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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE AND SUCCEED
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VOL. XXIX.

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No. 372.



"THE QUEEN OF THE MAY," AN OLD-TIME PRIZE-WINNING SHORTHORN HEIFER
THE PROPERTY OF RICHARD BOOTH, ESQ., WARLABY, NORTHALLERTON, YORKSHIRE, ENGLAND.

EDITORIAL.

Outbreaks of foot-and-mouth disease occurred lately in Cambridgeshire and Kent, England.

British authorities claim to have discovered two cases of pleuro-pneumonia among American cattle, one landed at Deptford, the other at Newcastle.

Now is the time to plan farm buildings that are to be erected next year. During the winter supplies of sand and gravel are easily secured for use in the construction of what are called cement walls and floors, which have grown very popular of late years.

Hon. John Dryden was re-elected President of the American Shropshire Association, at the recent annual meeting. In his annual address, he said that Shropshire interests had been well maintained during the year; that Shropshire breeders had bred and must continue to breed for quality rather than for pedigree.

Another British Royal Commission on Tuberculosis has been appointed, though the first one has never yet reported. The new one consists of Sir Geo. Buchanan, Prof. Geo. T. Brown, and Dr. J. S. B. Sanderson, their duty being to inquire and report what is the effect, if any, of food from tuberculosis animals on human health; and if prejudicial, under what circumstances and conditions?

President Mills on the Relation of Agricultural Colleges to Farm Life.

SIR.—There appeared in the October number of the *ADVOCATE*, a report of an address on "Agriculture in the Schools," by the Rev. Dr. Bryce, of Winnipeg. In this report Dr. Bryce is represented as saying that "an Agricultural College is an institution for educating agricultural professors. We want one to educate the farmers' sons and daughters. The worst feature about an Agricultural College is that instead of your sons being educated for the farm, they are educated away from it." Assuming that this report is substantially correct, I take issue with the Doctor, and ask space for a few words in reply.

The Doctor's statement may be true of some agricultural and mechanical colleges in the United States, especially of those which are mere departments of universities, but it is far from a correct representation of the work and tendencies of our Canadian institutions. Speaking for the Ontario Agricultural College, Guelph, I may say that our course of study, the instruction in our class rooms, the work in our stables and fields, the associations, the conversation—everything in and around our College—tends to keep up the connection with the farm, to increase the interest in farm work, and develop the belief that agriculture is one of the most healthful, independent and honorable of all the occupations open to Canadian youth.

Boys who begin the study of medicine occasionally change their minds and become teachers or preachers; so also the young men who set out for the legal profession not unfrequently turn aside to other occupations; and the same thing is now and then true of those who go to school or college to fit themselves for farming. An odd one of our graduates becomes a professor at home or abroad, and a few abandon agriculture for other vocations, but the great majority (over 95 per cent.) of those who come to us from the farm return to the farm with increased interest in farm work and farm life. Not only so: a fair proportion also of our town and city students exchange urban for rural life.

JAMES MILLS.

Agricultural College, Guelph.

The Tuberculin Test at Quarantine.

A Dominion Government Order-in-Council, requiring cattle coming into Canadian quarantine to undergo the tuberculin test, received the sanction of the Governor-General on November 16th, but quarantine officers had been notified of the proposed regulations previously.

With regard to those responding to the test, the Order-in-Council specifies that no such animal is allowed to leave the precincts of the quarantine, and the owner can have the alternative of returning it to the place whence it came or having it slaughtered without compensation.

At a farmers' club meeting in New York State, the pros and cons of saws and clippers were discussed, and it was conceded that, if the clippers are sharp so as to make no fractures, they may be best, as they do the work quicker. All agreed that dehorning is a great success, and that all cattle ought to be dehorned. Cool weather was preferable.

Retrospective and Prospective.

To all our readers from the Atlantic to the Pacific, and "beyond the seas," we extend a hearty Christmas greeting. Judging from the many kind expressions we are constantly receiving from all parts of America and the Old Land, we feel assured that our arduous labors are being appreciated, and never more so than at the present time. Believing, as we do, that upon the condition and prosperity of Canadian agriculture the national fabric largely rests, we could not do other than battle for the interests of the farmer and the advancement of farming.

On general questions there is an increasing disposition on the part of the agriculturist to do independent thinking and acting. This is well. The *ADVOCATE* does not propose to take a hand in party politics, but we counsel our readers to scrutinize closely but fairly the declarations of public men addressed to them. A well-known politician stated not long since to his audience that farmers were now as well off or better than ever before in Canada, for the reason that, though prices of grain had fallen, the prices of what the farmer bought had also fallen, and "the purchasing power of a bushel of wheat was as great as ever." The farmer must look deeper into the question than that. What he has to maintain himself and his family comfortably with, or put by, is only what remains above the cost of production. With the aging of the country, soil depletion, changes in the public demand for foods, shifting markets, etc. (not to speak of the growing cost of conducting public affairs), farming becomes necessarily more elaborate and expensive, and the farmer finds himself confronted with the problem of how to increase the product of his farm or its value, and keep down the cost of production. He must either produce more bushels, sell those produced for more, or else turn his grain into a higher-priced product. These processes require skill and increasing knowledge. The real question for the farmer is not whether the bushel buys as much, but whether the profit he realizes on a bushel buys as much. Hence, the statement of the politician might be misleading. It is indeed a time to think.

In all departments of human activity, and nowhere more so than on the farm, *knowledge is power*. Speaking before a large convention of breeders assembled a few days ago in the City of Guelph, Hon. John Dryden, the Provincial Minister of Agriculture, in laying down the fundamental principles that should be observed in the establishment of a herd or flock, rightly placed as the first essential the possession of a clear conception of the end which the breeder desires to attain. So it is also in the general operations of the farm. Industry and steadfastness of purpose will go far in winning success against unfavorable odds, but without clear ideas of the end in view, to begin with, and knowledge of how these operations should be directed, and work done under the varying conditions that constantly present themselves, the outlook becomes indeed doubtful. We do not minimize the value of experience, because it is the hard training school through which every man must pass, but men do not stand singly, alone, working independently of all that others do and know. Mr. Mortimer Levering, of Indiana, in delivering a thoughtful address before the same gathering of breeders referred to, contradicted one of our cherished proverbs in the very wording of his subject, which was, "Practice does not make Perfect." Said Mr. Levering, in the course of his observations: "He (the farmer or breeder) must do his work, not exactly as it was done yesterday, but better to-day and with a determination to improve to-morrow. The mere doing of a particular kind of work over and over again in a listless, mechanical sort of way, no matter how long continued, will not make the operator expert or the operation as productive and profitable as it is desired." Speaking of the various advantages by which his hearers could keep themselves abreast of the times, Mr. Levering placed first in the category the Agricultural Press.

For many reasons, notably in the line of live stock husbandry, we are disposed to regard the outlook for the Canadian farmer as decidedly hopeful. In the order of Providence, the past season, speaking for Canada generally, has been a bountiful one. With the application of the principles above outlined, we have no fear for the future, and we counsel our readers to go forward with a hopeful determination to succeed in this the original and Divinely instituted avocation of man.

We sincerely thank our friends and able staff of contributors who, by voice or pen, have aided us during the year in increasing the *helpfulness* of the *FARMER'S ADVOCATE*, and solicit a continuance of the generous support of all our patrons for the future. In thus serving each other, we believe we will best serve the interests of our common country.

A Practical Friend.

One of our readers living in the Eastern States writes us a most encouraging letter. He says among other things: "I think you are publishing the very best journal for farmers in Canada." Personally interested in farming, and a cheese factory proprietor as well, he knows whereof he speaks. Appreciating its practical value, he sends us the paid up subscriptions, one year in advance, for sixteen of his patrons, realizing that from the factory-man's point of view no investment will give a surer or better return than practical information, coming regularly at short intervals through such a periodical as the *FARMER'S ADVOCATE*. It will help these men to become better and more successful dairy farmers, and this will benefit the industry in which our factory friend has his money invested. In one sense the *ADVOCATE* is not a "special purpose" paper, but in another way it is. All our space is not devoted to stock breeding or dairying or horticulture or poultry keeping or grain growing, but we make every one of these departments a special feature in itself. What we give is the cream of the latest and most successful practice. We find that it is *quality* that counts with our readers in these busy times. We are thankful to our Eastern friend for his appreciative words, which stimulate us to still greater efforts, and can certainly commend the special plan he has taken to circulate trustworthy dairy knowledge in his locality, and will be pleased to hear from others following his example. A man cannot be a first-class dairy farmer without being a good all-round farmer, and we have the testimony of our readers on file, that we have helped them to reach that goal.

Breeders and Feeders at Guelph.

The eleventh annual Provincial Fat Stock Show was held at Guelph on December 11th, 12th and 13th, under the joint auspices of the Agricultural and Arts Association, the Sheep and Swine Breeders' Association, and the Guelph Fat Stock Club. It was not inappropriately styled the "Smithfield of Canada," on a large banner swung across one end of the commodious Victoria Rink, where the show was held. As a display of live stock it was an immense success, though the weather, which was simply abominable, spoiled the attendance and the gate receipts. The following table shows the number of animals entered in the different classes this year, compared with last:—

	1893.	1894.
Cattle.....	51	52
Sheep.....	160	288
Swine.....	147	169

Numerically, the cattle display was about the same as last year, but it was hardly up to the other two classes in general evenness and excellence. There was a good increase in swine, and an advance of over 100 in sheep, and a marvellously fine display of dressed poultry.

From the experience of the last three years, it is only necessary to look forward one or two years to see the need for a much larger building than what is now used to accommodate the exhibits. It is only two years ago since considerable space was occupied by stock from the College Farm, which was auctioned off during the last day of the show. This year, not only was the entire space well filled with fat stock, but all the space that remained was too cramped to accommodate even the small number of visitors present. It is a source for regret when the most important day of a show knows not even an hour of fair weather; but had Wednesday, the 12th inst., been fine, spectators would have had no place for standing, unless in the galleries.

The breeders' meetings passed off most successfully. At the Agricultural and Arts Board meeting arrangements were begun with regard to the Spring Stallion Show in Toronto. An effort will be made to popularize it in the direction of a suggestion thrown out in the last issue of the *ADVOCATE*. The initial steps were also taken leading toward the establishment of a show of dairy cattle, products and appliances, in Eastern Ontario, to be an equivalent to the East of the Fat Stock Show in the West.

On Wednesday evening the stockmen and distinguished visitors were royally entertained at a banquet at the Western Hotel. The City of Guelph received a great deal of well-merited praise upon this occasion, for the efforts put forth in order to make this great annual event successful.

A complete report of the show and various association meetings held will appear in our next issue.

We take pleasure in directing the attention of our readers to the extended report which appears on pages 498 and 499 in this issue, of the Ontario Fruit-Growers' Association meeting. In every way it was a most successful gathering, upon which the indefatigable Secretary, Mr. L. Woolverton, of Grimsby, and the directorate, are to be heartily congratulated.

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- 1. The Farmer's Advocate is published on the first and fifteenth of each month. It is impartial and independent of all cliques or parties...

THE FARMER'S ADVOCATE OF THE WILLIAM WELD CO., LONDON, ONTARIO, CANADA.

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Our Illustration.

The question is often asked, "Is the typical Shorthorn of the present day superior to the best of thirty or forty years ago?"

The "Queen of the May" was bred by her exhibitor, Mr. Booth; calved November 5th, 1854; sired by Crown Prince (10087); dam (Red Rose), by Harbinger (10297), etc., tracing back to Suworow (636).

British Columbia.

The Royal Agricultural and Industrial Society held one of their most successful exhibitions on October 9th to 12th. The entries were in excess of previous years, and numbered about 4,000.

The poultry shown were of good quality, and in numbers sufficient to manifest the interest taken in this industry. Ample room was provided, and had the exhibits been arranged properly, much better results would have been possible.

The display made by Mr. Sharp, superintendent of the farm at Agassiz, was one of much interest, and which, together with a report of the farm, will be mentioned in a future issue.

The horse exhibit was somewhat limited in numbers, although some good individuals were shown. On the whole, the interest which generally characterizes this important part of exhibitions was lacking.

C. Wells & Son, of Chilliwack, who were also the most successful exhibitors of Ayrshires. Thos. Shannon, of Surrey, and Isaac Kipp, of Chilliwack, also competing successfully the latter breed.

The sheep, speaking generally, were not in show shape. In Southdowns, J. T. Wilkinson's flock obtained nearly all the awards.

Not many pigs were shown, the Berkshires being most numerous, and having among them some good representatives of the breed, Black Jim, No. 2778—bred by Robert Marsh & Sons, Richmond Hill, Ont., and owned by Thos. Shannon, Cloverdale, carrying off the silver cup for best boar, any breed, competing with much older animals.

(TO BE CONTINUED.)

The People's Paper.

The readers of the FARMER'S ADVOCATE thoroughly appreciate quality. This has been clearly proven, to our minds, by the hundreds of letters received telling how much value and confidence is placed in its contents.

PLEASED WITH RECENT IMPROVEMENTS.

I have been a subscriber and constant reader of the ADVOCATE since its first publication by the late Wm. Weld, and I have watched its progress and steady improvement from year to year, until it now occupies the proud position of standing in the front rank among the agricultural publications upon the American Continent.

BETTER LATE THAN NEVER.

I think your paper is first-class in every respect. I am sorry I did not take it before.

DELIGHTED WITH COLUMBIAN VICTORS.

I received the picture, "Canada's Columbian Victors," on Tuesday last. Please accept my heartiest thanks for same. I think it is the best picture of cattle I ever saw.

SEVEN YEARS' EXPERIENCE.

We have now taken the FARMER'S ADVOCATE for seven years, and consider it the best agricultural journal in America.

MAINTAINS ITS HIGH STANDARD.

I am much pleased that the ADVOCATE is still keeping up its high standard.

APPRECIATED IN THE MARITIME PROVINCES.

Your paper is much appreciated, especially on the cheese and dairy questions.

A GOOD WATCH.

The watch which you sent me for getting subscribers has given entire satisfaction, being an excellent time-keeper. I will try and get you some more subscribers.

PLEASED WITH THE RING.

I am very well pleased with the ring received last year. My wife has worn it ever since, and it looks as well as ever.

PEOPLE'S PAPER.

I think a lot of the ADVOCATE, and could not very well keep house without it. It ought to be found in every farm house, from ocean to ocean.

SAVED HIM MANY DOLLARS.

Enclosed please find \$1.00, price of ADVOCATE for one year. My subscription was out some time ago, but money was hard to get, and it is only because I think so much of the ADVOCATE that makes me renew just now.

TESTIMONY FROM BRITISH COLUMBIA.

I must say that I take the greatest satisfaction out of your paper, and as long as I continue to have any connection with agriculture, shall never be without it.

HELPED HIM AND WILL HELP OTHERS.

Accept my best thanks for engraving of the prize-winning Ayrshires. It is very pretty. Also for the peck of oats forwarded me some time ago. I will send in a new name to the ADVOCATE every chance I get.

WORTH ANY TWO OTHER PAPERS.

Kindly forward the FARMER'S ADVOCATE to H. C. Lyle, Edmonton. I enclose \$1 for subscription. It gives me great pleasure to recommend your paper, as I consider it worth any two other papers that I know of.

Institute Dates.

Table with 2 columns: Location and Date. Includes entries for Lancaster, Glenora, Vankleek Hill, Prescott, Maxville, Glengarry, etc.

The balance of list appears on page 500.

The Need of a Dairy Superintendent for Manitoba.

Ten years ago, any one venturing the opinion that No. 1 Manitoba Hard wheat would sell for less than 40 cents per bushel in 1894, would have been regarded as an object of pity, but now it goes without argument that if Manitoba agriculture is to be a success, the farmer must produce other products for export as well as wheat. We cannot hope to compete against the cheap water transportation, and cheaper domestic labour of Russia, India and Argentina, except in a limited way, trading upon the extra quality of our wheat for "mixing" purposes.

Just what these other products will be is the question now occupying the mind of the average Manitoban.

Prof. Robertson recently expressed the opinion, on a public platform, that within ten years a substantial revenue would be derived from the production of sunflower oil. At the present time, flax looks as though it might enjoy, in the Prairie Province, the privilege of being a profitable substitute, in part, at least, for wheat. In the minds of a few, two-rowed barley for the English brewer holds out brilliant prospects, while there are not lacking those whose faith in beef, mutton, and even horses, has as strong a hold on them as ever.

But whatever the chief export products will be, certain it is that those products requiring the greatest skill in their production will meet with the least competition. No product of the farm requires so great skill in its production as butter and cheese of high quality; besides, the greatest value is condensed into the least bulk, costing the producer the least proportionate freight. These products rob the soil of the least amount of fertility, and in these products the cheap labor of Russia, India and Argentina can never compete.

Hand in hand with dairying goes the production of pork, which, if of a good enough quality to reach the best English market, appears capable of almost unlimited expansion.

That many parts of Manitoba are well adapted to dairying is now admitted, especially those districts where good water and pasture abound, and such eminently practical men as James Elder and S. A. Bedford hold the opinion that even those districts where pasture and hay is limited, can be successfully converted into dairy districts by the cultivation of corn and other fodders.

While inestimable good has resulted from the work of the local and Dominion travelling dairies, yet they have only whetted our appetites, and we venture to say that, were the same routes traversed again next season, the attendance at meetings would be doubled.

Now, while Prof. Robertson will doubtless do a great deal for the advancement of Manitoba dairy interests, it appears to us that a man living right in the Province, whose whole time would be exclusively devoted to this work, could do even more than it is possible for Prof. Robertson to accomplish.

At the convention of the Manitoba Central Farmers' Institute, the following resolution was carried, on motion of W. B. Underhill, of Melita:

"That, inasmuch as a very great interest is being developed, through our travelling dairies, among the farming communities of our Province, and a strong desire exists for very much further development on these lines, and we feel that this time is now opportune; therefore, be it resolved, that this Institute strongly impress upon the Honorable the Minister of Agriculture, his very careful consideration of the practicability of securing permanently for such work, a first-class, all-round dairy expert, who would not only be competent to instruct in the manufacture of dairy products, but who could, by practical experience, assist our farmers in building up a system of co-operative dairying."

The intention of this resolution, as we read it, is to have a DAIRY SUPERINTENDENT appointed for the Province, whose duty it would be to direct and supervise any and all work undertaken by the local Government for the encouragement of the dairy industry; to assist in the formation of joint stock companies to carry on co-operative factories in districts where there was a reasonable assurance of such factories being a success, and through travelling dairies in summer and Farmers' Institutes in winter, assist the farmers' wives in improving the quality of home dairy butter, which in many districts will have to be the stand-by for some time yet, and to assist in every possible way the building up of this industry upon a substantial foundation.

To be of any real service, this man would have to be thoroughly practicable, a master of the science of modern butter and cheesemaking, including a thorough knowledge of all the machinery and appliances used in factories and in home dairies, as well as being able to address meetings and attend to the other duties that would come under his division of the Department of Agriculture. Such men can be got in the East; men trained at the Ontario Agricultural College, or under Prof. Robertson.

The only question there can be about such an appointment would be the expense. Yes, there would be expense, but if anyone can tell us how the Manitoba Provincial Government can invest a very small portion of the money withdrawn from the Immigration Department, to better advantage in the interest of the farmers, and eventually in the interests of immigration, we should like to hear from him.

STOCK.

Chatty Stock Letter from the States.

Receipts of cattle, hogs and sheep at the four principal western markets for the first eleven months of 1894, with comparisons:

Eleven Months.	Cattle.	Hogs.	Sheep.
Chicago	2,758,533	6,748,146	2,819,754
Kansas City	1,569,112	2,330,934	544,890
Omaha	762,463	1,799,025	228,986
St. Louis	610,032	1,033,263	269,662
Eleven months, 1894	5,700,145	11,916,068	3,863,292
Eleven months, 1893	5,915,307	9,209,671	3,896,723
Eleven months, 1892	5,924,964	11,447,323	2,854,615
Eleven months, 1891	5,293,278	11,377,450	2,863,243

Combined receipts of hogs at Chicago, Kansas City, Omaha, and St. Louis, last month, 1,529,745, against 836,471 a year ago, and 1,554,427 three years ago. While the receipts at the four markets thus far this year are the largest on record, the total for the twelve months will fall at least 500,000 short of receipts for 1891, when the four markets received 14,200,000.

ELEVEN MONTHS' MOVEMENTS AT CHICAGO.

Receipts.	Cattle.	Hogs.	Sheep.
Total, 1894	2,758,533	6,748,146	2,819,754
Total, 1893	2,908,049	5,431,244	2,801,747
Total, 1892	3,282,476	7,049,796	1,967,142
Shipments—			
Total, 1894	882,921	2,291,505	297,005
Total, 1893	832,374	1,946,972	430,856
Total, 1892	1,023,277	2,707,811	455,249

Actual receipts of hogs at Chicago last month, 936,896, the largest since January, 1892, when 977,334 were received. Average weight of hogs for November, 235 lbs., against 232 lbs. for October, 262 lbs. for November, 1893, and 235 lbs. for November, 1892.

The first eleven months of 1894, Chicago received 12,461 more cars of stock than arrived the corresponding period of 1893, or a total of 263,380, being nearly 21,000 per month.

W. H. Renick, of Austerlitz, Ky., who was a prominent exhibitor at the Fat Stock Show, had 9 head of 1,420-lb. Shorthorn cattle sold to Swift at \$6.50, with one 1,150-lb. heifer at \$5.50. Other cattle exhibited at the show sold as follows:—J. Burr & Son, Davenport, Iowa, 1 Shorthorn, 1,680 lbs., \$6.50; H. J. Fluck, Goodenow, Ill., Hereford steer, 1,860 lbs., \$6.50; Adams Earl, Lafayette, Ind., Herefords, onesteer, 1,580 lbs., one 2,100 lbs., one 1,600 lbs., one 1,230 lbs., all at \$6.37; 1 calf, 810 lbs., \$5; B. R. Pierce, Creston, Ill., 2 Angus steers, 1,420 and 1,460 lbs., at \$6.50; W. S. Niles, Wyoming, Iowa, 1 Angus, 1,390 lbs., \$6.25; John Hudson, Moweaqua, Ill., 2 Devons, 1,170 and 1,280 lbs., at \$6; A. E. Baker, Beaver Dam, Wis., 2 Angus, 1,350 and 1,500 lbs., at \$5.50 and \$6.

R. J. Stone, of Stonington, Ill., and G. Brick, of Paw Paw, Mich., had some fancy show sheep and lambs on the market this week. Mr. Stone's sheep averaged 174 lbs., at \$1.25; and lambs, 96 lbs., at \$1.50. Mr. Brick's sheep weighed 144 lbs., and brought \$1.25; lambs, 85 lbs., and sold for \$1.50.

A carload of extra fine Polled Angus steers, 14 head, as fine as any of the cattle exhibited at the Fat Stock Show, sold on the Chicago market to a New York butcher for fine holiday trade at \$6.60, being the highest of the year, and within 15c. per 100 lbs. of the top last year. The lot averages 1,714 lbs.

Nearly 400,000 Western range cattle were received at Chicago this year, and over half, or 236,655, were "Montanas." Dakota followed next in point of numbers. Receipts of Westerns were the largest on record.

A public sale of Polled Angus cattle, owned by J. P. Hine, was held at the Stock Yards last week. Bulls sold at \$30 to \$125 per head, and cows and heifers at \$25 to \$100, bulk around \$50.

All the Eastern and Western markets have been glutted for some time past with pigs and unmatured hogs, which are a drag on the market, depressing prices for the better grades. A year ago Eastern dealers were compelled to come West for supplies, but this season they have too many in their own territory.

Wednesday, Dec. 6, Armour & Co. purchased 8,500 hogs, averaging 250 lbs., that cost \$4.49 per 100 lbs., the lowest of the year, and, in fact, since May, 1892.

A well-known speculator, speaking of the situation in the hog business, says:—Receipts this month will be as large as last month, but provisions should be bought. This corn crop, the necessities considered, is the shortest ever raised, and it is natural enough the hogs should be marketed as quickly as possible. But there is certain to be a scarcity of both corn and hogs next spring.

Feed at regular intervals, changing the food occasionally and cautiously.

It is easy to stunt a growing animal, but by no means easy to undo the evil. Bear this in mind. Save the stable manure, and bear in mind that the liquid part of it is the most valuable. Enough is frequently wasted to pay a harvest hand.

Our Scottish Letter.

It is characteristic of the pluck and energy of Scottish farmers that, although the demand for horses has seldom been worse than at the present time, they are, if possible, more active than their wont in hiring good animals for service during the ensuing season of 1895. The extraordinary collapse in the foreign demand cannot be better illustrated than by the simple fact that while in 1890 no less than 1,500 pedigreed animals were passed through the books of the Clydesdale Horse Society, during the year now closing the whole number reported for exportation does not exceed a score. This remarkable shrinkage tells its own tale, and the home trade would be sufficiently affected by it were other causes absent. The tables, however, have been completely turned. Not only has the export decreased as indicated, but we are now importing almost as many horses as five years ago we exported. Sales of Canadian horses have been held in Glasgow for several months now, and while the heaviest class of draught horses are not over numerous, the supply of the lighter draught and heavier express horses interferes seriously in bad times with the demand for the second-class of home-bred animals. Realizing the changed aspect of affairs, breeding societies are keeping the heavy draught market in view when making their selections. Close upon thirty horses are under hire at the time of writing (24th November), and the highest terms have been paid, as in former years, by the Rhins of Galloway farmers, who, determined to lead, have engaged the veteran MacGregor 1487 at ten guineas (£10.10s.) per mare—foal or no foal. Both of the neighboring districts in the same county, Newton Stewart and Port Williams, have made choice of "crack" animals. The former has secured the celebrated champion horse, Prince of Carruchan 8151, the Cawdor cup winner of the year, and unique in this respect that he has never won a second prize ticket. He was first, at the H. and A. S., Dundee, 1880, when first seen in public; first in the following year and champion at the H. and A. S., Stirling; first in 1893 and champion at the H. and A. S. Show at Edinburgh, and first and winner of the Cawdor challenge cup at the Scottish Stallion Show in spring, 1894. He has been in Forfarshire for four seasons in succession, and now changes into Wigtownshire. Gradually he is working his way to the front as a breeding horse, and this season he stands in the first six sires of the Clydesdale world. The Port William Society have selected the best known two-year-old of the season, Royal Gartly 9844, which had an unbroken career of success until the H. and A. S., at Aberdeen this year, when he was placed second to the MacEachran. He is the highest priced colt of the season, and is now the property of Messrs. P. & W. Crawford, Dumfries, who also own Prince of Carruchan. Besides MacGregor, Mr. Andrew Montgomery, or his brother, Mr. William, has hired the MacKerrall 9304 for a second time to Kelso district; the McVinnie 9318 to the Lower Strathearn district, and the MacAndrew for a second term to the Strathard and Scone district, also in Perthshire. These three horses are sons of MacGregor. To the Kirkcubright district, for a second term, the Messrs. Montgomery have hired the H. and A. S. champion, Baron's Pride 9122, a son of Sir Leonard; and to the Lockerbie district, the fine, strong, solid horse Belvidere 9138, which was first at the H. and A. S., Inverness, in 1892, and was the Stirling premium horse in 1893.

All of these horses are solid, massive animals, quite different from the half Hackney type, which sometimes has been fancied by show judges. And yet, in respect of show points these horses are quite able to hold their own, and have greatly distinguished themselves. A good many stallions are still on the road, got by Prince of Wales 673. To one, reference has already been made. The others already under hire are Mr. Lockhart's fine horses, Mains of Airies, and Handsome Prince, both of which go to Forfarshire. They are full brothers, their dam being the magnificent mare, Pandora, by Darnley 222. The former succeeds Prince of Carruchan, in the Strathmore district. Mr. Renwick's celebrated Prince Alexander 8899, for another season has been secured to serve in Gervain and Ayr district, on very handsome terms. He, too, is promising well as a breeding sire, and is rapidly coming to the front in that respect. The Cawdor Cup horse, Prince of Kyle 7155, owned by Mr. Kirkpatrick, has been hired for service in the Kippen-davie stud. He, too, is guaranteed liberal terms, and is breeding well. A strong, big horse, Crown and Feather 8539, goes from the Eastfield stud to the Carse of Gowrie, in Perthshire, and Prince of Scotland 8926, from the Banks stud, goes to Central Banffshire. Mr. Marshall's Prince of Garthland 9828, second aged horse at the H. and A. S., Aberdeen, this year goes to Dumbartonshire. Altogether, eight sons of Prince of Wales are this year under hire. Amongst the other engagements are Lord Colum Edmund 9280, to West Lothian; Prince of Fortune 9826, to Central Aberdeenshire; Gold Mine 9540, to Stirling; his sire, Goldfinder 6807, to Dumfries; Top Knot 6360, to Biggar and Peebles; Prince of Erskine 9647, to Turriff, in Banffshire; Brooklyn 6547, to Cupar and the north of Fyfe; a very good young horse by Prince Robert 7153; a Gervain and Ballantrae; the splendid young horse, the Royal Standard, to the Lower district of Renfrewshire, and the choicely bred horse Vanora's Prince 9461, to Kilmarnock. One-third of all the horses engaged are out of Darnley mares, and only one is out of a Prince of Wales mare. It is hardly possible for Canadian readers to appreciate the character of

these horses from the few notes given, but they will at least know something of the blood which still is telling, even when heavy, big horses for the lorries are being aimed at.

I had purposed saying something in this note about the good trade experienced in sheep this fall, but perhaps enough has been written on that subject in former letters. We are now looking forward to the great fat stock shows. The first is over. It took place at Norwich, and the Queen's Hereford ox was placed champion.

SCOTLAND YET.

A Reminiscence.

Accept my thanks for the interest taken in my friend, Amos Cruickshank. I read late copies of the *ADVOCATE* with great interest, for there is no man I respect more. What you have said was not too much and just enough. Worthy and straightforward, I respect no man more. I have had a great many transactions with him, and after receiving the last importation, I wrote asking him if everything was satisfactory, as it was likely to be our last deal. He replied as follows: "I am quite satisfied with the statement, and, taking a retrospective view of our transactions for so many years—and they have been very extensive—it seems marvellous that things have gone on so smoothly; not a jar on either side. It is cause for thankfulness, and I don't want our correspondence to drop."

The first cattle I imported was in 1871: five heifers, all in calf. Was disappointed in getting one. After their passage was made, a cousin of mine bought Matchless 16th from Mr. Cruickshank. He let me have her. She was a shabby little beast, and some of the others cost three times as much, but it

Feeding Young Stock.

It is a mistake to run the heifer and steer calves together, giving them the same feed and treatment. One class should be cared for with one object in view, while the other will have an entirely different function to perform. Steer calves should be fed so as to obtain the greatest amount of growth and flesh at the earliest possible age, without sacrificing vigor. The heifer should be fed so as to give her a good sturdy growth without fattening. It is a confirmed fact that over-fattening in a calf materially lessens milk secretion, by closing to some extent the lacteal ducts. Therefore the folly of such a course is evident, as fat cannot be produced without rich food, and when it is produced the result is injurious to the animal as a money-maker. Now, as to the difference in feeding heifer and steer calves. The latter should make very satisfactory growth on ensilage or roots, hay and grain, all they can eat up cleanly. The grain: peas, barley and oats, equal quantities, ground finely and fed with ensilage or pulped roots, will produce rapid growth with a good deal of flesh. The heifers' grain food, which should not be more than half the quantity fed the steers, should be largely oats, although a little oil-cake or ground wheat may be added with good effect. The object should be to get all the growth possible, with plenty of muscle, and as little fat as can be produced.

Is is the tendency of the day to have heifers come into milk from eighteen to twenty-four months old, but a serious blunder may be made just here, by breeding a small, delicate heifer too young, and thus start a line of stock susceptible to disease. There is, perhaps, a more common mistake made by too conservative breeders allowing their heifers to run idle till they are thirty months to

System of Management in Breeding Studs of Draught Horses in Scotland.

[Compiled from a paper prepared by Archibald MacNeilage, Secretary of the Clydesdale Horse Society.]

Continued from page 471.

The second class of mares—those kept both for work and breeding—is, it may well be supposed, in Scotland much more numerous than the last under notice, and considerable diversity prevails in the treatment of these mares. On one point there is, however, absolute unanimity amongst breeders, viz., that mares in foal should be carefully worked in cart-yoke, at all times; should not be "backed," and for two or three months before foaling should only be worked in plough, and more and more leisurely and carefully as the foaling time draws near. At the same time there is equally general agreement amongst breeders that mares thus carefully handled have usually the easiest foaling time, and the strongest, most thriving and healthy foals. All this is perfectly intelligible, and in accordance with nature. The natural state of the draught horse is one of labor; and while the class of mares first considered cannot be said to lead an unnatural existence, there can be little doubt that the third class—mares for exhibition—undoubtedly do so.

In the Linkwood stud, the ordinary rations for work-mares in foal are 168 pounds bruised oats to the pair per week, with a small allowance of Swedish turnips, and hay *ad libitum*. A small proportion of Epsom salts, about 2 oz. each, is given occasionally on a Saturday night, and in Aberdeenshire it is customary, about a month before foaling, to give more laxative food, such as bran and linseed, than at an earlier date. The Earl of Strathmore has a stud of



THREE TYPICAL SHROPSHIRE SHEEP.

was not long until she could compare favorably with any of them. The first calf she had was by Imported Statesman (32607), a bull I bought of the late Mr. George Isaac. I sold her to a gentleman in Iowa for \$500.00 in gold when fifteen months old, and she would have been a good investment at four times the money. Her descendants have been prize winners in Canada and the United States. I merely mention this, as some think the man that pays the most money gets the best beast, which is not always the case. Mr. Cruickshank's cattle were all bred as represented, which no doubt was the cause of his success, coupled with his good judgment in selecting the right sort of animals, which I think few will be disposed to dispute at this time. My transactions with Mr. Cruickshank extended from 1871 to 1886, when the pleuro-pneumonia broke out at the quarantine, Quebec, and were then terminated, as I did not feel inclined to take any risk. It was always a pleasure to do business with Mr. Cruickshank. When he concluded to dispose of his herd, he made me the first offer of them, and I had no difficulty in getting a company up to buy what portion of the herd was suitable to come to Canada and the United States. Perhaps 120 cattle would have come had the arrangement been carried out. There were ten of us in it, and when the time came, some changed their minds, so I cabled Mr. Cruickshank to that effect, which was better for him, as he sold them more advantageously afterwards.

In the *ADVOCATE* of Nov. 15th you gave a true sketch of him, and of the Duke of York shaking hands with him. I can safely say he never shook hands with a better man than Mr. Cruickshank.

Yours truly,
JAS. I. DAVIDSON, Balsam, Ont.

three years old, when the milking function will be very much weakened. This latter mistake is often made by men who have been previously engaged in beef raising, and have changed to dairying.

J. A. S. Macmillan's Shropshire Sheep.

The extra illustration appearing in this issue represents three individual members of one of the leading flocks of Shropshire sheep in England, from which Mr. Macmillan, Brandon, Man., made a draught of ewes for his first importation, when founding his well-known flock of this popular breed.

Of Mr. J. A. S. Macmillan's flock, 200 ewes and three rams were imported in September, 1882. These rams were purchased from Mrs. Barres, of Odstone Hall, Warwickshire, England, and the ewes from such well-known breeders as Mansell, Harrington Hall, Shropshire, W. F. Ing, Thorpehall, Tamworth, etc., etc. No trouble or expense was spared in their selection, and that the flock has not deteriorated since their change of home, Mr. Macmillan's success at the Provincial Summer Fair amply demonstrates.

Last spring, a new importation was made of three rams from Mrs. Barres' flock, one two-shear ram and two shearlings, for use in his own flock. At Winnipeg the two shearlings took first and second in their class, and the two-shear easily first over all competitors. One of the rams in the first mentioned importation was beaten by this noble animal only.

fourteen breeding mares, all of which are wrought at ordinary farm labor, and treated, up to the time of foaling, as already indicated. After foaling, and while nursing, they are hand-fed at first with mash and soft food, and later on, as harvest approaches, with oats. I do not think it is general to hand-feed mares while nursing, but the course followed in Mr. Morton Campbell's stud, of giving such mares a feed of oats night and morning, if in low condition, is probably not exceptional. Mr. Bisset, the able farm manager at Balbirnie, is strongly in favor of a bite of good grass as the most favorable food for mares, immediately before and after foaling. Mares that foal early and have little nourishment for their offspring, are generally fed on sloppy food, consisting of boiled barley, oats, turnips and cut hay, mixed with some meal. Bran is considered specially valuable for this purpose, and can never be dispensed with. The quantity recommended by Mr. Lumsden is as follows: One lb. oats, 1/2 lb. barley, 1 lb. bran, 1 lb. bruised oats and 1 lb. cut hay and straw, with a few turnips and a little salt and treacle, three times a day.

There are, however, mares whose milk is alike plentiful and strong, causing diarrhoea in the young foal. This is an evil to be guarded against, and it is found useful in such a case to put the mare on dry food and straw fodder, and if at grass, she is put on the oldest, where it is least succulent, and sometimes it might be advisable to drain off some of the milk by hand. These cases are, however, comparatively rare, and exceptional treatment of this kind is therefore not much called for.

These particulars give a good general description of the treatment of mares in this class all round; but there are some phases of the question which

have not been touched on, and no apology is needed for a somewhat detailed account of the management of a Kirkcudbright stud, which has an enviable record for its success in rearing foals. Mr. Houston, Overlaw, has a stud of seven breeding mares, all of which do their full share of farm work, and are not exempted from labor for an hour, until they come to the foaling. For feeding during pregnancy they get bruised oats and linseed cake, with Swedish turnips and fodder in abundance. A little boiled food seasoned with "horse powder" is given to each mare twice a week. Mares, while nursing, are not hand-fed, but after a mare has again been stunted, she may get a proportion of bruised oats and linseed cake, both for her own sake and the foal she is nursing, as well as to strengthen the future offspring. One remarkable feature in the mares in this stud is that they are not infrequently spoken of as being too fat, and in spring, when the foaling season is coming near, breeders of experience have often had misgivings as to the foaling results amongst the Overlaw mares. The issue, however, has invariably belied these gloomy forebodings, as there is probably no collection of mares of a similar class in Scotland that have bred so regularly, and with so small a percentage of deaths. In the six years, 1885-90, inclusive, 34 mares have been served by the horse, and of these 29 proved in foal, bringing forth live, thrifty progeny in nearly every case, several of which lived to be prominent prize-winners.

The lesson to be learned from the results in this stud would seem to be that, given steady, cautious work and careful handling, breeding mares are all the better off to be liberally fed. A state of body verging on that produced by "high" feeding is rather beneficial to the breeding mare than otherwise, when her whole frame is in a state of training from regular work.

In a stud of sixteen mares owned by Mr. Chapman, in Berkshire, England, all of them that are in foal are regularly wrought until within a fortnight of the foaling date; but for a month previous to that they get the lightest part of the work, and are never allowed to be put between shafts from the moment they are seen to be in foal. After foaling, they are fed with chaff, bran, and a few oats, until the foals are strong enough to be out. The reason of this is, of course, that the foaling season is much earlier in England than in Scotland, and hence, no doubt, in some measure, the earlier maturity of English-bred horses. An intelligent American, who buys largely, has expressed the opinion that, while the yearlings and two-year-olds in England are bigger and heavier than horses of the same age in Scotland, the difference is almost entirely removed amongst three-year-olds and aged horses, and there can be no doubt that Scotch horses, in general, grow at least until they are six years old.

(TO BE CONTINUED.)

FARM.

Soil Exhaustion and the Restoration of Fertility.

BY JAMES MILLER.

The want of knowledge of the character and the office of the soil, is the greatest farming blunder of the present time. It is not understood. At a Farmers' Institute meeting, one speaker expressed his erroneous idea somewhat as follows: "Professors come here and tell us that continual cropping, without returning an equivalent, will exhaust the soil, but I say there is no truth in that assertion. Look at the large trees of the forest, how they have grown in their present position for centuries, and they are to-day as luxuriant as ever." Which is very true. But allow an explanation. Through lack of knowledge, this man did not understand that about 95 to 99 per cent. of the growth, from year to year, was supplied by the organic substances of the atmosphere, either through the leaves or the roots, and when those giant trees shed their verdent coats every fall, it only added an abundant increase to the organic matter of the soil, and the land became richer and richer all the time by the increased supply captured from the atmosphere. But the case would have been different had the leaf mould been raked carefully off from year to year.

All kinds of farm crops and plants in general are composed chiefly of 4 organic and 8 inorganic substances. At any rate, these are all that are of importance to the farmer. If the land be deficient in any of these, it is not a fertile soil. These are supplied by our Creator in abundance, and it appears that He has left it to the agency of man to supply the increased demand required and make them available, still true to His word "that man should earn his bread by the sweat of his brow." Suffice it to say that all the substances to be supplied by man are contained in our barnyard manure, which should be as carefully handled and dealt with as a very precious asset, which is not done, generally, and we are safe in saying that farmers have lost in ten years more value through their manure being badly managed, than would pay off the largest farm mortgage. Still, people will complain of hard times on account of bad crops and low prices.

This brings to mind a story I read the other day: "A preacher was called upon to pray for the barren fields of his flock. He passed from one enclosure to another, and offered his supplications, until he came to a most unpromising case. He surveyed the barren acres in despair. 'Ah,' said he; 'brethren, no use to pray here; this needs manure.'" So it is that God helps those who help themselves.

To sum up in one sentence all that has been said: Nature does not provide a sufficient yearly supply of plant food to replace that which is carried off in the shape of farm crops, and to supply that deficiency, artificial means must be resorted to.

This brings me to the second question to be answered, "What will restore the soil?" We must enumerate one or two of the different agents to be employed, very briefly. To do otherwise would occupy a large volume.

The object of cultivating land is to obtain a heavy yield of farm crops, and the more successful the cultivation, the more quickly will the store of fertility in the soil be reduced. Great quantities of produce, secured by thorough tillage, hasten the poverty of the land, and while the rotation of crops allow time for the elements to act upon the soil, converting dormant into active matter, the fertility is merely lengthened, and does not prevent its ultimate exhaustion. To secure permanent productivity manuring is necessary, and this process should not be delayed until the soil has become impoverished, or the store of plant food becomes reduced below that level at which it will produce remunerative crops. When Canada was new, and the virgin soil produced in abundance, farmers seldom took any trouble to preserve and apply the manure made by their stock. And even up to the present time a great many do not use the manure upon their land.

Soils are rich because they contain a large amount of valuable plant food, that is, soluble substances which the plant can take up through its roots and utilize to advantage. This available plant food may be divided into two classes: that which decaying plants furnish, and that which is annually produced by the decay or rotting of the mineral matter of the soil itself. To the first we give the name of organics, and this includes oxygen, hydrogen, nitrogen and carbon, and to the second, inorganics, or mineral matter, comprising potash, soda, lime, magnesia, sulphuric acid, phosphoric acid, chlorine and silica. Plants contain other substances than the above, but only in very minute quantities, and these are all that the farmer requires to understand for successful operations, and to know how to make the above elements available as plant food is of the greatest importance, as we must, for the greater part, depend on the easily available plant food in the soil for that part of a plant substance which gives it the power to make use of and store up the greater amount of material taken indirectly or directly from the air, as carbon, in the form of carbonic acid and nitrogen or nitric acid. So that constant cropping with wheat removes most of this easily-dissolved plant food, and requires that future crops gather most of their food sparingly from that which is locked up and difficult to bring into a soluble form. The conclusion come to is that we should return to the soil, in manure and fertilizers, enough of this available plant food, or that easily decomposed, to keep the quality of available fertility up to the original standard when the land was first broken up. If large crops be grown, and nearly all their fertilizing substance be returned in the form of manures, the land can gradually be increased in strength, since the accumulation in the soil from decomposition, and that gathered from the atmosphere, will more than equal the amount taken out in the form of beef, butter, etc. While making it into manure, animals of all kinds live upon and make the farmer money out of the excess of fertilizing elements the soil can manufacture, without exhausting itself, while wheat-growing takes the excess, or interest, and also reduces the regular stock, or principal. The production of live stock enables or compels the farmer to have a greater diversity of crops. Pastures and meadows are necessary, so also other fodder crops. These cheap, rough foods, in turn require that rich grain foods be used to balance them up, to make proper rations for stock. The rough fodders give to the manure bulk and humus-forming materials, together with the large amounts of other fertile elements, and the richer foods make of the properly managed manure heap a store of wealth. No country was ever robbed of its wealth so rapidly as Canada.

(TO BE CONTINUED.)

"A good, enterprising dairy farmer is a blessing to his neighborhood, if he is a generous, public-spirited man. If he is willing to show his neighbors how he has won success, and where he made mistakes, he helps the community about him to earn and save many dollars every year. Too many successful men are selfish and narrow. They seem to think that they would be made poorer if they instructed less fortunate men how to succeed. Then, too, on the other hand, many are jealous of a successful farmer. Go into any farming neighborhood and one will hear the poor farmer sneer at the successful ones. This is little boys' work. No man is better off because his neighbor is poor, nor is any man the poorer because his neighbor is honestly rich. Law-poorer hang together, and hence lawyers are a power in the community. Farmers too often tear each other down, hence they have too little influence. Stand by each other."—Hoard's Dairyman.

The Stable Floor.

The condition of a stable floor has much to do with the purity of the atmosphere and comfort of the attendants, milkers and cows. A cobblestone floor is very objectionable, as it is rarely, if ever, dry. A smooth cement floor, graded to a gutter a foot wide, immediately behind the cows, answers very well. Bricks, if good and well laid, should answer about the same purpose. For the passage or drive-way behind the cattle, we have found a good clay floor perfectly satisfactory. It is graded with a slight fall towards the gutter, which is about one foot wide, and say eight inches deep, immediately behind the cows, sloping up a few inches towards the outer edge. It is made of cement, also, on a good foundation. The gutter is divided from the clay floor by a firm, durable scantling. Whatever the material is, it should be kept as clean as possible. A sprinkling of land plaster after each cleaning gives the stable an appearance and sweetness that cannot be obtained by any other method. It also retains valuable volatile manurial elements, which would otherwise be lost. If the cobwebs are swept down weekly, or once in two weeks, and the whitewash brush used occasionally, the stable will have an attractiveness that will tend to make attendants more interested in their work. By all means discourage the idea that it is simply necessary to put in a regular or an irregular hour or two, three times a day, in a careless, indifferent way, wishing all the time that the work was at an end.

DAIRY.

The Guelph Dairy School.

The prospects for a large attendance at the Ontario Agricultural College Dairy School, which re-opens on January 14th, 1895, are very bright indeed. In fact, more applicants have sought admission than can be accommodated in the regular Dairy Course, which has been extended so as to admit one hundred and twenty students. About fifteen to twenty-five will be admitted in the Home Dairy Course, which is especially planned for farmers' sons and daughters who wish to learn something of running separators, using the Babcock tester and making butter on the farm. There are a few vacancies yet for this course, which, to our mind, commends itself so highly that they should soon be filled.

Full information regarding either course can be obtained by writing Prof. H. H. Dean, B. S. A., Professor of Dairying. Following is the staff of instructors (in addition to Prof. Dean) for the coming term:—

1. CHEESEMAKING—A. T. Bell, Tavistock, Ont.
2. MILK-TESTING—T. B. Millar, London, Ont., Instructor and Inspector for Western Dairymen's Association.
3. CREAM SEPARATORS—Mark Sprague, Ameliasburg, Ont., Instructor for Creameries' Association.
4. BUTTERMAKING—J. B. Muir, Avonbank, ASSISTANT IN BUTTER DEPARTMENT—F. J. Sleight-holm, B. S. A., Instructor with Travelling Dairy for 1894.
5. HOME DAIRY—T. C. Rogers.

Cream.

BY F. J. S.

What is in the cream will be found in the butter. Good butter is only made from good cream, therefore it is not made from cream that is taken from the milk of cows fed on turnips, turnip tops, carrot tops, rape, green rye, mouldy or musty fodders, and like foods. Butter is made out of the foods which the cow eats, and is good or bad, accordingly. The water of cream is the water drunk by the cow, and not the water from your neighbor's well. Cows need all the salt they care to eat each day, if you would make good cream. Do not salt the cows once a week, and then put two ounces of salt to each pound of butter, thus spoiling the product in two ways.

CARELESSNESS AND LACK OF KNOWLEDGE give rise to the chief rocks upon which success founders in the handling of cream. Under the head of carelessness, we would note:

First: leaving cream in cans or pans longer than is necessary, and thus exposing it to possible contamination, unnecessarily. It may be that some do not know that twelve hours for deep cans and twenty-four for shallow pans is quite sufficient for summer setting. Twelve hours should be added to these periods for winter setting.

Secondly: not stirring cream frequently. Uniformity is one of the chief good things requisite in cream. It means more and better butter.

Thirdly: leaving the cream can open, thus allowing the possible introduction of objectionable forms of fermentation. The weight of good opinion prefers a tightly-closed tin can for the keeping and ripening of cream.

Fourthly: keeping cream in improper places—the root or vegetable cellar, beside the soap barrel, the onion chest or the meat bin, in the kitchen or bedroom, for instance.

Fifthly: ripening cream under conditions similar to the above, and raising the temperature of cream by dry heat, as by the kitchen stove, instead of setting it in hot water, stirring constantly, and thus preserving strict uniformity and exactness of temperature throughout the mass.

LACK OF KNOWLEDGE.

First: as regards ripening cream. Cream that is over-soured is a common thing in the dairies of Ontario, a fact which indicates that the ripening of cream is not, in all cases, well understood. A really fine, quick, rich-flavored cream is something to be desired. Cream that ripens for two or three days cannot be used for the production of high-class butter. Twenty-four hours is the ripening limit set by the best authorities. A mild acidity is sufficient.

Secondly: regarding temperatures and their effects. While gathering, preparatory to ripening, cream is best kept sweet, say below 50° F. This is a stage when much cream is spoiled. While ripening cream, avoid very high temperatures, as these tend to make a soft, poor-bodied butter.

Thirdly: lack of knowledge of the effects of non-uniform cream, which may be thus summed up: Less butter, as the thorough churning of the cream depends largely upon the uniformity of fermentation that pervades the mass. A less excellent butter results also, since if cream is not uniformly ripened, the butter will not be of uniform flavor and keeping quality. Specks of toughened cream are sometimes found in butter, because the cream is not frequently stirred, and has not been strained before churning.

Fourthly: pertaining to objectionable flavors. Having churned a goodly number of various kinds of cream the past summer, our experience has shown us that bad flavors in cream always result in more or less difficulty in churning. In some cases the cream will not "break," or, having broken, will not "gather." Generally, there is considerable extra loss of butter-fat in the buttermilk. In such creams we usually require to churn two or three degrees higher than ordinarily. Of course the butter is very inferior.

Fifthly: as to the effects of feed, salt and water. Confining cows to one class of coarse fodder, or to one coarse fodder and one grain food of similar composition and effects, usually results in difficulty with the churning of cream. We have known cases where the cream from cows fed on corn stover solely could not be churned. Timothy hay alone has resulted similar, so has a ration of coarse fodder and ground wheat. Variety of fodder is absolutely essential for the maximum production of high-class cream. Cows that have not salt at pleasure, will produce a flavorless, insipid cream, that will frequently give trouble in churning.

Butter of poor quality and less in quantity will surely result from the churning of cream from cows drinking bad water.

Truly, the cream that makes the broadly-educated, painstaking dairyman draw an inward sigh of satisfaction, is only secured by undeviating attention to every in and out of the work, from the character of the fodder used till the cream is poured into the churn.

[NOTE.—We would be pleased to have the testimony of readers who have been successful in making butter of unexceptionable quality while feeding turnips, rape or the other foods on the list which "F. J. S." proscribes.—ED.]

How Persons of Moderate Means Can Establish a Money-making Dairy Herd.

BY MRS. E. M. JONES, BROCKVILLE

If 2 and 2 make 4, why will not 4 and 4 make 8? I asked myself this question after reading the very extraordinary letter of your correspondent (Mr. Elder), who advises farmers not to keep thoroughbred cattle, but to keep grades. Had this gentleman based his argument upon other grounds, I could have understood it better. To explain: In my little book, "Dairying for Profit," that has had such wonderful success, I have had but one aim and object, and that is to help farmers and their wives (and more especially those who have small means) to double their profits, while at the same time lessening their labor. My book was not written for the rich man, who has means to gratify every caprice—it was written for the "poor man," but more than all, for the poor man's wife; to be a real help to her, so she could get ahead in the world and lay by a little money for herself and children, and get out of debt, and be comfortable and independent. It has been the earnest work of my whole life to help my fellow-women, and my heart is just full when I think of the unceasing stream of letters pouring in upon me, saying how I have helped and encouraged upon me, and thanking me with all their hearts. And them, and thanking me with all their hearts. And long as I live I will be true to the trust they repose in me, and advise them to do just what I would do myself if beginning life again with my own living to earn.

Referring to my book, you will see that I advise them to get a pure-bred male, and grade up their herds, as the first step in the right direction. But here, as the first step in the right direction. I say keep on do I say to stop there? Far from it. I say keep on grading up until you have as near full-bloods as you can get, and the nearer the better. Why do I not advise them to get registered females also at the start? Because I am working for the interest of the poor man, and while the full-blood male sires many calves in a year, a female gives but one. Therefore I say, "Don't put all your eggs in one basket just at first, while you have so few, but go slow. If you take every cent you have to buy a registered Jersey heifer or cow, costing from

\$100 to \$200, of course she will be the best investment—bar accident. But if she gets killed on the railway, or burnt up in your barn, or dies of milk fever, the money loss is too heavy for you just now, till you are in a position to afford it. Be content with the grades at first, but only as a stepping-stone to better. Then, when you have felt your way a little and can do so with prudence, buy a registered female, even if it be only a little calf, but be sure it is good. The worst thing one can own is a poor cow. You can't afford to keep her, and you can't honestly sell her. She can only be made into beef. Better pay a reliable dealer \$100 for a fine butter-bred heifer than take a poor one at \$5. Now you have a pair of registered cattle, and go on increasing the number, both by breeding and purchase, as you are able, till at last the grades are sold and all the herd registered.

The advantages of registered stock are: 1st. As a rule (though not always) they will produce more in the dairy, and of far finer quality, than grades. 2d. Their calves will sell for six times the price of grades. 3d. Good thoroughbreds will seldom fail to give calves as good and better than themselves, while far less dependence can be placed on grades in this matter. 4th. There is a satisfaction in a fine herd of thoroughbred cattle that can only be appreciated by those who have felt it.

The only drawback to them is that in case of accident or death the loss is greater than with common cows, but by not going ahead too fast, and by taking every care and precaution, this risk becomes almost nominal. This is my honest advice. This is the conclusion, after a whole life spent in dairying, and after attaining a reputation and success that are the pride and glory of my life.

But it is quite another thing to say: don't keep thoroughbreds because they are too delicate.

I do not think any statement was ever made that is so erroneous, and so damaging to the best interests of this great agricultural country. If a pure-bred animal is more delicate than a scrub, then a half-bred one is also more delicate, though in a less degree. So why use good blood at all? What is the object? Fortunately for us, the reverse is true. A thoroughbred will not stand abuse and yield a profit under it, but (and on this the whole thing turns) neither will the scrub. Why is it that some farmers so often mourn because they "have to" keep cows, and call them a "necessary evil?" Simply because they starve and abuse them, and get in return a little poorer manure for their land. Believe me, the scrub is not one bit harder than a good, healthy pure blood, and she can run you into debt and eat up the profit of other things just twice as fast, if you only knew it. One reason why I have been enabled to be of some use and help in dairying is this: That my methods are literally those of the farmer. My cows are not petted or pampered, but they are humanely cared for and fed, and they pay me well. I have had farmers and their wives come to see my cattle with hesitation, and say: "Of course we can't keep them like you do, but we thought we would come and see." Then, when I take them to the barn, they are simply amazed! No blankets on the cows; no stove in the barn; no costly fixtures, but everything of the very plainest. Everything to pay. Gradually my visitors expand into delight, and say: "Well, now, this is something like it, and we could do this ourselves," and they feel perfectly at home and happy, and are "so glad they came." This it is that has made my place an object lesson. This it is that has given the whole value to my life work. One word more as to the delicacy of thoroughbred cattle. My famous old cow, Massena, 651 lbs. butter and 8,000 lbs. milk in one year, has lately dropped me a fine heifer calf, and is now giving nearly 40 lbs. milk a day, and yet she will be nineteen years old next March! Who can beat it? Maud Melinda, sixteen years old, gave me a fine heifer last spring, and milked 40 lbs. a day for a long time after calving. Princess, one of my best yet, is thirteen years old, can turn off her 17 lbs. butter a week, and none of these have been dry in years. One thing I am curious to know. If none of us kept stock like this, where is your correspondent going to get his bull to raise grades? As to whether my advice is good, I leave it to the farmers to say, and by their decision I am willing to stand.

A Milk Fever Preventive.

Of all the disorders that invade dairy herds none is more dreaded than milk fever or parturient apoplexy, not only because of its fatality, but for the reason that its victims usually are the more highly developed and valuable cows. As a rule "remedies" are ineffectual. Dairy men and breeders have come to place greater reliance upon preventive measures, such as the exercise of greater care in feeding prior to calving. One course highly recommended is to give for a couple of weeks before calving, one quart of linseed jelly twice a day, mixed with the food, a plan that is said to obviate the giving of physic or putting the cow on a starvation allowance. The mode of preparing linseed jelly is to put the seeds in a vessel with water, and when brought to a boil allow it to simmer for a few hours. On cooling it forms into a jelly, which is mixed with the food as mentioned.

We would be pleased to receive a statement of the testimony of readers who have had experience with this or other simple precautionary ways of feeding.

Dehorning.

In the FARMER'S ADVOCATE for November 15th, in reply to a correspondent, directions were given as to the best time and manner of performing the operation of dehorning. The accompanying illustration from the Australasian indicates the parts involved:—

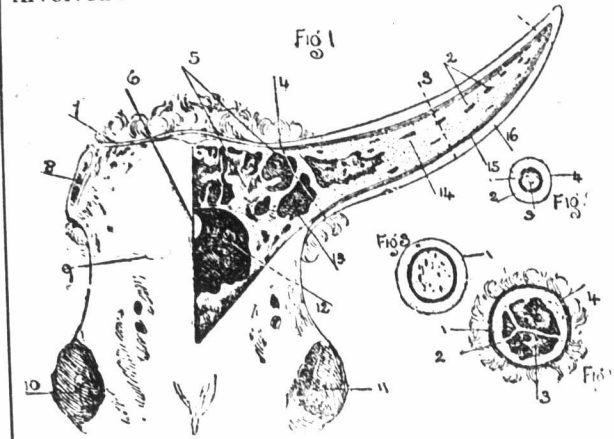


FIG. I.—1. Position for "Tipping." 2. Sections of Blood Vessels. 3. Position for Operation of "Half Horning." 4. Position for Operation of "Dishorning." 5. Plates of Bone. 6. Opening for Exit of Spinal Cord. 7. Skin. 8. Left Horn Removed. 9. Bone of Forehead (Frontal Bone). 10. Left Orbit. 11. Right Orbit. 12. Cavity for Brain (by actual measurement, 2 1/2 in. from Position for Operation of "Dishorning," but differing in different animals). 13. Cavities (Sinuses) of Skull (filled with air and opening into the nasal cavity). 14. Horn Core (an insensitive structure if cut in a normal state of health, but like all bony substance, extremely painful when in an inflamed or diseased condition). 15. Sensitive Layer of Corium corresponding to true Skin. 16. Insensitive Horn.

FIG. II.—1. Horn. 2. Sensitive Layer of Corium. 3. Horn Core. 4. Section obtained by "Tipping."

FIG. III.—1. Section obtained by "Half Horning."

FIG. IV.—1. Skin. 2. Bone. 3. Sinuses or Spaces filled with Air. 4. Section obtained by "Dishorning."

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Veterinary.

AN AILING JERSEY BULL.

J. B. P. Fairmede, Assn.—"I have a pure Jersey bull two years old, very much in-bred. He passes quantities of bloody matter, some days worse than others. It commenced last summer. I noticed it first after covering a cow; he fell and seemed to sprain himself. Sometimes he passes little balls of matter about the size of marbles, at other times it is bloody matter, sometimes clear, other times mixed with dung. He seems healthy; has a splendid appetite, but seems to drink more water than the others."

[The condition of your bull may be the result of the fall he sustained, or it may be due to a catarrhal state of some portion of the alimentary canal. Give a moderate laxative, such as one and a-half pints of raw linseed oil, and after it has operated, give morning and evening in mash for ten days: hypsulphite of soda, one ounce.

W. A. DUNBAR, V. S., Winnipeg.]

WORMS.

SUBSCRIBER, Dunmore:—"I have a half-bred Clyde mare, four years old, badly troubled with worms; they are from one and a-half to four inches long, pointed at the ends, and cling to the rectum very much when excreting. I call them pin worms. Have tried many remedies without success. Can you recommend some powders that I can put in the mare's food, as she is an awkward animal to give medicine to?"

[Give your mare, morning and evening, in mash, for one week: powdered areca nut, four drams; powdered nux vomica, half a dram. Give the following injection, per rectum, three times a week: raw linseed oil, half a pint; turpentine, one ounce; warm water, two quarts. W. A. DUNBAR, V. S.]

Miscellaneous.

CELERY GROWING.

A SUBSCRIBER:—"Can you or some of your ADVOCATE readers give me information on the best method of growing celery. I have heard it stated that the secret of growing good, stalky celery—that is, having a plant with a large number of stalks—is in growing the plant properly while they are small. I have a black muck bed, which is always damp, not wet, and I wish to plant it with celery next summer. I want to grow early celery. Should I make a hot-bed this fall? How should I make it? Does it make the plants more stalky to shear the tops off when they are small?"

"Subscriber's" soil should be equal to the best for celery growing. It is quite true that much depends upon the early life of the plant to insure a successful growth. It is well to sow the seed in boxes about the middle of March or first of April. A box about five inches deep answers very well. The boxes should be filled within an inch of the top with good garden soil. That last put in should be sifted and firmly pressed down. Now, sow the seed

in rows two inches apart and the rows half an inch wide, press the seed lightly with a piece of board the size of the box, then sift a very thin sprinkling of soil over the seed. A springling of dry moss over the box acts as a nice light mulch. Water with a fine sprinkler, and place in a sunny window. When the plants come up, which will be in about two weeks, they should not be allowed too much sun, as there is danger of scorching because of their delicacy at that stage. When the second leaf appears, the boxes should be put in a moderate hot-bed, and as the weather warms, into a cold frame. When the plants get about two inches high they should be pricked out to about two inches apart, so that they can be cultivated with a hand-weeder, or some such implement; keep them well watered till about July 1st, when they will be ready to transplant.

The old idea that celery must have a two or three foot trench has exploded long ago. All that is needed is a trench a foot wide and nine or ten inches deep. Fill in the first four inches with old manure, well dug into the soil at the bottom of the trench; then spread on two or three inches of soil, and the trench is ready for the plants. Now dig holes with the garden trowel, and put the plants in about the same depth as before moving; give them a little water now and again when necessary. As the plants are cultivated and scratched among they should at the same time be banked up by holding the stalks together with one hand, while the earth is being drawn about them with the other. It is no bad plan to tie a soft string loosely around the plant when about half-grown, which will keep the leaves together and expedite the banking-up business considerably. The rows may be four feet apart, or less if the ground is scarce. When the celery is about three-quarters grown place boards close on each side of the rows, and put stakes behind to keep them up. The celery will bleach just as well as if banked up to the tops; all that is required to whiten celery is to exclude the light.

The above outline is the general plan followed by celery growers who have plenty of land and who cultivate with horse-labor. For persons with less land, and who desire to make the most of every foot, what is termed "the new celery culture" has commendable features. By it the soil is prepared by adding plenty of manure and working well. When the season comes for setting out the plants the ground is marked off in rows seven inches apart, and with a dibble or trowel the plants are set out—from three to six inches high—seven inches apart, straight in the rows. If they are half an inch from a straight line, either to the right or left, they are in danger of being cut off by the knives of the wheel-hoe. Press the ground firmly about the roots. If the weather is warm and dry, water well after the plants have been set out, giving the ground a good soaking to keep the plants from wilting.

When the weeds begin to appear run the wheel-hoe through the rows. The knives of an ordinary wheel-hoe are too long, and should be cut off about five inches from the centre of the hoe. After going through one way let the crop stand a day or two before going through the other way. Four or six days afterwards go through again. If this is done frequently very little hand-weeding will be necessary.

When the plants are about half-grown scatter broadcast about 1,200 pounds fertilizer to the acre. Do not do this when the foliage is wet.

Cultivation will now have to cease, on account of the size of the plant. All that is necessary now is to keep the ground well watered and manured with artificial fertilizer. The plants will cover the ground sufficiently to blanch themselves white, and will be tender, crisp and nutty. Now, about the

HOT-BED.

The situation for a hot-bed should be facing the south or south-east, and sheltered from the north and north-west. In land with an open, gravelly sub-soil, in which water will not lie, the bed will be most economically handled in a pit, but if water is liable to gather and lie along with the manure, the bed should be made entirely above ground.

As a material to use for raising heat, there is nothing better than good fresh horse manure, well wetted in the stables. Throw it into a pile in a sunny place or under a shed to heat, and when well warmed up turn it over, shaking it loose and mixing it well, and see that it is all moist. Then pile it up till it again gets hot throughout. In making the bed, throw the hot manure into the pit or build up upon the surface, as the case may be, shaking it up and spreading it evenly as you go along, and tread it down firmly along the sides and corners. The manure should be at least four feet thick when first put up. Now put on the sashes, and keep them tight until the heat again gets strong; cover up with mats, straw or shutters at night, but let the sun shine on the sashes in the day time—it will get up the heat quicker. Now spread on four or five inches of soil, and neither sow nor plant in it till the heat of soil three inches beneath the surface has declined to 100° F. The boxes containing the celery plants may then be set into the earth an inch or so, and all will be well till the time for using the cold frames arrives. There are a few precautions to observe when using the hot-bed. So long as "steam" gathers in the frame, ventilate a little day and night, else the ammonia will burn the plants. Should there be danger of frost entering the ventilators, they may be covered with straw or matting in such a way as to allow the escape of ammonia and still keep out the cold.

Will some of our readers give their experience re-shearing the tops when the plants are small?

POULTRY.

Geese—Breeds, Habits, and Management.

BY E. JOHNSTONE.

In those times elderly people speak of as "the good old days," before the hair mattress had so generally superseded the fourty-pound feather beds, which were family heirlooms and part of every marriageable girl's outfit, nearly every well-regulated family kept a flock of geese. If not made a permanent tenant on the farm, a flock was kept until the stock of beds and pillows on hand satisfied the housekeeper's acquisitiveness. In these days, however, goose culture is in its decadence, and relatively few flocks are kept.

Nevertheless, the fact remains that wherever there is a running stream on a farm, a flock of geese may be kept with profit, if within reach of a good market town. The feathers are always salable for pillows, etc., and manufacturers have a secret process by which plain, plebeian goose feathers are converted into aristocratic eider down, which is used to fill delicate silken cushions and comfortable, and brings a high price. The feathers, from first hands, if of best quality, are usually worth about fifty cents a pound. A Toulouse goose will often yield a half-pound at a picking, while the Christmas goose often costs its consumer a higher price than any other kind of poultry.

There are two leading breeds, the Toulouse and Embden. The Toulouse goose is the largest known, often weighing, when fully matured, from thirty-five to forty pounds per pair, while instances are known where the extraordinary weight of sixty pounds per pair has been attained. The goslings will weigh from four to six pounds when a month old. The plumage of this variety is dark gray on the back, shading to light gray, and almost white below. They are not as noisy as some kind, and are hardy and easy to raise.

The Embdens are not as large as the Toulouse, though attaining good weights, but epicures consider their flesh superior in point of tenderness and delicacy. Their plumage is pure white, and hence their feathers command a higher price in market. They are hardy also, and easily raised. A fine cross for market purposes is obtained by breeding Embden geese to a gander of the Toulouse variety. The result is a fowl larger than either, that takes on flesh rapidly, and is as hardy as its parents. But the cross must stop there. The cross-bred birds must not be kept for breeders, as the result is a great deterioration, exactly as occurs in all classes of live stock under similar circumstances. The goose begins to lay along the last of February or first of March, if well kept through the winter, and will lay from twenty to twenty-five eggs before becoming broody. If the eggs are taken away, she will lay again, but not so great a number. Indeed, she is a prolific goose that lays forty eggs a year. The eggs require about a month for incubation, and the eggs that are taken away to be hatched by hens ought to be given to persistent sitters like Cochins or Brahams. Even these sometimes get discouraged and quit just when they are most needed, so that the goose herself is most reliable as an incubator. Geese seldom lay until they are a year old, and the stock can be kept several years. Indeed, old stock is strongest and best for breeders, though the ganders are apt to get ugly as they age, and need to be kept from the goslings.

The care of the goslings does not differ in any material point from that of young ducks and turkeys. Though they require plenty of water always at hand to drink, they must be kept out of it until they are about three weeks old. At six weeks they may be turned out to pasture and require feeding but once a day. After they are eight weeks old they will forage for their own living, and at about this period the farm manager generally indulges in language akin to that in use when putting up an unmanageable stove-pipe. For they are voracious eaters, and, like a plague of locusts, devour every green thing before them, so that unless kept in an enclosure and yoked, and wing-feathers clipped so they cannot get out, they are a positive nuisance. They do not thrive in confinement. They should have ample pasture and be kept growing fast until they are full size. To fatten they ought to be penned out of sight and hearing of other geese, and given plenty of food, grass and water. For extra size geese, a feed of scalded meal or boiled turnips sprinkled with bran or meal once a day is excellent. They must *always* have plenty of water. In France and some parts of Germany geese are fattened by a peculiar process by which their livers grow to an enormous size. Each fowl is penned separately in very narrow quarters, allowing no exercise. Three times a day the attendant comes round with a bucket of food, seizes the goose by the neck, causing it to open its mouth, a specified quantity of the food is forced down, and the goose has nothing to do but digest it and wait for a repetition of the dose. A goose's liver, under this feeding system, is sometimes made to weigh a pound and above, and is used in the making of *pale foie gras*, or Strasburg pies, a much esteemed delicacy on the Continent. It requires an experienced hand to judge the proper moment to kill a bird thus fed, as death follows a too prolonged forcing. Green geese are those from six to eight weeks old. Fattened at that age, they sell well in any large market. When the later crop comes on, they must be watched to see when they seem to cease to improve, as they fall away rapidly. They ought to be marketed at once when they are fat. Three geese to every gander is the usual rule

for breeding stock, so it does not pay to winter a large flock. Those that are kept over should be fed with boiled oats and barley meal, boiled corn and cooked potatoes, and rowen cut fine and soaked in warm water. Dry grain is bad for them. They only need shelter during the winter and can be turned out early in the spring, as soon as the snow is gone, and let run until late in the autumn. Like ducks, they must be well cared for during the winter if they are to lay early, and as it does not pay to winter many or feed after the grass is gone, early goslings are very desirable.

Geese can be picked two or three times a year, taking only the best or breast feathers. Stock to be kept over need their down for protection, and should not be picked late. The directions for picking ducks apply to geese as well.

The Jews are great consumers of geese, and usually buy them alive, perhaps feeding a little celery and parsley to flavor the flesh, then killing after a method peculiarly their own. Roast goose is a dish they highly esteem, and they also smoke the flesh as a delicacy. The market for geese is generally best from November till after Christmas, and the process of killing and marketing are like these described for turkeys and chickens in the *Advocate* of Nov. 15th.

The peculiar cry or "honk" of the wild goose is one of the earliest signs of the return of spring. The study of this species is very interesting to the naturalist. Wild geese have very keen instinct. It is wonderful how they direct their flight at so high an altitude and for such long distances. They winter in the West Indies, and even as far south as the valleys of the Orinoco River in South America, and it is asserted that great flocks have been seen crossing the South Atlantic, evidently bound for Africa. They always fly in a particular form—that of a V, with the point foremost, and the leader, or commanding general, is often relieved of his responsibility by his fellows, who share the duty of guidance. Though very noisy and garrulous on the wing, when they alight to feed at night they are so quiet one may pass within a few yards of a large flock and never notice their presence. It seems curious they should migrate, apparently in search of milder climates, when they are so protected by nature against cold, not only by their warm coat of feathers, but also by an almost impervious air cushion, being able to admit air between the skin and body as an additional safeguard.

Poultry-House Building and Heating.

BY MRS. IDA E. TILSON.

A man in one audience asked me whether a double-walled henhouse was absolutely necessary? "Not any more necessary," I said, "than an overcoat for you, but quite as comfortable." Drop siding for the outside, and matched flooring on inside of studing, makes an ideal henhouse, such as one of my neighbors is building. "It looks just like a living house," said his wee daughter to me. Our sand is of such a nature here that plastering is not strictly first-class. When many cracks and holes come in walls, there may be harbor for insects. But almost universally I found the right kind of sand was to be had in Minn., where plastering would undoubtedly be cheaper than the ceiling I did last spring, at 2½ cents a square foot, lumber and labor both counted. I met several who were well pleased with their plastered henhouses, not only plastered, but back plastered, too, and such winter quarters are certainly worth thinking of, when every breath a hen draws in has to be warmed by her, and every draught of wind that touches her takes away a little heat. Several flocks were doing well in log houses, which, with chinks well daubed, are warm structures, as I know by experience. I often say I began poultry culture with seven tough, old fowls, in a discarded log house. That was the beginning of my present business, but there was still another beginning, a foreshadowing of my future, when a grateful pupil in Florida, led by some fine instinct of what was suitable for me, gave me a hen. I bought a companion biddy, also eggs for them to hatch, had built a small house on stilts and reached by a ladder, said stilts supposed to discourage snakes and other vermin, and thus started a little flock, which removal to another State dispersed. An "A" roof gives half its surface to the south, whereas a one-slant roof must be entirely toward the north, if the house faces, as it should, south. Some builders do not place the ridge of an "A" roof in the middle, but put more than half the surface on the south. In order to shed water well from a building ten feet wide, the ridge should have an elevation of at least three, or better, three and a-half feet above plates, when shingles are used. For a comparatively flat roof, there are iron and other coverings. In any case, finish with a loft or attic above, as that air chamber also prevents loss of heat.

I have seen houses so low that I should fear tall cockerels might bump their heads, and perhaps get poll-evil, but I would not go above eight-foot posts. One lady was telling me about appropriating for her hens, an unused building fourteen feet high, in which she put a stove. Her fowls would singe their feathers, daytimes, and then freeze at night. She had a sort of cellar hole dug, put in straw and sent them down there nights—to freeze, as before. I was shown, at another place, the scattered remains of a \$1,000 poultry plant, where an attempt had been made to heat cheap buildings through wood stoves. Its owners, by the way, started with a large flock bought up at random. We should expect a bird which began its climb at the top of a ladder, to fall and break its neck, and many

poulterers have metaphorically done so. I know of but one poultrywoman who got good results from a wood stove, and she had a stove that took green chunks and yet kept fire well. Hens do not need artificial heat daytimes, while exercising, but should have it at night, if at all, when they are still and cold, unless we can invent some way to fasten quilts and puffs on them. When people dare trust fires in an outbuilding, away from their immediate presence and care, I would recommend coal or oil heaters, particularly the latter, which may be used nights only. I have taken some pains to make inquiries, and find the Barler oil heaters stand very high.

Our West Salem Insane Asylum, under its efficient manager, of course has a poultry department. The first one in charge was a German patient, the only poultrywoman I ever heard of who was too clean. Her course was to turn out and lock out the hens, most of the day, while she scrubbed nest-boxes fairly white. On the earthen bottom of their large henhouse, she arranged a few flowerbeds and planted some evergreens. The male patient now in charge does as well as some sane poulterers. The interior of the house has been whitewashed, and he has mostly abandoned the stationary nests, all in one piece, and hooked a number of little boxes, in irregular order, to the wall. The hens, when within these, apparently think they are lost or hiding, and lay better than ever before. Their 150 hens, though in too small quarters for that number, are this year hopefully expected to furnish the entire product of chicken flesh and eggs needed for over 100 patients.

During my travels, I saw a flock running at large, consisting of 22 rough-looking hens and seven roosters, for I counted them several times. Any one familiar with the vigor of farm flocks, knows that was just six superfluous roosters, just six wasters. "Something for nothing" is what people hanker after, and the nearest approach I know of, is to keep fewer and better fowls, getting, from half the food formerly consumed, probably more eggs than before. A hen which stole her nest this fall, hatched twelve chicks out of thirteen eggs, when my adult flock was consisting of 35 hens and one rooster. A friend bought two settings of eggs last spring, which hatched only two chicks, a disappointment, even after due allowance for jar of travel, because her home eggs came out well. I told her of two settings I learned about at Lake Park, Minn., which were not set for a month or so, and left unturned, while their owner brought them from the East, round by way of the lakes. Nearly every egg produced a strong chick, and disposed of the superstition that eggs carried over water will not hatch. Travellers tell of a peculiar custom, on St. Antonio's day, in Zacatecas church, Old Mexico, when the people bring their animals to be blessed,—barking dogs, refractory cattle, and even unsatisfactory hens. Not a bad idea, surely!

Seasonable Hints.

BY JNO. J. LENTON.

Do not let the droppings remain in the fowl house.

A good laying hen will frequently lay her weight in eggs in six weeks.

It is far better to be sometimes deceived than to be always suspicious.

If there is any one thing that the hen louse despises it is kerosene oil, the smell of it makes them walk lively.

A cure for frosted or frozen combs and wattles, is equal parts of turpentine and sweet oil, applied twice daily as soon as discovered. Glycerine is also good.

The catch-penny methods practiced by some who have no reputation to lose, is bringing discredit on the trade in fancy poultry in this country. What is the remedy?

Don't fail to add new blood to your poultry yards this season. It is necessary to keep up vitality in the flocks, and in order to do so all that need be done is to purchase other males.

Farmers who do not care to invest in full-blooded fowls may, with advantage, procure eggs to hatch, or breeding cocks from parties having Minorcas, Wyandottes or Plymouth Rocks, etc., and thus infuse the blood of the breed selected into that of their common stock, and largely increase their value.

A breeding pen composed of hens three or four years old, mated with an active young cock or cockerel, will produce more males from their eggs than a pen made up of pullets and a mature cock. So a close observer says.

No single breed of fowls will answer all requirements. If the object is to secure eggs without regard to the sale of fowls, a non-sitting breed is best. If broilers and table fowls are the object, the market breeds should be preferred. As a table fowl, a good fat duck is not to be despised by any means, and many epicures consider them superior to any other food, and for this reason they are never a drug on the market; they command good prices at all seasons in any of the large city markets.

A cheap and convenient disinfectant may be prepared by mixing one bushel of finely sifted dirt and one pound of chloride of lime. If fine tobacco dust be added it will assist in preventing lice. The dirt so prepared may be dusted over the floors or on any portion of the poultry-house, and it will greatly assist in keeping off diseases and vermin. The cost is but a trifle.

If you have not been very careful, your fowls are lousy, and if you find them so upon examination, exterminate the lice at once, by dusting the fowls with some reliable insect powder, or by adding it to the dust bath. Wash off the roosts with coal oil. If this does no good, write to us, and we will advise you personally by letter.

SHALL WE FEED SCREENINGS?

We often wonder at the advice given in poultry journals to feed wheat screenings. At the first glance this might be taken for good advice from an economic point of view, but let us see if it is. Wheat screenings is everything except good, sound grain. In it we find dirt, chaff, cockle, weed seeds, and shriveled and partially developed grains of wheat. If a good, sound grain is found it gets there by accident, for the object in running the wheat through the screens is to separate the good from the bad. Screenings are fed by most persons because they are "cheap." Screenings will sell, say at fifty cents per bushel, while good, sound wheat can be had for sixty cents. Now, judge for yourself, which is the cheaper? this filthy, unwholesome stuff at fifty cents per bushel, or good grain at sixty cents. By using the former you not only run the risk of seeding your place with all sorts of weeds, but you also bring disease among your flock, caused by unsound grain. Much indigestion, bowel disease, cholera, etc., can be traced to feeding just such feed as this. Always feed good, sound grain, for it pays in the end.

Moulting.

It frequently happens that a few fowls of a flock are late in moulting. Especial care should be taken with these, as when they do not moult until late in the season they are more or less liable to contract diseases, especially roup. The older the fowl, the longer the period of moulting is prolonged, and the later in the season it occurs. It will pay to look after them now. Fowls that are not yet through moulting ought to be put where they can have attention, as their vitality is reduced, appetite poor and the system run down. They need to be built up by giving stimulants and appetizers. During cold fall weather, and damp, chilly nights, the fowls really suffer more in their spent condition than during the severity of winter, when the air is dry and the birds full feathered. They should have warm and strengthening food. Warm mash, savoring with pepper, salt and considerable grease, give tone to the failing appetite, and encourage a steady growth. A plentiful supply of animal food is also good. Iron in the drink is of service, but do not "dose" too much, only sufficient to tone up the failing appetite. Frequently a change of food will be sufficient to give an appetite, but it must be nourishing food, as well as a change.

ENTOMOLOGY.

The San Jose Scale.

(*Aspidiotus perniciosus*, Comstock.)

BY JAMES FLETCHER, DOMINION ENTOMOLOGIST, OTTAWA.

The accompanying figure gives a representation of a small branch infested by the San Jose scale, a most injurious fruit-pest, which, during the past



year, has been detected in an orchard in British Columbia. Steps have been taken to secure, if possible, its eradication before it spreads any further.

This insect has had attention drawn to it of late by its unexpected appearance in injurious numbers in the Eastern States, during the summer of 1893, and the Division of Entomology at Washington, under the direction of the United States Entomologist, Mr. L. O. Howard, has, during the past summer, adopted such vigorous measures to combat it, that there is reason to hope that in all the localities from which it has been reported the insect has either been eradicated or brought under control.

Up to 1892, the San Jose scale was thought to be confined in North America to the Pacific States, where it has shown itself to be a most destructive enemy of the fruit grower. It was first brought to California on fruit trees imported from Chili about 1870, and the name, San Jose scale, was given to it by fruit shippers in 1873, from the name of the place in California where it was first noticed. It spread rapidly for seven years without any particular at-

tention being paid to it. In 1880, however, Prof. Comstock pointed out the great loss which it was causing, and gave it the specific name *perniciosus*, for the reason that he considered it to be the most pernicious scale insect known in the country. It not only swarmed in countless numbers on fruit trees in certain orchards, but infested nearly all kinds of deciduous fruit trees grown in California. In a special circular, which Mr. Howard issued last year, when the insect appeared in the States of Virginia and Maryland, he says as follows:—"In the course of twelve years the insect spread through all the fruit growing regions of California, through Oregon and into the State of Washington. It is known as the worst insect pest of deciduous fruit trees on the Pacific coast, and has caused great pecuniary loss. Many crops of fruit have been ruined, and thousands of trees have been killed."

The above quotation shows what a serious pest this insect is, and it is of great importance that fruit growers in Canada who may find suspicious insects on their fruit trees, should send specimens without delay, either to the *FARMER'S ADVOCATE* or to the writer, for examination, as any neglect or indifference in such matters may result in enormous losses for themselves, and the country at large. Many of our injurious insects might have been controlled with comparative ease, had they been detected on their first introduction, and the proper steps taken to eradicate them.

The following is a description of the San Jose scale:—It is a scale insect, and belongs to the same group as the well-known Oyster-shell bark-louse of the apple, but may be easily distinguished from that species, and, in fact, from all Eastern species found upon fruit trees, from the fact that the scale is perfectly round, or, at most, very slightly oval. It is flat and adheres closely to the bark, which it resembles in color. When full grown, it is about one-sixteenth of an inch in diameter. In the middle of each scale there is a small black or yellow point. When occurring, as the scales frequently do, in large numbers, on twigs or leaves, they lie close to each other, in many cases overlapping. They are then difficult to notice without close examination, as they merely give a grayish, slightly roughened appearance to the bark, as though it had been dusted with ashes. When the scales are crushed by scraping, a yellow, oily liquid appears, and this will at once indicate that the scales are living.

During the winter, the insect is in the half-grown or nearly full-grown condition. The young begin to hatch and to crawl from under the female scales, shortly after the trees leaf out, and from this time through the summer there is a constant succession of generations. The young lice are at first very small, yellow, crawling creatures. For a few days only are they able to move about, during which time they spread out over the new growth of the tree. They then pierce the bark with their beak, and remain in that place for the rest of their lives, each one protecting itself with a waxy scale, which is secreted from its body.

This insect affects not only the young twigs and limbs, but is also found upon the leaves and the fruit.

REMEDIES:—When trees are found to have become badly infested, the safest and most economical course will be to cut them down and burn them. Where the attack is less severe, insecticidal washes may be used successfully. From the experiments which have been tried in the United States, it has been found that the ordinary kerosene emulsion, Riley-Hubbard formula, is an effectual remedy, where carefully applied.

Mr. Howard says (*Insect Life*, Vol. VII., page 161):—"Remedial work against this insect is onerous; but our experience has shown that three sprayings, at intervals of ten days during the latter part of May and June, will practically destroy the insect. Whether the spraying be conducted with very considerably diluted kerosene emulsion, or with a resin wash, while during the winter, a single application of either of the three winter washes mentioned below will greatly reduce the numbers of the insect. Among the winter washes, our experience leads us to give the preference to strong kerosene emulsion, next to the winter resin wash, and finally to the lime, salt and sulphur mixture."

Mr. Howard also reports with regards to some investigations made by Prof. J. B. Smith, in New Jersey, that this latter gentleman "visited a locality at Atglen, Pa., and found that in an orchard of over seven thousand trees, all of certain varieties, and a few of others, were infested by the scale. As a result of his recommendations, kerosene emulsion has been applied three times to most of the trees, at intervals of ten days, up to the first week in June. The treatment has been absolutely successful." And Prof. Smith himself says (*Insect Life*, Vol. VII., page 167):—"Kerosene emulsion diluted nine times has been used successfully in one case on the mature scales, just before the young larvae emerged. Diluted from eleven to fifteen times, it has proved ineffective against all the scales on the trunks."

It may not be amiss to repeat here the formulas for the preparations mentioned:—

KEROSENE EMULSION:

- Coal oil 2 gallons.
- Common soap or whale-oil soap 1 pound.
- Water 1 gallon.

Boil the soap in the water till all is dissolved; then, while boiling hot, turn it into the kerosene, and churn it constantly and forcibly with a syringe or force-pump for five minutes, when it will be of a

smooth, creamy nature. If the emulsion be perfect it will adhere to the surface of glass without oiliness. As it cools it thickens into a jelly-like mass. This gives the stock emulsion, which, for a summer wash, must be diluted with nine times its measure of warm water before using on vegetation. The above quantity of three gallons of emulsion will make thirty gallons of wash.

For a winter wash, the dilution of the stock emulsion may be made with five times its quantity of water instead of nine.

RESIN WASH.

For summer:—
Resin..... 20 pounds.
Caustic soda (70 per cent. strength)..... 5 pounds.
Fish oil..... 2½ pints.
Water sufficient to make..... 100 gallons.

The resin and soda are broken up, and together with the fish oil are placed in a large kettle, sufficient water being added to cover them. The whole is then boiled for several hours, or "until the compound will mix properly in water without breaking up into yellowish flakes."

Winter wash:—The same ingredients in the following proportion:—

Resin..... 30 pounds.
Caustic soda..... 9 pounds.
Fish oil..... 4½ pints.
Water to make..... 100 gallons.

Mr. Howard states that of the two above, the kerosene emulsion is more lasting in its effects, as in a rainy season the resin wash is more apt to be washed away.

APIARY.

Annual Convention of Ontario Bee-Keepers.

The annual meeting of the Ontario Bee-Keepers' Association will be held at Stratford, Jan. 22, 23, 24th, commencing at 2 p. m. (22nd), in the Council Chambers. The Hon. John Dryden, Minister of Agriculture, will be present. A good programme has been arranged, and a large gathering of beekeepers is expected.

Honey As a Food.

BY JOHN MYERS, STRATFORD.

Honey is one of the oldest food products of the world. What is it? A chemist would likely answer that it has so many parts of oxygen, so many of hydrogen and so many of carbon, combined in such proportions as to form a mixture of grape sugar, manna, gum mucilage, extractive, a little wax, polon, acid, and odoriferous substances.

Honey, the saccharine (sugary) juices of plants, is collected by bees from flowers, and deposited by them in the waxen cells of the comb. These juices undergo some modification in the honey bag of the bee, but though their chemical character is somewhat changed, they still retain the flavor, and to some extent the peculiar properties of the plants from which they were collected. Besides the changes undergone in the bee-bag, other changes take place in the comb, known as ripening, rendering it one of the most delicious and healthful foods for mankind. But, says someone, that can't be so, because if I eat a teaspoonful it makes me sick. I would like to ask such a one, did you ever try to eat it by degrees until you accustomed your digestion to it? There is no doubt if those to whom the use of honey causes sickness, would judiciously continue to use it in small quantities, the majority of them would find themselves enabled to partake of considerable quantities without any danger of sickness, within a very short period. I am thoroughly convinced of this by having so many instances of it come under my notice. I will relate one or two of a great many which I could give, if necessary. When first I commenced to keep bees, my wife, a rather delicate person, could not use honey in any considerable quantity without resultant sickness. She fairly detested the sight of it about the house, but continued to taste it occasionally, with the result that within a few months she could eat it without the least inconvenience, and at the present time feels lost if the honey supply for table use runs out for a few days. We, as a rule, always have it on our table, and Mrs. Myers uses as much as any member of the family. A young lady came to visit us for a few weeks, who at first, and for some time, could not use honey without resulting nausea, but by using it carefully at first, and gradually increasing the quantity eaten, she was enabled to eat it plentifully, with relish, within a very few weeks. I know that I am perfectly justified in saying it is one of the most healthful foods that can be eaten. I occasionally find even bee-keepers who do not use honey as part of their diet. Just here there is a great mistake being made in allowing a health-giving delicacy to pass out of their hands without participating in its benefits.

In my own family there are just five persons, yet we annually consume about 300 pounds, and we have not had to pay \$2 in doctor bills in ten years for sickness. It has another important redeeming feature in its cheapness, when compared with fruit. If you go to your grocer and purchase an ordinary half-gallon jar of preserved fruit, or, if you like, buy the fruit and let your wife preserve it, the cost will be quite 50 cents. Now, the same jar full of honey will not cost any more than 50 cents, and perhaps less, and it will go twice as far as the fruit, because it is so much richer.

I would not have any one consider me so foolish as to want to disparage the use of fruit, but I would like to impress the wisdom of using both fruit and honey as dessert dishes, as then you will be more healthy and have less doctor's bills to pay.

A point or two on the manner of eating honey will not be out of place. Fruit is usually and properly eaten directly from the dish to the mouth. Honey should not be so eaten, as it is too rich and strong for the palate to be thus relished. A better plan is to add it to bread at intervals between the bites.

Several of my patrons buy honey to use solely as a medicine, in cases of colds, etc. My advice is to use it as a food, and there will be very little occasion for the use of medicine. This is a matter well worth testing. I am persuaded that any one who uses honey as a regular portion of their diet for six months, will agree with me in saying that honey is a healthful, delicious and cheap food.

GARDEN AND ORCHARD.

Ontario Fruit-Growers' Annual Meeting.

The annual and winter meeting of the Ontario "Fruit-Growers' Association," held in Orillia, Dec. 4th to 7th, was by all odds the most enthusiastic and instructive ever held by that association. The capabilities of the Province as a fruit-growing country have been revealed more and more each year, for a considerable time, until now its position is realized as in the very front rank of horticultural countries, which fact induced the association to procure for their meeting such men as Professors Beach, of Geneva Experiment Station, N. Y.; Craig and Fletcher, of Ottawa Experimental Farm; Pantan and Hutt, of Guelph Experimental Station, and many other first-class authorities. The papers read—many of which will appear summarized or in their entirety in the FARMER'S ADVOCATE—dealt with important phases of horticulture, and provoked sufficient discussion to bring out the ideas and experiences of different members in clearing up very many hard problems.

To readers in many parts of the Province a point so far north as Orillia may seem outside the fruit-producing area, but to those attending the meeting the display of local fruits was a marvel. The perfection of the apples in size, flavor, texture and color is conclusive evidence that the location of the meeting was by no means a mistake, but, rather, one of the most suitable to be found. It is true that all apples do not find the most suitable conditions in the Orillia district, but it is also a fact that the many varieties that are peculiarly suited to that locality may safely be planted in any apple-growing part of the Province. There were apples brought from many locations in Ontario, but the exhibit made at the autumn Orillia exhibition, which was kept for the Fruit-Growers' meeting, excelled all others in appearance, and lost nothing by a comparison with those brought from a distance in texture and flavor. The grape display made by Murray Pettit, Winona; L. Wolverton, Grimsby, and a few others, was indeed very fine for this season of the year, as many fine bunches of some of the early varieties were in an almost perfect state of preservation.

The first paper given was by Prof. J. H. Pantan, of the Ontario Agricultural College, on

THE SUBJECT OF FUNGI.

The Professor has found in his dealing with students that knowledge can be most readily imparted through the eye, in conjunction with an explanatory talk. Charts were therefore used, showing the nature, kinds, modes of development and destruction of the various fungus troubles with which fruit-growers have to battle. Some general principles were given to be observed in a successful war against these most subtle enemies of horticulturists. The first was that of prevention, which we long since learned was better than cure. In this the importance of destroying all effected material was dwelt upon, such as the destroying of old dried plums, which may be left hanging in trees, bearing millions of spores to perpetuate plum disease the following season. In this connection the importance was emphasized of burning all black knots on plum or cherry trees before the 1st of February, as the winter spores, which carry the trouble from one season to another, mature and spread from the month of February onward. Cultivation was dwelt upon as an important remedy for fungus diseases, as by it the tree or bush is kept in first-class, vigorous tone, enabling it to withstand ravages of disease with much less disastrous results than if in a weakly condition. Under this head were mentioned drainage, the addition of fertilizers, etc. The application of fungicides was the last and most directly effective method of overcoming fungoid trouble. Bordeaux mixture was decided by the practical audience to be the great panacea for all fruit diseases, as it not only destroys the disease, but materially invigorates the foliage. A lively discussion on this subject brought out the points that Bordeaux mixture acts farther than the point of contact, as the good effects are seen over the entire tree, whereas when other applications are used, such as potassium sulphate, and copper carbonate, many spots that escape a touch of the mixture seem to have received no benefit. Several growers testified to the lasting benefit of Bordeaux mixture, as the greatest effect was often seen the second year of application, resulting largely from prevention of attacks by having done away with the disease.

IT PAYS TO SPRAY.

A paper given by Professor Craig, of the Central Experimental Farm, on the effect of fungicides in carefully conducted experiments, showed conclusively that the difference between the effects of spraying and not spraying might easily result in failure or a very successful yield. The Professor, after reading a very interesting and instructive paper, referred to a prepared chart, which showed exactly the result of spraying and not spraying. The chart was prepared from the returns of several reports of experimenters in different parts of the Province:

		1st q'lity.	2nd q'lity.	3rd q'lity.
A. G. Russet.....	Sprayed.....	38 pr cent.	35 pr cent.	27 pr cent.
	Unsprayed.....	15 "	55 "	30 "
Baldwins.....	Sprayed.....	75 "	20 "	5 "
	Unsprayed.....	25 "	75 "	0 "
Greenings.....	Sprayed.....	64 "	25 "	11 "
	Unsprayed.....	8 "	35 "	57 "
N. Spy.....	Sprayed.....	53 "	40 "	7 "
	Unsprayed.....	12 "	42 "	46 "
Average.....	Sprayed.....	44 "	36 "	20 "
	Unsprayed.....	22 "	40 "	38 "

Prof. C. C. James, Deputy Minister of Agriculture, in a talk on the benefits of the proper care of orchards, showed that if one cent a tree could be added to the present returns of the orchards throughout the Province, \$10,000 would be the gain produced. Now, when we notice the teaching of Prof. Craig's table, surely an increase of ten or twenty cents per tree is not too much to expect as a difference between the present returns of the apple crop and what might be obtained from a proper care, or, indeed, a very slightly improved care of our trees.

The question of the most suitable sprayers was dealt with to some extent by Professors Pantan, Fletcher and others, which brought out the statement that up till the present time the most serviceable and suitable machines have been brought from the United States, but on examining a sprayer there on exhibition, which is manufactured by Holmes & Holliday, Clarksburg, Ont., those present understanding the requirements of a sprayer, pronounced it the most perfect they had ever seen. It has an automatic agitator, which keeps the solutions in constant motion, thus insuring an even strength and equal distribution of the chemicals. Prof. Fletcher, on being asked, could only suggest one improvement, which is being adopted by the manufacturers.

Bordeaux mixture has the preference as a fungicide, as it not only destroys the trouble, but invigorates the foliage. Paris green can be added to the fungicide at the usual strength of 1 lb. to 250 gallons. Experiments have shown that Paris green mixed with the fungicide is just as effective in destroying insects as when mixed with water alone.

Reports of local associations show that much good is being done from year to year in discussing the many knotty problems of fruit culture, etc. A marked improvement is seen at the autumn exhibitions of fruit. It was suggested that such premiums as rare flowers, such as perpetual roses, etc., be offered to new members, in order to increase the membership. The effects have been very satisfactory wherever the plan has been tried. An address on

ROADS AND ROAD-MAKING

was given by Mr. Andrew Patullo, of Woodstock. The necessity for good roads to fruit-growers is evident, as ripe fruit has only to be bruised to be spoiled, and, as Mr. Patullo put it, one may be near a market ten miles away when a good road stretches between the points, or very far away if a bad road of five miles separates the farm and market or station. The speaker referred to the fact that the country has made rapid strides in almost everything but the improvements of roads, which are allowed to be made and mended in the old methods in very many parts of the country. Speaking of the statute labor system, it was noticed that it was quite in order half a century ago to have the work done, as it is now, in one or two weeks of the year by the farmers, directed by one of their number in each beat, but the time for such a course had passed. Many know, to their sorrow, what it means to travel over the newly-made or repaired road in June or July, when much of the rough gravel has been dumped down in heaps without even being spread, which necessitates driving on the sides, until a rainy spell forces the traveller on the highway to avoid being mired. Under the present system repairs are only made once a year, except in extreme cases, which require much more work than if depressions and bumps were attended to as soon as noticed. Much of the repairing is done by indifferent or incompetent persons, who often leave a road worse than they found it, or perhaps a good man will be followed by one who undoes what may have been previously accomplished. Great care should be exercised in selecting a Pathmaster. Too often a man is chosen for some political reason, and not because he has the requisite knowledge. In order to have a good road, proper drainage is absolutely necessary. If the soil is clay, the road should be macadamized, but in lighter land gravelling is all that is required. The material should be screened down to what will pass through a two-inch ring. Every section should have access to a stone crusher, which may be used by quite an extent of country, and do all their work well. Where this is not used, horses and vehicles cost much more because of the wear and tear from the unnecessary

rolling stones, than would pay for having the stones crushed and the roads kept in first-class condition, to say nothing of the damage to fruit being carried, and the extra time spent in going to and coming from market.

HOLDING OUR MARKETS.

Prof. C. C. James, in an address, pointed out the necessity of united action to develop and hold our markets, as the Australians and others are wide-awake to the matter of markets; although they are 8,000 miles farther from the British markets than we, they are equipping refrigerator vessels, and adopting every advance to enable them to supply that market with desirable produce.

"FRUIT GROWING IN THE BEAVER VALLEY"

was the title of a paper written by John G. Mitchell, which awakened considerable interest. Beaver Valley is a section traversed by the Beaver River in the County of Grey. It is peculiarly adapted to the growing of plums, which was shown by the fact that the output of last season was about a car-load daily during the plum season.

STRAWBERRY GROWING.

Mr. W. W. Hilborn, of Leamington, gave a talk on strawberry culture, which brought out many valuable points. A mellow, moist soil is essential. The importance of constant cultivation, in order to retain moisture, was emphasized. Mulching and irrigation were also mentioned as good practices.

FERTILIZATION OF FLOWERS

in orchard and vineyard was discussed by Prof. Beach, Geneva Experiment Station, N. Y. In commencing, the Professor referred to a fifty-acre apple orchard, set in blocks of different varieties, that had almost always failed in producing a crop of fruit.

A series of experiments have been conducted by Prof. Beach which teaches some valuable lessons. Out of 117 varieties of grapes, 27 were able to fertilize themselves; 31 were able to produce a partial crop of fruit; 14 were able to set fruit which never developed, and the remainder could not fertilize themselves.

COLD STORAGE.

Mr. A. H. Pettit's experience with fruits in cold storage at the World's Fair, enabled him to speak with a good deal of authority upon that subject. Owing to the perishable nature of many of the most

luscious fruits, there is great need of cold storage stations here and there throughout fruit sections, in order that the markets may be supplied more evenly, thus saving a glut at any time.

Prof. Craig, of Ottawa, has been experimenting with cold storage during the last summer, and up to the present time. Early peaches kept well for eighteen days, plums for two weeks grapes and pears are still in splendid condition, as well as Duchess and other perishable fall apples.

NOTES OF TRAVEL.

Prof. Hart, as a result of a tour through the Province, mentioned some improvement which he deemed needful. It is very important to know that a soil is adapted to the class of fruit to be planted upon it. Apples do well on a variety of soils if rich and well drained; grapes require a light, loamy soil, peaches light soil, plums heavy, but well drained, and strawberries on light, moist land.

CODLING MOTH AND PLUM CURCULIO.

Prof. Fletcher, Central Experimental Farm, in referring to the codling moth, said it came out in the spring and fed for some time on the bark and wood of young twigs, and that spraying with Paris green just as soon as the flowers fall, and before the apples turn down, was all that was necessary to deal successfully with that pest at Ottawa.

"BULBS"

by Rev. W. Bacon, Orillia, was a paper of importance to floriculturists. We give a few general principles. Any well managed garden is suitable for the growth of bulb flowers. The bulbs should be stored in a dry, cool place, and must be planted before any root action takes place.

ROSE CULTURE

was discussed by T. H. Race, the out-going President of the Association. Mr. Race has one of the largest and finest collections of roses of any amateur in the Province. In the course of his talk, the most suitable varieties for a beginner were given as follows: General Jack, Fisher Homes, White Madam Plantier, Perpetual White Moss, Glory of Mosses, and Magna Charta.

ELECTION OF OFFICERS.

- President Murray Pettit, Winona.
Vice-President W. E. Wellington, Toronto.
Director No. 1 W. S. Turner, Cornwall.
" 2 R. B. Whyte, Ottawa.
" 3 Geo. Nicol, Cataraqua.
" 4 W. Boulter, Picton.
" 5 Thos. Beal, Lindsay.
" 6 Wm. Mitchell, Woodstock.
" 7 W. Orr, Fruitland.
" 8 A. M. Smith, St. Catharines.
" 9 E. A. Chapin, Brantford.
" 10 J. A. Morton, Wingham.
" 11 T. H. Race, Mitchell.

Director No. 11 A. McNeil, Woodstock.
" 12 C. C. Gannon, Georgetown.
Auditors J. H. Peck, Galtville.
" J. W. Fisher, Hamilton.

It was decided to hold next year's annual meeting in Woodstock.

Winter Pruning in the Orchard

BY PROF. E. E. PAVILL, VICE-CHIEF, SCHOOL OF HORTICULTURE

The pruning of orchards, aside from any stated time, presents many perplexing problems, for the reason that no conclusions have been reached as yet, or at least recognized, sufficient for the establishing of a perfect science of such practical importance that its application may be easily understood and followed.

In pruning the apple in winter, warm days should be selected during the latter part of the season, after the severity of the young winter has passed away, especially in climates where the thermometer is liable to register several degrees below zero.

The wound should then be treated with a composition material, serving the purpose of preserving the wood, excluding the air, preventing injury to cell structure and cracking of the surface of the wound, and assisting the new bark in forming over the cut made.

The pear is treated the same as is the apple. Winter pruning is of great value, as the wounds heal over perfectly.

Where it is necessary to prune a plum, it should be done in the middle of the winter season, as it is dangerous and very injurious to prune after the sap has started in the spring.

The cherry should be pruned but little, pinching and shortening in being practiced to produce a compact, spreading top. If pruned in winter, it is apt to form gum in the wound and cause decay.

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Director No. 9 - E. A. Chapin, Brantford.
Director No. 10 - J. A. Morton, Wingham.
Director No. 11 - T. H. Race, Mitchell.

Director No. 12 - A. McNeil, Windsor.
Director No. 13 - G. C. Caston, Craighurst.
Auditors - A. H. Pettit, Grimsby.
Geo. Fisher, Hamilton.

It was decided to hold next year's annual meeting in Woodstock.

Winter Pruning in the Orchard.

BY PROF. E. E. FAVILLE, NOVA SCOTIA SCHOOL OF HORTICULTURE.

The pruning of orchards, aside from any stated time, presents many perplexing problems, for the reason that no conclusions have been reached as yet, or at least recognized, sufficient for the establishing of a perfect science of such practical importance...

In pruning the apple in winter, warm days should be selected during the latter part of the season, after the severity of the young winter has passed away, especially in climates where the thermometer is liable to register several degrees below zero...

The wound should then be treated with a composition material, serving the purpose of preserving the wood, excluding the air, preventing injury to cell structure and cracking of the surface of the wound, and assisting the new bark in forming over the cut made...

The pear is treated the same as is the apple. Winter pruning in of great value, as the wounds heal over perfectly.

Where it is necessary to prune a plum, it should be done in the middle of the winter season, as it is dangerous and very injurious to prune after the sap has started in the spring...

The cherry should be pruned but little, pinching and shortening-in being practiced to produce a compact, spreading top.

In the vineyards in the north, grapevines should all be pruned and laid down by this time. Those who have only a few vines in the garden, who have not done this, should see to it at once, and prune severely...



WANTING A MOTHER ; OR, Photographed for Santa Claus.

BY LAZ.

"Mister, please, I want to be took." Baroni, the great photographer, looked up from the portrait he was examining. He was at first amazed, but a smile broke out on the face, where the celebrities who sat before his camera were accustomed to see only a frown. Before him stood a bareheaded gamin, a bootblack, with the box on which he earned his living suspended from his shoulder by straps. From the box projected the end of a brush. The boy's pose was graceful, respectful, pleading. His face was handsome and winning. "How did you get in?" asked the photographer, who wondered how the boy had passed the line of call-boys stationed in the office and reception room as a guard to the studio, into which no one entered without first sending in a card. "The swell lady wuz kickin' up a muss, and I says to meself, 'Here's yer chance, Nebby,' and I up the stairs end here I is. End, please, mister, do, won't yer take me?" Cassandra had come that morning to sit, but Baroni had found so much fault with her that she had gone away in a rage. As the bootblack had stated, he took advantage of the excitement her exit had caused to slip unobserved into the studio. "I was hangin' aroun' all mornin' waitin' for a chance, and now, please, Mister Baroni, don't put me out. I'll work for ter pay yer, and I do want a picter. Make a picter uv me, won't yer?" In his earnestness the boy forgot himself, and the natural pose he assumed delighted Baroni's artistic eye. "Nebby—what is the rest of your name?" "Chudnasser," and the namesake of the Hebrew king unconsciously put out his hand in beseeching gesture and approached the artist, almost touching him. A call-boy came in with a card, but Nebby did not notice him, so absorbed was he with the desire of being photographed. Nor did the artist look at it. He sat twirling it in his fingers while he gazed at the gamin. A more interesting face he had never seen in a child. It was delicate, refined, sensitive, all out of keeping with the coarse clothes and careless manners of the street. The call-boy looked in wonder from his employer to the gamin. A fear that he might be discharged for neglect of duty had led him to seek for assurance in the face of the artist that Nebby was welcome, and when he found the strange boy there by permission, his astonishment knew no bounds. "May I come in?" asked a soft voice from without. "Yes, certainly," Baroni replied. The call-boy sped to the door, and as he opened it, a well-dressed middle-aged lady entered the studio. "A new sitter?" she asked. At a glance she had noted the beauty of the boy whose name was most uncomely. "Yes, would you like to see him pose?" "Very much," replied the visitor, as she seated herself on the chair the call-boy pushed to her. A singular group. The handsome lady, the famous artist, the grotesquely beautiful gamin, and the faultlessly dressed call-boy, who was eager to throw the bootblack into the street. "How did he get in?" asked the lady, who was none other than Madam Barnauld, the satirist. "Cassandra was here, got up in a ridiculously extravagant style, and I refused to let her sit. She raised a hubbub going out, and Nebby slipped in." Madam Barnauld threw up her pretty jewelled hands and exclaimed: "Mercy, Baroni. You will soon be a bankrupt if you treat your patrons so." "Fudge!" ejaculated Baroni, and snapped his fingers. Meanwhile Madam Barnauld was closely studying the gamin as he stood gazing at the portraits on the walls and easels. "No wonder you smile, Baroni; that boy's face would dispel a darker frown than yours. Come here, Nebby." The gamin promptly obeyed. She laid her hand upon his shoulder. Her husband was dead and she had no children, nor pets but her hands. She fondled and caressed them. Baroni smiled grimly when he saw one of them on the soiled, weatherbeaten coat of the street arab. "Why do you want to be photographed?" she inquired. Nebby hung his head. "Are you ashamed to talk?" Her voice was tender and her smile winning. He lifted his head and looked defiantly at the call-boy. "Not before him, missus; I ain't tellin' him." Baroni sent the call-boy out of the studio. "Now, Nebby," Madam Barnauld's voice was full of encouragement. Her tender tones and soft smile warmed the heart of the street boy, and he told his story. "Well, yer see, missus, Sanny Claus has been kinder forgettin' me while he otherdied 'bout two years ago, and I tho't I'd send him my picter took by Baroni; he'd mebbe think I wuz worth a present or two." Madam Barnauld turned and looked out of the window, one hand still rested on Nebby's shoulder. Did that hand involuntarily close and press him! He glanced at her quickly, as if it had. Her other hand was raised to her eyes. Was it only the gleam of the cold diamond on her finger, or did a tear glisten there? Baroni thought it a tear. He too was deeply touched. Presently she faced the boy again. Tenderness had overflowed her heart, and he saw it in her eyes. "Please, missus," he pleaded, "ask Mister Baroni ter take me. I ain't got much money now, but I'll work for it." "You will take him, Baroni?" "Of course I will." When they entered the operating room Baroni directed the boy to pose as if asking a gentleman to have a shine. In a few minutes the plate was inserted. Nebby, with his cap on the back of his head, his box unsung and ready for action, took a step towards the artist's assistant, to whose feet he pointed with the index finger of his disengaged hand and exclaimed, "Shine!" "Capital—hold that!" called Baroni. He was looking through the camera. Another moment and Nebby was transferred to the glass. "Well, there ain't nuthin' slow 'bout that," he exclaimed, his spirits having risen equal to the occasion. "That is all this time, Nebby." Come next week and the photograph will be ready for you." With a "thank yer, missus and mister," he was gone; but in a moment he was back, interrupting Baroni's enthusiastic declaration that that was the first time in years he had photographed unaffected naturalness. "How much will it cost, mister?" "We will settle that next week," Baroni replied, and with another "Thank yer," Nebby bounded out of the room and hurried into the street to brush together more nickels. "Why not strike off a thousand?" suggested Madam Barnauld, "and label them 'Nebby,' whose picture was taken at

his request as a Christmas present for Santa Claus. They would sell like hot cakes, and Nebby would realize a handsome sum above their cost. "I will do it," cried the artist. "But do me a favor, please. When he comes, ask him how he means to direct the package. I intend to get it." The next week went by like a flash with the artist, who was oppressed with patronage, and consequently in a most disagreeable humor. He was rich and had no patience with the exacting demands of his patrons. But he smiled every time he thought of Nebby, whose pictures were piling up in the finishing department. At the appointed time Nebby presented himself. The moment was a proud one with him when the call-boy obsequiously opened the door and said: "Mr. Baroni expects you." "I ain't got much money, but I hope you will trust me. Mister Baroni," was his greeting to the artist, who excused himself from a vacillating patron to welcome the boy. Baroni handed him a picture done up for the mail, then showed him one he was keeping for himself. Nebby was delighted with the correctness of the portrait. He did not notice the wondering looks of the other visitors, of whom there were several in the reception room, but proceeded at once to empty his pockets of all the money he had. "No, not now; only tell me how you mean to direct it." The artist bent over and Nebby whispered something to him. A smile brighter than any the gamin had yet called forth lighted up the artist's dark features. When Nebby was again on the street he had his picture, all his money and the happiest heart in New York. The day before Christmas, Madam Barnauld sat in her boudoir eagerly awaiting the call of the mail carrier. The postmaster had promised to send her a certain package. Presently her maid brought her the letters. She tossed them all aside and took the flat package that they covered. It was addressed to "Sanny Claus, Somewhere Near Hevin." She tore it open quickly and Nebby smiled at her from the card she lifted. His position was so natural that she almost involuntarily replied "No" to the question "Shine?" that seemed to have just fallen from his lips to the bottom of the page, where it was printed. In the package she found a note. DEER SANNY CLAUS:—Ef yer ant tew bizzy I wud ax yer ter cast yer eye over the inkboxed countynance end see if ye kin member it. Please put Nebby—what's his last name he don't know—on yer list so he won't be missed, end send him some presents. I'd like ter hev a muther, ef yer don't mind my tellin' yer what ter bring. There ain't been no woman kist me ner run her fingers throo my hair since muther died. I'll be home all day Kristmas—number seven Avenue C, room 23. Wrote by Dan fer yours, NEBBY.

P. S.—Don't forget the muther if yer got won convenient. Christmas bells were ringing and Nebby heard them. Boys and girls were shouting merrily in the streets, but he did not join them. He did not look out of the window. If he had, he could have seen only the roofs and walls of the opposite houses. After he ate his lonely breakfast he had set down on his one chair by the little window. His room was really only a window, and was one of the small divisions of a house rented to bootblacks and newsboys, peddlers and men of roving trade. Dan looked in about the middle of the day and asked if "Sanny" had come, but did not deride the faith Nebby expressed by his waiting. Just as the darkness began to fall there came a resounding rap on his door. He thought that a very noisy Santa Claus, but called out bravely: "Come in!" The door was rudely opened, and there stood a tall coachman, who looked as if he did not relish his errand. "My lady is here," he said, gruffly, and then stood aside respectfully, revealing Madam Barnauld. Nebby's face lighted up with welcome; but when he noticed her rich furs and remembered the coachman's rough manner, he feared she had come to arrest him. "Nebuchadnezzar," her voice was tender and musical. "Santa Claus has sent you the present you asked for. He has bidden me to be your mother." Nebby understood at once, but he protested. "Sanny Claus must hev got mixed. Yer were ment for some rich orphaning." "No; he sent me to Nebby, No. 11, Avenue C, room 23, and here I am. Will you come?" "Indeed, I'd go anywheres with yer." Then he hesitated. "Call me mother, Nebuchadnezzar, and I will call you Nebby." "May I bring my ole friend, mother?" Although he uttered the last word timidly, he had asked the question eagerly, as he laid his hand on the blacking-box that had been his constant companion since his mother died. "Yes, Nebby, you may." Seated in the carriage, Madam Barnauld drew the boy to her and ran her fingers through his soft, glossy hair. Of these fingers, with their shining jewels, a critic had once said: "Her sentences glitter as brilliantly as the diamonds upon the fingers that pen them, and as coldly." How soft and gentle was the caress these famous fingers gave the boy the woman's heart had adopted, and how fond the kiss she impressed on his lips. The money realized from the sale of Nebby's pictures he gave to Dan. Nebby is happy with the mother whom Santa Claus sent him, and her heart runs over with love for him.

Good-Night.

The tales are told, the songs are sung, The evening romp is over, And up the nursery steps they climb, With little buzzing tongues that chime Like bees among the clover. Their busy brains and happy hearts Are full of crowding fancies, From song and tale and make believe A wondrous web of dreams they weave And airy child romances. The starry night is fair without, The new moon rises slowly, The nursery lamps burning faint, Each white-robed, like a little saint, Their prayers they murmur lowly. Good-night! The tired heads are still On pillows soft reposing, The dim and dizzy mists of sleep About their thoughts begin to creep, Their drowsy eyes are closing. Good-night! The tired heads are still On pillows soft reposing, Good-night! While through the silent air The moonbeams pale are streaming, They drift from daylight's noisy shore,— "Blow out the light and shut the door, And leave them to their dreaming."

The Newly Wed—"Edith did the hatefullest thing at our reception, and I'll never forgive her." Cousin Jane—"Why, what could it be?" "She addressed Charles in the most pitying manner, and said, 'I hope you'll be happy.' The way she uttered that word 'hope' was positively unbearable."

MINNIE MAY'S DEPARTMENT.

MY DEAR NIECES,—I wonder what you would like me to write to you about this time! You know when you sit down to write to a friend how you naturally recall her face to your memory before you begin your letter. I found myself trying to do this before I began my letter to you just now, but of course my imagination had to be brought into play to supply your faces, instead of my memory, as I have never seen you all. Still, I feel as though I have had quite a good look at you, and many of my younger nieces seem to look very happy and good-natured and full of fun, and, perhaps, some slight amount of mischief. We are near the beginning of another year, and I feel as if I would like to have a better talk with you about how it is to be spent. I have written you a great many sensible, practical letters about your clothes and your homes, and how to make them and yourselves neat and attractive. But now I want to talk about your very selves. Of course it is only natural and right that you should be as happy as possible and full of fun, but there is something more than that. While school life lasts it is sufficient if you do your daily tasks, learn your lessons, and keep from breaking rules, but later on you will find there are wider claims by far; and it is of this time that I would like to talk to you. What sort of women are you going to make of yourselves? Are you just going to be content with getting all the fun you can out of life, and letting the more substantial things go? It is so easy, so very easy, to do this, but it is a great mistake. You could not possibly make a greater. You know how it is at school. I am sure you will admit that you enjoy your holidays more, and, indeed, not your holidays only, but your school days as well, if you work honestly while you should work. I dare say most of you have experienced a miserable regretful feeling on the closing day of a school term, if you have allowed yourself to be idle and thoughtless and your time has been wasted. And, then, on the other hand, what a feeling of honest satisfaction you have when you have worked hard and done your best, and can you not imagine that it will be just the same when you are older and you look back and see that you have wasted your time and not made the most of your opportunities. I can assure you it will be just the same, with this great difference: that you cannot so easily make up for a lost year as you can for a lost term at school. Perhaps you are beginning to think that I would have you work all the time, and do nothing else, but it is not so. Your youth is the play time of your life, and you should be as happy as possible in it, but that need not prevent you from working, too. Work has been called the "greatest of earthly blessings," and you certainly would not be very happy if you had nothing to do. So what I want to say to you is, "Have a purpose in life." Make up your mind that your life shall not be spent in a butterfly chase after pleasure, but that you will try to make something of it. Of course, we cannot all expect to do something great or to be something great, but whatever your work in life is, resolve to do it well, and you will ennoble it. There is a homely little rhyme that I have heard somewhere that exactly expresses my meaning. Probably some of you have heard it, but in case you have not I will put it in here:—

"If I were a cobbler, I'd make up my mind The best of all cobblers to be; If I were a tinker, no tinker you'd find Should mend a tin kettle like me."

I am not prepared to defend the grammatical construction of my little favorite, for it certainly leaves something to be desired, but its spirit is fine, and we could not do better than imitate it. So when the question comes to you, "What sort of a woman am I going to be?" make up your mind that your standard shall be high. Some one has spoken of "a woman perfected" as being "Earth's noblest thing," and surely it is worth your while to try even in a slight degree to attain to that. In order to do this you must cultivate unselfishness, for it is the keynote of all true nobility. More than two thousand years ago that wise old philosopher, Plato, said, "The love of self is in reality the source to all men of all offenses," and we cannot begin too soon to fight with this giant. A well-known lady novelist, in one of her books, remarks: "If a man is of no other use in a household, he seldom fails to give the women about him abundant opportunities for self-denial, and thus calls into exercise the noblest part of their nature." This seems a somewhat sweeping assertion as far as the men are concerned; for my part I do not believe that they have a monopoly of the vice of selfishness. But any one who has either brothers or sisters, and who is on the lookout for these "opportunities," will find them every day. So to all of you I would say, "Live much in the lives of others" and be content with doing your best. Probably no very great things will ever be required of you, but I cannot do better than end by reminding you of what George Eliot says about this. She says: "The growing good of the world is partly dependent on unhistoric acts; and that things are not so ill with you and me as they might have been is half owing to the number who lived faithfully a hidden life and rest in unvisited tombs." And once more, just a few lines that Mr. Lowell has written of woman's life:

"In herself she dwelleth not, Although no home were half so fair; No simplest duty is forgot; Life hath no dim and lonely spot That doth not in her kindness share."

"She doeth little kindnesses
Which most leave undone, or despise;
For nought that sets one heart at ease,
And giveth happiness or peace,
Is low esteemed in her eyes."

—MINNIE MAY.

Three Connoisseurs.

FROM THE ORIGINAL PAINTING BY P. C. GILARDI.

A picture of three elderly ladies surrounding a table, drinking tea, or engaged in any pastime in which they showed a zestful interest, would probably be entitled "Three Gossips." But the trio in our picture are gentlemen, and they are not drinking tea; they are connoisseurs. What they would be if they were not looking at pictures, it is not for us to say. They might, however, remain connoisseurs all the same, for they are very knowing old fellows. Evidently they have seen life in all its phases and tasted all its pleasures, and have a rich fund to draw upon in the stories with which they enliven the hours which they pass over their wine and cigars, and cards and pictures. No doubt they are connoisseurs in all these things; and it would be quite rash to suppose that any one younger than themselves could give them any points touching the amusements of an elegant and elderly leisure. Their present occupation recalls a scene in a French circulating library. A lady enters and intimates to the librarian her taste in reading. The appreciative librarian, understanding at once what is wanted, calls to the assistant: "Marie, a novel for a middle-aged lady." The works of fiction were spiced to suit the period of life. In the present picture we have a portfolio to suit elderly connoisseurs of the epicurean school.

Signor Gilardi excels in conversation and genre pictures, with accessories—and frequently with subjects—taken from an earlier century. In his costumes and other details he displays the knowledge of an antiquarian. Of his skill in composition and his mastery of expression, our picture is a signal proof.

Mourning Customs.

The ancients had queer ideas about mourning for their dead. The Egyptian women ran through the streets crying, with their bosoms exposed and their hair disordered. The Lydians regarded mourning as unmanly, and they compelled men who went into mourning to put on female garments. In Greece, when a popular general dies, the whole army cut off their hair and the manes of their horses. At the present day, the Arabian women stain their hands and feet with indigo, which they suffer to remain eight days. They also carefully abstain from milk during this time, on the ground that its white color does not accord with the gloom of their minds. In China, mourning for a parent or husband is required by law, under the penalty of 60 blows and a year's banishment. When the Emperor dies, all his subjects let their hair grow for a hundred days. In the Fiji Islands, on the tenth day of mourning, the women scourge all the men except the highest chiefs. In the Sandwich Islands, persons desirous of going into mourning paint the lower part of their faces black, and knock out their front teeth. No doubt this causes a very sincere kind of mourning for the time being.

Beyond.

BY ELLA WHEELER.
It seemed such a little way to me
Across to that strange country, the beyond;
And yet not strange—for it has grown to be
The home of those of whom I am so fond;
They make it seem familiar and most dear,
As journeying friends bring distant countries near.
So close it lies that when my sight is clear,
I think I see the gleaming strand;
I know I feel that those who've gone from here
Come near enough to touch my hand.
I often think, but for our veiled eyes,
We should find heaven right 'round about us lies.
I cannot make it seem a day to dread
When from this dear earth I shall journey out
To that still dearer country of the dead,
And join the lost ones so long dreamed about.
I love this world; yet shall I love to go
And meet the friends who wait for me, I know.
I never stand about a bier and see
The seal of death set on some well-loved face,
But that I think, "One more to welcome me
When I shall cross the intervening space
Between this land and that one over there,
One more to make the strange beyond seem fair."
And so to me there is no sting to death,
And so the grave has lost its victory;
It is but crossing, with bated breath,
And white, set face, a little strip of sea,
To find the loved ones waiting on the shore,
More beautiful, more precious than before.

What Shall We Have for Breakfast?

At no time are appetites so capricious as in the morning. Most people enjoy dinner, hunger being the inevitable result of exercise or a forenoon of labor. The evening meal is usually an occasion of the good cheer and healthy digestion, but the complaint is general that nothing relishes for breakfast. Housekeepers have their inventive faculties constantly on the rack in endeavoring to serve the same article of food in different ways, and each time have it taste better than before. Variety is the key-note to success here, but seems sometimes and in some places quite unobtainable.

A breakfast dish that relishes oftener than almost any other is an omelet, and there are "ways and ways" of making omelets. Every housewife knows the original method, but a slight digression will be found palatable as well as economical.

Soak a cup of bread-crumbs in a cup of sweet milk over night. In the morning add three well-beaten eggs and a pinch of salt. Have a well-greased skillet, moderately hot, into which pour the mixture. Cook slowly until a golden brown; this may be determined by raising the edges with a knife. Brown in a hot oven and serve immediately.

Another omelet is made by using a cup of mashed potato, three eggs and a half-cup of milk. Fry as before. Cold meat, chopped fine, and added to an omelet when ready to brown or fold, is a pleasing

St. Kilda's Lonely Isle.

The people of St. Kilda, an island in the Atlantic, to the west of Barra, are shut off by stormy weather from the mainland for eight months out of every twelve. Their crops having been ruined by last month's storms, they sent off messages in a box, which was thrown into the sea, and which luckily floated ashore, or they would have starved long before the summer, when they would have received their next visit from Scotland. Stores sent from Glasgow were safely landed last week. It is an extraordinary little settlement. There are seventy-seven inhabitants, including the minister and schoolmaster. They are fairly well off, with tolerable houses and good food and clothes. There are 1,000 sheep, which are common property, and each inhabitant possesses a cow. There are no horses, and the women do the horses' work. In winter the men weave the cloth with which the people are clothed, and in summer they are occupied with their farming operations. They marry among themselves, and the race has so deteriorated that half the children now die of lock-jaw a few days after their birth. There has been some talk about the islanders removing to the mainland, but the majority are inclined to stay where they are. They are simply out of the world from the beginning of September till the middle of May.—[London Truth.]

Old Christmas.

It's a long way round the year, my dears,
A long way round the year!
I found the frost and the flame, my dears,
I found the smile and tears!
The wind blew high on the pine-topped hill,
And cut me keen on the moor;
The heart of the stream was frozen still,
As I tapped at the miller's door.
I tossed them holly in hall and cot,
And bade them right good cheer,
But stayed me not in any spot,
For I'd travelled around the year
To bring the Christmas joy, my dears,
To your eyes so bonnie and true:
And a mistletoe bough for you, my dears,
A mistletoe bough for you!
—December St. Nicholas.

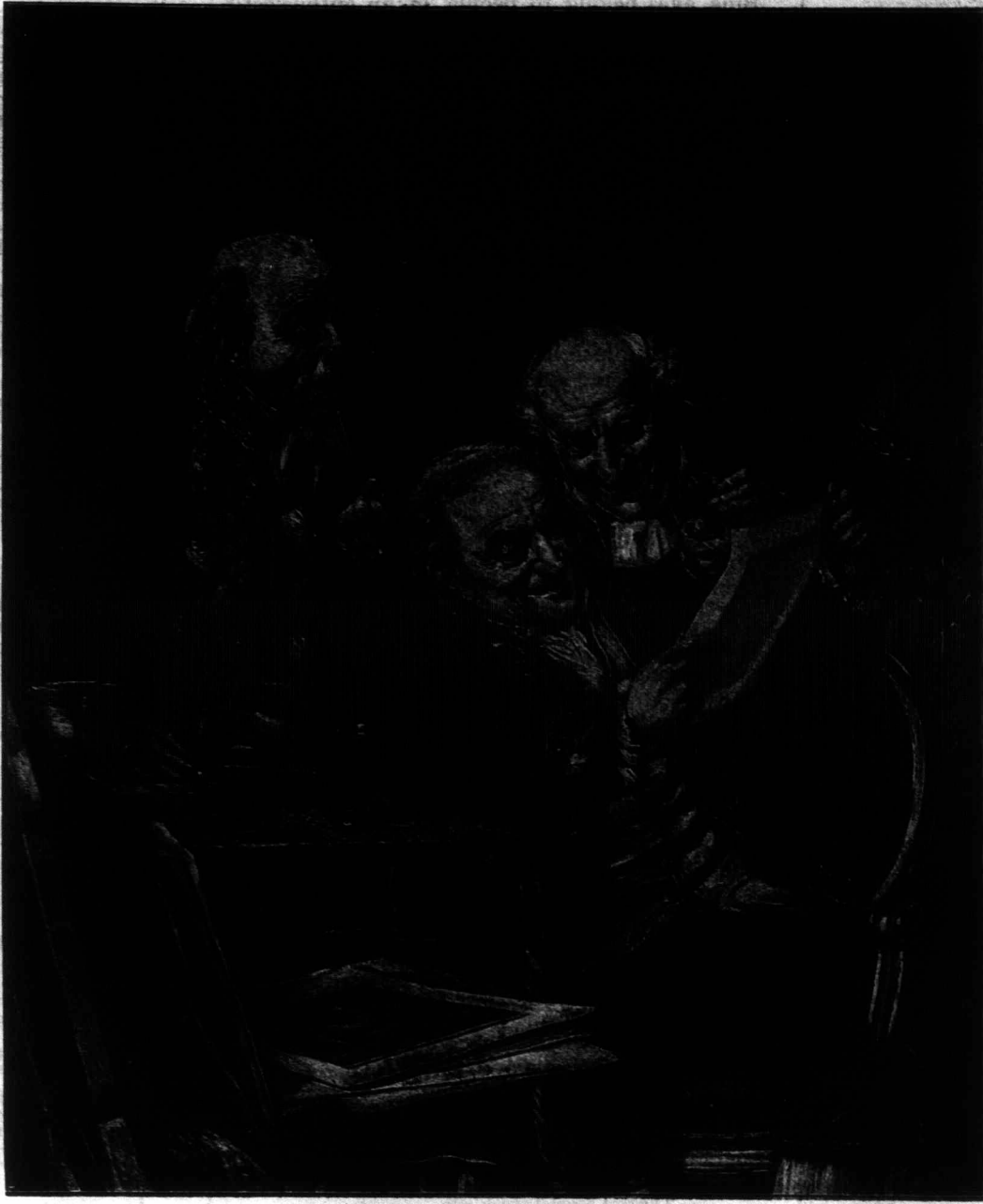
Work for Children.

It is better to let children earn money than to give it to them, and most of them like to do so. In cities there are many things that children can do, but I can not write of them, as I have never lived there. In small towns, where one can have a garden, let the children raise a few rows of some vegetable that sells well. Teach them just how to hoe and weed and care for that especial sort. In this way they will learn much of nature, and the exercise will be good for them. In living on a farm, let the boys have a few rows of corn all their own, and the girls a few chickens. Our children all like to earn something, and have something that they can feel is their own. If they desire something that we do not feel able to get, we give them some chance of earning it, if possible. The eldest, a girl, wants an organ, and she is studying hard, fitting herself for a teacher, so that she can get one. The next two, a boy of eleven and a girl of ten, have just planted a few rows of raspberries. They are to have the care of them, and I will buy their berries. Another child has a small potato patch.

I know a girl who has a hen she calls her "missionary hen," as all the proceeds go in the missionary box. Where there is no florists they could raise flowers or plants for sale. It is much better to give them something to do at home than to let them work for someone away where we can not watch over them. J. L.

Mrs. Golithly.

The time has come to speak, I think,
For on the square I met
My beauteous widow, fresh and pink,
Her black gown touched at every brick
With tender violet.
And at her throat the white crepe lisse
Spoke in a fluffy bow
Of woe that should, perhaps, no'er cease—
(Peace to thy shade, Golithly, peace)
Yet mitigated woe.
In her soft eye, that used to scan
The ground, nor seem to see,
The hazel legend sweetly ran,
"I could not wholly hate a man
For quite adoring me."



THREE CONNOISSEURS

dish, besides utilizing scraps that might otherwise be wasted.

Cream codfish served with dry toast, eggs boiled, poached and scrambled, bits of fried ham, broiled mackerel, are seasonable and can be kept on hand. Potatoes may be served in a dozen different ways.

Graham Gems.—One cup of white flour, three cups of graham, three teaspoons of baking powder, and sweet milk to form a batter. Bake in quick oven.

Serve oatmeal, cracked wheat, rolled hominy, cerealine, etc., as often as they are relished, not oftener. Fresh fruit is usually tempting to a listless appetite, but apples are best baked. Cocoa is nourishing and refreshing, and should be substituted for coffee three mornings out of the week. Insist upon a little exercise in the fresh air before partaking of the morning meal. —Mrs. Lillie Arndt.

Opportunities wear the humblest dress; they hide themselves behind the simplest disguises; there is nothing in them that arouses our interest or awakens our suspicions; for the most part we pass them by as the most commonplace things in our environment. This is the subtle and dangerous test which they apply to us. If they came with their value disclosed by the splendor of their attire, there would be no test of character in the manner in which we met them.

Christmas Again.

Throw away cares, and all live in the present;
Youngsters are flirting with laughter and noise;
Christmas indoors is remarkably pleasant—
Dances and games for the girls and the boys.
Outside the shadows are colder—'tis snowing.
Soft flakes whirl downward and drift on the pane.
Round the warm hearth, where the fire is glowing,
Old folks draw closer at Christmas again!

The head of the house, in the glow of the embers,
Stands straight as an arrow, smiling, but grand.
There is his wife, and some fifty December
Leave her as lightly as waves on the sand.
She is to him still as fair as he thought her
When in her teens his allegiance he swore.
Many a son, now, and blossom-cheeked daughter
Gather about them for Christmas once more!

Then there are neighbors and cousins and lovers;
Bertie, from college, and strokes of his crew;
Sportsmen who come with an eye on the covers;
Maidens of beauty whose charms are not few—
Daisy Diana, of favors quite chary;
Reginald, fresh from the ranch on the plain;
Learned girl graduates, Sabine and Mary,
Meeting and greeting at Christmas again.

Still, to my fancy, the fairest of faces
Yonder is shining in silvery curls,
Framed in soft wavy tresses and delicate lines,
Grandmother sits in a cluster of girls,
Watching the dancers with eyes growing tender,
Clearer and clearer for long ago pain;
Holding the loving hands near to defend her,
Safe with her children at Christmas again.

I can remember when honor by the dozen
Toasted her beauty in wit and in wine;
I, too, adored her—though I was a cousin—
Many a sword tried its mettle with mine.
Ah, gallant company, vanished to hades!
Swept with the years till we only remain.
She is for me still the sweetest of ladies—
I, her old suitor, at Christmas again!

Madam, your hand! Though the dancers be plenty,
Let us, too, stand—not in walk or in reel.
This was "the mode," eighteen hundred and twenty,
When it was voted as "mighty genteel."
Ah, that was dancing, then "steps" were "de rigueur"
Or has the music a treasure of tears?
You will remember that elegant figure—
Let us walk through it at Christmas again!

Yes, that is well! Strike a stouter measure,
Fitting the snows and the honor of years.
Say, does it bring to you visions of pleasure,
Or has the music a treasure of tears?
Here let us stay. Why this laughter, young misses?
"Under the mistletoe!" Zounds! there 'tis plain.
Grandmother, blushing, must bring out this kiss
She has been keeping for Christmas again!

—Lawrence Lee.

Genuine Gems.

Kind words are the music of the world. They
have a power which seems to be beyond natural
causes, as if they were some angel's song, which
had lost its way and come on earth, and sang on
undyingly, smiting the hearts of men with sweetest
wounds, and putting, for the while, an angel's
nature into us.—[Faber.

Now occasions teach new duties; time makes ancient good
unsmooth;
They must upward still and onward who would keep abreast of
truth.—[Lanell.

Modesty seldom resides in a breast that is not
enriched with nobler virtues.—[Goldsmith.

It is success that colors all in life;
Success makes fools admired, makes villains honest;
All the proud virtues of this vanishing world
Fawns on success and power, however acquired.—[Thomson.

There is a divinity that shapes our ends,
Rough how them how we will.—[Shakespeare.

Ingratitude is a crime so shameful that the man
was never yet found who would acknowledge him-
self guilty of it.—[Anonymous.

The boast of heraldry, the pomp of power,
And all that beauty, all that wealth e'er gave,
Await alike the inevitable hour;
The paths of glory lead but to the grave.—[Gray.

If you would be pungent, be brief; for it is with
words as with sunbeams, the more they are con-
densed, the deeper they burn.—[Southey.

The love that survives the tomb is one of the
noblest tributes of the soul.—[Washington Irving.

Virtue is bold and goodness never fearful.
—[Shakespeare.

Through the ages one unceasing purpose runs,
And the thoughts of men are widened with the process of the
suns.—[Tennyson.

Lost! Yesterday, somewhere between sunrise
and sunset, two golden hours with sixty diamond
minutes. No reward is offered, for they are gone
forever.—[Horace Mann.

Beware of entrance to a quarrel; but being in,
Bear it that the opposer may beware of thee.
—[Shakespeare.

Men are but children of a larger growth.—[J.
Dryden.

Ill fares the land, to hastening ills a prey,
Where wealth accumulates and men decay.
—[Goldsmith.

Visions.

Visions come and go again,
Leaving in their airy train
Just a rhythm, soft and low,
Of their movement to and fro—
Something like an odd refrain.

'Tis the way with summer rain:
'Tis the way with joy and pain;
'Tis the way with all we see
Of lives of mortal men.
Just to come, then go again.

—From Harper's Weekly.

THE FACE.

What It is Popularly Supposed to Tell
of Character.

Brown eyes are most kindly.

Black eyes are the most rash and impetuous.

A pouting upper lip indicates timidity.

An insignificant nose indicates an insignificant
man.

An open mouth is a sign of an empty head.

Coarse hair always indicates coarse organization.

Large ears are found on the heads of coarse
people.A projecting upper lip shows malignity and
avarice.Pointed noses generally indicate meddling
people.

Very full cheeks indicate great digestive powers.

A retreating chin is always bad; it shows lack
of resolution.If the forehead be shorter than the nose the
sign is stupidity.Large eyes in a small face always betoken
maliciousness.Narrow, thin nostrils indicate small lungs and
low vitality.Blue eyes belong to people of an enthusiastic
turn of mind.Power of language is indicated by fullness be-
neath the eyes.Oblique eyes are unfavorable; they show cun-
ning and deceit.Short, thick, curly hair is an indication of great
natural strength.Freckles, like red hair, are an indication of an
ardent temperament.A long forehead indicates intelligence; a short
forehead, activity.Irregular teeth generally indicate a lack of cul-
ture and refinement.Gray eyes are generally found associated with
prudence and foresight.Large, wide-spreading nostrils show ample lungs
and good health.Very tightly closed lips are usually found in
secretive characters.An irregular, knotty forehead is a sure sign of a
bold, original and investigating mind.Eyes which, when viewed from the side, seem
almost parallel with the nose, denote a weak
mental and physical organization.Prominent, arched eyebrows show great power
of perception in regard to form and color. All
great painters have such brows.Large, clear blue eyes generally denote persons
of great capacity, but sensitive, suspicious, and
often unreasonably jealous.Horizontal eyebrows, full and regular, show
great understanding, deliberation and capacity for
planning and execution.The typical religious enthusiast has a thin, pale
face, retreating forehead, small, keen eyes, pointed
nose and retreating chin.A perpendicular, a very high, or a very short
forehead is always bad; either invariably indicates
lack of sympathy.A face which does not change expression in con-
versation either indicates caution or stupidity.A flat forehead or an abrupt descent at the back
of the head are both unfavorable, either indicating
limited understanding.Black, sparkling eyes, with a steady, grave
mouth, show taste, elegance, sound judgment, and
often an ungenerous disposition.

Christmas Eve.

God bless the little stockings,
All over the land to-night,
Hurry in the choicest corners,
In the glow of crimson light,
The tiny scarlet stockings,
With a hole in the heel and toe,
Worn by wonderful journeys,
The darlings have had to go.

And heaven pity the children,
Wherever their home may be,
Who wake at the first gray dawning,
An empty stocking to see!
Left in the faith of childhood,
Hanging against the wall,
Just where the dazzling glory
Of Santa's light will fall!

Ah! for the lonely mother
Whose home is empty and still,
Who has no scarlet stockings
With childish toys to fill!
Who sits in the swathy twilight,
With her face against the pane,
And grieves for the little baby
Whose grave is out in the rain!

Oh, the empty shoes and stockings
Forever laid aside;
Oh, the tangled, broken shoe-string
That will never more be tied!
Oh, the little graves of the mercy
Of the cold December rain!
Oh, the feet in the snow-white sandal,
That never can trip again!

But happier they who slumber,
With marble at foot and head,
Than the child who has no shelter,
No raiment, nor food, nor bed.
Yes! heaven help the living,
Children of want and pain,
Knowing no food nor pasture—
Out to-night in the rain.

THE QUIET HOUR.

"Christ With Us."

"Had we in Bethlehem been, when Mary came
For shelter from the storm," we muse in pity,
"Our homes had not been shut to her in shame,
She had not been an outcast from the city.
She had not passed, forsaken and forlorn,
From kindred doors, an exile and a stranger.
Her babe in royal purple had been born,
Nor lain, among the oxen, in a manger.
On bended knees had many a worshipper,
On Christ, the king, in royal love attended,
And subject hands had offered gifts of myrrh,
And frankincense and gold and jewels splendid."

Nay, Nay, for Christ is ever at our door,
For shelter sweet, and kindly pity pleading,
And we—we only, like the blind of yore,
Discern him not, hard-hearted and unheeding.
With beggar hands He asketh us for alms,
He pines upon the threshold of the palace;
We know Him not, but scorn His outstretched palms,
And while He hungers, drink of plenty's chalice.
Daily we meet Him seeking mercy sweet;
With tender eyes of orphans, wan and wistful,
He haunts us in the starveling of the street,
Among the sad, the tearful, and the trustful.
For still he loves the lowly and the poor,
And he who scorns in pride his outcast brother,
Had turned of old the Saviour from his door,
And barred the gates against His maiden mother.
But, ah! the crust, the cup of water cold,
For Christ's sweet sake to whose needeth given,
Will yield us gain of grace a million-fold
With rich requital in the courts of heaven.

Christmas.

Great cities are illuminated at birth of princes,
but at the birth of the Prince of Peace an illumina-
tion was hung out in the vault of heaven, the mid-
night sky blazing suddenly with the glory of the
Lord, and echoing with voices and ministrals of
angels before the eyes of simple shepherds. Men of
science, who had long studied the heavens, saw
bright signal lamps, hitherto strange to them, and
quite unrecorded in the register of their researches,
which led them to believe that the long-expected
King of the Jews had been born.—Goulburn.

The Good Shepherd.

Ye shepherds of the midnight flock,
Why start ye as with sudden shock,
Outstretched beneath the moonlit rock?
A mightier shepherd from on high
Descends to share your ministry—
Straight stripping off Heaven's shining dress
For sin and shame and nakedness,
Bloodstained, along the lost sheep's track—
Though angels could not bring them back—
The Son himself, in mortal guise,
Climbs peak on peak 'mid thundering skies!
And, dying, wins from Death the prize!—C. A. Fox.

The chief joy of the Christmas festival is con-
nected with the children. May we, who are grow-
ing up into Christ, cultivate the sweet, happy mind
of a loving child, and placing our hand in our
Father's, tread bravely through the mists and
shadows here: "careful for nothing" but that He
may be glorified in us—in our lives. That was the
one desire of the Holy child Jesus. May it be ours
in a greater measure than it has been hitherto; so
shall we spend in deed and in truth a holy, happy
Christmas.

When, in the pathway of God's will,
Thou seemest at a stand,
Fretting for wings to scale the hill,
And tired of foot and hand;
At blessed Bethlehem leave thy gloom,
And learn Divine content,
By manger, workshop, cross and tomb,
Thy Lord to triumph went.

A Christmas Resolve.

BY F. L. N.

One Christmas eve, long time ago
Three children stood in the freight glow,
Dorothy, Ellen, and sturdy Ted,
Waiting, before good nights were said,
To send a message of childish haste
To the children's saint o'er the wintery waste.

Dangling down from the mantel swayed
Curious forms where the freight played,
Stockings the longest that they could find,
"Santa can't miss them unless he's blind,
Hurry, St. Nicholas, over the snow!
As fast as the reindeer fleet can go!"

Above, in the low-roofed chamber wide,
Dorothy drew the curtain aside;
The full moon rode in the sky a queen,
Flooding the earth with a silver sheen.
"See! the stars gleam out from the blue depths high
As they must have gleamed from the Bethlehem sky."

The silent beauty and peace of earth
Touched the children and hushed their mirth;
Then Teddy said, "Did the Bethlehem star
Feel glad to be sent on that errand far?
I should like to have been such a shining light
To guide wise men to the Christ that night."

Dorothy smiled. "Mother says, you know,
That thousands now to our Christ would go
If only they understood the way;
And they live in our own good land to-day.
Then there are the heathen who've never heard
Of God and of Jesus—not a word."

"Perhaps, we try we can be to them
Lights like the star of Bethlehem."
"Why, so I will," was the quick reply;
And Ellen echoed, "So will I."
Good words and brave, which an angel kept
And wrote in God's book while the children slept.

Years have passed: at this Christmas-tide
The three are scattered. The home fire-side
Claims good Dorothy, "mother's right hand";
Ted works for Christ in a foreign land,
And little Ellen away at the West,
Each guiding to Jesus as each can best.

Three bright stars pointing the way above,
Three warm hearts, filled with a heavenly love,
Telling the story again and again
Of Christ and His love to sinful men.
But the work is great and the workers few;
Christ needs more laborers: Christ needs you!

THE JONESVILLE QUIRE.

BY JOSIAH ALLEN'S WIFE.

The quire meets to practice every Friday night, and the last time they met, Thomas Jefferson came home, and says he—

"It does beat all how that quire goes on. I guess you'd get sick, mother, to hear 'em fight, as I do, rehearsing."

"I'll be hanged if I would rehearse," says Josiah; "what makes 'em?"

"Let 'em rehearse," says I, sternly. "I should think there was need enough of it, for of all the singin' I ever heard, they beat all."

A few nights after this conversation word was given out that Eld Linden was goin' to preach to the red school house, and Josiah harnessed up the old mare, and we all went to hear him.

Josiah and I sat right behind the quire, and we could hear every word they said, and while Eld Linden was reading the words, "How sweet for brethren to agree," Deacon Gowdey whispered to Mr. Peedick in wraithful accents:

"I wonder if you will put us all to open shame to-night, by screechin' two or three notes above us all!" He caught my keen gray eye fixed sternly upon him, and his tone changed in a minute to a mild and sheepish one, and he added, smilingly, "As it were, dear brother Peedick."

Mr. Peedick deigned not to reply to him, for he was shakin' his fist at one of the younger brethren in the quire, and says he—

"Let me ketch you pressin' the key agin to-night, you young villain, if you think it is best."

"I shall press as many keys as I am a minter, for all you; you are always findin' fault with sunthin' or other," muttered he.

Betsy Bobbet and Sophrenia Gowdey was lookin' at each other all this time with looks that made one's blood run cold in their veins.

Mr. Peedick commenced the tune, but unfortunately struck into short metre. So he couldn't get any further than "How sweet for breathin'." As they all come to a sudden halt there in front of that word, Deacon Gowdey, looking daggers at Peedick, took out his pitchfork as if it was a pistol and he was goin' to shoot him with it, but applying it to his own ear, he started off on the longest metre that had ever been in our neighborhood.

After adding the tune to the words, there was so much tune to carry, that the best calculator in tunes couldn't do it. At that very minute, when it looked dark and gloomy indeed for the quire, an old lady, the best behaved in the quire, who had minded her own business and chawed caraway peacefully, come out nobly and started it to the tune of "Oh, that will be joyful."

They all joined in loud and strong, and though they each one put in flats and sharps to suit their own taste, they kinder held together till they got to the chorus, and then Deacon Gowdey looked round and frowned fiercely at Shakespeare Bobbet, who seemed to be flattin' most of any of 'em—and Betsy Bobbet punched Sophrenia Gowdey in the side with her parasol, and told her she was "disgracin' the quire—and to sing slower," and then they all yelled:

How sweet is unitee e
How sweet is unitee
How sweet for breathin' to agree
How sweet is unitee.

It seemed as if the very feather on my bonnet stood up straight, to hear 'em, it was so awful. Then they collected their strength, and drawin' long breaths, they yelled round the next verses like wild Indians round sufferin' whites they was murderin'. If any one had iron ears, it would have went off well, all but for one thing. There was an old man who insisted on bein' in the quire, who was too blind to see the words, and always sung by ear, and bein' a little deaf, he got the words wrong, but he sung out loud and clear like a trombone

How sweet is onion tea e
How sweet is onion tea.

The minister made a dreadful good prayer about trials purifyin' folks and makin' 'em better, and the same patient look was on his face when he gave out the next him. This piece begun with a long duett between the tenor and the alto, and Betsy Bobbet, by open war and stratagem, had carried the day, and was to sing this part alone with the tenor. She knew that the editor of the Gimlet was the only tenor singer in the quire. She was so proud and happy thinkin' she was goin' to sing alone with him, that not rightly sensin' where she was and what she was about, she pitched her part too low, and here was where I had my trial with Josiah.

There is no more sing to Josiah Allen than there is to a one horse wagon, and I have tried to convince him of it, but I can't, and he will probably go down to the grave thinkin' he can sing bass. But there is no sing in it, that I will contend for with my last breath, it is nothing more nor less than a roar. But one thing I will give him the praise of, he is a dreadful willin' man in the time of trouble, and if he takes it into his head that it is his duty to sing you can't stop him no more than you can stop a clap of thunder, and when he does let his voice out, he lets it out strong, and then I heard him say to himself:

"It is a shame for one woman to sing base alone, in a room full of men." And before I could prevent it, he struck in with his awful energy. You couldn't hear Betsy's voice nor the editor's no more than you could hear 2 flies buzzing in a car whistle. It was dreadful. And as he finished the first verse, I ketchin' hold of his vest. I didn't stand up by reason of bein' lame, and says I, "If you sing another verse in that way, I'll part with you," says I, "what do you mean, Josiah Allen?"

Says he, lookin' down on me with the perspiration on his pourin' down his face:

"I am a singin' base."

Says I, "Do you set down and behave yourself; he has pitched it too low, it haint base, Josiah Allen."

Says he, "I know better, Samantha; it is base. I guess I know base when I hear it." But I still held him by the vest, determined that he shouldn't start off agin if I could hinder it, and just at that minute the duett begun agin, and Sophrenia Gowdey took advantage of Betsy's indignation and surprise, and took the part right out of her mouth, and struck in with the Editor of the Gimlet as if he kinder ad libitum, and she broke out with the curiousst variations you ever heard. The warblings, and quaverings, and shakings she put in was the curiousst of anything I ever heard. And thankful was I that it took up Josiah's attention so, that he sank down on his seat and listened to 'em with breathless awe, and never offered to put in his note at all.

I waited till they got through singin' and then I whispered to him, and says I,

"Now do you keep still for the rest of this meetin', Josiah Allen."

Says he, "As long as I call myself a man, I will have the privilege of singin' base."

"Sing," says I, in a tone almost cold enough to make his whiskers frosty. "I'd call it singin', if I was you. It worried me all through meetin' time, and I don't know as I was ever more thankful than when he dropped off into a sweet sleep just before meetin' was out. He never heard 'em sing the last time, and I had to hunch him for the benediction."

A Laugh in Church.

She sat on the sliding cushion,
The dear wee woman of four;
Her feet in their shiny slippers,
Hung dangling above the floor.
She meant to be good; she had promised,
And so, with her big brown eyes,
She stared at the meeting-house windows,
And counted the crawling flies.

She looked far up at the preacher;
But she thought of the honeybees
Droning away in the blossoms
That whitened the cherry trees.
She thought of the broken basket,
Where, curled in a dusk heap,
Three sleek, round puppies, with fringed ears,
Lay snuggled and fast asleep.

Such soft, warm bodies to cuddle,
Such queer little hearts to beat,
Such a swift, red tongue to kiss you,
Such sprawling, cushiony feet!
She could feel in her clasping fingers
The touch of the satiny skin,
And a cold, wet nose exploring
The dimples under her chin.

Then a sudden ripple of laughter
Ran over the parted lips,
So quick that she could not catch it
With her rosy finger-tips.
The people whispered: "Bless the child!"
As each one waked from a nap;
But the dear wee woman hid her face
For shame in her mother's lap.

—Emily Huntington Miller.

"Be Ye Kind."

"Be ye kind to one another,"
Little sister, little brother;
Hear the gentle Master sayin'—
Heed his words, no more delayin':
"Be ye kind."

"Be ye kind" for tears are fallin',
"Be ye kind," his Love's voice callin';
Little lives are often dreary,
Little hearts grow often weary:
"Be ye kind."

"Be ye kind," lest your to-morrow
May bring bitter pain and sorrow,
For the words of cheer unspoken,
For the links of love's chain broken:
"Be ye kind."

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MESSRS. J. & G. TAYLOR, of Rockwood, Ont., will offer for sale on January 16th, ten Short-horn bulls and forty females. 6-2-y-om

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The above stud, though only commenced in 1890, has achieved unparalleled success at all the leading Canadian shows, such as Montreal, Toronto and London, also at the CHICAGO WORLD'S FAIR.

The most notable in this stud are, the Shire horse Bravo II, 1885, winner of first at Toronto, Montreal and London, and also beating all Clydes at the latter show in the sweepstakes. Hackney, Fireworks No. 3602, winner at Chicago, Toronto and London. Shires and Hackneys always on hand for sale. For further particulars apply to the Proprietor, ROSSEAU, Muskoka. 10-y-om

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I intend having a sale of above stock some time in March, of which further notice will be given. 13-L-om

DAISY CHIEF - 13674 - is FOR SALE at a bargain; he is gentle, sure, and in good service condition. Also for sale young bulls and heifers of his get. Prices to suit the times. A. J. C. SHAW & SONS, 2-2-y-om THAMESVILLE, ONT.

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One imported Cruik-shank bull, 3 years. Ten grand young bulls. Ten splendid heifers, all Scotch. Twenty shearing ewes in lamb. Ram lambs and ewe lambs. For sale at lowest prices. JOHN MILLER & SONS, Brougham, 12-2-y-om Ontario.

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The fine yearling bull Netherland Consul, a son of the silver medal bull Netherland Statesman's Cornelius, and the great cow Pollanthus imp., that gave 13160 lbs. milk in a year at two years old, now for sale. He should go to head a herd. W. CLEMENS, ST. GEORGE, ONT. 13-y-om

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AND BERKSHIRES. Having rented one of my farms, I will sell at very much reduced prices, six young Short-horn bulls; thirty Shropshire ewes, in lamb to imported ram; fifteen ewe lambs; six Berkshire sows, due to farrow in March and April, and two boars, six months' old. All registered and choice quality. W. G. PETTIT, 13-y-om Freeman P. O., Burlington Stn., G. T. R.

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DEEP MILKING SHORTHORNS

For sale, 4 young bulls, 3 reds and 3 roans also yearling heifers and heifer calves. The Golden Drop bull, Golden Nugget - 1748, by Imp. General Booth - 6265 - (6455), at head of herd. Address WM. GRAINGER & SON, London, Ont. 13-y-om

THE GLEN STOCK FARM

AYRSHIRES - AND - BERKSHIRES. A few good Ayrshire bull calves and heifers, Berkshire boars and sows. For particulars write Whiteside Bros., 7-y-om INNERKIP, ONT.

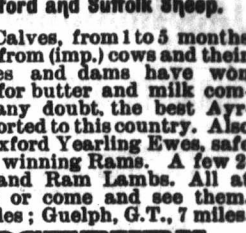
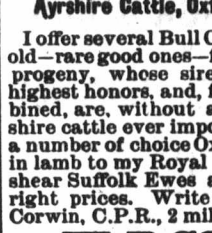
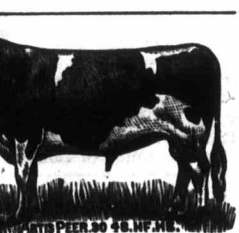
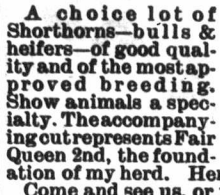
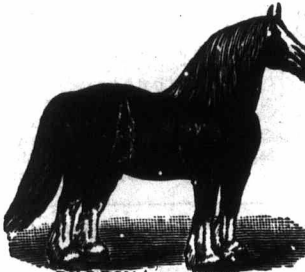
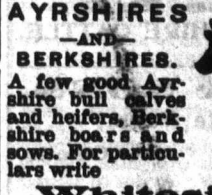
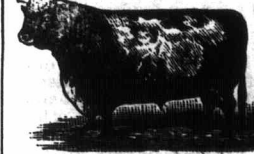
Champion Dairy Herd of Ayrshires at various government tests. Prize winners at the World's Columbian Exposition, Chicago. Write MESSRS. ROBERTSON & NESS, Howick, Que. 13-y-om

DOMINION PRIZE HERD OF AYRSHIRES

We have the oldest established, largest and best herd of Ayrshires in Canada. Choice young stock for sale at liberal prices. Satisfaction guaranteed. JAMES DRUMMOND & SONS, Petite Cote, Montreal, P. Q. 8-2-y-om

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Ayrshire Cattle, Oxford and Suffolk Sheep. I offer several Bull Calves, from 1 to 5 months old - rare good ones - from imp. cows and their progeny, whose sires and dams have won highest honors, and for butter and milk combined, are, without any doubt, the best Ayrshire cattle ever imported to this country. Also a number of choice Oxford Yearling Ewes, safe in lamb to my Royal winning Rams. A few 2-shear Suffolk Ewes and Ram Lambs. All at right prices. Write or come and see them. Corwin, C.P.R., 3 miles; Guelph, G.T., 7 miles. W. B. COCKBURN, 17-y-om Greenhouse Farm, ABERFOYLE, ONT.



STOCK GOSSIP.

In writing to advertisers, please mention the Farmer's Advocate.
Mr. A. Elliot, Pond Mills, writes "That his Bronze turkeys are heavy birds, and feels confident he can fill orders satisfactorily." See his advt.

R. B. McMullen, Goldsmith, Ont., has a new advertisement in this issue. He breeds Poland-Chinas, and we call our readers' attention to his stock. See his advt.

Messrs. J. & G. Taylor, Rockwood, have made an important change in their advertisement. Their herd of Shorthorns will command the attention of all S. H. breeders. See his advt.

W. C. Shearer, Bright, says: "Our stock of Jerseys are all into winter quarters now, in fine condition, and the fresh calved cows are milking very heavily. Nearly all the heifer calves that are ready to ship are sold at good prices. In this issue will be found my advertisement of a very fine and richly bred bull. This bull is a rare one to cross with common cows; their get should be very valuable, either for a creamery or in supplying milk to a cheese factory where the Babcock Tester is used. The price is so low that any farmer who is ready to raise grade Jerseys, as business cows, should not miss getting him."

W. A. Reburn, St. Anne de Bellevue, writes: "The bulls I am now offering are, without exception, the grandest bred bulls that I have ever raised. I used Jolie's Pogs on some of the young stock, and sold a pair of heifers sired by him for \$350. One of Jolie Boy of St. A. sons is at the head of a large herd in Ohio, U. S. A. Last spring I was offered \$100 and \$125 for some of these bulls, the parties buying others from me, but would rather have had these. I have decided to sacrifice them, as I want room badly. The sire of four of them—Romeo of St. L. (for a great number of years my herd bull), was a double grandson of Stoke Pogis 3rd; he was almost full brother to Mary Anne of St. L., having 96% same blood elements as she had; his grand dams were Jolie of St. Lambert and Hebe of St. Lambert, two of the famous St. L. cows. Gipsev Hugo is a daughter of Hebe of St. Lambert and Romeo of St. Lambert, and out of a daughter of Lady Fawn of St. Annes—16 lbs. 12 ozs. of butter at 15 years. Juliet is a great prize-taker, and milks 45 lbs. at flush."

Agents Wanted.

We want a smart man in every village to collect feathers for us. We buy Goose, Duck, Hen and Turkey, and WE PAY CASH. Now is the time. Write us what you have, and what you can collect.

The ALASKA FEATHER & DOWN CO., Ltd.
10 St. Sacramento St., MONTREAL. Branch—28 Front St. East, Toronto.
"Alaska" is our name and our trade mark.

DANIEL DRUMMOND
BURNSIDE FARM,
Petite Cote, P. Q.,
BREEDER OF AYRSHIRE CATTLE.
16-2-y-om

J. YULL & SONS,
Meadowside Farm,
Ontario.

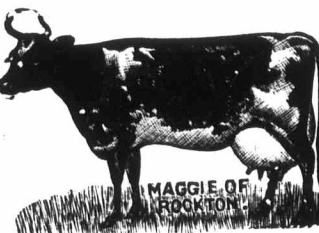
Our herd is composed of seventy-five head. Look at Meadowside—1423—first prize at World's Fair, heads the herd. Cows of the deepest milking strain, having won several medals at provincial tests. Shropshire sheep and Berkshire pigs. Young stock of both sexes for sale. Visitors welcome; met at train. Give us a call.



FOR SALE
2 EXTRA GOOD AYRSHIRE BULL
Calves, nearly ready for service; one out of Second Prize Cow at World's Fair, the other out of Cow that took two Second Prizes at Montreal; sire Hamilton Chief out of one of Messrs. D. Morton & Sons' best Imported Cows, by Imported Bull Royal Chief; also some Poland-China Boar Pigs.
W. M. & J. C. SMITH,
FAIRFIELD PLAINS, ONT.
2-2-y-om

Prize-Winning AYRSHIRES FOR SALE.

I have at present one of the largest and best herds in Ontario, which has been very successful in the Prize ring. They are deep milkers and of a large size. Bulls, cows and heifers for sale always on hand.



JAS. McCORMICK & SON,
ROCKTON, ONT. 20-2-y-om

GUERNSEYS AND LARGE YORKSHIRES

FOR SALE—A choice bull calf, two months old, bred from heavy-milking, high-testing stock. Also ten grand young pigs ready to ship.
W. H. & C. H. McNish,
LYN, ONT.
20-y-om



RHEUMATISM
NEURALGIA, MUSCULAR STIFFNESS. **MUST GO**
PAIN IN SIDE & LAME BACK
WHEN "D.&L." MENTHOL PLASTER IS USED

SPECIAL OFFERINGS AT REDUCED RATES

—TO THOSE WHO WISH TO—
DOUBLE THE BUTTER YIELD OF THEIR HERDS.

6 Jersey bull calves, 2 to 4 months old, bred entirely for **GREAT BUTTER YIELD.**

Sired by bulls whose dams make **17 1/2 to 26 3/4 lbs. Butter a Week.**

As my fall cows gave an unusual number of bull calves, I have decided to place them within reach of all who want an extra bull for next summer, viz.: \$60 to \$90 each, registered, and express prepaid by me to their destination. **MRS. E. M. JONES, Box 324, Brockville, Ont., Can.** Mrs. Jones' great book, *Dairying for Profit*, 30c. by mail. Address, **ROBT. Y. BROWN, Agent, Box 324, Brockville, Ontario, Canada.** 8-y-om

GUERNSEY BULLS.

We are offering for sale, at very reasonable figures, the yearling bull Isaleigh Choice, winner of first prize at Toronto, Belleville and Sherbrooke this year, and third at the World's Fair last year, also two excellent bull calves, one five and one seven months old. Buy the silver medal bull Adventurer, winner of twenty-nine prizes in England and Germany. Write for particulars.

IN YORKSHIRES.—We have some of the best young pigs we have ever had. Send in your order right away. Address 9-y-om

J. Y. ORMSBY, Manager Isaleigh Grange Farm, Danville, Que.

PURE ST. LAMBERT BULLS AT YOUR OWN PRICE

Jolie's Pogs of St. A. 23830, six years, sire Romeo of St. Lambert, dam Jolie of St. L. 3rd. Jolie Boy of St. A. 23713, six years, sire Romeo of St. Lambert, dam Jolie of St. L. 4th. Jolie's Romeo of St. A. 29732, five years, full brother to the above. Gipsev Boy of St. A. 25705, four years, sire Jolie's Hugo of St. A., dam Gipsev Hugo of St. A. Defiance of St. A. 29733, four years, sire Romeo of St. Lambert, dam Juliet of St. Annes. Lord Derby of St. A. 33291, three years, sire Lady Fawn of St. A. Son, dam Juliet of St. Annes. The best offer (received before the 31st December) over \$75, gets the choice of the first three, and best offer over \$50 gets the choice of the last three. They are all solid colors, and out of cows whose public records as dairy cows have never been beaten. We sold six bulls this year, same age as above (not so well bred), for \$625. Apply to

W. A. REBURN,
20-y-om St. Anne de Bellevue.

FOR SALE.

A choice Jersey bull calf, two months old, solid fawn color—his two granddams have a butter record in seven days of 181 pounds and 19 pounds 5 ounces, respectively—to make room for new-coming calves. I will deliver him free, express prepaid, for \$25.00. Address,

W. O. SHEARER,
19-2-y-om BRIGHT, ONT.

GLEN ROUGE JERSEYS

WILLIAM ROLPH, Markham, Ont., offers Twelve Jersey Bulls and Heifers (pure St. Lamberts), out of tested cows. Grand individuals. Prices right. 21-y-om

JERSEY-CATTLE

Of the heaviest milking strains. One of the largest herds in Canada; bred closely to the great dairy cow at Chicago, also the famous two-year-old. Sires of both were sold from this herd. Also Welsh Blood Ponies for ladies' and children's driving. Stock for sale always on hand. **Geo. Smith & Son, Grimsby, Ontario.** 3-y-om

FOR HEREFORDS

..... WRITE TO
F. A. FLEMING, 5-y-om Weston, Ont.

SHROPSHIRE.

Foreign buyers are invited to visit the Wolf's Head Flock, as there is always a good selection of ewes and rams for sale, and we handle none but the best, and can supply select specimens for breeding or exhibition purposes, and residing in the centre of the Shropshire Sheep Breeding District buyers are assisted in selecting from other flocks. Write for prices or visit us before going elsewhere. Visitors met by appointment at Baschurch Station, G. W. R. Address—**J. & T. THONGER, Wolf's Head Farm, Nesscliff, Baschurch, Shropshire, Eng.** Telegram: Thonger Nesscliff. 2-2-y-om



IMPORTED SHROPSHIRE EWES
And their lambs for sale by car lots; also a very choice Short-horn Bull calf, ten months old.
W. S. HAWKSHAW, Glanworth P.O., Ont. 7 miles south of London. 7-11-om

PURE WATER FROM ARTESIAN WELLS
Write for particulars to **WILLIAM SHARP, 184 Hamburg Ave., Toronto, Ont.** Practical Well Driller. 22-f-o

SHROPSHIRE

A choice lot of Shearing Rams and Ewes, and this season's lambs from imported dams, and sired by a Beny ram, to choose from.
JAMES COOPER & SON,
14-2-y-om **Kippen, Ont.**

BEAM-HOUSE-SHROPSHIRE

This is the Home of the Blue Bloods.

Wm. Thomas offers for sale Rams and Ewes from his famous flock, which has sent so many winners to our leading shows, and here also was bred Mr. A. O. Fox's noted ram "Blue Blood Yet," which so ably piloted Mr. Fox's flock of Shropshires at the World's Fair. Wm. Thomas will have several grand shearing rams for sale this next season, sired by his grand old sheep "Blue Blood," and also a grand lot of shearing rams by other noted sires; also about 150 splendid shearing ewes to select from. Foreign buyers always welcome. If not able to come and select for yourselves, write and obtain prices from **WM. THOMAS, The Beam House, Montford Bridge, Salop. Railway Station: Baschurch, G. W. R. Salop.** 2-2-y-om



Imported and Home-bred LINCOLNS

The first Royal winner, Royal Chester, at the head of the flock. Ewes from the best English flocks, such as those of Dudding, Balles, Wright and Clark. Rams to head flocks a specialty.
R. W. STEVENS, LAMBETH, ONT.
London Station. 3-y-om

LARGE IMPROVED YORKSHIRE PIGS

and Holstein Cattle.

We breed nothing but the best, and sell cheap, and guarantee satisfaction or ask no pay. Come and see us, or write for prices and be convinced.

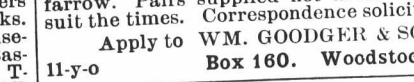
FLETCHER BROTHERS,
Oxford Mills P. O., Ont., Kemptville St'n, C. P. R. 6-2-y-om

Large (White) Improved YORKSHIRE AND ENGLISH BERKSHIRES

The undersigned offers for sale this fall an exceptionally fine lot of Young Pigs, also a few Sows ready to breed, also a few Sows in farrow. Pairs supplied not akin. Prices to suit the times. Correspondence solicited.
Apply to **WM. GOODGER & SON,**
11-y-o Box 160, Woodstock, Ont.

A Specialty of Improved Large Yorkshire Hogs

This herd has again won first prize at Toronto Exhibition. Two hundred pure-bred Pigs, of the type most profitable to the feeder, and the pork-packer's favorite. Individuals from this herd have been prize-takers at the principal Canadian Exhibitions. I request a personal inspection of my herd. Visitors welcome. All stock guaranteed to be as described.
J. E. BRETHOUR, Burford, Brant Co. Ont. 3-y-om

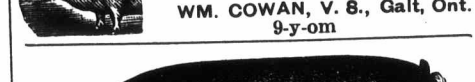


BREEDERS OF

Large Improved Yorkshire Pigs.
Markham Baron, the sweepstakes Barrow over all breeds at the Guelph Fat Stock Show, 1892, bred by us. A choice assortment of Pigs now on hand. Only first-class stock shipped to order. **Markham Herd Farm, at Locust Hill, Station. 17-y-om JNO. PIKE & SONS.**

IMPROVED YORKSHIRES,

A few Sows three months old; a litter six weeks old, both from imported stock. Also a pure-bred Bates Princess Bull Calf of milking strain.
WM. COWAN, V. S., Galt, Ont. 9-y-om



GOLD MEDAL BERKSHIRES.

Young boars fit for service; young sows fit for breeding; fall pigs at six to eight weeks old. All bred straight from imported stock. Three imported boars in use. Can supply pairs not akin. We ship to order and guarantee satisfaction.
J. O. SNELL,
8-y-om EDMONTON, ONTARIO.

S. COXWORTH, CLAREMONT, ONT.,

Breeder and Importer of Berkshire Hogs

A choice lot of young pigs just fit to ship. Pairs supplied, not akin, sired by my three grand Stock Boars, "High Clear Prince," "King Lee" and "Champion Duke." Also a few choice sows of Oct. litters. Write for prices 8-y-om

LARGE ENGLISH BERKSHIRES

My herd are imported or bred from imported stock, and have carried winnings at leading shows for years, including sweepstakes over all breeds at last Guelph Fat Stock Show. Pigs of all ages for sale, pairs supplied not akin.
Geo. Green, Fairview, Ont. 9-y-om

G. J. GILROY & SON

Glen Buell, Ont.,
BREEDERS OF
HOLSTEIN-FRIESIAN CATTLE
—ALSO—
Large English Berkshires & Imp. Yorkshire Swine
Bred from imported stock. Personal inspection solicited. 7-y-o

H. J. DAVIS, Woodstock, Ont.,

Breeder of High-class Large Berkshire and Imp. Large White Yorkshire Swine, Short-horn Cattle.—A grand lot of young pigs ready for shipment of both breeds; also boars fit for service from prize-winning stock. Stock shipped to order. Satisfaction guaranteed. Young Bulls generally on hand. 8-y-om

ISRAEL GRESSMAN, New Dundee, Ont.,

—IMPORTER OF—
Large English - Berkshires
4-y-om

THE HOME OF THE BERKSHIRES.

J. G. SNELL & BRO.,
Edmonton, - Ontario.

We are now breeding a number of the young sows, the got of Enterprise, to the imported boars Star One, British Cheer and King Lee 4th. Have a few good young boars fit for service and a fine lot of young pigs farrowed in September and October. Our Berkshires won eight firsts out of eleven offered at the late Toronto Exhibition. Write for description and prices. 2-y-om

THE BRONZE MEDAL HERD OF IMPROVED CHESTER WHITE SWINE.

Headed by Cleveland Imp. 320, and Washington, a three-premium winner at the Columbian Exposition, Chicago, 1893. Dorset Horn sheep, imported and home-bred. **R. H. HARDING, Thorndale, Ont.** 20-y-om

THE AVON HERD OF REGISTERED TAMWORTH, CHESTER WHITE AND IMPORTED POLAND CHINA SWINE.

Our herds are selected from the best strains from England and the U. S. We have some choice young stock of Tamworth and Poland-China from 5 weeks to 4 months old. Pairs not akin. Prices moderate. Correspondence solicited. Orders booked for spring pigs, Chester White. **HERRON & DAFOE, Avon P. O. 22-f-om**

TAMWORTHS & IMPROVED CHESTER WHITE SWINE

Our herds of Tamworths and Chesters are selected from the choicest herds in England and United States; 80 choice fall pigs of the above breeds for sale, also 8 grand Tamworth boars fit for fall service, and 10 choice sows bred for spring farrow. Pairs furnished not akin. Reduced rates by express. Pedigrees furnished. Send for prices before buying elsewhere. **H. GEORGE & SONS, Crampton, Middlesex Co., Ont.** 7-y-om



Duroc-Jersey Swine

Are the best all-round hog known. No squealing; quiet disposition; good grazers; defeated the Berks and P. C. on all points at Mich. Agt. Coll. test. I have several good young boars fit for service yet for sale. Will sell cheap to close them out. Some extra young sows (bred) to sell. Address, PETER LAMARSH, Wheatley, Ont.

R. B. McMULLIN, GOLDSMITH, ONT.

Importer, Breeder and Shipper of REGISTERED POLAND-CHINA SWINE

Stock of all ages for sale at low prices. All stock guaranteed as represented.

Write for Prices. Registered pedigrees furnished.

Mention Advocate. 21-om

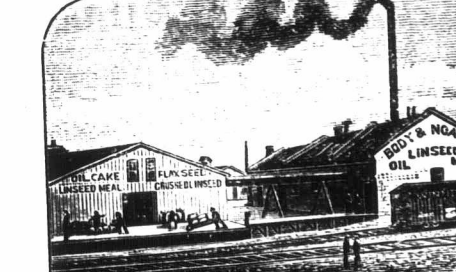
1500 lbs. of Honey. Extracted, and in sections, for sale, cheap; also Cocks and Cockerels of the following breeds:—L. Brahmans, Br. Leghorns, G. Dorkings, Bl. Spanish. Correspondence solicited. Descriptive catalogue free. 17-y-om CAPT. A. W. YOUNG, Tupperville, Ont.

The Oxford Herd of Registered Poland Chinas

Our herd won all the sweepstakes, diplomas and herd prizes, and 22 out of 26 first prizes, at the three largest fairs in Canada, in 1894. Our herd is headed by Darkness Quality, the winner of the first prize in his class, over 41 entries, at the World's Fair, in Chicago, in 1893. Our stock is large in size, and fine in quality, and are well adapted for the Canadian trade. Young stock for sale at all times. Prices reasonable. Address 15-y-om W. & H. JONES, Mount Elgin, Ont.

REGISTERED POLAND-CHINA PIGS

A choice lot for sale from six weeks to seven months old. Boars and sows from the best prize-winning strains of blood. Prices very moderate. 22-c-om WESLEY W. FISHER, Benmiller, Ont.



LINSEED OIL - CAKE

Whole, nutted pr meal. Car lots delivered at any point. Write for prices. Bony & Noakes, Winnipeg Linseed Oil Mills, Winnipeg, Man. 21-om

TRY OUR NEW STEEL GANG CHEESE PRESS

All kinds of Cheese and Butter Factories furnished with the latest machinery.

THE "MONARCH" ENSILAGE CUTTER

(Carries any length, angle or direct.) Full line of Fodder Cutting Machinery, Horse Powers, Grinders, Root Pulpers and Agricultural Implements. Write for prices. Satisfaction guaranteed. Address, RICHARDSON & WEBSTER, 10-2-y-0 St. Mary's, Ont.

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And Family Almanac for 1895. 80 pages, 75 illustrations. The finest work of its kind ever published. Gives recipes for making egg food, corn dishes, various recipes for all diseases of fowls, dition powders, remedies for building poultry houses, plans and diagrams for building poultry houses, tells you how to raise chickens profitably, gives full description with illustrations of all leading varieties of pure-bred fowls. It is an encyclopedia of information, worth many times its price. Address to any one interested in poultry. You positively cannot afford to be without it. Send postal note on receipt of price lists. Address C. C. SHOEMAKER, Box 48, Freeport, Ill., U.S.A. 21-d-om

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Hatches Chickens by Steam. Absolutely self-regulating. The simplest, most reliable and cheapest first-class Hatcher in the market. Circulars free. Catalogue 4 cents. GEO. EBTEL & CO., London, Ont.

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GRAND STOCK OF PLYMOUTH ROCKS SACRIFICED. On account of other business taking my entire time, I am compelled to sell my entire flock of Plymouth Rocks this month. Choice Large-boned Cockerels and Pullets. Grand Yearling Birds, all of fine shape and markings, at \$1.25 Each. This is a chance of a lifetime. Order early, and get the cream. Send money, stating your wants.

C. W. ECKARDT, Hazelton Fruit and Poultry Farm, 3-y-om RIDGEVILLE, ONT.

CANADA'S BEST

Are Imported, Bred and Sold by JNO. J. LENTON, PARK FARM, OSHAWA, ONT.

Choice fowls and chicks for sale in Golden Silver and White Wyandottes, Banded and White Plymouth Rocks. Eggs, in season, \$1.00 for 9, or \$1.50 for 15. Bronze Turkeys for sale: extra fine and large eggs, 25c. each, or \$3.00 for 13. I am Canadian Agent for Webster & Hammond Bone Cutters. Write for what you want. 22-om

FOR SALE!

Mammoth Bronze Turkeys—pure add first-class stock. Apply to JAS. A. STEWART, JR., Memie, Ont. 22-c-om

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We warrant The Reliable Hatch 50 per cent. See Illustration. Durable, Correct in Principle. Leader at World's Fair. 6 sets in stamps for one 12 per cent. Poultry Guide and Catalogue. Reliable Incubator and Brooder Co., Quincy, Ill. 19-l-o

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Money refunded for every empty bottle of our "Distemper and Cough Cure" returned to us that has not done what we claim for it. 3 to 10 teaspoon doses cure Distemper, Epizootic, Pink Eye, and all Catarrhal Affections of the Horse. It is a positive preventive of these Diseases. We make the same kind of guarantee on our Distemper and Cough Cure for Sheep and Dogs. Regular. Send you one bottle for trial for 25c. Regular. 50c. and \$1.00. We want local agents. SPOHN MEDICAL CO., Goshen, Ind. 24-b-om

GRAIN THRESHER



You may not only do your own work with it, but thresh for your neighbors, besides using the power for churning, grinding, pumping, sawing wood, etc. Write for prices. M. MOODY & SONS, Terrebonne, Que. 21-b-om

Bee-Keepers, Look Here!

If you send your name and address to us, plainly written on a post card, we will mail you one of our illustrated price lists of Bee-Keepers' Supplies and Household Conveniences. Honey and Beeswax taken in exchange for supplies. 2-2-y-0 MYERS BROS., Stratford, Ont.

VIRGINIA FARM FOR SALE

8000 Acres. Land lays well. Well watered. Large amount of hard wood timber. Near railroad. Drilling and outbuildings. Price only five thousand dollars. Good title. Write for free Catalogue. R. B. CHAFFIN & CO., Richmond, Va. 23-a-o

ONTARIO VETERINARY COLLEGE

Temperance Street, Toronto. The most successful Veterinary Institution in America. All experienced Teachers. Session begins October 15th. Apply to the principal, PROF. SMITH, V.S., Edin., Toronto, Can. 18-2-y

EVERY PRACTICAL FARMER should read the Planet

Send it free. S. L. ALLEN & CO., 1167 Market St., Philadelphia. 10-r-o

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High grade, fine tone. Send for Catalogue. Made at Goderich, Ontario. 1-y-om

COULD HARDLY WALK

ON ACCOUNT OF RHEUMATISM

P. H. FORD

—OF—

Quachita City, La.

After

TWO YEARS

Suffering

IS CURED

—BY—

THE USE OF

Ayer's Sarsaparilla

Admitted

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1893

"For fully two years, I suffered from rheumatism, and was frequently in such a condition that I could hardly walk. I spent some time in Hot Springs, Ark., and the treatment helped me for the time being; but soon the complaint returned and I was as badly afflicted as ever. Ayer's Sarsaparilla being recommended, I resolved to try it, and, after using six bottles, I was completely cured."—P. H. FORD, Quachita City, La.

Ayer's The Sarsaparilla

Admitted

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JAPANESE CATARRH CURE

For Cold in the Head, Drooping in the Throat, Hay Fever, Aching above the Eyes, Earache, and discharges from the Ears and Nose, affecting Children and Adults, also for all Cuts, Wounds or Old Sores. It is a perfect specific. Price by mail, post paid, 50 cents. Samples free. T. R. MORROW, CHEMIST, 426 Cordova St., Mt. Pleasant, VANCOUVER, B. C. 21-y-om

We Propose to Watch You

with a Watch. We guarantee prices lower than any local dealer can give. We sell them in every Province and Territory. We ship them with privilege of examination before paying for them.

May we send you our Wholesale Catalogue FREE

It contains cuts, descriptions and prices of Watches, and of Cabinet, Mantel and other Clocks, in Oak, Walnut, and Nickel.

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THE SUPPLY COMPANY

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THE BEST SLED IN THE MARKET.

Good Work and Good Material. (FOUR SIZES.)



Our Sleds are in use in the following points: Stratford, Arnprior and Ottawa, Ontario; Brandon, Man.; Edmonton, Alberta; Spokane, Washington Territory, U. S.; and all through Quebec. Write for prices to

BROWN BROS.

23-b-om Danville, Que.

TRADE MARK.



FLAT & ROUND

- CREAM SEPARATOR -

BELTS.

The Belt with the above trade mark is the only successful one made. Used all over the world. Ten years in the market. Not any experiment. Real manufacturer in NIAGARA FALLS ONT., CANADA; SUSPENSION BRIDGE, N. Y., U. S. A., and DURSLEY, ENGLAND. For Catalogue, etc., apply to

10-y-om ANTHON CHRISTENSEN & CO.

ADVERTISE IN THE ADVOCATE

STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate.

W. G. Pettit, of Freeman, Ont., makes change of advertisement in this issue. Having rented one of his farms for a term of years, he is offering to sell choice stock at very much reduced prices. Mr. Pettit reports fairly good sales for the dull times, and thinks the outlook for next season is quite encouraging.

Mr. Cowan, V. S., Galt: "Both Shorthorns and Yorkshires are doing well, and though the demand for Yorks. is not as brisk, nor prices quite so high as I might like, I have no difficulty in selling all I raise at fairly remunerative prices, and consequently have a rather smaller stock on hand than usual, but will have more litters coming shortly."

Messrs R. Rivers & Son report Shorthorns and Berkshires doing nicely. They have just sold to Mr. W. L. Bowman, of Mount Forest, the grand stock and show hog, Count Vasil, who has never been beaten, also a very handsome sow six months old. Mr. Bowman is highly pleased with his purchase. They still have some nice ones for sale. See advertisement in another column.

A. Frank & Sons, The Grange: "There has been more enquiry this season than for several years, but, unfortunately, we had very little to sell. We only had six pigs farrowed up till the 19th of September. The following were recent sales: A pair of pigs or sow and boar to Mr. George Stewart, St. Catharines; a pair of sows to James Mitchell, Powell's Corner; one boar pig to John M. Ritchie, Allan's Mills P.O., County of Lanark. We have given special attention to the breeding of choice Improved Suffolk swine of the popular sort, and easy feeders. We have some specially good offerings now."

Thos. Watson, Springvale, Ont.: "There has been a keen demand for Berkshires and Yorkshires. Have made the following sales: Yorkshires—Two boars to J. E. Brethour, Burford, Ont.; a boar each to Thos. Lunn, Burtch, Ont.; Peter Moore, Villanova, Ont.; Andrew Carpenter, Hagersville, Ont.; Robert McCloy, Willow Grove, Ont.; Robert Doherty, Jarvis, Ont.; Berkshires—One boar each to George Ballachey, Brantford, Ont.; George Amstead, Villanova, Ont.; Richard Guest, Mt. Pleasant, Ont.; David Heirland, Bealton, Ont.; Joseph Alton Watson, Zimmerman, Ont.; George Alton Port Rowan, Ont.; two sows to Ivan Fox, Philadelphia, U. S. A.; one to C. H. McAllister, Oakland, Ont.; one to Wm. Spaven, Hagersville, Ont.; John Lewis, Hartford, Ont."

Mr. Arthur Johnston, of Greenwood, Ont., writes to this office: "We now have all kinds of stock permanently placed in their stalls for winter, and they are already improving with their winter rations of excellent hay and plenty of turnips, together with a very little meal for the younger things. The young bulls are going forward as well as we have ever had them. They are not only growing and putting on some flesh, but they are putting it on evenly and well. We now have seventeen of them of various ages and colors, from deep red to pure yellow-white, and a finer lot we have never stabled. The heifers are equally good, though scarcely in such fine form; they are, however, now doing exceedingly well. They are a smooth, even lot, and some of them look like making winners anywhere by September next. Indian Chief is as healthy, hearty, active and sure in his ninth year as he has ever been. He is carrying his flesh as firmly and as evenly as he did when three years old. The enquiry for young bulls has never been better, though sales are slower, because people are harder to sell to. We must take their prices, I suppose, even if we lose money."

Peter Lamarsh & Bro., Wheatley, Ont.: "The Duroc-Jerseys continue to increase in popularity. I have received more enquiries for stock than ever before. Wherever introduced farmers find that they have unsurpassed qualities. Their quiet and contented disposition, hardy constitution and excellent quality of pork make them prime favorites. The Durocs are more in demand here than ever before. I have had only one ruptured pig among the hundreds raised, and that one due to a severe accident. I have shipped and sold to following parties lately: H. M. Stauffer, Plattsville, a sow; J. E. Shibly, Harrowsmith, Ont., a boar; T. W. Conner, Drummond, Ont., a boar; G. Roberts, Hepworth, Ont., a pair; Sylvester Brush, Malden, a pair; J. F. McLaughlin, Kilmartin, Ont., a pair; N. Farquhar, Maldstone, Ont., the fourth purchase for Mr. Farrough; Robert Roe, Newry, Ont., a boar; Oliver Hillman, Hillman, Ont., a sow, bred; Seth Harling, Merser, a sow, bred; pair to Mr. Bogle, Liverton, Que. I receive many letters from my advertisement in the Advocate."

S. Coxworth, Silver Spring Stock Farm, Claremont, Ont.: "The past year has been one of the most successful since I have been breeding Berkshires. The demand has been far in excess of my supply, although prices have been somewhat low. I think Berkshires have held their own amidst the booming of other breeds, and I think the time far distant when Berkshires of the right type will not command as high a price as any other breed. I was very successful at the Manitoba, Quebec and Ontario shows during the past season, winning in all 74 first prizes, 48 seconds and 13 thirds; also 11 diplomas and herd prizes. Space will not allow me to report a list of sales, but among the most important were the following: A choice pair under one year to F. W. Brown, of Portage la Prairie, Manitoba; one pair very promising young sows to R. G. Long, of Oak Lake, Man.; sow under one year to J. G. Barron, of Carberry, Man.; sow under six months to W. J. Shebley, of Harrowsmith, Ont.; boar under one year and boar under six months to J. W. Walker, of Allen Mills, Ont.; one two-shear Cotswold ram and pair imported ewes to Edmond Valin, of Belair, P. Q. I have recently shipped my best showling ram to J. R. Semple, of Brule, N. S. My herd of Berkshires was never in as good breeding condition as at present. I have four aged stock boars in use, and expect to be able to supply my numerous customers with pigs of the right stamp the coming season."

NOTICES.

In writing to advertisers please mention the Farmer's Advocate.

James H. Shaw, Simcoe:—"My pigs are doing well, as usual. Inquiries as to prices, etc., are numerous, considering present prices for fat hogs. Parties thinking of buying a boar or sow to improve their herds, could not find a much better time than now, as thoroughbred stock of all kinds is being held so cheaply. In these days of close prices the hard-keeping mongrel is not in it. The Ohio Improved Chesters are always healthy, quiet, and weigh heavy—they pay for their feed in fattening and return something to the good. My most recent sales were: Mr. Jos. Lee, Cowansville, Que., 1 boar; Mr. Salem Collier, Bloomsburg, Ont., 1 trio; Mr. Frank Sales, Wilsonville, Ont., 1 boar; Mr. Lewis Hide, Bloomsburg, Ont., 1 sow; Mr. J. McCool, Waterford, Ont., 1 sow."

STANLEY MILLS & CO. MAKE A \$65,000 REAL ESTATE PURCHASE.

Seven years ago this winter Stanley Mills & Co. opened a cash hardware store at No. 94 John street south, Hamilton. In less than six months they were compelled to double the size of their premises by building in the rear. Their trade grew so rapidly that a branch store was opened two years later at No. 36 King street west. This eventually became the headquarters of the firm, and in less than two years from the time of opening their King Street Store they found it necessary to include No. 38 King street west. For eighteen months back the business has been conducted very successfully at Nos. 36 and 38 King street west, with the John Street Store as a supplementary branch. Once again they have found it necessary to look about for larger premises. They have just purchased the Kelly property, one of the best retail stands in Hamilton. This fine property is situated near the corner of King and James streets, and is at present occupied by Mayhew & Co. (dry goods), Ferris & Co. (hardware), Wm. Acres (furrier), Harry Sweetman (restaurant), Hansel (dentist), Campbell (photographer), the Kirkwood Dental Co., and the Canadian Oddfellows' Hall. At the expiration of existing leases the intention is to erect a handsome 5-story building, covering the entire property, and occupy it as a modern American Department Store. This building will not only be an acquisition to the city, but will certainly become the very centre of the retail business of Hamilton and vicinity. Until January 1st this splendid business site remains the property of ex-Ald. Daniel Kelly, when the new owners take possession. The price paid was \$65,000 for 33 feet and 3 inches, or about \$100 per inch frontage by 137 feet in depth, and is probably the highest priced property that has ever changed hands in Hamilton. As a retail stand it cannot be surpassed. There are approaches to the property on James street, as well as on King street, and every street car in the city may land its passengers at one or other of these entrances. For some time past the firm have foreseen the necessity of looking about for increased accommodation. This is owing largely to their store having assumed the nature of a provincial distributing centre. Through the means of their magnificently organized letter order department, the firm's name is now a household word throughout the Dominion, and strange as it may seem, they are as well known in the farm houses of the Manitoba and the Territories as they are in the County of Wentworth. With the exception of the newspapers, Stanley Mills & Co. are the largest patrons of the Hamilton post office. They buy more stamps, deliver more mail matter, receive more letters, cash more post office orders, and sign for more registered letters than any other concern in Hamilton daily. Their success in the past is owing largely to their untiring business activity. (Hamilton Times, Dec. 4th.)

GREENER'S GUNS.

The steadily increasing interest throughout the Dominion of Canada, in field and forest sport, is not only creating a demand for more guns, but is promoting the circulation of gun and shooting literature, and developing a much more critical judgment in the selection and use of firearms for sporting purposes. Members of the FARMER'S ADVOCATE staff who happen to take a personal interest in this form of recreation can vouch for the fact that sections of Canada, not only in the older-settled sections of Canada, but in that sportsman's paradise, "The Great Northwest," it is not enough nowadays for the prospective purchaser or user to know that it is "a gun"—mechanism, simplicity, safety, shooting capacity and quality—all these essentials are very carefully weighed before a decision is reached, and justly so, too. Our sporting friends are coming to realize that a few dollars extra, guns, and to realize that a few dollars extra, when it secures the finest product of manufacture, is well invested. It is for this reason that we can commend the perusal of such books as "Modern Shot Guns," "The Gun and Its Development" and "The Breech-loader and How to Use It," by W. W. Greener, whose fame as a standard authority is world-wide. With the spread of such knowledge there will be fewer worthless weapons palmed off upon inexperienced persons. At Mr. Greener's "Prize Gun Works," St. Mary's Square, Birmingham, England, gun construction may be said to have been brought to a fine art long years ago. These works are one of the features of that great manufacturing city which no Canadian interested in shooting should neglect to visit when in that part of the Motherland. Knowing the completeness of this establishment in all its departments, down to the minutest detail of manufacture, together with the actual knowledge applied, begotten of long study and experience, it is not to be wondered that such a degree of perfection has been attained, making "Greener's Guns" a household word throughout the world, and a guarantee of excellence in the highest order. We have no hesitation in adding our personal testimony, not only with regard to the skill displayed in their construction, but to the thoroughly reliable shooting qualities of these guns.

BLEMISHED ANIMALS.

It is really surprising how many good animals are badly blemished through slips or strains. In most cases only a slight lameness exists at first, and if Dick's Liniment were at once applied, this would be cured; but even when lumps have formed they can be removed with Dick's Blisters. It cures Curbs, Spavins, Ringbones and like blemishes.

SHOPPING BY LETTER.

The principal advantage the farmer has when he sends to the City for his supplies is the very large stock he has to select from.

Our terms are cash with the order. We are a thoroughly reliable firm, and hundreds of farmers from all parts of Canada are concentrating their orders upon our Mail Order Department with satisfaction and profit to themselves.

We carry an immense stock of all of the following Fur Robes on hand, and can send you by express, without delay, any one or more of these Robes, upon receipt of the price. Send your money by registered letter or by Post Office Order. If the order reaches \$10 we pay the charges to any Express Office in Ontario.

- \$ 5—Small Gray Goat Robes, \$5 each.
- \$ 7—Large Gray Coat Robes, \$7 each.
- \$ 8—Extra Select Large Gray Goat Robes, \$8 each.
- \$ 8—Jet Black Goat Robes, small, \$8 each.
- \$10—Jet Black Goat Robes, large, \$10 each.
- \$10—Large Australian Bear Fur Robes, \$10 each.

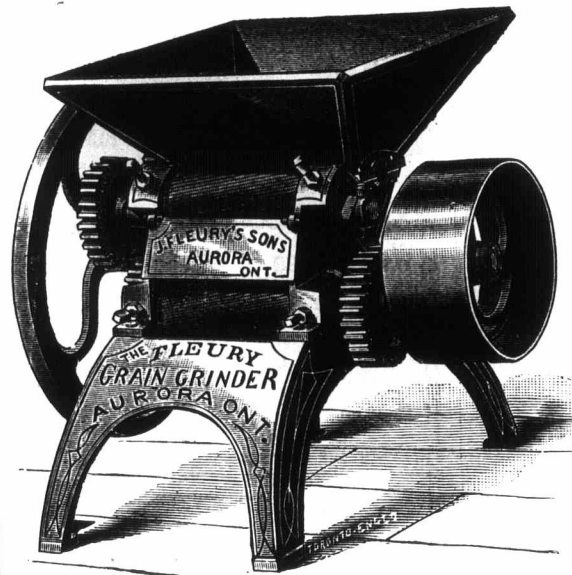
80 cents per yard—Finest quality fancy striped Plush Lining for Robes, 1½ yards wide; price, 80 cents per running yard.

Write for Catalogue to

STANLEY MILLS & CO.

HAMILTON, ONTARIO.

TO **Stock Feeders.**



19-f-o

In GRAIN CRUSHERS and GRINDERS we offer you the most complete line in Canada. We guarantee that these machines will do more work with the same power than any other make. Nos. 2 and 3 for Horse Power, 25 to 75 bushels of oats per hour. See cut in November issues of the Advocate.

New Patented THREE ROLLER GRINDERS for Engine or Water Power, 40 to 100 bushels per hour of best quality work. Two sizes—No. 4 shown in this cut; No. 6 greater capacity still. Write us for catalogue and any information you want. Save your feed and money.

J. FLEURY'S SONS

Aurora, - Ontario.

Medal and diploma at World's Fair for Plows. Largest and best lines of Root Cutters and Ensilage Cutters in Canada.

Use:-: Queenston:-: Cement

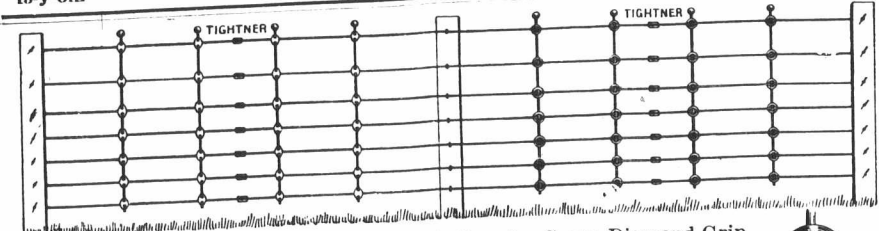
FOR BUILDING CONCRETE OR OTHER WALLS, Cisterns, Stable Floors, Hog Troughs, &c.

Write for Prices and Particulars. When parties use our goods, when necessary we will send a skilled man, at our own cost, to give instructions how to build. FARMERS can thus build their walls and save half the cost.

ISAAC USHER & SON,

THOROLD, ONT.

13-y-om



No better wire fence built than the Casey Diamond Grip. Just the thing for farmers—neat, strong and durable. Will last a lifetime, barring accidents. Uses only straight wires with so little depression as not to cause the galvanize to crack or peel. If there is a dealer who wants something better to handle than he's had, try it. We also supply the Double Lock Wire Fence, which is claimed by some to be second to none, the lateral wire of which, as well as the upright stay, being crimped at joints. Our agents build either on premises. Agents wanted everywhere in Canada, to whom sole territory will be allotted. County and Township Rights for sale. Our Gas Pipe Frame Gate takes the lead. No better or cheaper place in the city to get plain or fancy turning done. Call on, when in the city, or address, CANADA FENCE COMPANY, Corner Bathurst and Clarence Sts., London, Ontario.

17-y-om

BRANTFORD



STEEL WIND-MILLS With Internal Gear.

STEEL TOWERS—IRON PUMPS—WATER-TANKS—PIPING, ETC.

The IDEAL JR. Sectional Power Mill is a Wonder. Send for circulars, and mention this paper.

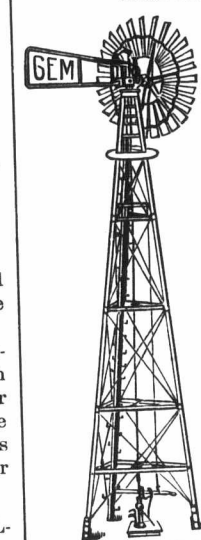


BRANTFORD CAN.

WE MANUFACTURE THE: **GEM STEEL WINDMILLS, Steel Towers,**

AND THE OLD RELIABLE:—

HALLADAY STANDARD PUMPING and GEARED WINDMILLS



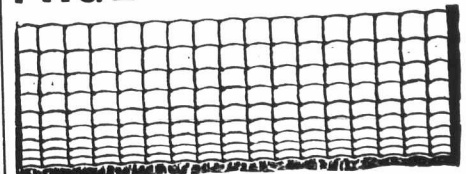
Guaranteed to be the Best Made.

Also Pumps, Tanks, Feed Mills, Haying Tools, Saw Tables, etc. Send for illustrated catalogue.

Ont. Wind Engine & Pump Co.

367 Spadina Ave., TORONTO, ONT. Mention Farmer's Advocate. 10-y-om

PAGE WOVEN FENCE



DO YOU WANT

A Fence that is GUARANTEED To turn all kinds of stock. To keep tight in all temperatures. To give satisfaction. To last a few days less than forever.

Can You Get Anything Better than This? - -

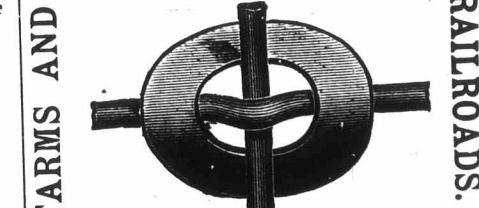
It is neat and strong, and looks like a spider's web spun from post to post; but it is always there. Sold throughout Ontario by farmers who use it themselves and know its merits well enough to recommend it to their neighbors. If there is no dealer in your vicinity, write for circulars and illustrated paper to

The Page Wire Fence Co. of Ontario, Ltd.

WALKERVILLE, ONT.

THE BEST FENCE MADE

FOR



RAILROADS.

Agents Wanted in Every Township.

Send for Circulars and particulars.

THE LOCKED-WIRE FENCE COMPANY

Ingersoll, Ont.

WORK FOR ALL. \$75 a month salary and expenses paid. If you want employment write at once to P. O. VICKERY, Augusta, Maine.

6-2-y-o

Brilliant Sign Letters

FOR STORE WINDOWS. The Most Attractive, Popular, Durable. Letter used to-day. This is the VERDICT of everyone. Write for prices before ordering your signs.



TUBULAR DRIVING LAMP. It is the only practicable and perfect driving lamp ever made. It will not blow nor jar out. It gives a clear, white light. It looks like a locomotive head light. It throws all the light straight ahead from 20 to 30 feet. It burns kerosene.

THE IMPROVED KNITTER. Will knit 15 pairs of sock a day. Will do all Knitting required in a family, home or factory yarn. SIMPLEST KNITTER on the Market. This is the one to use. A child can operate it. We guarantee every machine to do good work. We can furnish ribbing attachments. Agents wanted. Write for particulars.

The FAVORITE CHURN



The most simple. The most durable. The most effective. The easiest to keep clean. Water-tanks specialty, and shipped to all points. Correspondence and shipments promptly attended to. All kinds of cooperage.

ST. MARYS COOPERAGE. F. E. BUTCHER, St. Marys, Ont. 42-y-om. Holburn High Fruit Farms Nurseries—400 (Four Hundred Acres in Extent.) Established 1882. There is no place in Canada where the season is longer than here. Hence we get trees brought to the fullest maturity, capable of withstanding the severest cold.

ROOFING

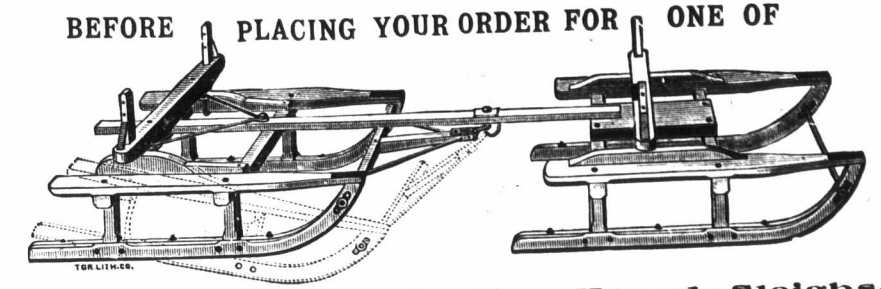
FREEMAN'S 3-ply Ready Roofing. Send for samples and get our low prices, and compare the quality of goods and prices with others. The Cheapest Roof on the market for the money. Address, THE W. A. FREEMAN CO., HAMILTON, ONT.

BOYS FOR FARM HELP. The managers of Dr. Barnardo's Homes will be glad to receive applications from farmers or others for the boys whom it is proposed to send out from England in several parties during the coming season. All the young immigrants will have passed through a period of training in the English Homes, and will be carefully selected with a view to their moral and physical suitability for Canadian life.

TRUSSES on 30 Days Trial. Easy, durable and cheap. A radical cure effected. Send for sealed catalogue. BOSTON TRUSS CO., Masonic Temple, Chicago, Ill. 20-L-om

\$3 A DAY SURE. Send us your address and we will show you how to make \$3 a day, absolutely sure, we furnish the work and teach you free. You work in the locality where you live. Send us your address and we will reply, the business fully guaranteed. Don't fail to write for our \$3 for every day. BOSTON TRUSS CO., Box A Windsor, Ontario. 21-L-om

DON'T WAIT FOR SNOW!



BEFORE PLACING YOUR ORDER FOR ONE OF OUR POPULAR ONTARIO TWO-KNEED SLEIGHS. As it may mean delay and disappointment. Order early and have your sleigh on hand when sleighing comes. THE IMMENSE SALE OF and EVER INCREASING DEMAND for these Sleights is conclusive EVIDENCE that they are THE BEST SLEIGHS in the market. OUR ONE BENCH SLEIGH is specially adapted for heavy work. Strongly built, of best material and finished in excellent style. Satisfaction guaranteed. Call on our agents, or write us direct.

BAIN BROS. MANUFACTURING CO.'Y (Ltd.) Head Office: BRANTFORD, ONT. 21-e-om

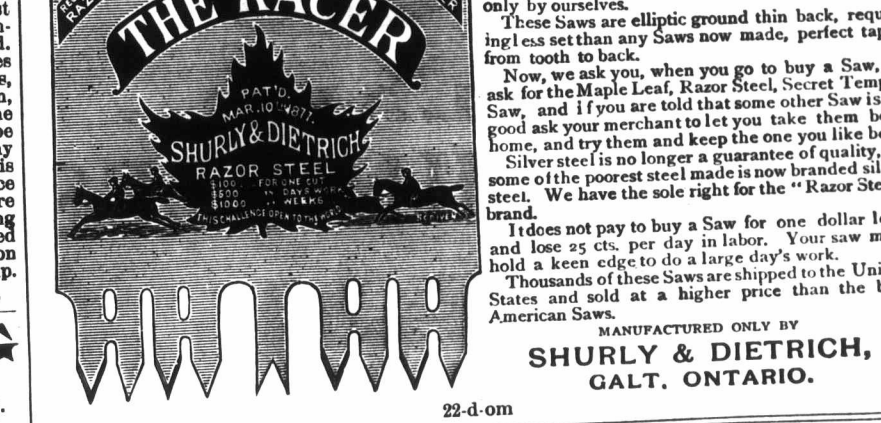
THE LATEST STEEL RANGES



FOR WOOD ONLY OR COAL AND WOOD WITH OR WITHOUT RESERVOIR OR HIGH CLOSET. These are Ranges which Farmers using will go wild over. There is nothing like them: you can cook your meals, in half the time, with half the quantity of fuel required by any other stove. Costing no more than a good stove. The above are facts which we guarantee. Ask your dealer for McClary Mfg. Co. Steel Range. If your dealer does not keep them write our nearest house.

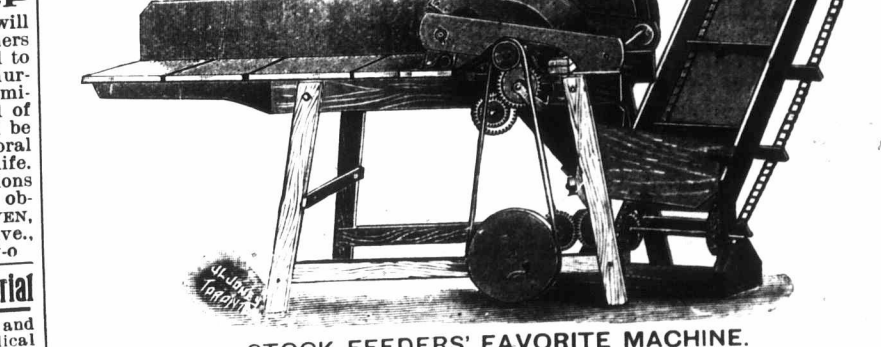
THE McCLARY MFG. CO. 7-y-om LONDON, TORONTO, MONTREAL, WINNIPEG, VANCOUVER.

The Razor Steel, Secret Temper, Cross-Cut Saw



WE take pleasure in offering to the public a Saw manufactured of the finest quality of steel and a temper which toughens and refines the steel, gives a keener cutting edge and holds it longer than by any process known. A Saw to cut fast "must hold a keen cutting edge." This secret process of temper is known and used only by ourselves. These Saws are elliptic ground thin back, requiring less set than any Saws now made, perfect taper from tooth to back. Now, we ask you, when you go to buy a Saw, to ask for the Maple Leaf, Razor Steel, Secret Temper Saw, and if you are told that some other Saw is as good ask your merchant to let you take them both home, and try them and keep the one you like best. Silver steel is no longer a guarantee of quality, as some of the poorest steel made is now branded silver steel. We have the sole right for the "Razor Steel" brand. It does not pay to buy a Saw for one dollar less, and lose 25 cts. per day in labor. Your saw must hold a keen edge to do a large day's work. Thousands of these Saws are shipped to the United States and sold at a higher price than the best American Saws. MANUFACTURED ONLY BY SHURLY & DIETRICH, GALT, ONTARIO. 22-d-om

THE RIPPER FEED CUTTER AND TREAD POWERS.



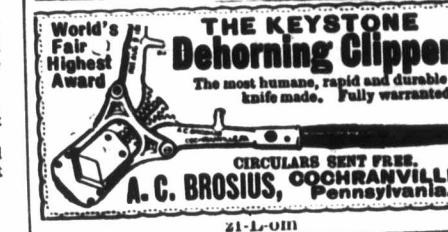
STOCK FEEDERS' FAVORITE MACHINE. Has No Equal as a Corn Cutter. Send for Circulars and Testimonials. THOM'S IMPLEMENT WORKS, WATFORD, ONT. ESTABLISHED 1875.

ADVERTISE in the ADVOCATE.

BREEDERS' DIRECTORY.

Cards up to six line space inserted under this heading, one issue a month, \$3 per line per annum: every issue, \$5 per line. Payable in advance.

- ELLIOT, Pond Mills, Ont.—Tamworth Pigs, Oxford Sheep, and sweepstake strain of Bronze Turkeys for sale. 20-2-y-om
LEX. HUME, Burnbrae, Ontario, Importer and Breeder of Ayrshire cattle and Yorkshire hogs. 330-2-y
LF. BROWN, Bethel, Ont., breeder of Ayrshire Cattle, Shropshire Sheep and Leghorn and Dorking Fowl. 14-2-y
MANN, Bowmanville, Ont., breeder of Pure Galloway Cattle, Tamworth Swine.
M. & R. SHAW, Brantford, Ont., breeders of Galloway Cattle. Choice young animals for sale. 4-2-y
BLACKWOOD & McCALLUM, Martintown, Ont., breeders of registered Clydesdales, Shropshires and Yorkshires. 340-2-y
A. CAMPBELL, Mayfair P. O., Ontario, D. Appin Station, Breeder of Registered Lincoln Sheep. Stock for sale. 2-2-y-om
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FRED. S. WETHERALL, Compton, P. Q., Breeder of Jersey Cattle and Shropshire Sheep. 18-2-y
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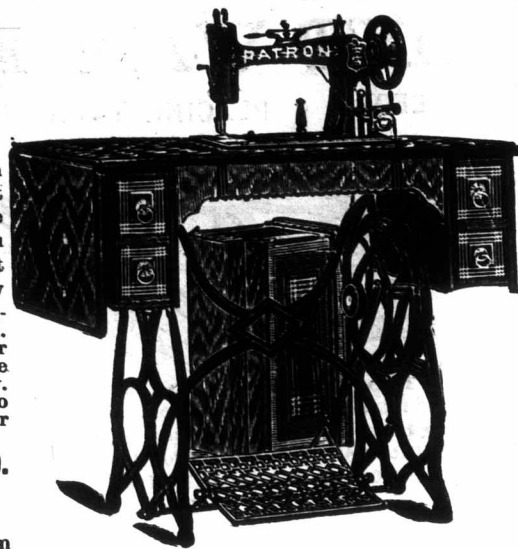
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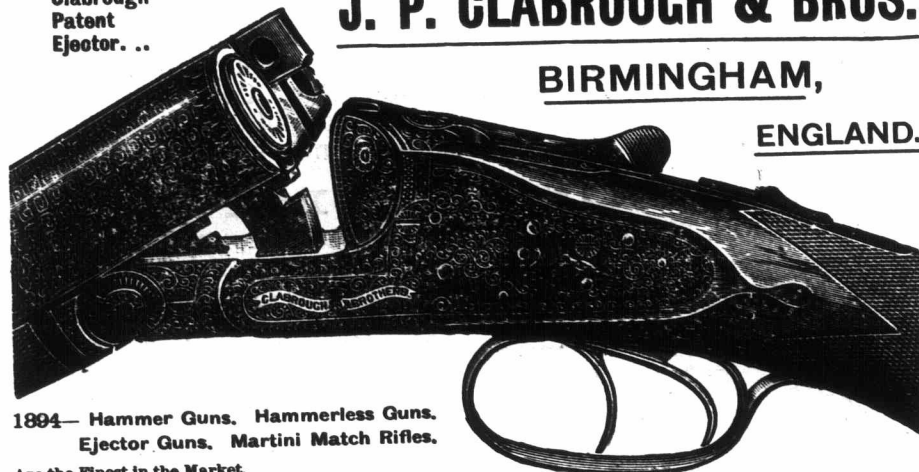


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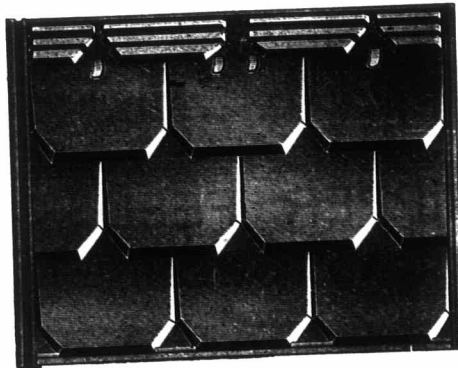


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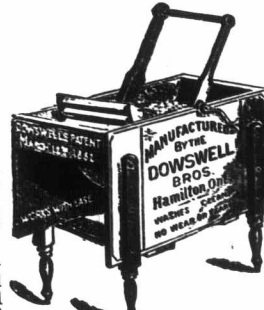
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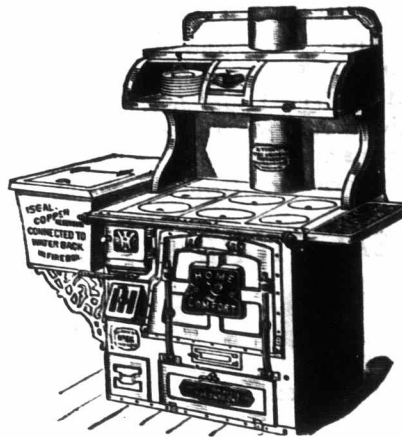
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DIVISION I. Drayton, West Wellington, Jan. 2nd, 1.30 p.m. Clifford, West Wellington, Jan. 3rd, 1 p.m. Paisley, Centre Bruce, Jan. 4th, 10 a.m. Port Elgin, North Bruce, Jan. 5th, 10 a.m. Tara, North Bruce, Jan. 8th, 1 p.m. Durham, South Grey, Jan. 9th, 10 a.m. Ayrton, South Grey, Jan. 10th, 1 p.m. Kenilworth, East Wellington, Jan. 11th, 1 p.m. Damascus, East Wellington, Jan. 12th, 10 a.m. Teeswater, South Bruce, Jan. 14th, 1 p.m. Holyrood, South Bruce, Jan. 15th, 10 a.m. Ripley, Centre Bruce, Jan. 16th, 1 p.m. Wingham, West Huron, Jan. 17th, 10 a.m. Brussels, East Huron, Jan. 18th, 10 a.m. Atwood, North Perth, Jan. 19th, 10 a.m. Milverton, North Perth, Jan. 21st, 1 p.m.

DIVISION II. Galt, South Waterloo, Jan. 2nd, 10 a.m. New Hamburg, South Waterloo, Jan. 3rd, 1 p.m. Mitchell, South Perth, Jan. 4th and 5th, 1 p.m. on 4th. Brucefield, South Huron, Jan. 8th, 10 a.m. Exeter, South Huron, Jan. 9th, 10 a.m. Parkhill, North Middlesex, Jan. 10, 10 a.m. Theford, East Lambton, Jan. 11th, 10 a.m. Camlachie, East Lambton, Jan. 12th, 1 p.m. Brigden, West Lambton, Jan. 14th and 15th, 10 a.m. on 14th. Ayrton, West Middlesex, Jan. 16th, 10 a.m. Mt. Brydges, West Middlesex, Jan. 17th, 10 a.m. Byron, East Middlesex, Jan. 18th, 1 p.m. Ilderton, East Middlesex, Jan. 19th, 1 p.m. Coldstream, North Middlesex, Jan. 21st, 1 p.m.

DIVISION III. Waterford, North Norfolk, Jan. 2nd, 10 a.m. Port Dover, South Norfolk, Jan. 3rd, 1 p.m. Port Rowan, South Norfolk, Jan. 4th, 1 p.m. Delhi, North Norfolk, Jan. 5th, 1 p.m. Norwich, South Oxford, Jan. 8th, 10 a.m. Mount Elgin, South Oxford, Jan. 9th, 10 a.m. Aylmer, E. Elgin, Jan. 10 & 11, 1 p.m., on 10th. Shedden, West Elgin, Jan. 12th, 1 p.m. Rodney, West Elgin, Jan. 14th, 10 a.m. Blenheim, East Kent, Jan. 15th, 1 p.m. Merlin, West Kent, Jan. 16th, 1 p.m. Amherstburg, South Essex, Jan. 17th, 10 a.m. Bell River, North Essex, Jan. 18th, 1 p.m. Stony Point, North Essex, Jan. 19th, 1 p.m. Chatham, West Kent, Jan. 21st, 1 p.m. Thamesville, East Kent, Jan. 22nd, 10 a.m.

DIVISION IV. Freelon, North Wentworth, Jan. 2nd, 10 a.m. Waterdown, North Wentworth, Jan. 3rd 1 p.m. Jordan, Lincoln, Jan. 4th and 5th, 1 p.m. on 4th. Niagara Falls South, Welland, Jan. 7th, 10 a.m. Crowland, Welland, Jan. 8th, 10 a.m. Peiham Town Hall, Monck, Jan. 8th, 1 p.m. Atherly Station, Monck, Jan. 10th 10 a.m. Fisherville, Haldimand, Jan. 11 & 12, 1 p.m., on 11th. Glanford, South Wentworth, Jan. 14th, 10 a.m. Binbrook, South Wentworth, Jan. 15th, 10 a.m. Brantford, S. Brant, Jan. 16 & 17, 1 p.m., on 16th. St. George, N. Brant, Jan. 18 & 19, 1 p.m., on 18th.

DIVISION V. Embro, North Oxford, Jan. 2, 10 a.m. Innerkip, North Oxford, Jan. 3, 10 a.m. Elmira, North Waterloo, Jan. 4 & 5, 1 p.m. on 4th. Alma, Centre Wellington, Jan. 8, 10 a.m. Erin, Centre Wellington, Jan. 9, 10 a.m. Orangeville, Dufferin, Jan. 10, 10.30 a.m. Shelburne, Dufferin, Jan. 11, 1 p.m. Flesherton, Centre Grey, Jan. 12, 1 p.m. Plover, South North Grey, Jan. 14, 1 p.m. Palermo, Halton, Jan. 15, 1 p.m. Acton, Halton, Jan. 16, 10.30 a.m. Guelph, S. Wellington, Jan. 17 & 18, 1 p.m. on 17th. Brampton, Peel, Jan. 21 and 22, 1 p.m. on 21st.

DIVISION VI. Weston, West York, Jan. 2nd, 10 a.m. Woodbridge, West York, Jan. 3rd, 10 a.m. Bond Head, South Simcoe, Jan. 4th, 1 p.m. Thornton, South Simcoe, Jan. 5th, 1 p.m. Minesing, Centre Simcoe, Jan. 8th, 10 a.m. Wryvale, Centre Simcoe, Jan. 9th, 1 p.m. Coldwater, East Simcoe, Jan. 10th, 10 a.m. Orillia, East Simcoe, Jan. 11th, 10 a.m. Meaford, North Grey, Jan. 12th, 1 p.m. Thornbury, Centre Grey, Jan. 14th, 10 a.m. Collingwood, West Simcoe, Jan. 15 and 16, 10 a.m. on 15th. Mt. Albert, N. York, Jan. 18th and 19th, 1.30 p.m. on 18th.

DIVISION VII. Oshawa, South Ontario, Jan. 2nd, 10 a.m. Pickering, South Ontario, Jan. 3rd, 1 p.m. Agincourt, East York, Jan. 4 & 5, 1 p.m., on 4th. Uxbridge, North Ontario, Jan. 8th, 10 a.m. Woodville, West Victoria, Jan. 9th, 10 a.m. Beaverton, North Ontario, Jan. 10th, 10 a.m. Lindsay, West Victoria, Jan. 11th, 10 a.m. Fenelon Falls, East Victoria, Jan. 12th, 10.30 a.m. Bobcaygeon, East Victoria, Jan. 14th, 10.30 a.m. Peterboro, West Peterboro, Jan. 16th, 1 p.m. Lakefield, West Peterboro, Jan. 17th, 10 a.m. Keene, East Peterboro, Jan. 18th, 10.30 a.m. Norwood, East Peterboro, Jan. 19th, 10 a.m. Warkworth, East Northumberland, Jan. 21st and 22nd, 1 p.m. on 21st.

DIVISION VIII. Blackstock, Durham, Jan. 2nd, 10 a.m. Tweed, East Hastings, Jan. 3rd, 1 p.m. Tamworth, Addington, Jan. 4th, 10 a.m. Centreville, Addington, Jan. 5th, 10.30 a.m. Napanee, Lennox, Jan. 8th, 10.30 a.m. Stella, Lennox, Jan. 9th and 10th, from 1.30 p.m., on 9th till noon of 10th. Shannonville, East Hastings, Jan. 10th, evening meeting at 7.30, and 11th till 4.45 p.m. Wellington, Prince Edward, Jan. 12th, 10 a.m. Demorestville, Pr. Edward, Jan. 14th, 10.30 a.m. Grafton, W. Northumberland, Jan. 15th, 1.30 p.m. Goldsprings, W. Northumberland, Jan. 16th, 1.30 a.m. Orono, Durham, Jan. 17th, 10 a.m. Bowmanville, Durham, Jan. 18th, 10 a.m.

DIVISION IX. Oxford Mills, North Grenville, Jan. 2nd, 10 a.m. Kemptville, North Grenville, Jan. 3rd, 10.30 a.m. Winchester, Dundas, Jan. 4 & 5, 1.30 p.m. on 4th. Newington, Stormont, Jan. 8 & 9, 1.30 p.m. on 8th. Cornwall Centre, Cornwall, Jan. 10th and 11th, 1.30 p.m. on 10th. Spencerville, South Grenville, Jan. 12th, 10.30 a.m. North Augusta, S. Grenville, Jan. 14th, 10 a.m. New Dublin, Brockville, Jan. 15th, 10.30 a.m. Athens, Brockville, Jan. 16th, 10.30 a.m. Delta, South Leeds, Jan. 17th, 10.30 a.m. Lansdowne, South Leeds, Jan. 18th and 19th, from 2 p.m. on 18th till 5 p.m. on 19th. Sunbury, Frontenac, Jan. 21st, 10.30 a.m. Sydenham, Frontenac, Jan. 22nd, 10.30 a.m.

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OF THE

FARMER'S ADVOCATE AND HOME MAGAZINE

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