once boarded in the same street with Gottschalk. The man who kept the boarding-house remembers it.' Those of the audience who do not feel offended with Artemus Ward are cordially invited to call upon him often, at his fine new house in Chicago. His house is on the right hand side as you cross the ferry, and may be easily distinguished from the other houses by its having a cupola and mortgage on it.' 'Answers to correspondents: Laura Matilda—'I have an unfortunate tendency, even on trivial occasions, to shed tears. How can I prevent it?' 'Lock up the shed.' 'Traveller—'How long was Artemus Ward in California?' 'Five feet ten and a half.' 'Citizen—'I am getting bald. What will make my hair come out?' 'Oil of vitrol will make all your hair come out.' 'Rules of the house: Ladies and gentlemen will please report any negligence or disobedience on the part of the lecturer. Artemus Ward will not be responsible for money, jewelry or valuables, unless left with him—to be returned in a week or so. Persons who think they will enjoy themselves more by leaving the hall early in the evening, are requested to do so with as little noise as possible.'

A Telephone for Farmers.

To make a good and serviceable telephone from one farmhouse to another, only requires enough wire and two cigar boxes. First select your boxes and make a hole about half an inch in diameter in the centre of the bottom of each, and then place one in each of the houses you wish to connect: then get five pounds of common iron stove-pipe wire, make a loop in one end and put it through the hole in your cigar box and fasten it with a nail; then draw it tight to the other box, supporting it, when necessary, with a stout cord. You can easily run your line into the house by boring a hole through the glass. Support your boxes with slats nailed across the window, and your telephone is complete. The writer has one that is 200 yards long, and cost forty-five cents, that will carry music when played thirty feet away in another room.

Pet Stock.

Rabbits.

RABBITS have long been favorite pets with boys, and they deserve to be so, for they are brisk, merry, bright-eyed creatures; and being, moreover, easy to rear, will richly repay the care and attention lavished upon them. The color of the wild rabbit is a brownish grey; the tail black above and white beneath. In its domestic state it is of various colors—white, black, and piebald. Over all the temperate and warm parts of America the rabbit is diffused; and in its wild state it thrives admirably.

The fancy rabbits bear various names, of which the most common are the smut, the double smut, the lop, the dew-lop, the oar-lop, the horn-lop, and some others. These occasionally fetch very high prices among fanciers; but we would warn our young friends against expensive habits of every kind, and especially against expensive rabbit-keeping. Animals kept for amusement, and also for instruction—for much is to be learned of the instinct and habit of animals from familiar acquaintance with them—should be such as incur little expense beyond what a lad can spare from his own pocket-money; and the habit of seeking assistance from parents for foolish fancies is pregnant with the greatest mischief. We should, therefore, strenuously advise our young friends not to waste their time and money upon those ugly, overgrown creatures which fanciers choose to designate as beautiful, but to confine their attention to the rearing of the finest, most perfect, and purest stock of rabbits that can be produced, and therewith to be content.

According to fanciers, when one ear grows up straight and the other laps over the shoulder, it is a great thing, and when the two ears grow over the nose, so that the poor creature cannot see (as in the horn-lop), or when both ears stick out of each side horizontally (as in the oar-lop), or when the hollows of the ears are turned out so completely that the covered part appears in front (as in the perfect-lop), these peculiarities are considered as marks of varied degrees of perfection, but to unsophisticated minds they present nothing but monstrosities; we can see no beauty in such enormities, and shall no further describe or allude to them.

With regard to color, rabbits nearest in color to the wild ones are, in general, the most hardy; after the black or black and white, then the white, then the sandy, and lastly, the gray and white. The young fancier may either purchase a doe with young, or he may purchase four or five young ones. If the former, he should be guided in his selection by some experienced person; if the latter, he should take especial care that the young ones are in good health, and have no signs of pot-belly, and that they are of full size and strong build. The rule is, to "take the largest of the rabbits where there are the fewest in the litter." He should take them when about six weeks old, and when taken they should be placed in pairs, in separate hutches, till they are about four months old, when each should have a separate hutch.

The Farmer's Hand Book.

Every successful farmer should keep a system of accounts as a matter of economy, profit, and of record as well. After considerable examination of different works and great labor, we have compiled and published especially for our subscribers The Farmer's Hand Book. This work will be published annually on or about the 15th of Dec., and will contain over 100 pages, well bound with neat covers. It contains ruled pages with proper heading for cash diary, live stock, dairy, grain, fruit and poultry accounts, breeding register, individual accounts, &c., with pages containing tables of weights and measure and interest. The Hand Book will serve as a calendar, with the moon's changes, &c., besides useful information, recipes, blank memorandum pages, &c. The Farmer's Hand Book is the best and cheapest work of the kind ever published in Canada, and can not fail to give unqualified satisfaction to all who secure a copy.

We thank our friends for the numerous and kind invitations sent to us. We can never hope to see you all during the coming year, but we hope to be able to pay one visit to each of the Provinces, and will visit as many of the townships in each Province as practicable.

Commercial.

THE FARMER'S ADVOCATE OFFICE, } London, Ont., Dec. 1st, 1883. }

We have nothing very special to record this month. The weather has been very changeable and very stormy. Business quiet, and the movement of produce light, compared to the two previous years. We do not see any cause for grumbling.

WHEAT.

The wheat market keeps very quiet on both sides of the Atlantic. Speculators have not found this article a very profitable investment the past six months. Nor does their seem much chance of improvement for the next three or four months. A great deal will then depend on the prospects of the growing crop. A very peculiar feature of the wheat question is the enormous amount of stock in sight in the United States and Canada. The amount exceeds that of any previous year on record. With us in Canada the movement is very light, indeed—in fact, hardly enough to keep the mills running. In Manitoba the crop has been good, but the price is very low, so much so that farmers are complaining, and very naturally blame the transportation companies. They should remember that they nor any one else can help low prices on the other side of the Atlantic. Were prices on a shipping basis in Ontario, the price of wheat would be about ninety cents.

CATTLE

Have paid our farmers well the past season. There seems to be no limit to the demand for good fat cattle for export. The exports of live stock from Canada show a very large increase over previous years. They are as follows, including contracts for freight room on steamers up to 31st of December:

Table with 2 columns: Destination and Amount. Rows include Via Montreal (50,655), United States (5,019), Total (55,674), Total last year (35,738), Increase in 1883 (19,936).

SHEEP.

Table with 2 columns: Destination and Amount. Rows include Via Montreal (100,075), United States (13,110), Total (113,185), Total last year (75,905), Increase in 1883 (37,280).

CHEESE

Has wound up well; stocks are not very heavy, and no doubt the market will be pretty bare by next spring.

BUTTER

Has been well picked up all over the country, so that what is now made, and from this out, will all be wanted for local use. The creameries have all done well this season. Many of them closing out their make (Sept. and Oct.) at 25 cents. Why cannot we have more of them?

FARMERS' MARKET.

Table with 3 columns: Item, Price Range, and Item. Lists various commodities like Red wheat, White, Corn, Oats, Barley, Peas, Poultry, Chickens, Ducks, Turkeys, Geese, Eggs, Potatoes, Apples, Soft butter, Tub, Cheese, Onions, Tallow, Lard, Wool, Clover seed, Timothy seed, Hay, Beans.

TORONTO, Ont., Dec. 1, 1883.	
Wheat, fall... \$1 07 to \$1 11	Chickens, pair... 0 45 to 0 60
Wheat, spring... 1 14 to 1 16	Fowls, pair... 0 60 to 0 70
Barley... 0 68 to 0 73	Ducks, brace... 0 45 to 0 70
Oats... 0 34 to 0 35	Geese... 0 40 to 0 60
Peas... 0 73 to 0 75	Turkeys... 0 75 to 2 00
Flour... 5 15 to 5 25	Butter, roll... 0 22 to 0 24
Rye... 0 60 to 0 60	Butter, dairy... 0 17 to 0 18
Potatoes, bag... 0 80 to 0 90	Eggs, fresh... 0 25 to 0 28
Apples, brl... 2 00 to 2 50	Wool, per lb... 0 17 to 0 20
Beans, bu... 1 25 to 1 50	Hay... 7 00 to 9 00
Onions, peck... 0 25 to 0 00	Straw... 0 00 to 0 00
	Hogs... 6 00 to 6 50

## BRITISH MARKETS, PER CABLE.

Liverpool, Nov. 25, 1883.

## CATTLE.

The cattle market moderately active; the demand good and prices steady at old rates. Supplies of American and Canadian cattle light; general supplies fair.

	Cents	# lb
Choice steers.....	15	15
Good steers.....	14	14
Medium steers.....	13	13
Inferior and bulls.....	9	11

[These prices are for estimated dead weight; offal is not reckoned.]

## SHEEP.

Business rather slack. The market quiet and weaker at 1c decline from last week's prices.

	Cents	# lb
Best long woolled.....	16	@18
Seconds.....	15	@17
Merinos.....	11	@12
Inferior and rams.....	11	@12

[These prices are for estimated dead weight; offal is not reckoned.]

## LIVE-STOCK MARKETS.

East Buffalo, Nov. 30.

Receipts—Cattle, 5,525; hogs, 37,155; sheep, 20,700. Shipments—Cattle, 4,731; hogs, 30,327; sheep, 17,630. Cattle—Receipts light; market fairly active; 10c to 15c higher than ruling quotations of last Monday; all offerings changed hands. Sheep and Lambs—Arrivals of sale stock during the past 48 hours quite liberal; reports from New York not as favorable; weather also bad, which caused sharp decline of 10c to 15c from prices of last Wednesday, and all will not be sold. Hogs—Market fairly active and stronger. Good medium and heavy, \$5 25 to \$6; mostly \$5 35 to \$5 35; no very heavy hogs here; sales of a few good, 250 to 270 lbs, at \$5 45 to \$5 50.

## Special Notices.

**MUSIC.**—When at the Dominion Exhibition held in St. John, N. B., the past season, we noticed what appeared to us a novel and very pleasing instrument. This consisted of a melodeon having a set of tuned bells in the works; the player produced the usual pleasing, soft music produced by the common organ or melodeon; in addition to this, by winding one of the stops, the bells would join in as wanted, adding pleasing and attractive harmony. This organ was exhibited by an American firm. Similar melodeons and organs with bells are constructed in Clinton, Ont., by Doherty & Co., and are warranted to give satisfaction for five years. The firm is a reliable one, and will send an organ to any responsible person in any part of Canada on trial. Write to them, and perhaps you may be as much pleased as we were when we heard them at St. John.

**BEWARE.**—There are cunning, designing agents travelling; some with shoddy cloth, some with fence material, others with books. Do not be deceived by the bargains offered to you, and do not accept an agency, or give your name; be sure and sign no order that has a lot of printed stuff on it that is intended to catch you. Many farmers have been fraudulently treated by agents. The law does protect farmers from fraud, but the farmer is too often afraid, and justly so, of being dragged into a law court. The law still allows these unscrupulous travellers to ply their vocations; they should be stopped. There are tree pedlars that are selling goods to the public at ten times more than they are worth. Farmers should have a source of remedy when trees having black knot are sent into the country.

In selecting fruit trees or any others, be careful to choose those with smooth, healthy-looking bark, which have entirely shed their leaves and have plenty of small fibrous roots. Trees on which the leaves remain after frost sets in, and stick to the branches in the spring, may be regarded as not healthy, and some way lacking stamina.

"No farmer or anyone else should do without the ADVOCATE."  
M. B. McI.  
Renfrew, Ont.

## Dairy Notes.

**STILTON CHEESE.**—Mrs. E. Parsons, Guelph, took the first prize at the Industrial for the best Stilton cheese.

Mr. H. W. Lynch, of Danville, the well known dairyman, has been engaged to lecture on Dairying throughout Prince Edward's Island next summer.

The creamery has done great good to the farmer who converts his own cream into butter, by forcing him to be neater, to use the latest dairy appliances, and to improve his dairy stock.

On Saturday, the 10th of October, was held the last cheese market of the season in the city of London. Over 8,000 boxes of cheese were sold, the lowest price paid was 11c; the highest, 12c. The majority were sold at the last named figure.

We understand that Mr. T. S. Cooper, the celebrated importer of Jersey cattle, offered the enormous price of \$20,000 for the Jersey cow Mary Ann of St. Lamberts, owned by Mr. Valancey E. Fuller, Hamilton, Ont. The offer was refused, Mr. Fuller preferring to remain the owner of the best Jersey butter cow in the world.

Bitter milk is a matter of frequent occurrence every fall and winter, or soon after the cows are off from grazing. It is caused first by bitter herbs in the hay, such as May weed, Johnswort, &c., and also by the use of too much over ripe food, such as straw, corn stover or late cut hay. It never occurs when cows are fed on good food and are thriving or even holding their own, and are kept comfortably warm.

The seventh annual convention of the New York State Dairymen's Association will be held at Ogdensburg, N. Y., Dec. 18th, 19th and 20th, when the following are expected to attend and address the meeting. Prof. L. B. Arnold, Dr. Sturtevant, Prof. H. E. Alvord, of Houghton farm, Prof. J. P. Roberts, Cornell University, and Messrs. T. D. Curtis and G. W. Burbank. Special rates have been arranged for with the railway companies, also with the hotel keepers for those attending the convention.

While admitting that Jersey cattle have many excellent qualities, and adaptation to certain uses, still *The Breeder's Journal*, of Chicago, Ill., dares to maintain that American dairy interests, as a whole, would be better off to-day if none of this pet stock had ever reached our shores. Cherishing this radical sentiment, the writer notes with satisfaction the "sensible waning of the 'boom,'" and adds that "so long as the speculation is confined to men of wealth it is all well enough as a recreation for them, but it should not be allowed to involve farmers who depend upon legitimate dairying for a business."

## Stock Notes.

We noticed at the Chicago Fat Stock Show, among others, the following Canadian breeders: The Hon. H. M. Cochrane, R. Gibson, H. Groff, Jno. Geary, G. Hood, Jno Hunter and T.B. Snyder.

The Electric Light Co., having undertaken to furnish the electric light at the Commercial Hotel stables, Jarvis street, Toronto, the Fat Stock Show will be held there. The first sale of the British American Shorthorn Association will be held during the show. See advt.

On the 11th inst. there will be a Christmas Fair of Fat Stock held at Fergus, Ont. Liberal prizes; open to all. For particulars write to John Mair, Secretary, Elora, Ont.

Wm. Heron & Son have sold Shropshires within the past ten days to the following parties, viz.: To Mr. Jno. Harry, Oshawa, one ram lamb; to Mr. John Shand, Columbus, one ram lamb; to Mr. S. Hinman, Dundonald, one pair ewe lambs; to Mr. J. Stanton, Reach, one shearing Oxford ram; to Mr. James Walker, Glen Major, one Cotswold ram lamb and eight ewes.

Messrs. Galbraith Bros., of Janesville, Ill., sold in the Exposition Building, Chicago, on the 25th ult., twenty-two pure bred Clydesdale mares and stallions. The lot realized \$18,210.

The Secretary of the American Oxford Down Association, Mr. T. W. W. Sunman, of Spades, Ind., offers a prize of a silver pitcher for the best pure bred Oxford Down sheep exhibited at the Chicago Fat Stock Show of 1884.

(Continued on page 382.)

## How Others See Us, &amp;c.

The Rural New Yorker says:—

**HAPPY CANADIAN SETTLERS.**—From Prof. Tanner's report of his recent tour through Canada we learn that he travelled fully 5,000 miles within Canadian territory, and that he had most favorable opportunities for coming in contact with settlers, not only in the older provinces of the Dominion, but in Manitoba, and even beyond its borders, in the Assiniboine district of the Northwest Territories. Throughout the whole of this lengthened tour of inspection he found those settled upon the lands happy, prosperous and healthy. After conversing freely with large numbers of these settlers, he states that he did not meet with a single instance in which they were not fairly successful, contented, and full of hope for the future. They worked hard, it is true, but that labor was sweetened by the knowledge that they were improving their own property. Their personal requirements were easily provided for by the aid of a rich and productive soil, their families were growing up around them in the enjoyment of health, and without any anxiety being felt as to their future success in life.

The New York Tribune says:—

Jabez, who reads much, calls attention to what he considers a notable fact, namely, that he has not happened to see a single report favorable to Dakota for continued practical farm life and home-making from one competent disinterested person who has stayed in the Territory long enough to learn its actual conditions of climate and soil, and its capacity for crop production.

We are much pleased to note just as we go to press that the grand meeting of farmers held on the 26th ult., at Portage la Prairie, Man., is bearing good fruit in liberal concessions from the C. P. Railway and Dominion Government. Hurrah! Don't delay in forming farmer's clubs.

## NEW ADVERTISEMENTS.

THE FARMER'S ADVOCATE refuses hundreds of dollars offered or advertisements suspected of being of a swindling character. Nevertheless we cannot undertake to relieve our readers from the need of exercising common prudence on their own behalf. They must judge for themselves whether the goods advertised can in the nature of things be furnished for the price asked. They will find it a good rule to be careful about extraordinary bargains, and they can always find safety in doubtful cases by paying for goods only upon their delivery.

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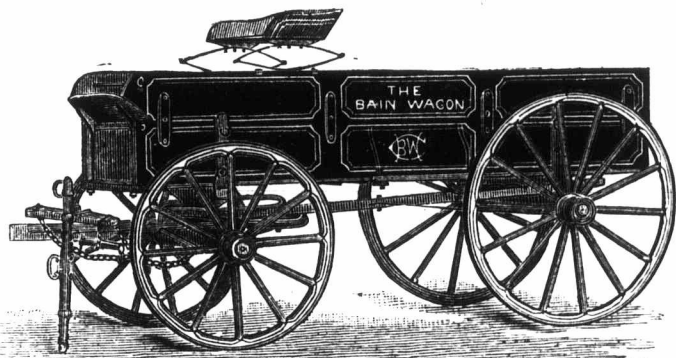
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## STOCK NOTES.

(Continued from Page 380.)

Messrs. Heron & Son, of Ashburn, inform us that they received six hundred dollars for their show team, not \$500, as stated in our stock notes of last month.

Geary Bros., of Bli-Bro Farm, London, Ont., have issued a neat pamphlet giving a list of the prizes won by their flock of Lincolnshire and Shropshire sheep at the fairs this season, which speaks very highly of their flock.

Hon. M. H. Cochrane, Hillhurst, Compton, Q., has sold to McLean Howard, jr., of Toronto, Ont., a large number of Jerseys. They comprise some of his recent importations specially selected on the Island on account of their grand pedigrees and extra good milk and butter qualities.

Mr. R. C. Auld, nephew of the late Wm. McCombie, of Tillyfour, Scotland, so prominently connected with the improvement and success of Polled Angus cattle, recently sold off his entire herd at Aberdeen. Good prices were realized, the average being £90 16s.

Our readers will notice in the usual columns an advertisement of a sale of stock which will be held under the patronage of the B. A. Shorthorn Association. The sale is the first under this management, and we hope that good success will attend their efforts. A large attendance of buyers is expected.

Mr. McLean Howard, jr., has sold his Jersey heifer, Rioters Sylvia, a daughter of the champion cow, Mary Ann of St. Lambert, to Mr. Fuller, of Hamilton, at a high figure, and we understand Mr. Fuller has since sold her to Mr. F. Loser, of Somerville, New Jersey, U. S., for \$6,000.

The Guelph Fat Stock Club hold their annual show on the 12th and 13th of December. It is creating more interest among the stock-raisers of Wellington and Waterloo than any previous Christmas exhibition, and the indications are that it will be the most successful yet held. Over \$500 will be offered in prizes.

At the Fat Stock Show at Chicago, Ill., buyers from most of the Middle and Western States and some of the Territories were present. The Herefords realized the very high average of \$575. C. Hershley, of Mustatine, paid \$1,200 for Lily Second, of Stockton, and \$1,000 for Tulip Third. These were the highest sums realized. The Aberdeen cattle did not sell so well, and a lot of Gallows was withdrawn.

The following is a list of sales of Shorthorns and Leicesters from Maple Lodge, the property of Jas. S. Smith. Since last report, to C. H. Wilson, Greenway, Ont., Belle Matchem 4th; to Jno. Murray, Lucknow, Baron Harper 2nd; to M. Martin, Belle Matchem; to F. Scott, Ashfield, Ont., Duchess Jane 2nd Don Vampa 2nd and 1 shearing ram; to H. Snell & Sons, Clinton, 1 ram lamb and 1 shearing ram; to T. Carvan, 6 ewes; to Wm. Pagan, Lucknow, 1 two-shear ram; to J. McKay, Ailsa Craig, 1 ram lamb; to Thos. Crawford, Thedford, 1 shearing ram; to K. Montgomery, Tiverton, Ont., 1 pair shearing ewes; to P. J. Brown, Kincardine, 4 shearing ewes.

T. & A. B. Snider, of German Mills, Ont., took diplomas for best Percheron stallion and also best Percheron mare, any age, at the Provincial and Western Fairs, besides a large number of other prizes. Their 3 year old Short-horn heifer, Rose of Strathallan 2nd, has taken first at Toronto, Guelph and London; also sweepstakes for best female, any age, at Toronto and Guelph. Her grand dam was imported Rose of Strathallan, bred by Viscount Strathallan, Strathallan Castle, Scotland; imported and owned by John Miller, Brougham, Fickering, Ont., and pronounced one of the finest Short-horn cows ever imported in our day, and is now over 18 years old, and has been a regular breeder until this last year. Lord Strathallan, one of her calves, has also been a great show bull, and was never beaten in Canada, and was afterwards sold to an American for \$2,500, where he has also swept everything in the show rings. Crown Prince of Strathallan, also from Rose of Strathallan, has also taken first prize and sweep-stake at the Industrial for best bull, any age; thus it will be seen that this family of cattle stands very high in the show record.

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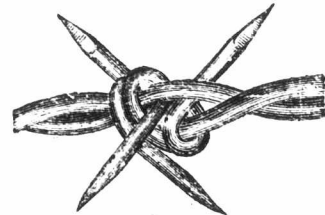
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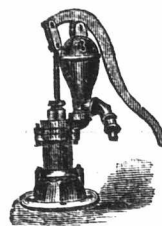
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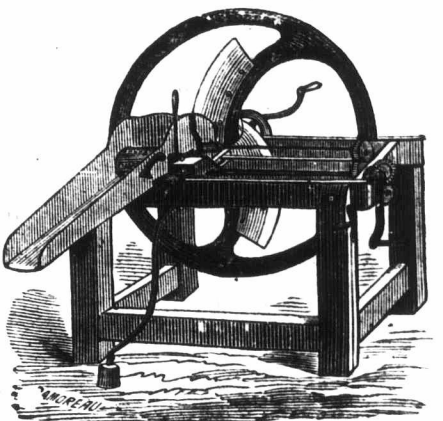


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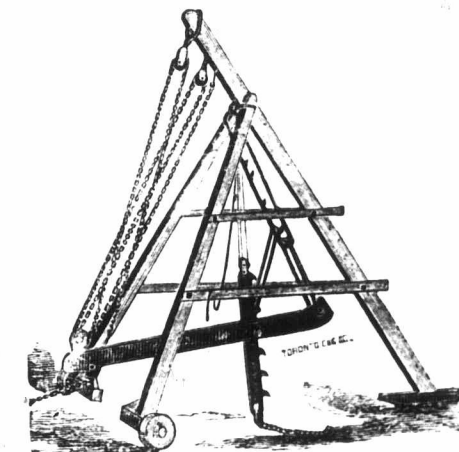
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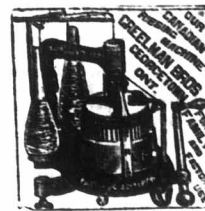


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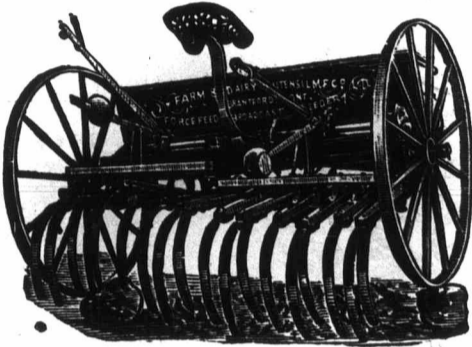
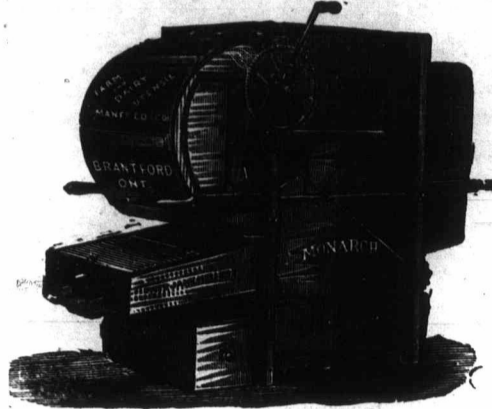
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