

# FARMER'S ADVOCATE

AND HOME MAGAZINE

FOUNDED, 1866.

VOL. XX.

LONDON, ONT., JANUARY, 1885.

Whole No. 229.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.



"Clarence Kirklevington," Grand Sweepstaker at the Late Chicago Fat Stock Show.

The accompanying illustration presents one of the most remarkable animals in the annals of fat stock shows. As a yearling steer, of which an illustration appeared in the last February number of the *ADVOCATE*, he won the first premium in his class at the Chicago Fat Stock Show against twenty-six competitors. We now represent him as a two-year-old, when he swept away first honors in four classes, the final honor being won on the block. His age was 1,372 days, weight 2,400 pounds, being an average gain of 1.74 pounds per day. He was a thoroughbred Shorthorn, sired by 4th Duke of Clarence, his dam being Kirklevington Duchess of Horton. He was bred by

the Canada West Farm Stock Association, of Brantford, Ont., of which Mr. John Hope is the able manager, who enjoys the highest reputation both as a breeder and a judge of stock.

Consternation has been provoked among British farmers and graziers over a recent decision of the Court of Exchequer, convicting a defendant for dishorning cattle. The case was prosecuted by the society for the prevention of cruelty to animals. There are said to be upwards of 60,000 head of cattle dishorned annually in Ireland alone, and the value of dishorned cattle is increased £2 per head.

The profits in farming are made chiefly by paying strict attention to details and reducing them to a system.

The privilege we possess of being permitted free access to every live stock market in the world, owing to our freedom from cattle disease, is equivalent to a premium of \$20 per head over competing cattle, or \$1,500,000 per annum on our cattle export trade. This is a prize worth guarding.

I am very well pleased with the *FARMER'S ADVOCATE*, and would not be without it for five dollars a year.

NICHOLAS POWLESS, Tuscarora.

FOUNDED 1866.

**The FARMER'S ADVOCATE and HOME MAGAZINE** is published on or about the 1st of each month, is handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for dairymen, for farmers, gardeners and stockmen, of any publication in Canada.

**TERMS:**—\$1.00 per year, in advance, postpaid; \$1.25 in arrears. Single copies, 10 cents each, postage prepaid; sample copies free. Subscriptions may commence with any month. Remittances at the risk of the subscriber unless made by registered letter or money order. Subscribers who desire to change their P. O. address must send both old and new address. Remember that the law requires the subscriber to notify the publisher whenever the former wants the paper stopped, and all arrears must be paid. The date on the address label shows when the subscription expires.

Address—  
THE FARMER'S ADVOCATE,  
LONDON, ONT., CANADA.

Please examine your address label, and if **YOUR SUBSCRIPTION HAS EXPIRED**, or is about to expire, please

**RENEW AT ONCE**  
All subscribers whose labels are marked "Jan. 85" should understand that their subscription expired with the Dec. number.

Renew at once and see that your label is marked "Jan. 86."

When sending your subscription try and avoid sending postage stamps. Five per cent. additional should be sent when stamps are remitted.

**Our Monthly Prize Essay.**

Our prize of \$5.00 for the best original essay on "*The Future Management of Agricultural Exhibitions*," has been awarded to F. H. Honsberger, Springfield, Ont. The essay appears in this issue.

A prize of \$5.00 will be given for the best original essay on "*The Best Methods of Encouraging Our Beef Industry*." Essays to be in not later than Feb'y 15.

We purpose setting aside *One Hundred Dollars* to be expended annually in promoting the interests of the farmers. Several suggestions have been made to us with regard to the best method of expending this amount, some saying it could be advantageously given for prizes at exhibitions, some for the encouragement of farmers' clubs or agricultural education, some for the best conducted farms, etc. We now, therefore, offer a prize of \$5.00 for the best original essay or the best suggestions on "*How can the Farmer's Advocate best expend \$100 annually in the farmer's interest?*" Essay to be handed in not later than Jan. 15.

**Choice Premiums.**

Read our list of choice, new premiums offered in another column of this issue for sending in new subscribers. Send for sample and begin your canvas now.

We want good, live, energetic agents in every county to canvas for subscriptions for our paper. We pay a liberal commission to agents who devote their time to our work. Send for specimen copies. Address—  
FARMER'S ADVOCATE, London, Ont.

The ADVOCATE is a welcomed visitor in our house; I cannot well do without it.  
HENRY PLUMSTELL, Clinton.

**Editorial.**

**The Moral of Fat Stock Shows.**

These institutions are rapidly gaining in public favor, and while it is desirable to encourage every good tendency, yet injurious influences are apt to creep in, which may lead to disastrous results unless checked in their inception. Every producer and consumer is more or less concerned in the production of cheap and wholesome beef; and as the farmer is the producer, also to a large extent a consumer, his interests are inseparable from those of the rest of the community, and should be regarded to be of primary importance.

We were told by a prominent member of the Oxford Fat Stock Club, whose duty appears to have been to increase the membership, that the farmers took very little interest in the success of the Club. He stated it was the townspeople to whom he was largely indebted for the cash received and the enthusiasm manifested. Exhibitors are compelled to be members, but it is optional with others, townspeople or farmers, and if all the members were on the option list, it is quite probable that the townspeople would be masters of the situation. It is a speculative affair from beginning to end.

We were told by a prominent butcher that he calculated to lose a few hundred dollars in purchasing prize steers, but he was compelled to do it or let his trade competitors snatch the reputation for enterprise. There were two sources of loss, he said; firstly, the fancy price paid, and second, large portions of the carcasses being unfit for human consumption, had to be made over to the ashery establishments, or donated to charitable institutions. He concluded by saying that such a style of advertising costs too much money. The merchant, hotel keeper, and other citizens of the town, run little risk in speculating with the membership fee of \$1; it does not require an immense crowd or a very pleasant day to reduce their risk to a minimum.

Under the present system of judging, the prize feeders are foremost in the ranks of speculators. Like the butcher, the feeder has to prevent the snatching of his reputation at any price. Unless he is a man of means he must aim at prizes with unerring certainty, or lose both his name and his investment. He must bring out the "highest possibilities" of his animal. An admirer of fat stock shows informed us that if the "highest possibilities" of an animal were brought out even at a considerable loss in the cost of production, this was proof positive that the animal had the most profitable carcass under lower possibilities; that is, in plainer English, the animal which can produce the most worthless carcass has also the greatest aptitude to produce the most profitable one. This argument may be quite sound from a fat stock point of view, but it is bad logic and worse common sense.

The present low prices of fancy fat stock are largely due to the fact that fashionable consumers are recovering their senses, and are losing their relish for famous fancy fed Christmas steers, even though nurtured by the tender care of so illustrious a feeder as our Government.

**Council Meeting of the Agricultural and Arts Association.**

The fall meeting of the Council of the Agricultural and Arts Association was held in Guelph on the 16th and 17th ult. There were present Messrs. Legge, Morgan, Parker, Shipley, Aylsworth, Drury, White, McKinnon, Reid, Moore, and Snell.

The first business was a consideration of the requests from different municipalities for the next Provincial Exhibition. A letter was read urging the claims of Stratford, and Mayor Gordon of that town appeared in person to emphasize its claims. A request was also read from Collingwood, claiming that this town had the requisite facilities for the exhibition. Chatham was also spoken of as a favorable location; and it was stated that tents could be used instead of buildings in the smaller towns. Petitions were then read from the Board of Trade and City Council of London, praying the Board to hold the next Provincial in that city; and a deputation of aldermen waited upon the Board to support these petitions.

A deputation from the City of Guelph was also entertained, urging the claims of that city upon the Board. After some discussion, it was decided to hold the Provincial Exhibition of 1885 in the City of London.

Mr. Drury, on behalf of a finance committee, recommended that the Government be requested to provide the following estimates for 1885:—Prize farms, \$250; Council expenses, \$725; Veterinary College, \$125; essays, \$100; salaries, \$1,500; exhibition, \$5,500; postage and printing \$600; educational schemes, \$500; fat stock show, \$700; total, \$10,000. The last year's grant of \$1,300 for plowing matches was wiped out, and there is an increase of \$500 for exhibition purposes.

Mr. White, chairman of the committee appointed to select subjects for prize essays for 1885, reported the following subjects:—1. The apple; its importance as an article of commerce in Canada, and for exportation; the adaptability of the different kinds to the various localities; its propagation and cultivation; its principal insect enemies and the remedies thereof. First prize, \$30; 2nd, \$20; manuscript not to exceed 25 pages. 2. Underdraining; the best methods of underdraining the different soils of Ontario; the cost, and the practical benefits resulting therefrom. Manuscript not to exceed 20 pages; 1st prize, \$30; 2nd, \$20.

Some of the members of the Board thought the apple essay would trespass upon the grounds of the Fruit Growers' Association; and Mr. Snell suggested the substitution of an essay in connection with the relation between farm employers and employes. After some discussion the essays as recommended by the committee were adopted.

A report of the committee in relation to the request made by the Department of Agriculture of the Dominion, asking for a collection of grain, roots, etc., to be sent to the Industrial Exhibition at Antwerp, in Europe, was adopted. The report stated that these products had already been forwarded.

It was moved by Mr. Morgan, seconded by Mr. White, that the date of the next Provincial Exhibition in London, be from the 7th to the 12th of September. The motion created considerable discussion, and Mr. Reid wished his



dissent to be recorded in the minutes. He contended that this date was too early for Northern Ontario, as the farmers were then in the midst of their harvest, and it would also clash with the Industrial Exhibition. He was in favor of the fourth week of September.

After some discussion it was agreed that the consideration of the question be postponed till the March meeting of the Board.

A communication was read from the London City Council, asking the Board if it would accept a monetary consideration in lieu of the \$4,000 which it held on the present London fair grounds, or if it preferred to transfer the lien to the contemplated new grounds. There being a wide difference of opinion amongst the members of the Board, the question was postponed for the consideration of the new Board.

The Dominion Government having decided to send a Canadian Commissioner to the Antwerp International Exhibition, the Board offered to petition the Minister of Agriculture to appoint Mr. Joshua Legge as such commissioner.

A motion, moved by Mr. Drury and seconded by Mr. Snell, was carried to the effect that the Commissioner of Agriculture be requested to appoint Mr. Henry Wade, Secretary of the Agricultural and Arts Association, to represent Ontario at the coming New Orleans Exposition, the Government to pay no extra salary, but merely the expenses of the mission. Mr. Morgan offered to accompany and assist Mr. Wade, and pay his own expenses. This generous offer was applauded by the Board.

The thanks of the Council having been tendered to its President, Mr. Joshua Legge, for the able and courteous manner in which he discharged his duties, the meeting adjourned.

**How to Save the Manure.**

No. V.

As a supplement to our articles on farm-yard manures, we purpose treating briefly on concentrated fertilizers. But it may be asked, What has this to do with "How to Save the Manure?" Much everywhere, as we shall shortly see. Many names have been attached to these fertilizers, which have little or no application. "Artificial" is very inapplicable, for most of them are natural products, and require less manufacturing than farmyard manure, both before and after they enter the soil. "Commercial" is a poor distinguishing term, for in some countries farm manure is also an article of commerce; and in many of the neighboring States it is extensively shipped from one State to another. In our own country it will soon become an extensive article of commerce also, if farmers do not early begin to save their manure. "Chemical" is a misleading name; for there is just as much chemistry involved in farmyard manure—except when a host of analysts has to be employed by governments to detect adulterations. "Special" is a word of bad repute. Is it "special" for certain soils or certain crops? Unfortunately there are over 50 "special fertilizers" sold for different kinds of crops, and this humbug has brought more disgrace upon the fertilizers than all other abuses combined. Every farm crop contains the same constituents, and while it is true that some plants require more of some of these constituents than others, and may assimilate them in a slightly different form, yet these

circumstances are insignificant compared with the constituents that may be lacking in soil. "Special," however, is legitimately used to distinguish them from "general" manures. A "special" manure contains only some of the constituents of plant food; a "general" manure contains them all. "Direct" is a term usually confined to green manuring. "Mineral" is an inapplicable word applied to fertilizers, for all fertilizers contain minerals, and farmyard manure is not the only kind that contains the organic constituents of plants. We shall employ the term "concentrated" as being the most applicable; for, when pure, these fertilizers usually contain no constituents that are not needed by the plant, whereas farmyard and other organic manures contain elements that are useless in the soil for plant food, and may therefore be regarded as "bulky."

Of the dozen or more elements that are usually found in the composition of farm crops, all of which must be in the soil, one would think it a difficult problem to ascertain which ones are deficient, and which exist in excess, before the deficiency can be supplied; but the task is greatly simplified when it is known that hardly any soil is ever lacking in any of the constituents of plant food except one or more of these three, viz., nitrogen, phosphoric acid, and potash. Of those potash is usually the least important, it being present in sufficient quantities in a large majority of soils.

How then is the farmer to know which of these fertilizers is most deficient in his soil? By no other available means than by conducting experiments for himself—just as he does in testing the different varieties of grains, vegetables, etc. There is this difference, however, that a few grain tests conducted by one farmer may be of use to the whole neighborhood, while fertilizers must be more repeatedly tested, not only on every farm, as a rule, but frequently on different fields of the same farm. We have always advocated that every farmer should save his farmyard manure in preference to purchasing concentrated fertilizers; but as soon as his home-made manure begins to run short, he must commence supplementing it with purchased manures. It is too late to begin after the fields cease to yield profitable crops. Just as the thoughtful farmer commences to lay out plans for his buildings, drains, etc., many years before he undertakes the work, so it is with fertilizer experiments; he cannot begin too soon. Just as sure as he will need buildings and other improvements, so sure will he have to restore the lost fertility of his land. After several years experimenting, he will be able to ascertain what fertilizers should be added to his farmyard manure so as to make it cover two or three times the area to which he now applies it.

1. *The Supply of Nitrogen.*—A soil may be ever so rich in all the other constituents of the plant, but if deficient in nitrogen the crops will be small. The same truth applies to all other lacking constituents. There is little difficulty in ascertaining when nitrogen is wanting. The natural source of this element is the decay of vegetable matter, also called organic matter, humus, or vegetable mold. Decaying farmyard manure and the remains of worms, insects and animals are also fruitful sources. Soils that are rich in organic matter are therefore

rich in nitrogen; but this nitrogen is not always available for the crop. It must first undergo a process of nitrification or change to nitric acid, which is brought about by living organisms (bacteria) in the soil, aided by a warm temperature, moisture, and a free circulation of air. Tillage is therefore necessary to keep the soil porous; but not so porous as to prevent moisture rising from beneath in dry weather. Unless these conditions exist the soil will be poor in nitrogen supplies.

There are many kinds of fertilizers which supply nitrogen to the soil. We shall merely mention the names of blood, wool or woollen rags, soot, hair, meat scraps, leaves, and leather scraps, many of which are articles of commerce. We do not, of course, recommend farmers to purchase these wastes, but we mention them to show that they are rich in nitrogen, so that the farmer will take the hint that many a valuable little compost heap can be made by saving the "scraps" about the farm. These forms of nitrogen are in the organic state; and, like humus, they must be nitrified before they become available for the crop.

The other forms of which we shall speak, and are readily procurable in our markets, are nitrate of soda and sulphate of ammonia. Being soluble, nitrate of soda is readily assimilated by the plant, and contains about 16 per cent. of nitrogen. It acts more quickly than any other nitrogenous manure, and is therefore good to give the crop an early start, or it may be applied as a late dressing. If there is only a small quantity of organic matter in the soil, it usually furnishes sufficient nitrogen during the warm season. Sulphate of ammonia is prepared from the ammoniacal products of gas works, and contains about 20 per cent. of nitrogen; but as the ammonia must first be oxidized to nitric acid, it is not quite so active as the last named fertilizer. Vegetation is destroyed by the application of large quantities of these fertilizers, and they are easily washed out of the soil by heavy rains, if there is not a sufficiency of clay in the subsoil to retain them; the same may be said with regard to the nitrogen of the humus after nitrification has taken place. Humus, being black, is a good absorber of heat, and it has the property of retaining more moisture than other soils.

A little reflection will now show the causes of the loss of nitrogen. Summer-fallowing in a wet season and in a light soil is a fruitful cause; but the greatest source of loss is the amount of nitrogen wasted under the existing system of treating the farmyard manure. It will therefore be seen that enormous quantities of farmyard manure must be spread on the field in order to supply a sufficiency of nitrogen to produce a good yield, so that more phosphoric acid and potash are applied than the soil requires. The addition of nitrate of soda or sulphate of ammonia to a smaller supply of farmyard manure now explains one of the mysteries of how to save the manure by the use of concentrated fertilizers.

(TO BE CONTINUED.)

R. Gray, Seaforth, says: "Many farmers round here take the ADVOCATE, and all seem well pleased with it. Our house is flooded with papers, and I must dismiss some of them, but I will hold on to the ADVOCATE as our best friend."



**Christmas Fat-Stock Shows.****THE WOODSTOCK SHOW.**

The second annual Christmas Fat Stock Show, under the auspices of the Oxford Fat Stock Club, was held at Woodstock on the 16th ult. The day being cold and stormy, it was anticipated that the affair would be a partial failure, but the farmers of Oxford showed themselves to be made of sturdier stuff than to be swayed by the elements, and the show turned out to be a grand success. The club was organized a year ago, and now consists of over 200 members, the majority of whom are farmers. Considerable interest was added to the occasion by the presence of Mr. C. F. Frankland, of Toronto, as one of the judges. There was not a word of dissatisfaction expressed about the judging. The animals in the ring were bred and owned chiefly by local breeders, and Mr. Frankland expressed the opinion that the cattle exhibited were as good as could be found anywhere. Mr. E. W. Chambers, the president, and Mr. John Craig, secretary, are earnest in the work of building up a good show, and they are making heroic efforts to get the fat stock show under the patronage of the Agricultural and Arts Association next Christmas.

In conversation with Mr. Frankland on various topics relating to the live stock trade, he came into collision with the Ontario Government on one of the most vital questions. He is very pronounced in his views against the exportation of store steers to Britain. He believes our farmers are exhausting their soils too rapidly already, and the raising of store steers would magnify the evil, as the farmers are not yet sufficiently educated in the modes of restoring the fertility of their land. He thinks our stock raisers would be wise in acting on the caution given in the October number of the *ADVOCATE* in this respect. On the other hand our Government is of opinion that the fertility of our land is almost inexhaustible, and favors the exportation of store steers on a gigantic scale. The voice of so high an authority as Mr. Frankland should be heeded by our farmers.

**THE GUELPH SHOW.**

From Woodstock we passed on to Guelph, where the annual Christmas Fat Stock Show was held on the 17th and 18th of December. Guelph appears to be resolved upon retaining connections with the Agricultural and Arts Association. It claims that it has the best right to the patronage of the Government, but other shows which are rapidly springing into significance naturally claim a share of the Government favors.

Many improvements have been added to the drill shed since the last show, notably a wing added to the east side chiefly for the accommodation of hogs and sheep. There was a large display in all the classes, and the competition was keen. Judging commenced on the evening of the 17th, previous to which addresses were delivered by the Hon. G. M. Ross, Commissioner of Agriculture, and Mr. G. F. Frankland, of Toronto, the pioneer stock exporter of Canada. The attendance was large both during the day and in the evening, and particular interest was taken in the judging. The Messrs. Groff, as usual, had the lion's share of the prizes, and their monstrous steer

"Jumbo," was gazed upon with astonishment. His age is 4 years and 7 months, weight 3,200, being a daily gain of 1.92 lbs. since birth. The Model Farm showed a lot of 8 steers. Their average age was a little less than 2½ years, average weight 1,700, so that the average daily gain was exactly the same as that of "Jumbo." It was announced that the Model Farm intended to compete for prizes for the first time, but the money so won was to be handed back to the Club. This news created considerable consternation in some of the ranks, for the exhibitors were after the honors as well as the prizes. Other exhibitors were not afraid of the Government. Finally the commissioner withdrew the stock from competition. At the close of the judging, the Government stock was auctioned off, and brought an average of 7 cents a pound, being ¼ of a cent lower than the average prices at the Christmas Fat Stock Show at Chicago, and 5 to 6 lower than the prices realized in Guelph at the previous Christmas show. The prices at private sales, in Woodstock and Guelph, ranged between 5 and 7 cents. The highest price paid was for a Hereford grade steer, which brought 9 cents, and this was considered as a very fancy figure.

**Bribery and Corruption Under the Agriculture and Arts Act.**

The Act passed by the Ontario Legislature for the encouragement of Agriculture, Horticulture, Arts and Manufactures, has many defects and stands in need of revision. It embraces many powerful organizations which wield a mighty influence in our agricultural affairs, and any abuses left unchecked in their infancy will be sure to lead to irreparable trouble.

We wish to call the special attention of the Government to the general provisions of the Act respecting the right of voting. Clauses 105 and 106 provide that all paid up members not under 18 years of age shall have a right to vote at the election of officers and on all other questions submitted to the annual meeting, which apply solely to the business of the ensuing year, but no subscription shall be received or members elected, who shall have a right to vote for such offices, after the poll is declared open. Now it is well known that in some societies these clauses, so far as the election of officers is concerned, are openly and fraudulently violated. Like the election of councilors and members of parliament, men of ability and integrity refuse to become public servants, receiving nothing but abuse for their honest endeavors to do their duty. For this reason it is not surprising that the societies organized under this Act might be ruled by officers of doubtful reputation, whose sole ambition is the retention of office for the purpose of advancing private schemes of an objectionable character. There is no wonder that many right-minded members have been opposed to their re-election, and that they have chosen what they consider to be the lesser of two evils. A short time before the elections both the officers and their opponents set to work to buy up all the purchasable men and youths for the purpose of increasing the membership and thus controlling the elections. Corruption funds, in fact, have been collected for the purpose of liquidating the fees of the new members, or

purchasing old ones. The Act makes no provision for the punishment of such practices, although it is well known that they exist, but to what extent cannot safely be estimated. It is also reported that instances have occurred wherein, either through excitement or ignorance, members have been added to the roll after the poll was declared open for the election of officers, in direct violation of the Act. It is said that these abuses originated in the horticultural societies, whence they have spread into the Township and Electoral District societies. If these practices are not speedily checked, they will end in the suicide of our agricultural independence.

**On the Wing.**

On Thursday, the 18th of December, we stepped into the office of the Agricultural and Arts Association, wishing, if possible, to gain some information in regard to anticipated changes in agricultural legislation; as it is our opinion that sudden and great changes have been often too hastily made, and that open and free discussion on all subjects pertaining to our agricultural interests should be secured. Time should be given for the farmers to express their views on such subjects as are of importance to them.

Mr. Blue and Mr. Wade were absent on business, but Professor Buckland was present in the building. The Professor thinks it would be well for two or three weak townships to unite their agricultural societies for exhibition purposes, at least for a time, and that the farmers' clubs should join with agricultural societies too. He considered the Bureau of Statistics was doing a useful work and that the Dominion Government might advantageously establish a Bureau for such a purpose. He considered the Provincial Exhibition had stepped beyond its proper sphere when it fostered the foreign attractions, but he considers it difficult to maintain its position without them, as the other large exhibitions have gained such a reputation by these means. He speaks with regret in regard to the increase of sharp practices and an increased lack of confidence.

He gave us an instance in regard to the judicious application of sewage manure. Last year in England one farmer by its use had raised 1,700 lbs. of hops to the acre; but the average of the yield in that vicinity, without the use of sewage, was only 300 lbs. to the acre.

The Professor considers the Chicago and other rings as injurious to the farmers; he considers that we should do all that we can to maintain as high a standard as possible on all our agricultural productions that we export. He instanced the large export of mutton now being sent from New Zealand to the British markets in refrigerators, the great success that is attending the enterprise, and considers that the New Zealanders will have an advantage over us in the mutton trade with England. He says our Cotswold Lincolns and Leicesters tend to put the fat on outside, and the grain of the meat is coarse, whereas the demand in England is for short grained, well marbled meat, and this the Downs produce. He instanced the difference in price. Perhaps you may not have heard, or even if you have, you may not have believed or con-



sidered the difference, namely, 3d. per lb., equal to 6 cents; this is a point to be considered, and the time will soon arrive in Canada when the black legs will be seen hanging in our butcher shops. Farmers will realize a better price for the best quality of mutton, even in Canada.

Professor Buckland is now upwards of eighty years of age. Although he has been compelled to resign his situation, he is still in his office giving all the assistance in his power without remuneration. Mr. Buckland is, we believe, the only gentleman now living that took any active part in establishing the Provincial Exhibition, in 1846, in company with Col. Thompson, Col. Denison, Sheriff Ferguson, of Kingston, Adam Ferguson, of Hamilton, and other leading men of the day, all of whom have passed away. He undertook to get up an agricultural exhibition in Toronto. There was not much then to exhibit, and by hard work, by the use of their own means, they succeeded and kept on increasing for seven years, unaided by Government money. Mr. B. was one of the principal workers, devoting his time and means, and soliciting others to subscribe and join in the enterprise. They had real work to do, and did it voluntarily, and were successful in bringing the Provincial Fair to its zenith of glory and utility. We must all admit that the Provincial Exhibition has done much good. Mr. B. for many years travelled through the Province, giving lectures and aiding the agricultural societies, but for many years he has been confined to office work, which has not been quite as congenial to his feelings as outside work.

When in Toronto the hotels were crowded with visitors attending the great Conservative meeting and feast in honor of Sir John A. Macdonald. The feast was undoubtedly a grand affair, but the most remarkable feature in it was the almost total disregard of the great interest that fed them all—Agriculture. The names of the Hon. J. H. Pope, Minister of Agriculture, and J. C. Rykert, M. P., ex-President of the Board of Agriculture and Arts, were on the programme, but neither of them appeared. A deputy was then called, who scarcely mentioned anything about this, to you, the greatest interest.

Farmers, your interests are the least regarded. Your voices are never heard except through the medium of the office seeker, who is loud in his words and suggestions of expenditures, nominally for your good.

#### BEES.

As recent improvements in the management of bees have enabled apiarists to manage bees with much greater certainty of success than formerly, and as it is now a lucrative industry and adds enjoyment to the work of the farmer, we called on Mr. G. B. Jones, of Brantford, a very practicable bee-keeper. We believe he will furnish you with the most reliable and valuable information in regard to them. We have made arrangements to have a series of articles from his pen, which, we have no doubt, will be read with very great interest and profit by a large majority of our readers. By following the articles the stranger to bees may learn how to make a success of the apiary.

#### HARD TIMES.

Hard times have been prevailing in our country,

while our garner have been overflowing with the most bountiful crops, and the products of the earth were never as plentiful and cheap. Many mechanics are thrown out of employment, caused by an over-production of wares; the over-production was caused in many cases by over-speculation, over-booming and contentions of ring, whose only object was to grasp the cash irrespective of all consequences, and a desire to break down all private enterprise. We fear too many legislators have been the wire-pullers in many of those injurious schemes which are tending to corrupt the whole moral tone of society and bring desolation on the masses. The farmers and others are now suffering under the baneful effects of one species of ring operators; this system, if not checked, will revive and bring troubles ten times more appalling than the present. The system acts injuriously to the operator and those operated on. Is there any remedy? The cry comes from many a home, "No work; shops shut down; half time; reduced pay," etc.

#### A CONTRAST.

We stepped into the work-shop of Messrs. Waterous & Co., the great saw-mill, grist-mill and engine manufacturers. Here we find over 180 hands fully employed; no shut down, no short time, no reduction either in numbers or in pay. They say they might cut down the pay of the men but that their payments have thus far come in well, and they have plenty of work on hand at the present. They would not sadden their men at Christmas time, and they hoped to continue without diminution of work or wages. The great reputation that their mills and engines have attained is the cause of their success. Not only do they send their wares to all parts of our British American possessions, but they also ship them to Valparaiso, South Australia, New Zealand, Queensland, Brisbane, Bavaria, and other foreign parts, and when we were there they were just shipping a load to Guadalajara.

We also called at Messrs. Harris & Sons' establishment. Here we find over 200 hands employed; they keep all their men on, but during the short days they shorten the time morning and evening a little, making their work equal to five days a week. They will increase the time when the days lengthen. Their great success is the construction of the harvesters; they had not enough to fill the demand last year, and they say the wheat crop never looked better for next year than it did this fall, and the farmers will have their harvester. They were shipping one of the harvesters, the day we were there, to Rasario, in the Argentine Republic, where they are expecting a large trade.

At Wisner & Sons' we find between 100 and 200 men working on seed drills, cultivators, horse rakes, etc. Their drill and broadcast seeder has now such a good reputation that they can keep on their staff.

The Cockshatt Plow Company are running their 75 men on plows and cultivators. These figures contrast greatly with many workshops in Canada and other countries. There are many other factories in this, the so-called Manchester of Canada.

We took a drive three miles into the country. After ascending a hill we turned off the main road, and here, on high, elevated, rolling, rugged and, is situated the residence of Mr.

T. Ballachey. The house has a most charming location, being nearly surrounded by an orchard, and from this site the town of Brantford is overlooked, and the rich, flat pasture lands at the foot of the hill, clumped here and there with cedars and running brooks, gives a most enchanting appearance to this lovely spot. The farm buildings in the rear are substantial, warm and convenient, and the stock has already commenced to spread its reputation beyond its own vicinity, where it has a very high reputation. The stock consists of Leicester sheep, Shorthorn cattle, and Berkshire pigs, but probably the most important branch is the stock of horses, consisting of Clydes and Percherons; in the latter class they have taken several first prizes at the Industrial Exhibition at Toronto, where the best stock in Ontario has been exhibited. There are two brothers, each having his own buildings, although they appear working as one. They have a very large stock on hand which they are determined to reduce. To do this they have concluded to dispose of their heavy horses, putting the Percherons and Clydes at lower figures than such stock can be procured for at any other place. They have some very fine stock, which they are determined to dispose of at unusually low prices.

If you take no pleasure in farming, it will yield poor profit.

Keep up to the agricultural improvements of the times; don't stick too closely to old methods.

If you put your money into the heads of your children instead of into their pockets, they can never lose or squander it.

The measure of your health is chiefly based on what you eat, drink and wear. Any fraudulent practices in these commodities can be detected by the science of chemistry, and yet you say that science is a fraud.

The Southern Exposition Company intimate their intention to hold a National Agricultural Exhibition at Louisville, Ky. The exhibits are to include the agricultural, horticultural, mineral, timber, and livestock industries. They evidently forgot to include agricultural implements and machinery.

Miss Eleanor A. Ormerod, the accomplished entomologist of England, and consulting entomologist of the Royal Agricultural Society, in her writings on the sparrow question, uses strong language in condemnation of that bird, urging the people of England to destroy it as rapidly as possible. She contends that those who defend the sparrow do so from feelings of prejudice towards it, and are not actuated by any sympathy for those who suffer from its destructive habits.

Politicians have the "faculty" of putting things plausibly. This is their business. If money is to be raised to advance their schemes, they say that the tax will only amount to a mill on the dollar. A mill, of course, is a mere trifle; but a pile of mills taken from a pile of dollars for a pile of years, interest included added to piles of other mills on piles of other dollars used for piles of other purposes, makes a pile of money. If you want to save the dollars, begin by saving the mills.

R. Bell, of Kippen, Ont., says he "wud na be wantin' the ADVOCATE for a load o' turnips."

### Special Contributors.

#### A Chatty Letter from the States.

[FROM OUR CHICAGO CORRESPONDENT.]

The depression in values of live stock seems to have a very depressing influence upon some of our weak-kneed, wavering brethren of the west. The weakest feeling seems to be among growers of wool, who have paid little or no attention to the mutton value of their sheep. There are ever so many men who are selling out now, and trying to find something more profitable. Now that nobody wants to buy, these men are anxious to sell, even if they have to make great sacrifices, and, ten to one, they will be the first ones, should there be a wild boom, to jump in and invest their money when prices are unreasonably high, when nobody wants to sell and everybody wants to buy.

The amount of hog cholera that is reported to exist in nearly all sections of the west this winter, is simply startling. It is far more prevalent than it has ever before been. Young hogs are said to be dying by the hundreds. It is not improbable that some of this talk about the alarming fatality is started by constitutional croakers, who wish to make the packers and people generally believe that there will not be hogs enough this winter to supply the common necessities; but "where there is so much smoke there must be some fire," and there is no mistaking the fact that this disease which so far seems to have completely baffled the skill of scientists, is creating sad havoc among many herds.

What is "hog cholera?" It does not seem to be very clearly defined. The fact is, every time a hog dies on a western farm the cause is put down to be cholera. There is no examination made. The farmer simply knows that the hog dies, and takes it for granted that the disease must of course be cholera. Now why does not somebody find out what the matter with some of these hogs is, and what will cure or prevent the disorder? We have actually heard of 1,000 hogs dying in one county in Ohio, but we do not hear anything about any scientific investigation or attempted cure. There seem to be numerous diseases of swine that are indiscriminately set down as hog cholera. The question of feeding cheap wheat to hogs is being agitated considerably in the west.

It is claimed, and not without reason, that the surplus wheat of the country which is now selling at prices considered so disastrously low by many farmers, might well be used to make pork—that wheat, particularly the rejected and lowest grades, can be used to good advantage by grinding it and scalding with water in vats, and fed the next day as a kind of slop—that wheat fed in this way makes 15 lbs. of pork to the bushel, while corn only makes 10 lbs.—that wheat tends to make bone and muscle, and mixing the fat more evenly through the lean, while corn does not afford the desired streak-of-fat and streak-of-lean quality, but puts the fat on more in lumps—that wheat diet tends to make the animals stronger and free from the so-called hog cholera, while corn has the effect of rapidly developing the fatty tissues, of inducing debility and of making the hogs unusually susceptible

to the common swine ailments. Now these things may or may not be true. The matter has not been thoroughly tested, but the writer thinks this matter is very worthy of consideration.

Some famous beeves were on the holiday market. There were some remarkable specimens of early bovine maturity.

One three-year-old steer weighed 2,040 lbs., and another of the same age, 2,150 lbs. Another lot of 15 head not three years old till next spring, weighed on an average 1,885 lbs. There were other lots about two and a half years old. The whole averaged 1,630 lbs., and sold at \$7.75 per cwt., to be sent east in refrigerator cars. Those monster beeves cost a great deal of money, but they were so rare that buyers were willing and glad to handsomely pay the feeder for his trouble. Five years ago the best beeves were those turned off at about four years of age. Within the past three years the early maturity idea has been developing very rapidly, and the results are simply wonderful. Animals which our not very far distant ancestors would have called "calves" are now being led to the shambles carrying 1,250 and 1,600 lbs. of beef.

Only a few days since one of the best judges of the bovine kind in Chicago, Mr. John Adams, of the stock yards, told the writer that were the matter in his hands, there would never be another premium given at a show or fair on a steer three years or over.

John D. Gillett, of Logan Co., Ill., had in 24 head of two and three year old Christmas cattle which averaged 1,995 lbs., and sold at \$8.00. He also had in a lot of lighter younger beeves of prime quality, some of which were not yet two years old.

Farmers of the west have lately been somewhat discouraged at the general low prices of all kinds of farm products. Hogs at \$4 to \$4.25, good fat cattle at \$5, and good sheep at \$4, together with the very low price of grain, have been somewhat unsatisfactory and discouraging. Unnecessarily so, however, because, while not up to general expectations, the prices have not been nearly so ruinous as many have seemed to think.

Hogs have been coming to market in better quality than ever before. And despite the croakings of many, it is now estimated upon good authority that there will be at least 5 per cent. more hogs marketed during the current packing season than there were last year.

December 5, there arrived at Chicago 66,597 hogs, the largest number ever before received, and one or two weeks in December the receipts of all kinds of stock were the largest ever known before.

#### The "Early Maturity" Mania.

BY MARSHFIELD.

The tenacity of this craze is amazing. Writers whose consciences are susceptible of remorse call it "early forcing." It has been said that the "early maturity" of beef animals has been greatly increased of late years; for example, the three-year-old steer of former days is now "mature" at two years, profiting the pocket of the producer, and gladdening the stomach of the consumer. In speaking of maturity it is important to inquire whether the muscle or the fat is meant, or both. By muscle

I mean the lean meat. It is not only a physiological truth, but a fact learned from daily observation, that muscular development is dependent upon plentiful exercise as well as upon a reasonable supply of food; otherwise, especially in highly fed animals, the tendency is to degeneracy. Muscular degeneracy is a loss of weight, reckoned without reference to the quantity of water in the muscle, and a loss of nutritive properties. It is therefore plain that maturity, much less "early maturity," cannot be mentioned in connection with organs or tissues that are tending to deteriorate from day to day and generation to generation; so that in our prize fed animals we must look for the "early maturity" in the fat. Fat and muscle are inconsistent with each other so far as development is concerned; the one must be produced, within rational bounds, at the expense of the other. Activity favors the development of the one; inertness the other. In a growing animal, fed under the high pressure system, fat will accumulate nine or ten times more rapidly than muscle; and the greater weight in the shorter time—the so-called "early maturity"—is attributable to the greater ratio of fatty increase. If it can now be proved that the greater proportion of nutriment resides in the fat, then our fat stock shows deserve the everlasting gratitude of mankind.

Maturity has been defined to be "ripeness," "completion," "perfection"; so that our Christmas epicures who relish early matured sweep-stake beeves at fancy prices, consume ripe, complete, and perfect hunks of fat for the enjoyment of their festivities and the nourishment of their bodies.

In the consideration of fat there are two points at issue, viz. (1) its nutritive value as a necessary, and (2) its value as a luxury. Strictly speaking, fat has no nutritive value whatever; all the tissues and organs of the body can be built and repaired without it, so can fat and heat be produced, and fat, or its equivalents, is so abundant in most of the common articles of diet, animal and vegetable, that its artificial production cannot be defended. It is the lean meat that builds the structures of the body, and the function of fat is merely accessory; it economizes the nitrogenous or tissue-forming constituents of the food, and being less complicated in its composition, it is more easily resolved into its simple compounds, carbonic acid and water, thus lessening the burdens which would be heaped on the organs by a too nitrogenous diet. As an article of luxury, fat cannot be defended; for we find that people given to luxurious or riotous living consume foods that are too nitrogenous and saline in their composition. Hence game is the chief luxury of these people. Animals that live in the state of nature, being active in their habits, have, as a rule, an excess of the tissue-forming constituents, also of the saline or beef-tea principle, and the more active the animal the more nutriment it contains in proportion to its weight.

It is asserted that the cost of production has been greatly reduced by the early forcing system of feeding. What a grave reflection on the intelligence of mankind! Even granting that the producer becomes enriched by defrauding the consumer, what does the system prove? I shall assume, for the sake of argument,



PRIZE ESSAY.

The Future Management of Agricultural Exhibitions.

BY F. H. HONSBERGER, SPRINGFIELD, ONT.

that of two steers of the same weight, a two and a three year old, both having consumed the same quantity of food, the older steer contains the more nutritive value. I will not vouch for the absolute correctness of these figures, although what I have shown is very strong testimony; and I hold that the aim of all feeding experiments should be to establish greater accuracy in this direction.

If one dealer adulterates his milk, his rival cannot compete in the sale of pure milk, and so long as all milks remain at the same price, the man who does the most adulterating makes the most profit. If the adulterating material contains no injurious ingredients, the consumer's pocket only suffers; otherwise his health also. Now, the adulterating process of high forcing is not only injurious to the pocket but also to the health of the consumer. Witness the predisposition to disease and the disease germs which lurk in those huge masses of corruption, dignified by the name of prize animals. Witness the millions of dollars that have been wasted in attempting to stamp out those diseases favored by high feeding. If the consumer paid only for the intrinsic value of his purchases, he would be the gainer, and the producer would, putting it in the mildest form, lose nothing. I will not deny that prize flesh is the juicier, for it contains more water—although the proportion of water in the whole carcass is less; neither will I deny that the flesh is tenderer, for it is lacking in nutritive properties. Tenderness is only desirable for people of tender stomachs; like any other tissue, the stomach is strengthened by the performance of labor, and if it is left to the tender mercies of foods of easy assimilation, its functions will become speedily weakened. I am no advocate of starvation rations; I am a friend of liberal feeding, and my object in this paper is to give prominence to the golden virtue of moderation, both in feeding and exercise.

There are two influences which tend to encourage excess of this kind: (1) A lack of proper education, and (2) a slavish adhesion to fashion. The man who asserts his right to tell his fellow beings what they ought to have and ought to learn, denouncing what is detrimental to their well-being, is assailed as a philanthropist or a crank. However, when doctors become as much interested in the sanity of mankind as they are now in its maladies, a wholesome reaction will be the result. I pause for that happy day.

Look forward to the spring work.

It will never pay to feed poor stock high.

Careful calculations made now will save much money and annoyance during the coming busy seasons.

Count how many valuable moments you have lost during the long winters' evenings in the past quarter of a century.

At the celebrated Houghton Farm, in New York, where the system of management is regarded to be model in every respect, all the cows drop their calves in the fall.

Dr. Væcker, the distinguished chemist of the Royal Agricultural Society, died recently. He was engaged in conducting a series of exhaustive experiments on ensilage.

I would not be without your valuable paper under any consideration. J. T. P., Aylmer.

It is very evident that there is a great diversity of opinion among our leading agriculturists in regard to the benefits of agricultural exhibitions, as held at the present time; and so much has been said by way of criticism, of the failures of our exhibitions in accomplishing the results for which they are designed, and so many changes suggested for their management in the future, that the subject has become one of great importance, and demands the earnest consideration of all who are interested in the advancement of agriculture. This state of affairs is quite commendable, as improvement should be our motto in this age of progress and advancement.

It has been truly said that "Experience is the best teacher," and we may safely say that by looking at our agricultural exhibitions of the present day, although we see much to admire, we cannot fail to be convinced that there is still room for improvement, and that we may gather many useful lessons for our guidance in the future, from the failures of the past. In order to mark out the best methods to be adopted in the management of our exhibitions, I shall briefly state their objects, point out what I consider their failures in the past, with the causes of such failures, and then endeavor to show by what means we can make such changes as will produce the desired results in the future.

The following are the chief objects for which our exhibitions are held, namely; the encouraging of breeders to import pure-bred stock from foreign countries, with a view to improving the stock of our farmers and making this branch of husbandry more profitable to them; the improvement of our methods of cultivating the soil, by bringing together for competition the products of our farms and awarding prizes to the best samples; and last, but not least, the promotion of a friendly intercourse between farmers, and the awakening of that interest in their occupation and ambition to excel in it which follow as a result of competition for prizes with others, and the emulation of those who are successful. No person who has watched the improvements of agriculture in our young Dominion for the past quarter of a century, can fail to notice that our agricultural exhibitions have wielded a powerful influence in its advancement, nor deny the fact that their objects have been attained in a great measure.

It cannot be denied, however, that at the present time the majority of the farmers who most need the stimulating influences and benefits of exhibitions, take little or no interest in them, and while their more successful and ambitious neighbors realize their advantages, take an active part in them, and reap their benefits, they content themselves with finding fault in regard to their management, and in many cases condemn the action of our legislators in granting money for their encouragement.

They cannot fail to be benefited indirectly, however, for no exhibition can be carried on with any degree of success without being a benefit even to those who take no part in it, as they cannot fail to profit by the example of their neighbors who desire its benefits. There are very few farmers who fail to see the great advantages and benefits which may be derived from agricultural exhibitions if properly managed, and the majority of those who take no part in them, do so because they are not conducted in accordance with their views. For example, one man objects to township exhibitions because there are so few members of township societies, and consequently the amount to be awarded in prizes is so small that he does not consider them worth competing for, and therefore denounces township exhibitions without considering their peculiar advantages, or the fact that the money to be gained in prizes is a secondary consideration to the increased interest in his occupation which an exhibition produces; and that the very reason that there

are not more members and more money to be offered in prizes is, that many others like himself refuse to take part in an exhibition, each giving as his reason that his neighbors take no interest in it, instead of setting them a good example by doing so himself.

This want of interest on the part of so many farmers, is the greatest hindrance to the success of our exhibitions. If every farmer would become a member of an agricultural society for his own township and take an active part in carrying out its objects, by doing all in his power to make the exhibition a success, we would no longer hear the cry that township exhibitions were a failure, but would find an ever-increasing interest in them. I am satisfied from my own experience and observations that township exhibitions, if successfully managed, will accomplish greater benefits for the farmer in general, than exhibitions held on a larger scale, although I am decidedly in favor of county and provincial exhibitions.

Want of space prevents me from giving the peculiar advantages of township exhibitions; suffice it to say that the nearer we can bring the exhibitions to the farmers, and the more interest and rivalry we can arouse among farmers in the same neighborhood, the more likely they will be to take an interest in them, and derive the benefits for which they are designed. Again, if we can induce farmers to take an interest in township exhibitions, they will soon realize their benefits, and it will require no further argument to persuade them of the advantages of county and provincial exhibitions.

In those counties where the exhibitions of the different townships composing them are carried on successfully and encouraged by the majority of the farmers in their own immediate localities, we invariably find the most successful county exhibitions, as the interest appears to proceed from the lower to the higher.

There is at the present time much discussion and great dissatisfaction in regard to the manner in which large exhibitions such as the Provincial, and others held in our cities, are conducted.

These exhibitions (excepting the Provincial) are to a great extent under the control of officers who reside in the cities, and take very little interest in the exhibitions, for the purpose of promoting the interests of agriculture, but merely for the gain which the cities in which they are held derive from them. Consequently a great variety of special attractions such as horse races, balloon ascensions, band tournaments, etc., are added to the exhibitions in order to draw large throngs of people to the cities while the exhibitions are being held.

I do not altogether condemn the addition of these attractions, for we must admit that it has the effect of bringing to our exhibitions many farmers with their families, and others, who would not attend otherwise. In my opinion they should be added with the same degree of caution as spices to a dish of vegetables—enough to give them a good flavor, and make them more palatable, but not so much as to take away the taste of the vegetable, for in the same manner as a superfluity of spices destroys our appetite for the vegetables, so an overabundance of outside attractions takes away the interest of an exhibition.

I mention this as I am confident that the carrying to excess of this state of affairs has proved detrimental to many of our large exhibitions. An examination of the bills announcing the dates, etc., of many of the exhibitions held in our cities, will convince any person of the truth of my assertions. In many cases the reader of such a bill will require to examine it very carefully, or he will leave it with the impression that it is for the purpose of advertising a circus instead of an agricultural exhibition; for very prominently before him he sees a portrait of a number of horses with their drivers engaged in a trial of speed, or a man in a balloon suspended between the earth and sky, and surrounded by a crowd of admiring spectators, followed by the announcement of the different special attractions for each day of the exhibition, while comparatively little is



said in regard to the exhibition itself. We should never lose sight of the real object of exhibitions; and while it is advisable to do all in our power to secure a large attendance, we should not introduce anything that will materially lessen the interest in the exhibitions themselves, or in any way detract from their beneficial results. As already stated, the chief cause of the addition of these outside attractions, is the fact that the proper men are not elected as officers of our agricultural societies, and the remedy is therefore very easily applied.

One of the greatest hindrances to the success and popularity of many of our exhibitions (especially township exhibitions) is the fact that sufficient pains are not taken by the officers of societies to procure competent judges to award the prizes. This often creates great dissatisfaction, and prevents many exhibitors who feel that they have not received the awards due to them, from again becoming members. I am well aware that it is an utter impossibility to prevent dissatisfaction of this kind, but am sorry to say that there is often just cause for complaint. This is a matter of great importance, as the growth of any agricultural society, and the success of its exhibitions, depend in a great measure upon the just and impartial discharge of the duties of judges who are appointed to award the prizes.

Having pointed out what I consider the chief failures of our exhibitions in the past, with causes of such failures, I shall mark out the best methods to be adopted in their future management, and suggest a few changes which would, in my opinion, increase the interest in exhibitions, and materially aid in increasing their beneficial results. The one great thing which is necessary in order to make our exhibitions most successful, is to secure the influence and co-operation of all the farmers it is possible. In order to accomplish this, I propose the plan of having agricultural societies and farmers' clubs combined.

The great want which we as farmers experience is organization. While our fellow-men who are engaged in other avocations, band themselves together to protect the interests of their occupations, we as farmers have, to a great extent, in the past, been plodding along as if each one felt that upon himself alone depended the advancement of the interests of his calling. Now this is a mistaken idea, and the sooner we bring about a complete revolution in this respect, the sooner we will secure for ourselves and our occupation the proud position to which we are entitled. I claim that every farmer should be a member of an agricultural society, and also of a farmers' club, and take an active part in them; but how many there are who take no interest in them whatever, I am of the opinion that the two combined would be productive of more good than if carried on separately even if the union did not have the effect of arousing the interest of a greater number of farmers, which I am satisfied would be the case. There are, at the present time, very few farmers' clubs or similar organizations of any kind in existence, although every farmer who is alive to the interest of his occupation will acknowledge that they are very beneficial. The great difficulty has always been to get a sufficient number of farmers to take an interest in them and organize. By carrying on such societies in connection with agricultural societies we will accomplish this, and will also aid them by making their exhibitions more successful.

My plan for the working of these societies is as follows:—Have a certain amount to be paid by all who become members; appoint officers to manage the affairs of the society, preside over its meetings, and take charge of its finances; have regular meetings for the transaction of business, and the discussion of various topics pertaining to our occupation; hold exhibitions once or twice a year—as is the custom with agricultural societies, open to all who have become members by paying the required fee. The meetings of members for the discussion of subjects pertaining to agriculture, and the interchange of ideas, would create an en-

thusiasm which would greatly add to the success of the exhibitions. Another great benefit to be derived from such societies is that they would be in a position to purchase superior animals to be used by their members for breeding, or new varieties of grain, seeds, etc., to a far greater advantage and with less expense to each member, than if purchased by private individuals.

Animals for breeding purposes might be purchased, to be the property of the society, and good stock might then be introduced into many neighborhoods where it would not be done in any other way. Regular fairs for the sale of stock, and plowing matches, might also be held under the auspices of the society, and be of great benefit.

Our agricultural societies, as conducted in the past, have done nothing more than to arrange for their exhibitions, while our farmer's clubs (and they have been very few) have met for the discussion of agricultural topics, but have not had any exhibitions in connection with their societies to stimulate their members to put into practice the information which they have derived from each other, in order to gain the highest awards in a competition for prizes among themselves.

A society such as I have described, formed for the purpose of securing the better organization of farmers to advance their interests, for the discussion of agricultural topics, and interchanges of ideas on matters pertaining to their occupation, and for the holding of exhibitions to show the fruits of their labors, and test the results of each man's industry and knowledge of his occupations by giving prizes for the best sample of farm products, would certainly be very beneficial, and have the effect of arousing a greater interest in exhibitions than has been manifested in the past.

When speaking of the plan which I advocate for adoption in the future, I have reference particularly to township societies, although I see nothing to hinder it from increasing the success of county exhibitions.

The officers of our agricultural societies should be the men who are most interested in the advancement of agriculture, and who will spare no pains in making the exhibitions successful, and carrying out their objects.

The future advancement of our country, the awakening of a greater love for our occupation in the minds of our young men, and the hastening of the day when agriculture shall occupy the exalted position among the occupations, and receive the respect to which it is entitled, demand of us as farmers an increased interest in exhibitions, and the subject of their future management is therefore worthy of our most careful consideration.

The National Live Stock Journal, in commending the course of instruction to cheese-makers in Wisconsin, by T. D. Curtis, remarks:—"The dairy associations of Ontario, some ten years ago, made a special effort to improve the cheese of the province by extensive dairy shows and lavish prizes paid out of the money granted them by the Provincial Government, but only to waste the money. It was not till they threw up their mammoth exhibitions, and began teaching their operatives direct, that they made any perceptible advance. Since then they have moved on with strides that have put them ahead of all competition."

#### Free! Free!!

See our large list of useful prizes to be given FREE for sending in the names of new subscribers. If you want valuable tree seeds, plants, beautiful roses, books, pictures, or serviceable household articles, get some of your friends to subscribe. Every worker deserves and obtains a present.

## Stock.

### A New Cattle Food.

Gluten meal, wherein the trade has recently developed into considerable magnitude, has found its way into the hands of experimenters. It is a by-product obtained in the manufacture of starch and glucose from corn. When the starch is taken from the corn, the nitrogenous constituents (albuminoids, or the flesh-forming compounds) remain in the form of gluten, consisting mainly of the germs, but the fat and fibre are mostly removed from the corn with the gluten. In the old process of separation caustic soda was used. It has long been known that gluten was rich in flesh forming constituents, and upon analysis its feeding value was found to equal peas, except with regard to its mineral constituents, which are five times less, so that it must be fed with bran or some other food rich in minerals or salts.

Dr. Goessmann, of the Massachusetts Experiment Station, has been testing its value as a milk yielder, and produced milk of good quality, and at a satisfactory cost, with gluten at \$22.50, wheat bran at \$23, English hay at \$15, and corn at \$28 a ton. The following is a synopsis of some of the results: No. 1.—3½ lbs. shorts, 3½ lbs. gluten, and 20 lbs. hay per day, produced milk at 1.68 cents per quart; nutritive ratio, 1:6.32. No. 2.—6½ lbs. gluten, 3½ lbs. shorts, and 18 4/7 lbs. hay, produced milk at 1.82 cents per quart; nutritive ratio, 1:5.32. No. 3.—6½ lbs. gluten, 6½ lbs. shorts, and 14 lbs. hay, produced milk at 2.08 cents per quart; nutritive ratio, 1:4.42. No. 4.—3½ lbs. gluten, 3½ lbs. shorts, and 19½ lbs. hay, produced milk at 1.8 cents per quart; nutritive ratio, 1:6½. The average weight of the cows was nearly 800 lbs., and the average daily yield of milk about 27 lbs. The fodder and the milk were both analyzed, and nothing was wanting to make the experiments complete.

### Winter Management of Sheep.

Of all domestic animals the sheep loves liberty. It is a dainty animal, and nibbles about to find what is most palatable. It should not therefore be subjected to close confinement or unwholesome food. The structure and yard should occupy an elevated location, with a sunny aspect. If the yard is adjacent to other buildings, thereby protected from the wintry blasts, an inclosure of hurdles will be sufficient; otherwise the yard should be protected by a high, close board fence. A large yard would be a delightful thing for the sheep, especially when there are any pickings available, but it is a bad thing so far as the saving of manure is concerned. As a means of access to the yard, wide sliding doors are preferable, as considerable space is required to prevent crowding. The sheep should only be closed in during wet or damp weather; the cold will not injure them if the yard is protected from the raw winds as before mentioned. The troughs should be in the shed, placed as centrally as possible, so that access thereto can be gained from all sides, but the racks are sometimes placed in the yard, in which case they should be movable, whereby they can easily be transferred to the shed when occasion requires. One objection to fixing the racks in the open yard



is that more manure is exposed and wasted, if it is not gathered before it freezes.

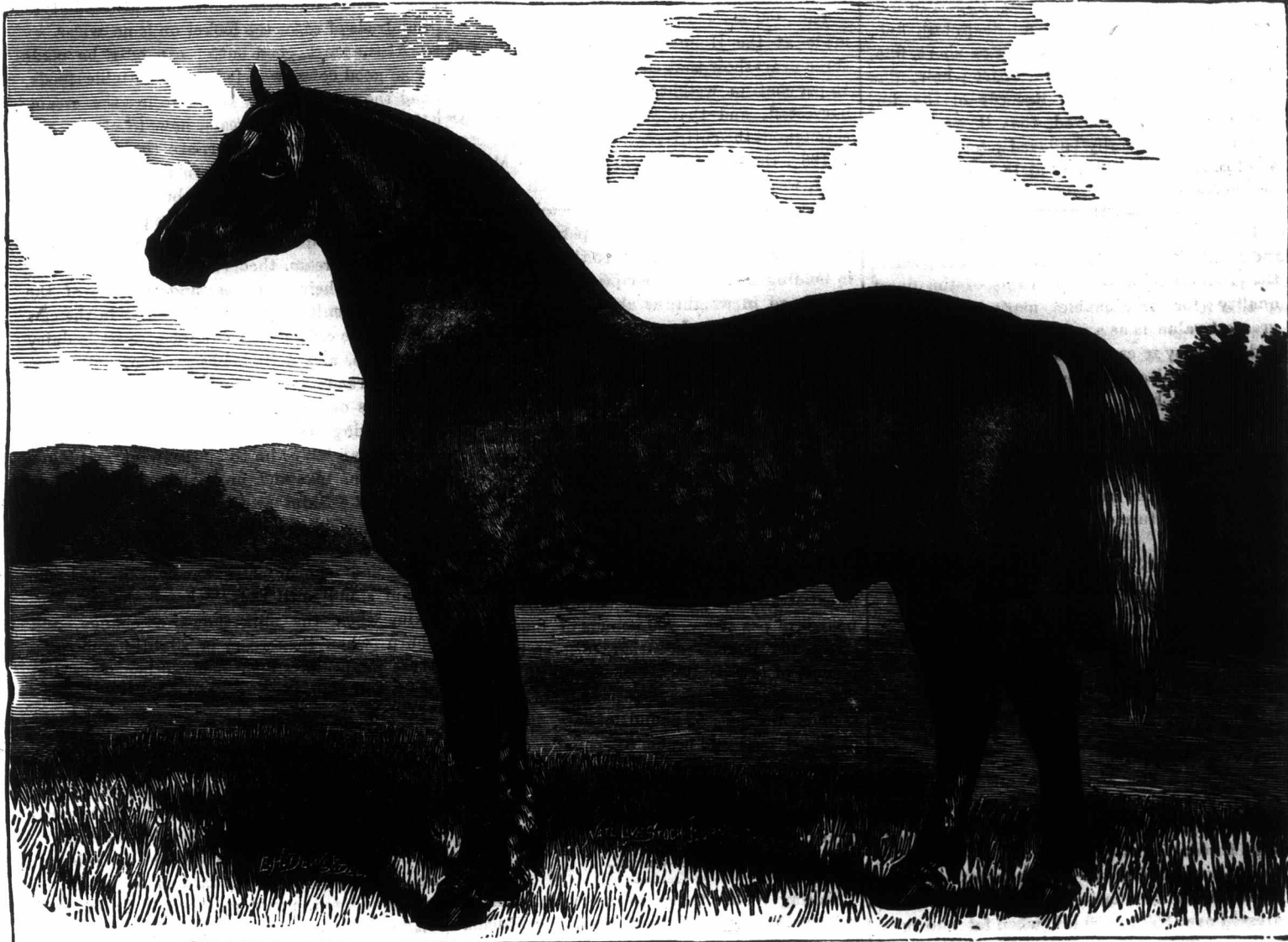
The best system of feeding is to make the best use of the foods you have, not purchasing those recommended by some writers because they are said to be just the thing for sheep. However, much discretion may be used in producing such a variety of food as will be appreciated by the flock. One thing not to be lost sight of is that you are feeding for a fleece as well as for a carcass, and perhaps also for lambs. For all these purposes any ration of a higher nutritive value than good grass will be

very fond of a gentle, faithful, and punctual attendant. Under the care of such a flock-master, they will thrive under many adverse circumstances as to food and accommodation.

#### Pigs and Their Breeds.

Domesticated animals being used as machines for the conversion of farm products into food for plants and man, it is important to know which species produces the largest proportion of increase for the quantity of food consumed. All other conditions being equal, if a pig digests a larger percentage of grain, so converting it into

constituents of the food, Lawes found that pigs stored up 4½ per cent., against 3.8 for the sheep and 2.3 per cent. for the ox; and of the nitrogenous or flesh forming constituents, the pig stored up 14.7 per cent., against 4.3 for the sheep, and 3.9 for the ox. These and numerous other experiments prove beyond a doubt that the pig is by far the most profitable consumer of farm products, and yet farmers make large deposits of grain in their manger bank, when they would bring double the rate per cent. in the trough. However, it must be borne in mind that cattle must be kept to manufacture the coarse foods,



Percheron Stallion "Arthur," the Property of Ballachey Bros., Brantford, Ont. (See page 5.)

wasted. If the hay is of good quality and composed chiefly of clover, sheep will thrive well without grain, if turnips, freshly sliced, be liberally fed; and the addition of one-half a pound of grain per head per day, would be high enough feeding for all ordinary purposes. It is not necessary to grind the grain, but when ground, it should be well mixed with the roots. If corn or barley are fed, the addition of a little bran would be beneficial. Pea straw is an excellent food if cut rather green and threshed with the flail. Of fodder crops there is nothing to equal a mixture of peas and oats, cut when the peas are in full blossom.

Good management cannot be fully accomplished by skill in feeding alone. Sheep are

animal increase, than a steer, cow, or sheep, it is evidently the most profitable machine; but if the labor and expense are greater, and price realized less, on the part of the pig, the question presents another aspect. Every farmer can easily turn these considerations to suit his particular circumstances; but with regard to the respective uses which our domestic animals make of the food consumed, he is working blind-folded. Experiments have been numerous enough to be conclusive on these points. Both Lawes and Gilbert in England, and other experimenters in Germany, have rendered farmers incalculable benefits, and the results of their experience have proved the vast superiority of the hog. Of the mineral or saline con-

and the best results cannot be obtained without the use of small quantities of grain. The fact that pigs require less attention, consume many products that would otherwise be wasted, and have much less waste in their carcass, is a liberal offset against the sometimes slightly lower price of their flesh compared with beef.

It will now be important to inquire which is the most profitable breed of pigs. In Canada, where we have to compete with the cheap corn, grass, and acorn fed pigs of the West and South, long winter feeding cannot be profitable, and as coarse, heavy carcasses are no longer in demand, we require a breed that grows rapidly, so that a spring born pig will dress not less than 150 lbs. by the time winter sets in. These

qualities are eminently characteristic of the Berkshire, Essex, and Suffolk, and all have a complete form, fine bone, a small proportion of offal, and the greatest depth of meat on the choicest parts, viz., the hams and shoulders.

#### POINTS OF THE BERKSHIRE.

Color, black, with white on face, feet and tip of tail and an occasional daub of white on the arm; face, short, fine and well dished, broad between eyes; ears, usually almost erect, sometimes inclined forward as age advances, small, thin, soft, displaying veins; jowl, full; neck short and thick; back, broad and straight, or very little arched; ribs, long and well sprung, giving a round appearance of body; hams, thick, round and deep; tail, fine, small, and attachment high; legs, short, fine, strong, straight, and wide apart; hair, fine and soft; no bristles. Records of the improved Berkshire proved that it was not so small as was generally believed; for it dressed 400 lbs. at a year old, and at 18 to 20 months, 500 to 550 lbs.

#### THE ESSEX.

The improved Essex is one of the best pigs of the small black breeds, and is well adapted to the production of pork or hams of the finest quality for fashionable markets; but its greatest value is as a cross for giving quality and maturity to coarser breeds. The original Essex had white shoulders, nose and legs, and large, coarse bone. The improved Essex has greater size and a stronger constitution than its ancestry, and these qualities have been perpetuated for over a quarter of a century, by cautious selections from three distinct families, without admixture of foreign blood.

#### THE SUFFOLK.

The old Suffolk was a white, long-legged, long-bodied, and had many points of the racer. The improved Suffolk took its origin from crossing with the Chinese. This breed is now very popular in Canada. The animal is neatly and compactly formed, medium size, possessing a round, bulky body, short legs, small head, very fat cheeks, and matures as rapidly as the improved Berkshire.

#### A FEW OTHER BREEDS.

**THE YORKSHIRE.**—The old Yorkshire was a coarse, ungainly animal, a greedy eater, had a large percentage of offal, and did not turn the food it consumed to the best account. It was regarded as a monster, and yet it seldom dressed over 350 to 400 lbs. when fat and fully mature. This coarseness was toned down by crossing with the Leicester, Chinese, and Berkshire, and the result has produced the improved Yorkshire. The Berkshire strain is hardy, but fatten slowly, although it attains considerable size. The Leicester strain has yielded us the improved large Yorkshire, which has considerable repute in Europe and England, as well as in Canada, but it is too slow a maturer for our climate. The small Yorkshire is peculiar to Yorkshire and has the following characteristics: Head, short; ears, small and erect; back, broad; chest, deep; legs, short; bone, fine. It is excellent as a bacon breed, and is also a good roaster and small porker.

**THE CHINESE.**—This is the old Asiatic stock and is the source of the European. There are the white and the black varieties. It is very small and fine in the bone, with small limbs and round bodies, covered with fine silky hair. It

has long been used by English breeders to subdue the coarseness of the British breeds of swine, and it has been largely instrumental in improving our own stock.

In all cases the breeder should look for a small head, a lively expression, a broad and deep chest, round ribs, a capacious barrel, hams falling down almost to the hocks, wide hips, a broad loin, a long body, fine bone, a compact form, and early maturity. Select breeding animals that will produce these results; and if the sow has a vigorous constitution and is a good mother, fecundity is a very desirable quality.

The Farmer's Review says:—Experiments made at the Houghton farm during the last three years show that corn shrinks from 10 to 15 per cent. in weight in the year after being harvested, and that the shrinkage continues throughout the entire year. Thus, of the crop of 1882, the shrinkage from harvest to March, 1883, was 3.5 per cent.; from March to July it was 7.9, and from July to October it was 4.4 per cent., a total of 15.8 per cent. This fact has a practical interest to the farmer who is holding corn for higher prices. Besides the shrinkage in weight, as above shown, there is more or less loss from vermin, so that the actual loss from shrinkage and other causes on a crib of corn is not less than 20 per cent. in a year from the time it is harvested.

**VALUE OF HAY FOR STOCK.**—Experiments have been made in England as to the comparative value of good hay for stock, with the result that it is estimated that 100 pounds of hay are equal to 275 pounds of green Indian corn, 400 pounds of green clover, 442 pounds of rye straw, 360 pounds of wheat straw, 160 pounds of oat straw, 180 pounds of barley straw, 153 pounds of pea straw, 200 pounds of buckwheat straw, 400 pounds of dried corn stalks, 175 pounds of raw potatoes, 504 pounds of turnips, 300 pounds of carrots, 54 pounds of rye, 46 pounds of wheat, 59 pounds of oats, 45 pounds of mixed peas and beans, 64 pounds of buckwheat, 57 pounds of Indian corn, 68 pounds of acorns, 105 pounds of wheat bran, 167 pounds of wheat, pea and oat chaff, 179 pounds of mixed rye and barley, 59 pounds of linseed, and 330 pounds of mangel-wurzel.

Taking Wolff's tables as given in Johnson's "How Crops Grow" as the basis for calculation, we find that a ton of wheat straw contains of ash materials in pounds 99.2. This ash will contain 11.4 pounds of potash, worth five cents a pound for manure—57 cents. Phosphoric acid, 5.36 pounds, at five cents—27 cents. The straw also contains 40 pounds of albuminoids containing 6½ pounds of nitrogen, worth 20 cents a pound—\$1.33. Total manure value of a ton of straw, \$2.17. In a ton of wheat straw there is enough potash for 30 bushels of wheat; enough phosphoric acid for 9 bushels, and enough nitrogen for 5 bushels. Whether the farmer can afford to sell straw for 75 to 80 cents a ton the inquirer can easily determine from these estimates of values.—[Dr. R. C. Kedzie.]

An American breeder says:—"I would prefer a first prize at a leading show to ten miles of a pedigree."

## The Dairy.

### Questions for Consideration.

BY JOHN GOULD.

While it is desirable to know how to make a good, long-keeping article of butter, and a product which will command the highest price, and withal please the consumer, it is very hard to illustrate the "secret," which, while found by following certain rules in certain respects, differs in details with different makers. Many writers and great butter makers tell how they make butter, and invite the curious to visit them and witness the operation, but in hundreds of cases the looker on is no wiser.

At the start, good butter can only be made from good cows, well fed upon suitable foods, and the milk properly set to secure the cream. How to care for the cream, how to churn, and how to handle the butter, are the three very important questions. There is a growing tendency towards sweet cream butter, or its close approach, "ripe" cream, but we purpose to follow with the quiet tide of those who practice the sour cream theory, and see if they are united in their practices, and if some of the varying results are not to be found in the caring for the cream. The range of a little dairy literature, and a little observation, will show that there are at least five, or even more, different ways of souring cream for churning, and each having its advocates. The first may be classed as: 1.—Skim the milk sweet, and allow the cream to stand until the milk in it gets thick. 2.—Skim sweet and churn at pronounced acidity. 3.—Skim after the milk thickens, and churn frequently. 4.—Skim any time, and churn when handy. 5.—Let the cream stand until the "whey" shows. 6.—Skim when the milk shows a change, and churn when the cream is slightly sour. To these might be added many other ways, but these will suffice.

It is to be seen that here is a wide difference in opinion, even among those who profess to admire the sour cream system. There must also be with this difference of opinion a wide range in the quality or flavor of the butter produced, more perhaps than the market demands, and if some common ground could be selected and some sort of a standard of condition of cream adopted, a vast gain would at once be made.

One of the prejudices against the sweet or slightly acid cream butter, arises from the supposition that it is "short lived" and that it does not yield as much butter as sour cream, which may be true when the conditions which govern its making are not understood. Such cream should be churned at about 56°, at which point the separation of the fats from the caseine and moisture best takes place. At 62° or 63° the warmth is too great, and causes the butter globules to become loaded with caseine, and the working does not free it from this element, and it quickly loses its flavor and good quality; but churned lower in temperature and brine washed, instead of being gathered in the churn, the objections cease. Then when cream becomes very sour the development of acidity consumes the flavoring oils, and so good authority as Prof. Voelcker says that the action of the acid breaks up the butter fats and produces



glycerine and acids, which change the flavor of butter and give it the peculiar flavor so distinct from either ripe or sweet cream. Thus we see that while a solid, good keeping butter may be obtained, and one which may please a certain class of consumers, yet it is at the expense of a genuine butter quality and of original flavor.

Then this wide difference in degree of acidity gives color to the suspicion that the slight acidity is the better way, unless it can be proven that by the greater acidity some of the minor elements in butter fats are disposed of, and their disposal is in the line of a better keeping butter; but as Prof. Arnold, a year or so ago in the *ADVOCATE*, gave his opinion that sweet cream butter, if properly made, was the better keeper, there is some doubt of its superior excellence, and it is in this very direction that the butter-makers of America should investigate, and then for the common good publish their formulated opinions, that we may be benefited.

But a few years since the butter market was the local one, and the consumption was near home, and butter was quickly eaten after making; but now the market has widened, so that the butter of the farm may find its consumer 3,000 miles away, and it is the long keeping butter that will reach the consumer in the best condition that the maker needs to excel.

For this market, it needs a solid butter that is free from extra moisture, and as perfectly free from butter-milk as skill can accomplish, and it is believed by many that the slightly acid or "ripe" stage of cream, churned below 60°, best accomplishes this object, and secures better uniformity in the product. It is in this stage that brine washing most perfectly separates butter and butter-milk, and leaves pure butter, which after proper salting can be solid packed, and will not have its elements changed by excessive acidity, or its "grain" broken down by long working to expel its butter-milk; it presents itself to the consumer as a table luxury to be praised, and not a compound to be the subject of anathema.

#### How the Danes Improve their Dairy Herds.

The Danes have long been celebrated for the superiority of their butter. The dairy farmers have a thoroughly practical and scientific knowledge of their operations, and are also experts in the art of breeding and management. They therefore take the lead in the world's markets, and our farmers and dairymen could not act more wisely than to take a few occasional hints from their systems.

We make the following extract from Mr. Alexander Mariboe's lecture on "The Danish Dairy," published by the Council of the International Health Exhibition:—

"In selecting cows for dairy purposes, it is not so much a matter of importance to fix on any particular breed as to be careful that the individual animals chosen are in a vigorous, sound, and thriving condition. There is often the greatest difference in the yield of milk given by different cows of the same breed. Although subjected to the same treatment and diet, some of the animals will yield as much as 600 gallons per annum, whilst others will not

give more than 300 gallons. A dairy-farmer should therefore understand, first of all, how to choose animals best suited for his purposes, and this done, the rest remains in his own hands.

"The exact result of each cow's yield is easily ascertained by "trial-milking," on a certain day once a week the whole year round, and every dairy-farm in Denmark is provided with a book in which not only the yield is marked down, but each cow is allotted a separate column, and its age, breed, and pedigree entered, and the daily yield from the whole of the stock is also marked down, but by itself in a separate book.

"Now, let it be remembered, the actual quantity of milk yielded by a cow is no absolute criterion of its value as a butter-yielder. The experiment of churning each cow's milk in a separate churn has shown that cows which give a small yield in quantity of milk often produce a larger proportion of butter than the copious milkers."

#### Dairy Profits—Winter Dairying.

Mr. H. B. Gurler, who conducts a large private dairy in Illinois, gives a bit of his experience before the Illinois State Dairymen's Convention. He had tried almost every other branch of farming, without success, and did not know what prosperity was until he had found out the secrets of success at the pail. He commenced with 20 cows, which did not bring more than \$33 per head for the six months' milk taken to the cheese factory, but made considerable butter after the factory closed. After two years of this system he, or rather his wife did, with the aid of his dog for churning, went into butter making as a private dairyman. At first each cow produced 150 lbs. of butter per year, which he did not consider a satisfactory yield. He then commenced testing the merits of each cow both with regard to the quantity and quality of her milk, and the weight ranged from 18 to 40 lbs. of milk per cow per day, and the percentage of cream varied from 7 to 20. He now had 40 cows and found that some had hardly paid for the food consumed, while others paid a net profit of \$60 a year, the butter yield ranging from 8 to 20 oz. per day. He then commenced weeding out, and changed his system from summer to winter dairying. In a few years the range of butter yield per cow was 150 to 266 lbs. per annum, and the average net profit rose from \$15 to \$45. He found that winter dairying paid immensely greater profits than summer dairying. He now has 60 cows, all of which drop their calves in September or October. His winter ration is early-cut clover and timothy, with equal parts by measure of wheat-bran and corn meal. One winter his milk suddenly shrank from 855 to 750 lbs., and on ascertaining the cause, he found that the foreman had substituted late-cut for early-cut hay.

The Eng. Live Stock Journal says:—"In many quarters where formerly pedigree was the crucial test, it is now strangely discounted." Which is the preferable extreme?

Times are hard, but we cannot do without the *FARMER'S ADVOCATE*, or I am afraid the times would be worse. K. E. F., Bowmanville.

The Canadian Gazette, London, Eng., says: It is reassuring, however, to notice that while the exports of grain and dead meat from Canada have not increased of late, considerable attention is being given to the dairy industry. Until recently, Canadian cheese was almost unknown in the English market. The article was imported here, but in order to secure its sale it was necessary to brand it with an American name. Now, however, there is no occasion for seeking to hide the origin of the product, as Canadian cheese has long since made its reputation in this country. The fact is, that Canada has gone ahead in cheese manufacture, and has neglected to pay proper attention to the other branch of the dairy industry. Seeing, however, the enormous quantities of butter which England now receives from the continent of Europe, there is reason to believe that Canadian farmers will find it to their advantage ere long to pay increased attention to the production of the article. If they suffer this branch of their export trade to exhibit a further decline, it will not be because the conditions are unfavorable to them. Just now there is considerable complaint as to the quality of some of the products which we receive under the head of "butter." Of this we may rest assured, that if people can get really good butter at a fair price they will quickly discard such villainous compounds as oleomargarine and butterine. Canada most certainly should take advantage of the present opportunity of extending British acquaintance with the unadulterated products of her dairies.

The Chicago Dairymen says:—We are told that the cheese exports of Canada have been greater than those of New York the past season. How are we to account for this, providing it is true, and we have no reason to doubt it. It is very generally conceded among buyers, that the make of Canada, as a rule, is better than that of the United States. They do not indulge in the bad practice of making poor, white-oak skims to the extent that we do, and this fact encourages buyers to come among them.

The N. E. Farmer says:—Mr. L. B. Arnold, in a recent conversation, told us that he had fully solved the problem of how to keep butter sweet for an indefinite period, by taking it from the churn in the granular form, and after rinsing it sufficiently in water or brine, packing it in firkins of strong brine without any working whatever. We ate butter at his table that was free from the first suspicion of rancidity, that had been made many months, and kept in brine in the granular form till a little while before being wanted for use. He related a remarkable instance of a lot of butter taking the first premium at a public exhibition two years in succession, which was certainly a very severe test when shown against new butter of high quality. We must learn to work our butter less, but have it more free from butter-milk.

I like the *ADVOCATE* well; my sons think a great deal of it, and get a great deal of information from it. They read it in preference to any other paper.

T. J., Rutherford.



### The Farm.

#### Cost of Raising Wheat.

The low price of wheat has caused considerable discussion amongst farmers and in the agricultural press, and a great many statements have been made showing the cost of production. There should be no cause for so much discrepancy in the figures given and the opinions expressed. Some farmers and other authorities have gone so far as to say that, so long as the sum realized is the same, it makes no difference whether the crop is good or bad.

This vital question must be settled in the farmer's mind before he can operate intelligently in the production of this important cereal. For the purpose of making an estimate of the difference in the cost of producing a large compared with a small crop, we have made out the following two statements of account kept with a ten-acre field, statement No. 1 making the yield 30 bushels per acre, at 75 cents, and No. 2, 15 bushels, at \$1.50, so that the sum realized from the field is the same in both cases, viz., \$225, or \$22.50 per acre:—

##### STATEMENT NO. 1.

Plowing in fall 7 days, at \$3	\$21 00
120 loads manure at 75c. (1/3 charged to crop)	30 00
Hauling and spreading	40 00
Gang plowing in spring	9 00
15 bushels seed, at 75c.	11 25
Drilling in same	4 00
Harrowing twice and rolling	9 00
Reaping, binding, and shocking	13 00
Hauling and storing	8 00
Threshing, cleaning and marketing	20 00
Rent, \$40; taxes, \$1.75	41 75
<b>Total cost of 10 acres</b>	<b>\$205 00</b>
By 300 bushels wheat at 75c.	225 00
<b>Total gain</b>	<b>\$ 20 00</b>

##### STATEMENT NO. 2.

Plowing in fall 7 days, at \$3	\$21 00
60 loads manure at 75c. (1/3 charged)	15 00
Hauling and spreading	21 00
Gang plowing in spring	9 00
15 bushels seed at \$1.50	22 50
Drilling in same	4 00
Harrowing twice and rolling	9 00
Reaping, binding, and shocking	8 00
Hauling and storing	8 00
Threshing, cleaning and marketing	11 00
Rent, \$40; taxes, \$1.75	41 75
<b>Total cost of 10 acres</b>	<b>\$165 25</b>
By 150 bushels wheat at \$1.50	225 00
<b>Total gain</b>	<b>\$ 59 75</b>

The figures representing the cost of production may give rise to considerable discussion, but this is just what is required. No figures can be made absolute to apply to every farmer, but anyone who studies these statements can easily change the figures to suit his conditions. We think the figures are high enough to cover rent for implements and machinery, and perhaps for some extra tillage in cases where the land produces an unusual crop of weeds. It should also be considered that light crops are generally more favorable to the production of weeds than heavy ones. The most complicated items are the charges for manure. The simplest way of getting over this difficulty is by supposing that the manures are soluble, so that they can all be utilized by the one crop, in which case no substance is taken from the soil and the land, therefore, it always remains in the same state of fertility; then a double crop will require a double supply of manure. The debit figures are intended to be applicable to this Province.

In the first statement it will be seen that the total profits on the 10 acres are \$20, and the percentage of gain on the investment is 9 2/3 per

cent.; while in the second statement the total profits are \$59.75, and the percentage of gain is 37 per cent. Under ordinary circumstances, the same principle will apply to intermediate yields and prices.

In keeping accounts the object the farmer should have is to find out the profits over and above his labor, thus ascertaining whether he is making more or less money than an ordinary laborer, so that his own labor must be included, and every item should be charged at market prices. We have calculated the farmer's labor at the ordinary market prices for hired help, viz., \$1.25 per day in the busiest summer months, and \$1 during the other seasons, adding 25 cents per day for board.

This article is not intended to deal with the phase of the question by which the farmer is indirectly benefited by the cheapness of bread to the rest of the community.

#### "Corners" and Monopolies.

The prevailing low prices of wheat and the effects of keen competition in the European markets, are beginning to open the eyes of the Americans to a realization of their commercial position. Not many years ago the largest importations into the European markets came from the United States; now only about one-third of the total wheat imports come from that country. This great and annually increasing reduction can be traced chiefly to the effects of "corners." The ever-fluctuating and unsatisfactory condition of the United States markets has driven England, Germany, and other European trade centres into other wheat fields, and the results have been as satisfactory to these countries, and to Russia and India, as they have been detrimental to our neighbors. European railroad and steamship companies are discussing how they can still further reduce their rates, thereby securing more traffic, and it has been estimated that unless American wheat can be landed in Liverpool at \$1 per bushel, it cannot compete with wheat from other markets. If American "corners" and monopolies, which the farmers have created, or at least, tolerated, cannot be abolished, the value of lands will suffer a serious reduction, if wheat growing is persisted in much longer.

These events have driven the minds of many agriculturists into a mania for stock raising; and the reports of the late cattle conventions prove that monopolistic tendencies are deep-rooted in the minds of Americans. They are determined that high prices shall rule, even if the margins are insignificant, and even at the risk of destroying the trade upon which their financial existence depends. The ranchmen now want to lease the large tracts of public lands which they occupy. The ostensible objects are that they have large sums of money invested in their ranches, that if new comers are admitted they will overstock the pastures, thereby causing starvation amongst their herds and a ruination of the cattle interests. These objections to the admission of honest settlers are so flimsy that the greed for the establishment of gigantic monopolies lurks behind them. These speculators cannot forget that where millions are now invested, billions could be invested by honest-aiders; where a beast is now compelled to roam over 10 or 15 acres in search

of the means of subsistence, one or two acres could be made adequate for the purpose, and where thousands of scrubs are now suffering in winter for want of food and shelter, millions of fine stock could be comfortably housed and luxuriantly fed. The stockmen appear to be prepared to do any amount of lobbying and bulldozing to secure their ends. These abuses must, sooner or later, have the same fatal results as the wheat speculations.

Happily, Canada is comparatively free from such tendencies, but we fear that unless our farmers unite and show evil-doers that they are masters of the situation, much mischief will insidiously creep into our institutions.

To a hard-working horse, repose is almost as much a necessity as good food, but tired though he may be, he is often very shy to lie down, even when a clean bed is provided for him. Unless a horse lies down regularly, his rest is never complete, and his joints and sinews stiffen; and while it is true that some horses that sleep in a standing position continue to work for many years, it is equally true that they would wear much longer, and perform their work much better, if they rested naturally. Young, nervous horses not unfrequently refuse to lie down when first made to occupy a stall, and, when introduced into a town stable, the habit may become confirmed, unless inducements are offered to overcome the disinclination.—[Reynolds on Draught Horses.

Plenty of good food and enough of exercise to keep the muscles firm, is the best treatment of horses in winter. It is quite common for many farmers to underfeed in winter, because they have little or nothing for horses to do. But a horse thus managed soon loses his capacity for hard service. Such a horse may be fed so as to make a good show in spring, but it will be fat, not muscle, and a few days in ploughing or harrowing will bring him down. Horses worked continuously are less liable to galls from the harness, as the skin is always firm and hard.

Active steps are being taken for the establishment of a School of Forestry in Edinburgh, Scotland. It is reported that donations towards the formation of a museum have been received from various governments and private exhibitors at the late Forestry Exhibition. These donations consist of specimens of woods, fibres, seeds and other forest productions. It is possible that arrangements will be made by which the proposed School of Forestry will be connected with the University of Edinburgh.

The value of succulent food in a hygienic or sanitary view to man, and also to the animals which minister to his wants, need not be commented on. All agree to its advantages during our long winters, and its necessity for the proper preservation of health.

Prof. Beal says the crow kills frogs, toads, etc., which are great consumers of insects, and that he is a persistent robber of birds' nests, eating both eggs and the young birds, and that the food of these birds is insects, grubs, worms, etc.



## Garden and Orchard.

## Raspberries.

BY W. W. HILBORN.

It is but a short time since the cultivation of raspberries began in Canada, and I know of no fruit that is gaining favor as rapidly as the raspberry. As the wild ones disappear and people more fully learn their value and cultivation, the demand will continue to increase, until every farmer—those at least who try to keep up with the times—will have all they can use. Twenty-five to one hundred bushes, well cared for, will give any family all they can use for about a month in their fresh state, and for canning for future use. The time required to care for that number is but a small item; one hour once a week during the growing season will be sufficient to keep one hundred in first class condition if they are planted and worked in the right way. Now one of the greatest mistakes made by most farmers who pretend to have a garden, is that they fix up a nice little place, put a fence around it, and plant their currants, gooseberries, raspberries, etc., around this fence, with a little patch of strawberries in one corner, a few onions in another, vines in a third, etc. When done it all has to be worked by hand, which takes more time than farmers have to spare; hence they soon grow up with weeds and grass and prove a failure. Plant everything, small fruit plants or vegetables, out in the open field in rows, so that they can be worked with horse and cultivator, the same as corn or potatoes, and you will find that less than one quarter of the labor will keep them in good order, and give better satisfaction every way. Plant your raspberries in rows six feet apart, and three to four feet apart in the row, on any soil that is good enough to grow a good crop of corn. The Cap varieties are the most easily managed, as they do not sucker or sprout up only at the crown of the plant. To extend over the whole season about three or four varieties are required. Plant none but well tested sorts, as there is not more than one in ten of the new kinds so highly praised, that will equal those already tested. For an early variety, Souhegan (black) is hardy, a good grower and productive of large medium sized berries. Mammoth Cluster will ripen just after the Souhegan, and is a first-class Black Cap, large size, strong grower and hardy. Gregg is the largest and latest of the black sorts, and should be in every collection. Shaffer's Colossal is a purple berry of the largest size, bush strongest grower of any, perhaps the most desirable for canning. Were I limited to one variety, it would be Shaffer's. It continues in fruit longer than any other sort.

Every farmer who reads this article and has not already done so, should plant some raspberries next spring; plant early, and when the new growth gets one foot high the first season, pinch off the top, which will cause them to throw out side branches. When the side branches get one foot long, pinch again; by so doing they will grow strong and stocky and will not require stakes to hold them up. You will also get double the quantity of fruit. The second season let them grow two feet high before pinching back. If you do not feel like buying plants, by looking around a little you

can secure one or more new subscribers to the FARMER'S ADVOCATE and thus get a few plants offered as premiums. I will give you instructions at the proper time how to propagate from them so that by next fall you will have enough to plant out quite a plantation, and in that way get a good sized patch of the best varieties now grown. After once having them, you will be surprised that any one having the land would do without them.

## The Best Means of Encouraging Tree Planting on Farms.

BY T. A. PATRICK, ILBERTON, ONT.

Farmers are, as a class, practical men, and they usually devote their time and give their attention to what they consider useful first, and then, if time permits, to the ornamental. Whatever a farmer considers paying he will find time for.

Noticing, then, how few farmers plant trees, we must conclude that they consider them of no benefit, or at least, that they do not fully realize the value of them.

If we want, then, to encourage tree-planting on farms, it will be necessary to convince the farmers of the advantages afforded by the trees.

This is no easy task. Our farmers seem prejudiced against the trees. Many of them have vivid recollections of the time when trees were considered the bane of the country; their homesteads were once wildernesses of forest and they had hard work chopping, logging and burning before they could bring the land into a state of cultivation. The trees seemed to bar their way to prosperity. Had there been less timber, they would have been spared much hard labor, and would have gained a competence much sooner.

These prejudices being firmly grounded, it is hard to remove them. "Plant more trees!" says the farmer, "Have I not spent the best of my days in chopping them down? There's plenty of wood yet. All we want is enough to burn. It brings a good price now, and the land pays better in wheat. Slash it down! Slash it down!"

Another difficulty we have to deal with is the tendency of the age. We hurrying mortals want to sow and reap in the same season. We have not patience to wait long for profits; we want to realize from our investments almost as soon as we invest. So it is with the farmer. He "sows and reaps in the same season," and it takes a tree so long to grow that he has not the patience to bide the time and wait for the result.

To encourage tree-planting, then, we want a true knowledge of trees and their use disseminated among the farmers, for knowledge removes prejudices. We want to convince the farmer that there is not plenty of wood yet, and that it brings a good price owing to its very scarcity; we want to convince him that all the land does not "pay better in wheat;" that if he wants his winter wheat to pay well, he must have his fields sheltered from the winds of winter in order that the snow may lie on them and not be piled along fences, smothering part of his crop, and leaving the remainder at the mercy of every thaw and frost; and, lastly, we want him convinced that if he wants his crops to yield well, there must be an average amount

of rainfall, which will save them from being parched at one time, or drowned out the next, and that the only way to secure this is to plant belts of trees around his fields, which will shelter them from the winds and serve to regulate the amount of rainfall. But how are we to disseminate this information?

Our Provincial Government has, very unwisely, we think, authorized township councils to grant bonuses to farmers planting trees along the public highways, in the hope of encouraging tree planting. As well might the school teacher offer his pupils so much a piece to commit to memory the multiplication table. Some might be led to attempt it, but as soon as the reward would be secured the task would be neglected. Just as politic is it to offer a man pay to do a work which, though he does not realize it, is for his own benefit. He may be led to try it, but, the pay secured, the work is ever after neglected. The thing must be done for itself. Rather let our Government seek to educate the farmer as to the advantages and benefits derived from the planting of trees, and he will be led to do it of his own free will.

But how is the Government to do this? Information might be collected in regard to time for planting, how to plant, what kinds of trees are best adapted for different soils, what kinds are most valuable, etc., also comparisons might be drawn between the climate of a treeless waste and that of a well-wooded country, in regard to floods, windstorms, rainfall, etc. This information might be published in connection with the annual report of the Bureau of Industries, or separately, and freely distributed among the farmers. And lastly, but not least, the graphic pen of the newspaper editor must be enlisted in the cause.

The newspaper is the best medium of conveying information. Newspapers mould the opinions of the masses. It is to them, then, we must chiefly look for aid in this important matter. They might, and many of them do, give valuable information concerning the matter. Again, they might give illustrations of the difference in appearance of a farm or country without trees, and one whose productive fields were "hedged around with forest shades," and "mantled o'er with teeming plenty." This, we consider, the true means of "Encouraging Tree Planting on Farms."

## A New Potato.

It has been supposed that the potato, having originated in a dry soil and a dry climate (on the higher Andes), owes its predisposition to disease to the excess of humidity in other climates. All varieties of the potato belong to the species *Solanum tuberosum*, but there is another species known as *Solanum maglia* discovered by the late Dr. Darwin in the Chonos Archipelago, where the land is low and marshy. Last summer, under the direction of Lord Cathcart, a successful attempt was made at cross-fertilization, and the result warrants the hope that a new race of potatoes is likely to spring soon into existence. If so, varieties may be originated to suit every soil and climate without danger of disease. There is also another species known as *Solanum Jamesii*, which may also be of use in the composition of the new race.



### How Floriculture was Introduced into a Country School.

Every now and then a sensation arises here and there about the introduction of certain agricultural subjects into public schools, but almost invariably passes off in talk. This didn't please Miss Nye, the teacher of a country school in Michigan. Her school grounds were a dreary looking spot, without even a fence or a flower to break the monotony of the surroundings. All her efforts to induce the trustees to fence in the ground and aid in its ornamentation were in vain. This was indeed a sad outlook for a lady of taste and refinement.

Just listen for a moment to the way in which she took revenge. She borrowed an old spade or two, helped the children to dig a few plots, planted them with numerous varieties of flowers, scattered some brush over them to ward off the neighbors' hens, until she was able to complete a brush fence to keep out the hogs and cows. By-and-by there was nothing so popular amongst the pupils as flowers and bouquets, and just imagine the delight which beamed in the countenance of the victorious child who carried off bouquet prizes for being first in naming the flowers on the plots and in the bouquets. Imagine how the trustees and their wives and all the other parents in the section smiled when they received bouquet presents from the invincible Miss Nye. Imagine with what delight they visited these plots to catch a glimpse of their children's industry. Imagine how anxious the editors of the Michigan papers were to catch a glimpse of Miss Nye, for in their minds beautiful bouquets were inseparable from beautiful givers. The rest of the story can be more easily imagined than told. Next year the trustees cruelly wrested from Miss Nye and the children all further participation in the fencing and ornamenting of the grounds, and last summer the school yard was a veritable paradise. Let a few of our teachers be seized with the revengeful spirit of Miss Nye.

Lately we heard the startling news that apple orchards were dying out and disappearing. If so it is due to one of two causes, inattention or old age. A large majority of our apple orchards were set out so many years ago that they are monuments of family history, having occupied pieces of ground that have never been stirred since they were twigs except by the snouts of the many generations of porkers that have roamed among them, and the knotted limbs, twisted boughs, and gnarly trunks give evidence that the pruning knife and shears have found no occupation there. Such orchards ought to have died out long ago, but would not, for old recollections prevented the axe from doing its work, and if the infirmities of old age are unbearable to apple trees as with humans, death will be sweet deliverance to the trees and a riddance to the farmer of long standing nuisance.

We see no reason why young orchards should begin to die out. The apple tree is hardy, but its enemies are numerous. These the grower must prepare for, and he must determine to succeed. The borer is the worst enemy to young trees, but he is not a powerful one if taken in time. Then the varieties must be selected to suit the section. — [Farm and Garden.

### Veterinary.

#### Contracted Hoofs.

T. E. Lyon, in "The Forge, Hoof and Shoe," says:—"It is not necessary here to give a history of the anatomy of the foot or leg of the horse. We hear a great deal said of the contraction of the hoof. I do not believe that contraction is a disease of itself. In fact, I know from experience and dissection that it is the effect of disease, and not a cause; there must be inflammation before contraction takes place."

Why? Because if the hoof is in a healthy condition the secretion of horn would be good, and the frog and coronary band would be healthy. With these in a healthy condition, there would be no such thing as a contracted hoof. By examination, you will find that the coronet is a continuation of the frog, and, if you keep one in a healthy state, the other will also be in the same condition.

Contraction may be caused by any strain that will cause inflammation, or by wearing shoes too long without resetting, or by leaving the heels too high, removing the frog from the ground where nature intended it to act as a protection for the foot, or by paring the foot too much at the heels and not enough at the toe, causing a continual strain on the flexor tendon which passes under the navicular bone, and attaches to the coffin bone in the foot.

The causes of inflammation, those which would cause contraction, are too numerous to mention here. Contraction causes corns, because the pressure of the horny structure on the secreting part of the foot is composed of arteries, veins, tissue and nerves, also the muscles and tendons which protect the coffin and navicular bones, and direct cause of corns in contracted feet is the pressure of the wall on the large blood vessel which lays on and penetrates the wing of the coffin bone.

In treating a horse having contracted hoofs, it is not right to expand the hoof at the bottom. By spreading the hoof with the shoe and spreader, you separate more or less the laminae of the foot, causing still greater inflammation. The proper way is to work at the coronet. After you have the bottom as near a perfect position, the foot standing at as near its proper angle, as possible, then apply a blister at the coronet. By dissection, I have satisfied myself that the horn is grown from the same follicles as the hair, and by working at that part we are assisting nature in growing a new hoof. I believe that grease, and such remedies for the horn, injures the hoof. It fills the pores and prevents nature from doing her work. Nor do I believe in soaking the hoof in water. I like to have the hoofs in the dew as much as possible. That will reduce inflammation and assist in growing the horn.

In regard to shoeing such a foot, I have found none better than a thin plate, just enough to protect the hoof from being broken and injured by our hard roads. When caulks are used the bar shoe should be used, as that gives the frog pressure which is necessary to make a perfect cure. When a horse is used for all work, in paring the foot I pare off all that I can without injury, cleaning the bottoms or sole well, but do not pare the frog, as that is placed there for

protection, and should not be removed. I then open the angles of the heel, leaving the bars prominent, as they are also placed there for a protection. After this I fit either the thin plate to the foot, or the bar shoe, as necessity requires, always fitting the shoe to the foot and not the foot to the shoe. Having a moderate frog pressure, in driving the nails I only drive six or seven in a foot, omitting the heel nails. This leaves the heel free. By nailing the shoe back it binds the hoof too much, and really does no good, as a shoe will stay long enough with six nails, as it ought to for the benefit of the horse. The shoe on a contracted hoof should remain only two or three weeks. I do not drive the nails more than three-fourths of an inch high. I think a short, thick hold is better than a long, shallow one. Neither do I believe in hot fitting; even if the horn of the hoof is a slow heat conductor, I know from experience that it injures the foot.

#### Shoeing Horses.

The Massachusetts Ploughman says: As the sole object of shoeing the horse is to prevent too great a wear of the ground surface of the outer crust of the hoof, it is very obvious that in certain districts where the roads are sandy and loamy the shoe may be dispensed with, much to the relief of the animal and to the pecuniary benefit of his owner. On pavements and macadamized roads the wear is too great and the foot must be protected. There are very many young animals that are shod merely because it is a custom to do so, and not because necessity calls for it. Where the shoe has never been applied, the hoof takes on a natural hardness, which fits it for an astonishing amount of work without injury. When it is desirable to remove the shoes entirely, the foot should be gradually inured to this new order of things by slow work, otherwise lameness will follow, especially in those cases where the owner has allowed the sole and frog to be mutilated by the knife of the blacksmith. These parts ought never to be touched with instruments. On icy roads, with heavy draught, it is probable that calkins cannot be given up, but these projections to the shoe are employed uselessly in many cases, much to the injury of the limbs of the animal, especially where they are not all of equal height. In fine, there is no reason why every farmer should not try the experiment of using his horses without shoes, especially in the farm work.

TO CURE A WART.—S. C. M. Mansfield, Ohio, in New York Tribune says: Warts that grow with a thin neck may be removed by stopping the circulation of the blood through them by means of a ligature. Tie a waxed silk thread lightly around the neck of the wart and leave it until the wart dies and drops off. If the wart is large and flat, cut it off with a sharp knife and cauterize the wound with a hot iron, or apply nitric acid to the wart daily until it is removed by corrosion.

Harness requires considerable care for its proper preservation, chiefly because of the damaging effects of the sweat from the horses, which rots the leather. Before it is oiled it should be washed with warm water and soap and then wiped dry; while it is moist the oil should be applied with a sponge and well rubbed in. Castor oil or neatsfoot oil makes the best dressing.



## Poultry.

## Fowls on the Farm.

Fanny Field, in the Ohio Farmer, says:—I don't know that I want to stir up any of the specialty men, but I will say that every farmer ought to raise chickens and eggs enough for home consumption. Fowls on a farm do pay their way and more too, even when left to shift pretty much for themselves; and when well cared for they pay a larger profit in proportion to labor and capital invested than any other live stock on the farm. A farm flock of 100 hens will, if rightly managed lay eggs enough in a year to bring their owner a clear profit of \$1 to \$1.50 per head, according to locality, and then the old fowls when fattened for market will bring enough to buy the same number of pullets to take their places. In reckoning the cost of keeping a flock of fowls most farmers do not take the value of poultry manure into account, but it is quite an item and should not be lost track of. In any part of the country where the land requires manure in order to produce paying crops, the manure from a flock of fowls will, if saved in good shape, pay for all the care bestowed upon them. Among my farmer acquaintances there is one man who makes a specialty of growing vegetables for the early market, but the specialty business does not keep him from keeping a flock of 60 hens and raising one or a hundred chickens each year. In talking upon the subject this man said: "We want chickens and eggs for our own table, and I find that I can raise them cheaper than I can buy. Poultry manure is a valuable fertilizer, quite as valuable as any of the commercial fertilizers, and I consider that it pays fully one-third of the entire cost of keeping my flock."

## Winter Laying.

The season is approaching when fresh eggs will be scarce and high priced, and those who manage their fowls in the ordinary manner may expect them to be a dead loss instead of a profit. On the other hand, those who manage properly will find the winter months to be one of the most profitable seasons of the year. One egg in winter is often worth three or four in summer, and the poulterer who keeps his hens in condition for winter laying, will not be disappointed in the profits.

To secure winter laying we should have good fowl stock, and give them warm and comfortable quarters, and proper food and care. First begin right, and if your house is cold and dark, proceed to remedy it by closing the cracks with strips, and covering the inside walls with tarred paper or old newspapers. If this is well done the cold winds will be excluded.—[Poultry Monthly.]

There is no food equal to wheat for the production of eggs. For other stock it should be ground or boiled and mixed with other grains, but for poultry it may be fed whole and raw. The manure from all kinds of animals fed on wheat is very rich and should not be allowed to go to waste.

C. H., of Brussels, Ont., says he regards the ADVOCATE as the only true farmer's paper in the Dominion.

## The Apiary.

## Winter Care.

BY G. B. JONES.

Having "quartered" our bees for winter, our next consideration should be to keep them comfortable and supplied with food.

Bees are most comfortable when the temperature of the air surrounding their hive is at 45° F., when this air is dry, and when they have sufficient ventilation to carry off all superfluous moisture.

You, whose bees are "inside," should note carefully all changes of the weather, and regulate the ventilators of your cellars and bee houses accordingly; always keeping in view an even temperature where the bees are. In some cases the thermometer will register a little above and in others a little below the 45°; but evenness is the important point. If the room cannot be kept warm enough, put a cushion upon the cotton quilt of each hive during the cold spells, and remove it again when mild; but be careful not to jar the hives or disturb the bees. If too warm, raise the body off the bottom board, if possible, about an inch, but beware of jarring. Be sure to keep the room clean and dry. It is better to be dark, especially if inclined to be warm.

A cellar to be properly ventilated should have an entrance and an exit for the air. A good exit, where no other exists, may be made of a three or four inch tin tube run from the cellar ceiling to a chimney flue or into a stove pipe above a stove in use. The fresh air entrance should be low down, and as far as possible from the exit. Thus ventilated a naturally damp cellar may be kept comparatively dry.

All that can be done to promote the comfort of bees "outside," is to keep the entrance free from ice, snow, and dead bees, and otherwise unobstructed. A little dry clean straw spread upon the snow in front of the hives for about six feet during mild spells, will save the life of many bees which light upon it, and so get warmed instead of being chilled by contact with the snow.

If bees "inside" become restless enough to fly in large numbers during mild weather, they should be "carried out," placed upon the same stands they were "carried in" from, and again "quartered" when they have clustered quietly.

The care of combs is important. Each good worker comb drawn out from good foundations is worth from thirty to forty cents, and so should be saved. Place these in spare hives or stories, in a cool place, out of the reach of rats and mice, and where they will not be jarred. Examine twice through the winter, and in the spring, and if you find any trace of the moth worm, fumigate thoroughly with brimstone.

Next month I will give directions for winter feeding.

FOOD FOR BEES IN WINTER.—James Heddon, in the American Bee Journal, says: "I weigh the sugar, and, to every ten pounds of it I put 6 pounds of water. I put the water on the stove to heat, and when it boils, I put in a piece of tartaric acid as large as a small hickory nut, to each ten pounds of sugar, then stir in the sugar and bring to a boiling heat. If the feeding is to be done late in the season, when it is probable that it will not be sealed over, I put in only 3 pounds of water to 10 pounds of sugar. The acid and the boiling are to prevent the crystallization of the sugar."

## Correspondence.

NOTICE TO CORRESPONDENTS.—1. Please write on one side of the paper only. 2. Give full name, Post-Office and Province, not necessarily for publication, but as guarantee of good faith and to enable us to answer by mail when, for any reason, that course seems desirable. If an answer is specially requested by mail, a stamp must be enclosed. Unless of general interest, no questions will be answered through the ADVOCATE, as "our space is very limited." 3. Do not expect anonymous communications to be noticed. 4. Matter for publication should be marked "Printers' MS." on the cover, the ends being open, in which case the postage will only be 1c. per 4 ounces. 5. Non-subscribers should not expect their communications to be noticed. 6. No questions will be answered except those pertaining purely to agriculture or agricultural matters.

Voluntary correspondence containing useful and seasonable information solicited, and if suitable, will be liberally paid for. No notice taken of anonymous correspondence. We do not return rejected communications.

Correspondents wanting reliable information relating to diseases of stock must not only give the symptoms as fully as possible, but also how the animal has been fed and otherwise treated or managed. In case of suspicion of hereditary diseases, it is necessary also to state whether or not the ancestors of the affected animal have had the disease or any predisposition to it.

In asking questions relating to manures, it is necessary to describe the nature of the soil on which the intended manures are to be applied; also the nature of the crop.

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

SIR.—1. My son has a three-year-old colt that is stiff in one of his hind legs and seems almost unable to move it for a second or two, but whenever moved it appears right. There has lately been a slight swelling in the joint of the hock and round to the hock; is now going down the cannon bone towards the small pastern. There is not a sharp crack, but a slight dull thud sometimes perceptible in his first movement. He has never in any way been driven or otherwise worked. 2. Are horse-beans harvested by mowing or pulled by hand?

LAKB FRANCOIS, MAN. Z. X. Y.

[1. The colt has what is called luxation of patella or stiffl joint. Treatment: Apply strong astringents and afterwards a blister. Bathe all around the stifle twice a day with a tea made by boiling oak bark, or instead you might use a strong alum wash. This you will continue for a couple of weeks, then apply a cantharidine blister all around the joint, and three days afterwards apply some lard to part blistered. When the blister has all cleaned off you might again repeat the same treatment. If the patella is off its place or partially off, you cannot raise the leg to the belly, but the moment that the patella slips back to its place the colt can then use the leg as freely as if nothing ever happened to it. 2. Horse beans are pulled by hand.]

SIR.—I have a horse that has a lump on his shoulder just where the draft comes. It is about the size of a saucer, and that shape, rather hard. He finishes a little when drawing. It has been on about two months. Your former receipts were splendid. F. C.

DAKOTA.  
[Your horse's shoulder has most likely been hurt by the collar. You might try the following remedy: Take spirits ammonia, turpentine and olive oil, equal parts, and apply to the lump twice a day after bathing with hot water. If this should blister the shoulder too much, then grease it and discontinue the liniment until it is healed, then commence the remedy again. If the lump does not go away by this treatment get a veterinary surgeon to remove it with a knife, and then you may treat it as a common wound.]

SIR.—I have a high bred heifer which has several large warts around her eyes. By stating what will cure them, you will confer a favor. F. B.

PENNINGTON, ONT.  
[Secure the animal and with a sharp pair of scissors or a knife cut them off, and if much bleeding follows touch them with a hot iron. Afterwards use Fowler's Solution twice a day.]

SIR.—Will you please tell me through ADVOCATE the length of time of quarantine, for cattle coming from the States, and the probable cost. SUBSCRIBER.

[Cattle must remain in quarantine three months in Quebec. There are no charges made by the Government, and you will have no expense except for food and attendance.]



Sir.—My attention has been drawn to Mr. "Y's" correspondence in your Dec. issue (page 864), in reply to my paper on the taxation of "scrub" bulls. Mr. "Y's" defence of his client, the editor of the stock-raisers' organ, is a brilliant effort, and were it as logical as brilliant, it would have crushed me to the dust. I succumb to his verbosity. Plainly, Mr. Editor, without any flourish of verbiage, I deny that Mr. "Y's" client is the half-dozen "scrub editors" referred to in my article. If he thinks my cap fits his client best, this is proof to me that his forensic defence is worthy of a nobler cause. I did not advocate the taxation of "scrub editors." In my article I indicated, for the purpose of showing the absurdity of the proposed tax, that scrub editors would come under the same category as scrub bulls, so far as the principle of the tax is concerned. I will not accept the "records" of Mr. "Y's" "advanced thinkers" as evidence against the "scrubs." I want both sides to have a fair trial. Experimenters have been testing cows for over a quarter of a century, and have not yet succeeded in producing a \$10,000 cow. Why should I accept the evidence of the quantity of milk or butter produced under extraordinary forcing circumstances in which the usefulness, and even the life, of the animal is endangered, against the test under a rational system of feeding, in which not only the quantity and quality are taken into consideration, but also the cost of production the analysis of the milk and many other necessary items? The collapse of the evidence of Mr. "Y's" "advanced thinkers" is sufficient to prove that their system of "records" was inaugurated for the purpose of duping such farmers as could be caught in their snare. Heaven spare the honest farmer from the wiles of Mr. "Y's" "advanced thinkers." Give me also the minimum "records" of the breeders, and then I may possibly ask Mr. "Y's" advice, so kindly proffered. The "records" show, for example, that Jersey milk is one-third cream; and yet I have seen Jersey cows that did not produce more than 7 or 8 per cent. of cream. Our native cow is the descendant of breeds that have been built up by careful selection; she is now adapted to our climate, and many of our best farmers have been improving her ever since she came to the country. She is branded as a "mongrel" because she is a mixture of different breeds, and yet Mr. "Y" wants to make her more mongrel by making her a mixture of more breeds, after she has commenced to assume a fixed character. But no matter how inferior she may be, the principle of taxing her is not changed. Mr. "Y" wants me to tell his client what I want to produce and then he (the client) will tell me what breed I should use. Why am I permitted to ask what I want to produce, and then he is compelled, by the same autocrat, to abolish what he doesn't want me to produce? Well, I want to produce a cow that is best suited to our conditions—one that is not disgraced by predisposition to contagious diseases. If such a cow is not also the best performer, then I want Mr. "Y" or his client to produce the evidence of professional experimenters, most profitable cow in this respect. I still object to taxing the poverty, ignorance or negligence of mankind, notwithstanding the theory advanced by Mr. "Middlesex Y." to the contrary. He argues, or rather theorizes, that it is better to tax these qualities than the converse of them. He wants to abolish the tax on "industry, enterprise and thrift." This is another proof of the aggressive tendency of our live stock speculators. It is a fundamental principle in all countries that people be taxed in proportion to the luxuries they enjoy and possess, and if Mr. "Y" wants to "command public confidence and respect," why has he neglected the publication of this "most marvellous discovery" so long? He wants to tax my "scrub" in order that his long? He wants to tax my "scrub" in order that his \$20,000 blue-blood bull, won possibly by his mania for speculation, should escape tax-free. Please Mr. "Y," must the poor man purchase when the boom is in the height of glory, or will you give him liberty to wait till after its collapse? Perhaps we can make a compromise: you let me purchase WHEN I LIKE, and I will purchase WHAT YOU LIKE.

Sir.—Please give me a cure for the mange on a horse.  
T. M.

(If the horse is not very bad, wash him well with salt and water one day, and apply a solution of carbolic acid (one to thirty parts) the next day. Repeat this for some time, and if it should not cure him, then you may use a solution of corrosive sublimate. This must be used carefully, as there is danger of its becoming absorbed into the system.)

Sir.—As we haul manure from the livery stable and pile it in the field, and intend to put it on for turnips next year, which is the best way to keep it from heating too much?  
T. A.

(Horse manure, if not mixed with cattle or pig manure, is apt to ferment too rapidly, and then valuable substances will escape in the form of gas, and if it is too dry it will fire-rang and so deteriorate in value. The only remedy is to keep it moist, but too much moisture will prevent fermentation. If you feel a pungent smell escaping from the heap, that is a sign that it is too dry, and that fermentation is too rapid. If the urine has been washed out of the manure, it is probable that it will not ferment at all.)

Sir.—1. Send me the best and cheapest plan of a pig sty. 2. The best method of growing roots of all kinds, potatoes included. 3. If you approve of cutting straw for cattle, and how provender should be fed with it?  
L. B. M.  
DOUGLAS, Ont.

1.—Select a high spot, well drained, if possible, and convenient with reference to feeding and saving of manure. If you have not sufficient absorbents to take up the liquid manure, a water-tight basin should be made to retain it. If the building is erected on a stiff clay, pound the clay solid and you will need no floor, or you may draw a few loads of clay on the spot and stamp it down well. A low frame or log building, with plenty light and ventilation, may then be erected, the size depending on the number of pigs. Along the length of one side of the building leave a passage about four feet wide. Off this passage the pens are constructed, in each of which accommodation may be made for three or four large pigs, or half a dozen small ones. When these pens are complete, they, together with the passage, occupy the whole of the building, except that one or two larger departments may be conveniently made for keeping straw or other material for bedding. Next to the passage a plank trough may extend along the whole length of the piggery, through all the pens, or a hewn-out log trough may be placed in each pen. Just above the trough a swinging door, hinged to the top of the railing, and fastened to the outside of the trough by means of a button or slat, may form the partition between the passage and the pens. When this button or slat is loosened the door will swing into the pen leaving the trough in the passage. In this way the food can be placed in the trough without interruption by the hogs, and the trough is always easily cleaned out. A door of this sort may be placed before the trough of each pen. Behind each pen a sliding door should be open into an open yard. These yards may be inclosed by logs or a close board fence, whichever is cheapest in your locality. The manure from the pens should be thrown into these yards every day or two; and, if you are not an old-fashioned farmer, you will see the advantage of removing the manure frequently from the yards and mixing it with the manures from the other stables. 2.—It will occupy too much of our space here to give you a satisfactory account of the best method of growing roots; but we will furnish our readers with the most approved methods, in our farm department, when the proper season comes round. No best method will apply to everybody's circumstances, so that not knowing your soil and other conditions, we cannot say which method would be best for you. 3.—If you feed many cattle, it will pay well to cut the straw both for food and bedding. When grain or provender is fed without straw, it should be well mixed with it.)

Sir.—I have succeeded in making a compound which I call "waterproof blacking," which I have been using for nearly 20 years, and I am willing to let it compete with anything of the kind in use. While digging drains I stood in water up to the ankles for whole long days; and by the use of my waterproof blacking not the least sign of moisture got at my feet. The compound also preserves the leather from wear, rot and tear. It is made as follows:—Resin, ¼ oz.; beeswax, ¼ oz.; lampblack, one tablespoonful; linseed oil, ¼ pint; (the same quantity of Neatsfoot oil may be substituted for the linseed; mutton fat or tallow sufficient to make it of a consistency halfway between a liquid and a solid)  
R. A.

Sir.—1. I would be glad if you would inform me if Black Tooth in pigs is a disease or the result of disease. I am told it is fatal to any taking it. What remedy should be adopted? 2. Please say in what proportion it was you gave instructions how to measure live cattle for weight, and what should be the proportion deducted to know the dressed weight of an ox.  
W. S. S.

(Black Tooth is not a disease, but may or may not be the result of a disease. Your best plan is to knock them out with a punch and hammer. It is not fatal. 2. In our last March number; see answers to correspondents. In fat cattle the proportion of dressed carcass averages 60 per cent. of live weight; in medium about 55 per cent.)

Sir.—Please tell me through the medium of your valuable paper, what bull would you advise the common farmer to use where beef and milk are both desired?  
J. J.

(A Shorthorn bull would best suit your purpose, one of the Bates strain preferred.)

Sir.—I have two acres of newly reclaimed swamp land thoroughly drained, which I intend to plant with cabbage and cauliflower as a first crop, and celery as a second crop. What would you advise me to use as a fertilizer?  
D. C. P.

(If the land is largely composed of vegetable matter, and especially if it has not been broken up until lately, the best fertilizer is lime. It would be difficult to say what quantity would produce the best results in your case; but you had better test different quantities between 80 and 100 bushels per acre. Spread it on the ground and mix it thoroughly in the soil with the harrow.)

Sir.—Some time ago I had a valuable horse afflicted with poll evil, and I took him some thirty miles to a veterinary; he opened the sores about five inches back of the ears, gave me a carbolic wash to syringe him; he expected him better in from two to three weeks. It is now nearly two months and he still continues to discharge freely. It is a little swollen yet; he is in good heart and has the freedom of both head and legs as yet. Most of my neighbors tell me that poll evil is incurable. Would you give me your advice through your valuable paper, what is best to do for him? also can the sore be opened on top of head, so that it could be washed thoroughly, or can it be opened on the side of the neck so that the matter will run downwards? Would you advise feeding with oats or soft feed? I do not work him.  
P. D. S.

DAKOTA.  
Poll evil is generally curable. If the puss cannot escape freely by the opening, then make a good incision on the lower part of the swelling at the side and wash out the sore thoroughly (very dry and inject into the sore (if you might put in with a feather) a weak solution of corrosive sublimate or solution of nitrate of silver. Rub a cantharidine blister on the lump once every ten days.)

Sir.—1. I have a horse that has a bad cough, accompanied by palpitation of the sides. There is no running at the nose. It is supposed to have been caused by eating musty clover. I have been a while to use lime water. 2. Are apples partly decayed bad for cattle? 3. Can cows be milked dry without stripping? Does stripping injure the cow?  
C. W. P.

(Your horse has heaves. Lime water is very good for him; it might be given to him either in the water he drinks, or you might damp his hay and all the food he takes with the lime water. Feed him carefully, not allowing him to take a large feed of anything, especially before starting on a journey or a day's work. Feed less hay and more oats; never give more than a pailful of water at a time to drink. By also giving a pint of raw linseed oil a couple of times a week, you will find a benefit. 2. There are four stages of decomposition, and if the apples are in the last stage they will be injurious. If they have not passed into the last stage of decay, small quantities will do no harm. If the decayed apples have an acid taste, or in fact a taste of any kind, they will be safe if fed in small quantities; but as a rule rotten apples should be fed to hogs. 3. We know of no other process. Milk tubes will not draw off all the milk, and it is not advisable to use them except when the teats are too sore to be milked by hand. Cows should be stripped to preserve their milking qualities.)

Sir.—1. I bought a cow last spring that proved to be lousy; they are what I call the large blue lice. I grazed her with hard and coal oil, which seemed to destroy them some, but they are on her yet. They are getting on the rest of my cattle. You will oblige me, and perhaps any others, by informing me through your valuable paper how to destroy these pests? 2. Another question I would like answered, please, if I am not asking too much. There is a good road at each end of the allowance, but at the centre there is about three quarters of a mile that is grown up with bushes and some swamps. There have been petitions sent in to the Council different times. I took one in containing over 100 signatures, and told them I could get more if they wanted them. They told me they did not want any more. What steps can I take to have this road opened? Can I compel the Council to open it? It is thickly settled all about, and this road is a nuisance as it is.  
G. M. B.

(1. Make a decoction of tobacco water by taking a plug of chewing tobacco and cutting it up fine. Put in a gallon of water and let it simmer, or draw on the stove two or three hours. Then apply a little on the beast every couple of days, wherever you find the lice. 2. The question is a very difficult one to answer, there being no decision yet that a corporation is bound to open a new road—that is a highway—requiring work to be done upon it to make it fit for travel; but the best opinion we have been able to form is that the Council has a discretion in these matters which will not be interfered with unless upon a full consideration of all the circumstances, including the age of the settlement, the number of persons to be benefitted by opening the road, the cost of opening it, and the means reasonably within the control of the Council which might be applied to the purpose.)



## The Household.

### An Invalid's Eating and Drinking.

BY A FAMILY DOCTOR.

It would be mere assumption on my part to say that most aged men or women are, to some extent, invalids. Many, indeed, who are long past the allotted span are as healthy, happy, not to say hardy, as other people are at fifty. But in age the digestion is weaker, for the powers of life are on the decline. It behooves, then, those advanced in years to live by rule, not merely with a view to prolonging life, but to living in comfort, and enjoying good sleep and freedom from aches and pains.

In the aged the powers of life are feeble, recuperative power is lessened, and the processes of nutrition are slower. But there is less need for corporeal constructive materials, the wear and tear and waste in the body being now not so great as formerly.

For these reasons alone, old people should eat more sparingly, use less solid food, and see that what they do eat is both well cooked and tender.

To eat slowly and masticate well is imperative on the aged, and those who have suffered from decay of teeth ought to have the defects made good by wearing artificial ones.

I am quite convinced that a great deal of the discomfort that aged people suffer from, and many of their aches and rheums, arise from errors not only in diet, but in eating. Says the immortal bard, Burns—

"Ah! life has weary days,  
And nights o' sleepless pain;  
Thou gowden time o' youthfu' prime,  
Will never come again!"

Now, with all due respect to the memory of the poet, I must say he is talking here of what he knows nothing about. There is no absolute necessity for age having weary days or nights of sleepless pain. I know quite a number of very old people who are quite as free from anything approaching pain as they were at forty, and as to wishing the days of their youth back again, they do nothing of the sort. They are dreamily happy and contented, and willing to die when Heaven in its mercy sees fit to call them.

As for sleep, elderly people need less, and do not think a long day so very long because their hours of slumber are curtailed.

Well, then, I have a little further to say on the diet which the aged should use. The tenderness of the meat and good cooking are essential to comfortable digestion; slowness of eating should become a habit with them; soups are good, especially for supper; pastry, cheese, and raw milk should be avoided. The stomach must not be overloaded even with fluid, and for this reason beer or stout is often objectionable, and if alcohol in any form be needed to calm the nervous system or give freedom from fret, a little good wine or spirits is better than ale. I cannot help mentioning the fact, however, that old people are much better without alcohol stimulants of any kind.

In cases of acute illness or fever, our object must be to support the system by the most easily digested food we know of, and this must be given on the little-and-often principle. Do not be led away by the oft-quoted saying, "Starve a fever." So far as solid food is concerned, you may starve it, for it is impossible for a di-

gestion, weakened by acute illness, to assimilate solids; they will only tend to increase the fever, for they pass down into the bowels, and there decay, causing flatulence and diarrhea and general sickness. Good beef-tea is invaluable, so are raw eggs—the freshest of the fresh, new-laid in fact—and milk, mixed with a little lime-water or soda-water.

Few people know how to make beef-tea or barley water, chicken broth or Scotch broth, nutrient, easily-digested puddings, the various invalid "teas" and "wheys" and drinks, to say nothing of gruel and arrowroot, and last, but not least, how to cook and serve a pigeon, partridge, or other bird (quail or lark, for instance) so as to make it appetising to an invalid or convalescent patient.

Now, there are certain things which perhaps do not digest easily; let the invalid remember them, and remember only to avoid them as poisons. If solid food cannot be well borne without after-discomfort, nourishing soups, fish, game, eggs, rice-puddings, &c., should be eaten. The appetite must be encouraged and the bowels kept regular by plenty of exercise in the open air, and living in scientifically and sufficiently ventilated rooms. Breathing dust-laden air, either out of doors or in-doors, is most pernicious in cases of this kind. The temperature of the body must be well kept up by wearing warm, but not heavy, clothing, and sleep obtained by every lawful means.

There is probably no disease on which doctors differ more, or understand less of its causes and treatment, than rheumatism. The name itself conveys little or nothing to the mind, and if we knew more about the ailment, would very likely be changed. If a doctor tells you that rheumatism is occasioned by an excess of lactic acid in the blood, and proceeds to pour alkalies into you in order to neutralise the acid, you may be excused for laughing in his face. "Doctor," you might ask him, "aren't you merely treating a symptom? If the rheumatism that I suffer from is caused by excess of lactic acid in the blood, what causes the excess? Hadn't you better remove the cause?"

Well, leaving the medicinal treatment of rheumatism an open question for the time being, we can do a deal by diet to prevent its advent. People who are subject to the complaint should not live too high, either in the matter of stimulants, meaty food, or condiments; they should take moderate exercise, but be most careful to avoid fatigue; and they ought to keep the temperature of the body well up to the normal point by wearing sufficient clothing day and night, and avoiding cold and draughts, and especially cold and damp feet, or, indeed, anything that is apt to give a chill.

Convalescents from acute illnesses should be most careful how they return to their ordinary diet, for the craving for food is, in their case, no criterion as to the amount that should be taken. I should not object to their having anything they took a fancy for, but even of that they must not eat to satiety. Let the food be easily digestible, and "little and often" the guide.

Without being actual dyspeptics, a great many people suffer from what is termed weak digestion. The symptoms of such a condition of stomach and intestines are only too well known; the feeling of uneasiness after eating,

with probably some degree of distension and flatulence, acid eructations, constipation or the reverse, or the one state alternating with another, discomforting or alarming sensations about the region of the heart, swimming in the head, noises in the ears, sleeplessness or non-refreshing slumber, occasional head-aches, general ennui and weariness, and lastly, nervous symptoms of any or all kinds, not the least distressing of which may be some of the many phobias that afflict people with weak digestions, from cardiphobia to hydrophobia. I have had patients whom no amount of reasoning would convince that they were not suffering from heart disease; others who suffered—they said—from incipient softening of the brain; some who had no lungs, others minus liver.

"I don't believe," a patient told me only the day before yesterday, "that I have an ounce of liver left."

Well, such people at all events have my sincere sympathy, and my advice to them in the matter of diet is somewhat as follows:—

Eat moderately; on no account take what may be called a full meal.

Take food whenever hungry; for instance have breakfast immediately after getting up, merely going out of doors for five minutes previously. If hungry about twelve, have a cup of cocoa; dine at two o'clock off a tender joint, or steak, or chop, with potatoes sparingly and greens, a little soup, and tapioca or rice pudding. No pastry, or sweets, or cheese. Take no fluid until you have nearly finished the solids.

Vary the food every day. Fish only, if quite digestible, which it oftentimes is not; no veal or pork, but mutton, beef, game, and fowl.

Fruit before breakfast, but not after dinner.

### Curing a Cancer by a Hot Bath.

The Kansas City (Mo.) Times narrates a remarkable case in which a cancer was removed, "root and branch," without pain, in fourteen days. The patient was a Mr. Chace, freight agent at Kansas City of the Hannibal and St. Joseph Railroad. About three weeks since, all other remedies having failed, he was placed in a Turkish bath for two hours each day for seven days, with a temperature of 170°, when it was found that the cancer was dropping out, root and fangs entire. It first became red on one side and then burst the skin. Mr. Chace applied, by advice, a poultice, which aided in drawing the cancer from the cheek. "Yesterday morning," says the Times, "the patient himself brought the cancer in a small vial to Prof. Kellogg, and it had fallen out clean, and with all its roots and fangs attached, leaving nothing except the ugly indentation in the face where the cancer had been. He will now continue to take the baths until the cheek is healed. The cancer as extracted is about the size of a hazel nut."

A story is told of an old gentleman who always took notes of his minister's sermons, and on one occasion read them to the minister himself. "Stop! stop!" said he, at the occurrence of a certain sentence, "I didn't say that." "I know you didn't," was the reply; "I put that in myself to make sense."



## Family Circle.

RALPH ELIOT'S CHRISTMAS GIFT;  
OR, ONLY A CHILD'S LOVE.

BY THE AUTHOR OF "JULIET WOODVILLE'S DOWER," "PROVED OR NOT PROVED," "ROY," ETC. ETC.

## CHAPTER II.

"AUNT MARY, it is getting dark, and the snow has not ceased."

Annabel Gray is standing by the window of the dining-room at Moor House, looking out at the dreary, prospect which is before her. It has been snowing hard and fast ever since mid-day, and there is a white world without, while the flakes are falling still with unabated vigour, and the wind whistles and moans ceaselessly through the fir-trees. Within, the great blazing fire on the hearth makes everything bright and cozy, and Aunt Mary's figure in her deep arm-chair, looks home-like and pleasant; while the ruddy glare playing over her lights up the placid face, and twinkles in and out of her bright knitting-needles and gaily coloured wools.

"Is it?" she says, placidly. "It is very cold." "Auntie," and Annabel leaves the broad window-seat and comes to the fireside, crouching on the rug and looking at the red glow with troubled eyes, "I hope it will not last—it will make it so bad for Ralph."

"Ralph is well mounted, my dear, and he knows the road," says the old lady, without evincing any anxiety. "He will be quite safe."

"What a dreary Christmas-eve for him," sighs Annabel. "I wish I had not begged him to come back to-night. It was so selfish."

"He meant to come, my dear; he told me so at first," Mrs. Ryder says, in the same placid manner, resuming her knitting. "I dare say he will be here soon."

"That dreadful moor," says the girl with a long sigh, and she looks dreamily into the fire, as if she were reading some story there, and at first, but full of happiness at the conclusion, if one may judge from the smile, and the soft lovelight which comes into her dark eyes.

The afternoon wears on slowly, the snow comes down steadily, and the whole of the surrounding country is soon covered with a soft, thick, white carpet.

Annabel starts up after a time, and wanders restlessly about the room, going from window to window, then to the great hall-door, which she opens to peer down the avenue, admiring a blinding shower of snow, and a sharp blast of wintry wind as she does so. Then she comes back with a sorrowful, white face, and kneels down by Aunt Mary's side.

"Auntie, I am wretched about Ralph," she says, in a choked voice.

"He will be quite safe, dear. I dare say he stayed at Leeds when he saw how bad the weather was," says Mrs. Ryder; but her own face is a little troubled now.

"He said he would come," Annabel says. "He always keeps his word. Oh! Auntie, I wish he had not given all the men leave to go to Greenham. There is no one here."

"Jim is here, Belle."

"Jim is worse than no one," answered the girl, with a break in her voice. "Auntie, the snow on the moors must be awfully deep. Oh! Ralph."

The last words are uttered softly under her breath, and her lip quivers. What happiness can Christmas bring to her if he does not share it; and there comes to her mind some lines they had read together once. Oh! to feel his hand clasp hers as it did then!

"And an angel whispers, 'On, sister, You must rise from your bed to pray— In the silent, deserted chapel, You must kneel till the dawn of day; For far on the desolate moorland, So dreary, and bleak, and white, There is one all alone and helpless, In peril of death to-night, No star in the murky air; No sound on the moorland to guide him, No star in the murky air; And he thinks of his home and his loved ones, With the tenderness of despair. He has wandered for hours in the snowdrift, And he strives to stand in vain, And so lies down to dream of his children, And never to rise again.'"

"Oh, Ralph!" says Annabel again, softly, with a choked sob.

A maid-servant enters to draw the curtains and bring lights; but Annabel stops her petulantly, as she goes to perform the first of her tasks.

"Leave the window uncovered," she says, quickly. "I want to watch for Mr. Eliot."

Eight o'clock strikes; the quarters are chimed out regularly by the clock in the hall; then comes nine, and before the second quarter after nine has struck, the sound of a horse galloping up the avenue makes Annabel start up with a joyful exclamation.

"There he is at last! How cold and wet he will be!" She goes towards the door, then hesitates, blushing a little with unusual shyness, and returning to her seat by the fire, waits anxiously for the sound of her guardian's voice. But the hall is silent; there is no sound of the great door being opened; and after a minute's waiting, Annabel rises again, goes out into the hall, and opens the hall-door.

"Guardie!" she says, quickly. "Ralph, are you there?" There is no answer, and Annabel turns cold and faint with a sudden foreboding of evil.

"He has gone round to the stables!" she says, half aloud as she turns from the door.

She goes forward into the hall, a little hurt, a little

angry. Why had he not come to her at once? He must have known they would be anxious. It is not kind, she thinks, with a little pout.

"On, Miss Annabel, Lady Golithly has come home alone!"

It is Jim, one of the stablemen, who speaks—the only man left on the premises to-night, for the others, gardeners, grooms, and hinds, have received permission to go to Greenham to celebrate the wedding of the steward of Moorlands. Jim has not cared to go; he is but a poor, half-witted fellow at best, and now the few brains he has seem to have taken flight as he rushes forward panting, terrified, and breathless.

"Home alone!" repeats Annabel, growing white to her lips. "You do not know what you are saying. Where is your master?"

"The master has not come home!" says Jim, stolidly; and for a moment the hall goes round and round, and Annabel Gray totters as if struck by a blow, while the man looks at her helplessly, wondering at her deadly pallor.

"He has been thrown!" she says, faintly, in a moment; "thrown—on the moor—to-night! We must go to him, Jim!" she goes on quickly. Tell Mary to give you brandy and a lantern, and to bring my fur jacket."

"There was two feet of snow on the moors yesterday, miss," the man says, hastily. "It ain't safe to venture."

"Whether it be safe or not, we must go!" the young girl says, hastily. "If he were here, would he let a dog giving it shelter? Janet, tell Mrs. Ryder where we are gone, but alarm her as little as possible."

"Miss Annabel—Miss Annabel, do not go!" pleads Janet. "The cold will kill you."

"Have you brandy there?" Annabel asks, heeding none of their remonstrances. "Give me a laperon, then; Jim must carry a rug. What! he will not go with me! Then I will go alone. I am not afraid. Give me the brandy, Janet."

She puts the flask into the pocket of her seal-skin coat, takes the rug from the maid's unwilling hands.

"Take care of Aunt Mary, Janet," she says, quietly. Have hot blankets and all ready, in case of any accident. Good night."

"Oh! Miss Belle," the woman sobs out, "do not go! You can do no good."

"I can try," Annabel says, simply. "I know the moor well."

She opens the hall-door without more ado, and steps out boldly into the inclement night. It is snowing still, but less heavily. Annabel knows her way well—it is but a straight path down the avenue—so she presses on bravely, encumbered with her lantern and the blanket Janet has strapped up for her, and which she carries under her long fur jacket.

Once out of the grounds of Moor House, the way is less easy to find; before her stretches a vast level plain, white and dazzling, without a track anywhere to guide her. The glare from the snow prevents it from being dark, but as she sweeps into her eyes and face continually.

With a silent, but, oh! how earnest prayer for help, she goes boldly on, striking out a path for herself where the snow is uneven here and there, as if something has passed through it, and she follows this track, hoping that it may be the trace of Lady Golithly's passage on her way home.

It is terribly hard work; the snow is deep—that Annabel quails more than once, and a sick faintness falls upon her heart—but she never thinks of going back, it never occurs to her to retrace her steps; one thought of Ralph, hurt and helpless in the snow, sends her on bravely.

"Oh! Heaven, give me his life!" breaks from her lips now and again, in her misery, as she presses on through the snow, not daring to hasten much for fear of falling—falling, and being buried in the white waste.

She feels no cold, notwithstanding the severity of the atmosphere; she feels no fear, although she faces death at every step; she feels no fatigue, although walking is a labour of difficulty; she needs nothing in her own absorbing fear for her guardian.

The snow falls less thickly, she can see more clearly, and there is no need to lift her hand constantly to dash away the snow that obscures her sight. Now and again she raises her voice and calls "Ralph—guardie!" but the terrible silence is her only answer. She suffers in those short hours a world of pain—she has never thought there could be agony like this; and again the passionate prayer goes up, "Oh! Heaven, give me his life!" But from Heaven there is no sign.

Midway between Moor House and Greenham there stands a wretched, dwarfed oak-tree. As she draws near it a dark spot on the level surface meets her gaze. She pauses; her heart seems to stand still, her blood to freeze with the deadliness of the most deadly fear on earth; she looks at it with wide opened, strained eyes, which, for a moment, see nothing; then she rushes forward, and falls on her knees by the still form.

He is quite insensible (although the snow beaten down around him shows that he has struggled to move), and as Annabel kneels down and raises his head, a terrible fear strikes her. Does he live still? Has she come too late?

It seems so; as she supports his head upon her arm he gives no sign of life, and the girl's head droops with a heartbroken sob of pain. But the weakness is but momentary; almost instantly the necessity for exertion reasserts itself, and remembering the precious flask which Janet had given her, she forces a little of the brandy through the pale lips, and chafes the cold hands with her little trembling fingers, hot tears falling like rain on the pallid face.

After a time—it is but a few moments, but it seems hours to Annabel—the eyelids flicker, the dark eyes open and meet hers, with a blank, vacant stare at first, then with a faint gleam of wonder and delight.

"Belle," he says, faintly.

"Oh! thank Heaven!" the girl says, passionately. "You are better, Ralph?"

"I don't quite understand," he says, raising himself on

his elbow. "How did you come here, my child? Ah! I remember, the mare was frightened and threw me."

"Fancy your being thrown, Ralph," she says, trying to speak lightly, but her countenance gives way, and she bursts into tears.

"This has been too much for you," he says, gently. "I am not much hurt, Belle; only my knee a little. It was foolish to let you come, my darling. Who came with you?"

"Are you suffering much, Ralph?" she asks tremulously. "I am hardly suffering at all now," he replies. "But I thought at one time I should never see you again. Where are the others?"

"I came alone," she answers, low, and the white cheeks are beginning to grow pink.

"Alone! Annabel! how could they let you?" pants Ralph, in his distress. "How dared they let you run such a terrible risk!"

"It could not be avoided, dear," she answers, quietly. "There was no one else, you know. The men were at Greenham."

"My poor darling!" says Ralph, brokenly. "I dare not think—"

His voice fails him, and for a moment his head sinks on her arm, and his breath comes quick and fast. His agitation restores Annabel's composure.

"Ralph," she says, softly, "can you walk? I dare not let you stay here any longer. You can lean on me, you know."

"Brave little girl!" Ralph says, with an attempt at gaiety. "One moment, my darling, and I will make a start."

He sets his teeth hard to repress the groan which the pain of every movement forces from him; and with her assistance manages to stand upright, but the pain from his knee is intense, and for a moment Annabel fears he will faint.

"I am afraid I can't manage without your help, little girl," he says, looking at her wistfully; and Annabel takes his hand to draw it through her arm, but he shrinks from her.

"Not that arm, Belle," he says, lightly. "The other, please, dear child. It is too bad for such a great fellow to be leaning on you!"

"I am very strong, Ralph," she answers, as she draws his arm over her shoulder, puts her arm round him with a simple earnestness which makes Ralph smile in spite of pain. Then she puts up her hand, and clasps it over his hand which lies on her shoulder.

"Oh! guardie," she says, with a little choked sob; "if you knew how light my heart is now!"

Ralph made no answer; the pain of his knee is so intense, that he needs all his fortitude to repress his moans; and the conviction forces itself upon him, that he cannot hold out long.

One arm is broken, and hangs helplessly by his side; he is sick and dizzy with pain, but he struggles on; while Annabel, watching his face, sees the agony he strives so hard to conceal, and with difficulty chokes back her tears.

At length Ralph's strength fails him, and he sinks down helplessly on his knees, forcing himself to smile, as he looks into the anxious terrified face.

"It is this knee," he says. "Don't be frightened, Belle."

And in a moment he struggles up again, and they go on a few yards farther.

"Belle, will you be a dutiful ward and make the best of your way home?" he says, then. "I wish you to do it, dear. I shall do very well until to-morrow morning, and the men will find me on their way home," Annabel, do you hear; dear child, I wish you to go."

"I will not leave you, Ralph," she answers, steadily, and Ralph sees that on her face which shows him expostulation is useless.

They go on slowly—every moment Ralph's strength gets less, notwithstanding a deep draught of brandy which she makes him take, until, when about half the distance to Moor House, Ralph can go no farther.

"I won't faint if I can help it, pet," he says, smiling. "Belle, will you do as I wish you?"

"No, Ralph."

"I beg you to do it!"

"Do not give me the pain of refusing you, dear guardie. Ralph, do you know I would rather be here with you, than anywhere else in the world, where you are not?"

He does not answer; she doubts if the words reach his falling senses. She sees his eyes grow dim, although he tries to smile at her yet; and then his head falls forward on her shoulder, and Annabel puts her arms round him without a word.

How many or how few minutes they remain thus, Annabel never knows. Suddenly there rises on the still, frosty air the sound of voices and Annabel almost ceases to breathe as she listens. Yes, she is not mistaken, they are coming nearer; and then her eyes, dim with fatigue and tears though they are, can distinguish two men on horseback coming towards her. She calls out with her last strength.

"Help! help! help!" she cries, as she recognises Doctor Thorn and his assistant from Greenham.

They come nearer and nearer; there is a confused sound of exclamations and pitying voices, and then Annabel remembers no more.

When Annabel comes to herself, she is in bed in her own room with Mrs. Ryder, and Doctor Elwes bending over her anxiously.

"You are not to ask any questions," says the latter, with a cheerful smile. "You are simply to drink this and go to sleep."

"Ralph?" says Annabel, as she obeys the young doctor's mandate.

"He is all right and in good hands," says the doctor. "Go to sleep now, and remember in your dreams that you are one of the bravest girls on earth."

"All right and in good hands!" repeats Annabel to herself. "Thank you, Doctor Elwes."



And she turns on her pillow like a tired child, and falls asleep, only to wake when the sun is high in the heavens, and the Christmas chimes are ringing out gaily over the snow-covered moor, and Doctor Thorn is sitting beside her bed with a pleasant smile on his kindly old face which wins a smile to Annabel's own lips.

"A merry Christmas!" he says gaily. "How is our little heroine this morning? Who would have supposed it was in our bonnie Belle to do such doughty deeds? Heaven bless you, dear child!" he adds, with a tremor in his kindly voice. "You saved a life we could have ill spared."

"How is Ralph?" says Annabel, eagerly, sitting up among her pillows, and blushing very prettily. "He is the most troublesome patient man ever had," said the old doctor, with a queer little smile. "He has a broken arm and a sprained knee, which must have given him intense agony last night, and he would insist on getting up this morning. To have opposed him would have thrown him into a fever, so between Elwes and myself, we got him downstairs, and he is at present waiting breakfast for you in the dining-room. I must be off now," he adds, as Annabel thanks him with tears in her eyes. "I am going to leave Elwes with you for a few days, and I shall be in these parts before the New Year."

Annabel dresses slowly, feeling a little languid and tremulous still, and when she looks in the glass, she sees that her face is very pale. Going downstairs in her pretty black velvet dress, she finds a group of servants waiting for her in the hall. "Heaven bless you, Miss Belle!" says the old butler, tremulously. "You're brave and true enough to be an Ediot yourself."

And Annabel smiles as she holds out her hand to him. Davis can give her no greater praise, she knows.

Ralph is alone in the dining-room; he is lying on a wide, old-fashioned sofa, looking terribly pale, and pulled down, even in so short a time; but his eyes go to Annabel's face with a look of unutterable love. She does not go to him, nor speak for a few moments, and busies herself with the coffee equipage; but when the coffee is made, she has further excuse, and going to his side, she kneels down by the sofa. Ralph folds his one disposable arm around her, and draws her head down upon his breast, and Annabel is glad to hide her face there to conceal the tears of joy and thankfulness which well up into her happy eyes.

"Belle," says her guardian, at length, and his voice is full of love and tenderness, "do you know what I owe you?"

"Not half as much as I owe you," she answers, quickly. "Oh! I Ralph, let me tell you this once, how I have felt all your goodness to me all these years!"

"You made my happiness!" he says, unsteadily. "My darling, listen to me; do you know that many a brave man would have hesitated to do what you did last night?"

"The weakest woman would have done it for one she loved," Annabel murmurs tremulously.

"I doubt it, my darling," he replies, and draws her closer to his heart. After a pause: "Belle, do you know what day to-day is?"

"Christmas-day, Ralph!"

"Do you remember what you promised to tell me to-day, my child?"

"Let me give you some breakfast," says Annabel, growing brave as she sees his self-possession is deserting him.

"Ah! do not keep me in suspense!" he says, eagerly, with quivering lips. "Belle, I cannot bear it to-day. Forgive me, dear child, my pain makes me impatient!"

"Poor guardie!" and Annabel stoops her lips to his brow, smiling through the tears in her eyes.

"Listen then," she goes on, softly; "I told Sir Edgar Dunstan that though I was grateful for the honour he did me, I could not accept his love."

"Why?" is all Ralph can find voice for.

"Because—her cheeks are very pink now—I did not love him. I told," she goes on, growing braver, "that if you would keep me at Moor House, I would never leave it."

"Belle!" Ralph's voice is tremulous and broken, "do you know what you are letting me believe?"

"Do you believe it?" she says, with a sweet glance at him through her long lashes. "Do you believe that it is no child's love, dearest guardie? Will you believe that if you will take me, a weak, foolish girl into your heart, I will do my best not to let you repent; at least," and she bowed her head on his breast again, "my love is great enough to make up for all my other deficiencies."

"Belle, you are not mocking me?" falters Ralph.

"How am I to make you believe it?" she says, tremulously. "I told you, Ralph, that my love was no child's love. Dear, will you take me as your Christmas Gift?"

Need Ralph Elliot's answer be recorded; the joy seems too great to be real; and in that moment of perfect felicity all is forgotten but the gladness of mutual love.

"Good-bye, Elliot—good-bye, Miss Belle," says Doctor Thorn's merry voice, as he puts his head in at the door. "Any commands for Greenham?"

"Come in, doctor," calls out Ralph, gaily, but without releasing blushing Annabel. "What do you think of my Christmas Gift?"

"That you are a lucky fellow," says the doctor, smiling—"a deuced lucky fellow! But take care, Elliot, a little woman with so much pluck may turn out a dangerous customer some of these days. Look at her," he adds, laughingly, "who would think that that delicate creature saved a big man's life no later than last night! Ta, ta! young people, I hope before next Christmas to dance at your wedding; meanwhile, a merry Christmas to you!"

And to you, dear reader!

C. N.

### Slipping Away.

They are slipping away—these sweet, swift years—

Like the leaf on the current cast;  
With never a break in the rapid flow,  
We watch them as one by one they go  
Into the beautiful past.

As silent and swift as a weaver's thread,  
Or an arrow's flying gleam,  
As soft as the languorous breezes hid,  
That lift the willow's long golden lid  
And ripple the glassy stream.

As light as the breath of the thistle-down;  
As fond as a lover's dream;  
As pure as a flush in the sea-shell's throat,  
As sweet as the wood-bird's wooing note,  
So tender and sweet they stem.

One after another we see them pass  
Down the dim-lighted stair,  
We hear the sound of their heavy tread  
In the steps of the centuries long since dead,  
As beautiful and as fair.

There are only a few years left to love;  
Shall we waste them in idle strife?  
Shall we trample under our ruthless feet  
Those beautiful blossoms, rare and sweet,  
By the dusty way of life?

There are only a few swift years—ah, let  
No envious taunt be heard;  
Make life's fair pattern of rare design,  
And fill up the measure with love's sweet wine,  
But never an angry word!

### Advice to a Young Man.

Get married, my boy? Telemachus, come up close and look me right in the eye, and listen to me with both ears. Get married. If you never do another thing in the world, marry. You can't afford it? Your father married on a smaller salary than you are getting now, my boy, and he has eight children, doesn't have to work very hard, and every year he pays a great pile of your little bills that your salary won't cover. And your father was just as good a man at your age as you are now. Certainly you can afford to marry. You can't afford not to. No, I'm not going to quote that tiresome old saying that what will keep one person will keep two, because it won't. A thousand dollar salary won't keep two one thousand dollar people, but it will keep two five hundred dollar people nicely, and that's all you are, just now, my boy. You need not wince or get angry. Let me tell you, a young man who rates in the world as a five hundred dollar man, all the year round, Monday as well as Saturday, the day after Christmas just as well as the day before; the fifth of July as well as the third, he is going to rate higher every year, until he is a partner almost before he hoped to be bookkeeper. Good, reliable five hundred dollar young men are not such a drug in the market as you suppose. You marry, and your wife will bring tact, and love, and skill, and domestic economy that will early double your salary. But you would have to deny yourself many little luxuries and liberties? Certainly you would; or rather you'd willingly give them up for greater luxuries. And you don't want to shoulder the burdens and cares of married life? I see you do not. And I see what you do not realize, perhaps—that all your objections to marriage are mean and selfish. You haven't given one manly reason for not marrying. If you do marry you are going

into a world of new cares, new troubles, new embarrassments. You are going to be careful and worried about many things. You are going to be tormented with household cares and perplexities all new and untried to you. You are going to be pestered and bothered and troubled. You will have to tell stories to the children when you want to read. You will have to mend a toy for young Tom when you ought to be writing letters. You will have to stay at home in the evening when you used to go to the club. The baby will rumple your necktie and the other children will trample into your lap with their dusty shoes. Your wife will have so much to do looking after the comfort of her husband and children that she won't be able to play and sing for you every evening, as your sweetheart did. Your time will not be your own, and you will have less leisure and freedom for fishing and shooting excursions, camps in the mountains and yachting trips along the coast than your bachelor friends of your own age. I admit all this. But then, you will be learning self-denial, you will be living for some one else; you will be loving some one better than you love yourself, and more than a thousand fold that compensates for all that you give up.

Why, you want to remain single now, my boys, just because you are selfish. And the longer you stay single the more this selfishness will grow upon you. There are some noble exceptions among bachelors, I know, and some mean ones among married men; and a selfish married man needs killing more than any other man I know, but as a rule—just look around your own friends and see who are the unselfish men; who it is that gives up his seat in a street car to a woman—not a pretty, young girl, but a homely, wrinkled woman in a shabby dress; who is it heads the charity subscriptions; who pays the largest pew rent; who feeds the beggars; who finds work for the tramp; who are the men foremost in unselfish work? I know your young bachelor friends are not stingy. Oh, no. I know Jack Fastboy paid \$570 last week for a new buggy—it is light as a match-box, and has such a narrow seat that he never can ask a friend to ride with him; and at the same time Dick Slocum, who married your sister Alice five years ago, gave \$250 for the cyclone sufferers. I think the angels laughed all that afternoon, my boy, but I don't think it was because Jack paid \$570 for his new buggy. If you want to shirk the responsibilities of life, my dear boy, you may; if you want to live forty or fifty years longer with no one under the heavens to think about or care for or plan for but yourself, go ahead and do it; you will be the only loser, the world won't miss you nearly so much as you will miss the world; you will have a mean, lonely, selfish, easy time, and, unless you are a rare exception to your class, little children will hate you, and the gods never yet loved any man whom the children disliked.

Dainty little luncheon bags for school are crocheted out of dark brown or blue macreme cord. They usually measure eight inches square, are worked with the monogram in some contrasting shade, with handles of the macreme and ornamented with bows of satin ribbon,



**Rabbit Hunting in the Northwest.**

With this number we give our readers a pleasing illustration of hare hunting in our Northwest. The accompanying sketch was taken from the banks of the Qu'Appelle River. The river itself is not large, but the banks on each side are about 400 feet high, and it is about a mile across from bank to-bank. The side hills and valley below are principally covered with grass, although here and there we get timber; but most of this is found in the cooleys, and strange to say, only on one side of the bank, the south and west. Some of these cooleys or large ravines will be about a mile in length, commencing as shallow ditches, becoming gradually deeper till they reach the valley, where they are from 300 to 400 feet deep.

In these cooleys and the bluffs on the hill the hares abound in great numbers, thus affording fresh game for the inhabitants the whole winter. The hunters stand on the hill or between any openings in the wood, then start the dogs after the hares, and shoot them as they are running across the openings, or from bluff to bluff, as the timber is usually too thick to shoot far into it.

There is also another species called the "jack rabbit," so named from their long ears. These differ from the hares in several respects; they are much larger, and burrow, and are usually found on the prairie, whereas the hares simply hide during the day about fallen timber. Their feeding time is principally early in the morning, and again towards evening. You will always find them on the sunny side of the wood. It is considered there are enough of hares in the Northwest to keep the whole population of that country for one year, without another pound of meat. It is quite a common thing for a couple of sports to go out for a few hours and return with from 50 to 75 of them. Some of the settlers also snare them in great numbers, which is done by taking the regular snaring wire and making a noose large enough for their heads to pass through, then suspending it over their paths about two inches from the ground. The weather being steadily cold, they can be kept all winter simply by hanging them outside to freeze. You see how the hunters manage to get their game home. They are obliged to have a team, or a native pony called "shagganappy," as shown in the

illustration. There is also considerable other game, some deer and partridge, while duck and prairie chicken are ver plentiful in the fall. It is a notable incident that in more southern climates, where the rabbit is found in great abundance, it is rarely eaten by the rural inhabitants, while in our Northwest it is



eagerly sought by all classes. In the large cities it is regarded as a great luxury.

**Character.**

In our journey of life there is a structure

full returns than any other capital. But as one leak will sink a ship, and one flaw break a chain, so one mean, dishonorable, untruthful act or word will forever leave its impress and work its influence on our characters. Then let the several deeds unite to form a day, and one by one the days grow into noble years, and the

years as they slowly pass will raise at last enduring forever to our praise.

Character in general is largely effected by home culture. Let us not forget that character grows daily, and is not something to put on ready-made with manhood or womanhood.—Every single day these myriad forces are building. Here is a great structure growing up point by point, tory by story, although we are not conscious of it; it is a building of character. It is a building that must stand, and the word of inspiration warns to take heed how we build it; see that we have a foundation that will endure; to make sure that we are building on it not for the hour in which we live, but for that hour of revelation.

Our minds are given us, but our character we make.

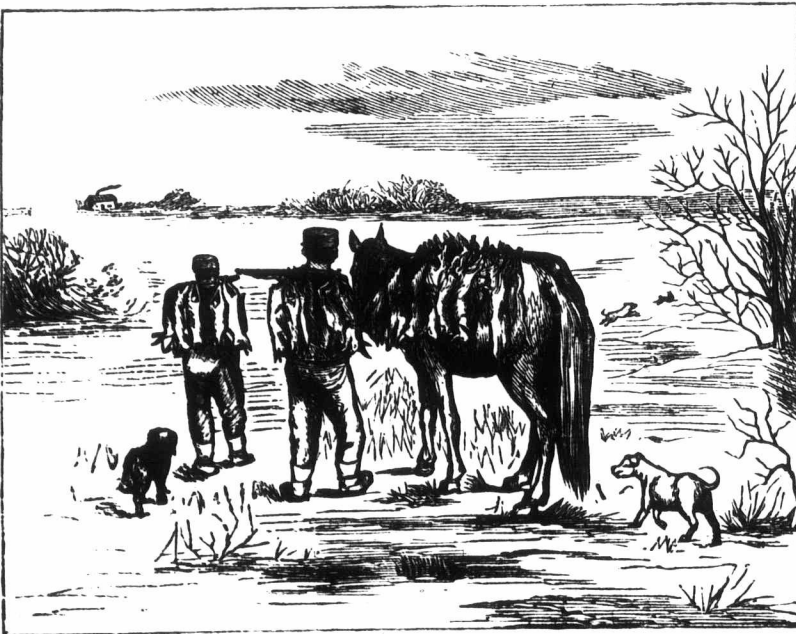
Our mental powers must be cultivated; if we cultivate the powers and harmonize them well they will make a noble character. The germ is not the tree, the acorn is not the oak, neither is the mind the character. The mind is the garden, the character the fruit.

The mind is the white page; the character is the writing we put on it. A good character is above rubies, gold crowns, or kingdoms, and the work of making it is the noblest labor on earth.

**SECRETS OF HEALTH.**—First, keep warm; second, eat regularly and slowly; third, maintain regular bodily habits; fourth, take early and tolerably light suppers; fifth, keep a clean skin; sixth, get plenty of sleep at night; seventh, keep cheerful and respectful company; eighth, keep out of debt; ninth, don't set your mind on things you don't need; tenth, mind your own business; eleventh, don't set yourself up to be a sharper of any kind; twelfth, subdue curiosity; thirteenth, avoid drugs;

fourteenth, take exercise in the open air.

"Vegetable pills!" exclaimed an old lady; "don't talk to me of such stuff! The best vegetable pill made is apple-dumpling. For destroying gnawing in the stomach there is nothing like it. It always can be relied on."



which everybody is building, young and old, each one for himself, and it is called character, and every act of life is a stone. If day by day we be careful to build our lives with pure, noble upright deeds, at the end we will stand without fear honored by all. If through life we regard character as capital, it is much surer to yield



**Minnie May's Department.**

**MY DEAR NIECES.**—Once again we take pleasure in announcing the result of the last competition, the subject being "The Life and Works of Charles Dickens." The prize, a beautifully bound volume of Scott's Poems, has been awarded to Miss A. M. Craig, of Cornwall, Ont. We have been so pleased and encouraged by the interest manifested by our numerous subscribers during the past few months, and the host of essays sent in upon every subject, that we have decided to continue them and offer this month a handsome silver brooch for the best essay on the subject of "Family Government." All communications must be in by the 15th of February.

Now, dear girls, a word about this new year upon which we are just entering. The old year has gone—gone with all its sudden trials and lasting sorrows, its pleasant surprises and transient joys. We will bury it in our memories, and smilingly welcome the glad new stranger. Time, it has been beautifully said, should be reckoned not by the furrows on the brow, but by the wrinkles on the heart. Our companionship with our readers in the past has been very pleasant, and we trust the future may cement in still closer bonds the acquaintance thus formed; we will try to do our part to make it so. It is our intention to spare no pains to render this paper what it professes to be—a journal to which our readers may turn as to the company of a true friend, whether for pleasant, genial fellowship, advice or encouragement. You, on your part, we trust, will help us by introducing it into circles which it may not yet have entered. May 1885 prove to all of you

A Happy New Year!

MINNIE MAY.

**Work Basket.**

A pretty tidy is made of alternate strips of black velvet and cardinal ribbon. Sew together, and cross-stitch with old gold silk, and edge with black lace. Line with some pretty cloth or silk.

New fancy wall pockets are now shaped like the old fashioned bellows of our grandmother's days.

Dust will accumulate in closets, will sift in through and under the doors, after one has done all she knows how to prevent it. If a woman can afford to have a regular chest of drawers of the exact length of her dress skirts, she should be counted as one of the happy; if not, she can shield her black silk and velvet dresses in this way:—Take two breadths of wide cambric, sew them together, hem all around both ends, and run in strings to draw them together, or pieces of elastic cord. In this slip the dress skirt. Have two loops on the band of the skirt, and let them come through the top of the bag to hang it by. The object in having both ends open is so that the dress may be slipped out at either end, and also may be arranged so that it will not wrinkle. There should be a loop on the bag also, by which it may be left hanging in the closet after the skirt is taken out.

**A SHELF LAMBREQUIN.**—If you have a rough uncouth shelf in your kitchen or sitting-room, first cover the top neatly with some dark, smooth cloth; then take a strip of dark but bright double-faced canton flannel about eight inches in depth (more or less according to width and length of shelf) and long enough to reach across the front of the shelf and around at either end. Paste a pretty contrasting stripe of cretonne through the centre, and stitch it on with the machine; hem the lower edge of the flannel, and finish with as pretty a worsted fringe as you can afford; bring the upper edge up over the edge of the board, and make fast with minute iron tacks, and you will have not only a convenient receptacle for lamps, books or vases of flowers, but an addition to the furnishing of your room in the shape of a very artistic and eye pleasing ornament.

**NAPERY.**—Every housekeeper feels the need of at least one set of handsome table linen that shall always be ready for company occasions. Fringed and embroidered damask table cloths are very expensive, but I have seen a table cloth in a mountain farm house that was pretty without being costly. The material was good linen sheeting with a fringe ravelled out and tied. Above the fringe was a vining pattern, not exactly a vine, but closely set groups of leaves and small fruits of various kinds, done very sketchily in outline work, which is simply long back stitching in colored thread, crewel or silk. The work referred to was in indelible cotton of various shades. In the centre was a large June apple with leaves. From the same linen, which, as it was bought, was of course too wide for a table cover, small square napkins had been cut off and finished with a narrow fringe. In the centre of each was worked patterns of fruit, a bunch of grapes on one, a pear on another, and berries of different kinds on others. The designs were all taken with the help of transfer paper from agricultural papers and seed catalogues, and the outlining is such rapid work that two or three napkins could be embroidered in an afternoon. Kate Greenaway patterns, copied from children's books or even from advertising cards, would be as pretty as fruit designs and easy to execute. If they are used the patterns on the table cloth should correspond.

**Answers to Inquirers.**

**SUBSCRIBER.**—What shall I do with a grey parrot which plucks off her feathers? **ANS.**—This vice is the consequence of giving the bird fresh meat, which is not natural food, as parrots are fruit and seed eaters only. All that can be done now is to make a decoction of walnut peels or gentian root and brush the plumage with it, by means of a feather dipped in it. The bitter taste will probably cure the bird of this bad habit of destroying its clothing.

**MRS. K. D.**—One of the most effective methods of disinfection is the following: Into an iron kettle put some live coals, set the kettle in the room to be disinfected and lay stick sulphur on the coals. The doors and windows should be closed before the sulphur is lighted, and whatever will be likely to be bleached by the sulphurous acid fumes should be removed.

**2. Asbestos** is a silvery white mineral of long silky filaments, which is found in mountainous countries, its peculiarity being that it will not burn. The ancients made it into a kind of cloth in which they burned the bodies of their dead, and were thus enabled to collect the ashes. It is now being used for firemen's clothes. Grease and dirt are removed by throwing it into a clear, bright fire.

**NELL.**—Will you kindly tell me a good way to preserve pencil drawings? **ANS.**—Take white or gum shellac and alcohol—one-third shellac to two-thirds alcohol—and with a fine glass spray, sold by druggists, spray the picture slightly; rub your finger across it lightly to learn when it is fixed. This is especially good for charcoal drawings.

**SNOWBALL.**—1. What is the meaning of the "Union Jack?" 2. Which would be most respectable, for a young girl to work in a factory, or in a private family as servant maid? 3. Is a bow sufficient on receiving an introduction to a gentleman? **ANS.**—The "Union Jack" consists of a union of three crosses. That of St. George for England, of St. Andrew for Scotland, and of St. Patrick's for Ireland. The first is red on a white ground, the second white on a blue ground, and the third is red on white standing obliquely from corner to corner, only thicker than that of St. Andrew. Some think that the word "Jack" means Jacques or James, after James I, who united them. 2. As servant maid, by all means, for their life is more retired and protected from all rude contact with the world than that of a factory girl. 3. Yes, generally, from a young lady, except when in her own house or when introduced to a friend's friend; in such cases she should offer her hand.

**KATHLEEN.**—We have not tried the following method of growing geraniums in winter, but think it very probable that it answers very well if properly attended to. Geranium branches taken from luxuriant and healthy trees, must be cut as for slips, and immersed in soap-water; they will, after drooping for a few days, shed their leaves, put forth fresh ones, and continue in the finest vigor all the winter. By placing a number of bottles thus filled in a flower-basket, with moss to conceal the bottles, a show of evergreen is easily insured for the whole winter. All the different varieties of the plant being used, the various shapes and colors of the leaves blend into a beautiful effect. They require no fresh water.

**Recipes.**

**GIBLET SOUP.**—Prepare first the vegetables, viz., an onion, a small piece of turnip and a carrot; cut in slices and fry in hot butter; when hot and beginning to brown, dust in a tablespoonful or less of flour, and add the giblets, and let them all brown; then put all into a kettle with a gallon and a half of water, or half water and half broth, and some pieces of chicken if you have them; simmer for four or five hours; season to taste, and thicken with browned flour; serve with the yolks of hard boiled eggs, one for each person, placed in the tureen before pouring in the soup. It will require the giblets of five chickens for the above quantity.

**FRIED OYSTERS.**—Drain thoroughly in a colander; season with pepper and salt and set



in a cool place until needed; roll each oyster in bread crumbs, dip in egg and then again in bread crumbs, and fry in hot lard as you fry doughnuts, drain and send to the table on a hot platter, garnished with chopped pickles or cold slaw.

**APPLE BATTER PUDDING.**—Peel and core six sour, ripe apples, fill the centre of each with sugar, and range them closely together in a deep dish. Make a batter as for pancakes, not sweetened, and pour over them and bake till done. Eat with sweetened cream.

**FEATHER CAKE.**—Beat to a cream a half-cup of butter; add two of sugar and beat well; add one cup of milk with one teaspoonful of soda in it; beat together; then add one cup of sifted flour with two teaspoonfuls of cream tartar rubbed in it, add next the beaten yolks of three eggs; beat the whites until stiff; add them and then two more cups of flour; beat well between each successive addition; butter two medium-sized tins, put in the batter and bake for a half hour in a moderate oven.

**LOAF CAKE.**—Three cups of light dough, one cup of butter, two of sugar, one of raisins, two beaten eggs, one teaspoonful of soda; knead well and let it get quite light, then make it into a loaf or as many loaves as you like; let them rise again and bake in a moderate oven.

**CHOCOLATE CARAMELS.**—One cup grated chocolate, 1 cup of light brown sugar, 1 cup molasses,  $\frac{1}{2}$  cup milk, 2 teaspoonfuls of flour,  $\frac{1}{2}$  a teaspoonful salt; after boiling ten minutes add a piece of butter the size of an egg and boil ten minutes longer.

**MOLASSES CANDY.**—One cup molasses, 2 cups sugar, 1 tablespoon vinegar, a little butter and vanilla; boil ten minutes, then cool it enough to pull, or pour into buttered tins to harden.

#### PRIZE ESSAY.

##### The Life and Works of Charles Dickens.

BY MISS A. M. CRAIG, CORNWALL, ONT.

Charles, the eldest son of John Dickens, a good natured clerk in the Navy Pay Office, was born at Landport, in Portsea, on the 7th of Feb., 1812. On account of removals, a great portion of his childhood was passed at Chatham, where he attended a small day school. The family returned to London when he was nine years of age but the move was not a fortunate one, as the affairs of poor John Dickens soon came to a crisis, and in consequence of debt, he was arrested and lodged in the Marshalsea Prison. Little Charles had frequently to go to the prison to visit his father, and displayed, even at that age, a wonderful faculty of close observation. It was after the father's release that our hero was employed in the 'Lamert backing ware-house,' whose proprietors were cousins of the family; but the work was quite distasteful to the delicate, sensitive lad, and he hailed with delight a family quarrel, which resulted in his release from drudgery. He was then sent as a day scholar to Wellington House Academy, where he remained from the age of twelve to fourteen years. He next obtained a very junior clerkship in an attorney's office, and in a couple of years we find him striving to

master stenography. He became the most accurate and able of shorthand writers, and reported for several leading journals. He now made his first attempt at authorship, and the "Sketches of Boz" will not soon be forgotten. The publication of "Pickwick" in 1836 made his name famous, and in the same year he married Miss Hogarth. "Oliver Twist" was a more decided success than his first story, and then appeared successively: "Nicholas Nickelby," "Master Humphrey's Clock," "Old Curiosity Shop," "Barnaby Rudge," "American Notes for General Circulation," "Martin Chuzzlewit," "Pictures of Italy," "Xmas Carol," "The Chimes," "Dombey & Son," "Cricket on the Hearth," "The Battle of Life," "The Haunted Man," "History of David Copperfield," "The Uncommercial Traveller," "Hard Times," "A Tale of Two Cities," "Great Expectations," "Little Dorrit," and "Our Mutual Friend." Some of his larger works were dramatized and had a fair run on the London stage. He was the most indefatigable English novelist of this or any other age, and his every fiction was a kind of vehicle for exposing the abuses of the time. The History of David Copperfield is generally considered his best novel, and much of the author's life is interwoven in the experience of the hero of this book.

He visited America twice, and on account of family expenses spent several years in Italy, Switzerland and France. He started a weekly periodical in 1850, and in it, "Household Words," and its successor, "All the Year Round," some of his later works made their first appearance. But while he was delighting thousands with his genius, he had to write to his friend Forster, of "a dismal failure in his private career," which ended in separation from his wife of twenty years. He began a series of public readings from his principal works in 1858, which proved a financial success, and which he continued till the last year of his life. We may here mention that he was an admirable public speaker and a chairman without a rival.

He had been at work on Edwin Drood, of which only three parts were completed, and died suddenly of apoplexy at his residence, Gadshill House, on the 9th of June, 1870. The event caused a great sensation in every class of society, and the Queen telegraphed her regrets from Balmoral. "Westminster Abbey," says a writer in the Times, a few days after Dickens' death, "is the peculiar resting place of English literary genius; and among all those whose sacred dust lies there, very few are more worthy than Charles Dickens of such a home. Fewer still, we believe, will be regarded with more honor as time passes and his greatness grows upon us.

#### Uncertain What to Do.

"See here, my friend, that dog of yours killed three sheep of mine last night, and I want to know what you propose to do about it?"

"Are you sure it was my dog?"

"Yes."

"Well, I hardly know what to do. I guess I had better sell him. You don't want to buy a good dog, do you?"

#### Failure not a Failure.

The secret of happiness is to make the best of everything; no matter what happens to annoy, let it all glide along as easily, and with as few words of complaint and fault-finding, as possible.

Little inconveniences will intrude upon the most fortunate of people, so the only way to be master of every situation is to make up your mind not to notice small annoyances. People may keep themselves in a constant broil over what amounts to nothing; and, without accomplishing the least good, may ruin the peace and quiet of a household. We cannot have everything we want in this world, and the sooner people understand that fact, the sooner they may have a true basis for happiness.

It is the greatest folly to set the heart upon uncertainties, and then, if disappointed, refuse to be comforted or reconciled.

Do the very best you can, and then take things as they come. If a man strives with his best knowledge, energy, and untiring labour to accomplish a certain object, working with skill and patience, he is a success, whether the scheme fails or succeeds, and he ought to reconcile himself to failure if it was inevitable. If his labours have been of brain and hand, he is better fitted to succeed in other undertakings.

#### Hereafter.

Two sons of Emerald Isle were standing the other evening on Adams Street. One was evidently a fresh arrival in this country. They were watching the lightning bugs.

"What's them little divils, Dennis?"

"Thim's lightnin' bugs."

"Phwat's that?"

"Thim's the sowl's of all the Englishmen that iver doyed. When owld Nick gets a howlt on them, he toies a bit of doinamite tir their tails and sends them over to Ammerriky to see how happy us Oirish is over here?"

"Faix, his majesty is a moighty just man. He knows just how to trate them. He must have been born in the owld sod himself!"

Have you ever heard of that beautiful custom which the Chinese observe on New Years? If not, you will always have a different kind of feeling for the "heathen Chinese," as they are called, when you know that early in the morning of that joyous day each man and boy from the Emperor to the lowest peasant, pays a visit to his mother, carrying her a present such as he is able to buy, thanking her for all she has done for him, and asking a continuance of her love and favor another year. What could any boy do that would touch the love and tenderness of his mother's heart more than this?

An Irish waiter at a hotel complimented a turkey in the following manner: "Faith, its not six hours since that turkey was walking around his real estate with his hands in his pocket, niver dreaming what a pretty invitation he'd have to jine you gentlemen at dinner."

I consider the ADVOCATE is the best paper in Canada for the farmers. I feel lost without it.

H. P., Clinton.



Uncle Tom's Department.

MY DEAR NEPHEWS AND NIECES.—A Happy New Year to you all, young friends! May the gladdest of all glad times make your lives pleasant wherever you are. What could a kind old uncle wish you more? A pleasant wish it is, but if mere empty words it will not make any one happy; our words must be accompanied by deeds, if we would have our wish come to pass. With your assistance we shall endeavor to have a right jolly good time in our department during 1885. During the past I have enjoyed your bright and cheerful companionship as formed in correspondence very, very much, and although I have never seen any of you, I feel a kind interest and great regard for each one of my dear nephews and nieces, and it is with great pleasure that I award the following prizes:—For the best original puzzle, 1st, \$4, to A. J. Taylor, Glencoe, Ont.; 2nd, \$3, to Ada Armand, Pakenham, Ont.; 3rd, \$2, Maggie F. Elliott, Mitchell, Ont., and 4th, \$1, to Christena Hadcock, Mt. Elgin, Ont. And for the most correct answers to puzzles—1st, \$2, to Will Thirlwall, Greystead, Ont.; 2nd, \$1.50 to Harry A. Woodworth, Sackville, N. S.; 3rd, \$1, to Willson L. Sissons, Byron, Ont.; 4th, 50c., to Robt Kerr, Harriston, Ont. I fear that some will be disappointed at the result, for a great many have worked faithfully during the whole year, but I have kept an accurate account, even giving credit for half answers, consequently those who have obtained the highest number of marks carry off the prizes. I feel grieved that we cannot give more prizes, but as the list of our competitors is so large it would be impossible for all to be victorious. I therefore make mention of some who have come a little short of the mark:—

Byron G. Bowering, Maggie F. Elliott, Wm. S. Howell, Christena Hadcock, Wm. Carney, Lottie A. Boss, A. J. Taylor, Mary McArthur, Thos. Armstrong, Eva C. Kelly, Jessie M. Fox, Minnie E. Weldon, Willie B. Bell, Becca Lowry, Eva J. G. Henderson, Mary Marshall, Jas. Watson, Chas. H. Foster, and Ellen D. Tupper.

For the coming year, 1885, there will be given ten prizes; four for the best original puzzles of \$3, \$2, \$1 and 50c., and six for the most correct answers of \$3, \$2.50, \$2, \$1.50, \$1 and 50c. The following are the rules:—The puzzles must be wholly original, answer to accompany each puzzle. All competitors must be under seventeen years of age. Your name and address in full with each communication. All letters must be in by the 25th of each month to insure publication, but credit will be given to those who live at too great a distance for their letters to reach us by that date. Letters and puzzles are to be written neatly and legibly. I would advise you to send your matter open as printer's MSS., which only requires a one cent stamp. We hope all the former nephews and nieces under seventeen will join in the competition with renewed interest, and that hundreds of others will enroll their names as Uncle Tom's children. Again wishing you all a very Happy and Prosperous New Year. I remain your

UNCLE TOM.

Puzzles.

1—CHANGED HEADINGS.

To su. our—to credit.  
A cushion—a wave.  
A vegetable—a bird.  
A vegetable=base.  
To cork—to brag.

WILL THIRLWALL.

2—DROP VOWEL PUZZLE.

-n-th-r y-r w-th -ll -ts h-p-s -nd f-rs  
H-s s-nk -nt- th- d-p -byss -f t m-  
-nd -n th- thr-sh-ld -f - a w -n -st-nd  
L-ke tr-v-ll-rs t- s-m- str-ng- -nd d-st-nt -cl-me.

ANN J. PHOENIX.

3—METAMORPHOSES.

Change tale to morn in four moves.  
" call to seat in four moves.  
" mind to lame in four moves.  
" leap to moon " "

F. J. RUTHERFORD.

4—ANAGRAM.

Rehte swa reenv na vile fi lewl dtsooduren  
Tub hawt rhylyit agmdnea liwl rutr ot a ogdo.

ADA ARMAND.

5—DOUBLE DIAMOND.

(1) Is in happiness; a verb; joyful; to discover; is in jollity.  
(2) Is in London; to write; force; 1885; necessities; a fish; is in Ontario. To all the readers of the ADVOCATE I sincerely wish my whole.

HARRY A. WOODWORTH.

6—ILLUSTRATED REBUS.



No. 7.

- 1 . . . Something in a stove.
- 2 . . . 3 . . . To enlarge.
- 3 . . . 4 . . . A color.
- 4 . . . 5 . . . Useful in bakery (two words.)
- 5 . . . 6 . . . Presents.
- 6 . . . 7 . . . A young lady.
- 7 . . . 8 . . . Made from fruit.
- 8 . . . 9 . . . To rove.
- 9 . . . 10 . . . To rove.
- 10 . . . 11 12 . . . To rove.

The letters indicated by the numbers will give the name of a poet. A. J. TAYLOR.

8—CONNECTED DIAMONDS.

- 1. In brew and in beer.
- 2. A beverage here.
- 3. A nice lady you'll see.
- 4. A liquor will be.
- 5. In tremble and fear.

- 1. You'll find it in bring.
  - 2. A useful little thing.
  - 3. A stream brings to sight.
  - 4. Something fresh and bright.
  - 5. The last find in spring.
- Now put these down and they will show A place in Western Ontario.

A. J. TAYLOR.

9—TWO WORDS WITHIN A WORD.

Come ——— boys with the basket, John can carry ——— is the strongest.  
She spilled ink on her ———. He came ——— you did.  
What is making that ——— noise? I think it is a ——— that box.  
He did it merely to ——— his vanity. That ——— let alone will gnaw a hole in the wall.

MAGGIE F. MITCHELL.

Answers to December Puzzles.

- 1— Pail, pall, wall, well.  
Rain, rail, hail.  
Lead, load, good, gold.  
Ring, rag, rat, mat.
- 2—Go, man, in the highways and byways and street,  
And gather the hungry poor there you shall meet;  
Your dinner the sweeter for such deeds shall be,  
And a life of more happiness true you shall see.

3—  
B  
A R M  
B R A N T  
T H U N D E R  
B R A N T F O R D  
B E L F A S T  
F R O N T  
A R T  
D

4—Manner, banner; mite, rite; deceive, receive; warp, harp; seige, liege; warble, marble; trance, France; hamper, tamper.

5—Ravines—a vine; bonfires—on fire; selfish—self is; music—us I; minor—in or.

6—  
R B  
T O N C A P  
R O G E R B A C O N  
N E T P O T  
R N

7—Birds of a feather flock together.

8—Citron.

9—  
S C R A G  
C R A N E  
R A V E N  
A N E N T  
G E N T S

10—Four lines that are easy and wise  
Here are placed before your eyes;  
All means you see of learning  
seize;  
Be kind and mind you do not  
tease;  
Find useful ways your time to  
use;  
Attend well to your P's and Q's.

Names of Those Who have Sent Correct Answers to December Puzzles.

Robert Wilson, Mary McArthur, Kate McKelvy, Thos. G. Bond, Thos. Armstrong, Walter A. Inglehart, Edmund Pepper Ellen D. Tupper, Amelia Walker, Belle Richardson, Chas. H. Foster, W. L. Sisson, Alice Hume, Lottie A. Boss, Harry A. Woodworth, William Carney, Georgina Smith, Byron G. Bowerman, Jessie M. Fox, Tiny Docker, Jas. Paterson, Wm. B. Bell, A. J. Taylor, Will Thirlwall, Katie Miller, G. C. Kell, Robt. J. Risk, Sarah M. Brett, Henry Reeve, Ann J. Phoenix, W. S. Howell, Mary Marshall, Maggie F. Elliott, Peter Lamb, J. G. Silcox, John E. Honsenman, Wm. McCallum, Sarah E. Miller, Robt. Kerr, Ada Armand, Eva J. E. Henderson, Minnie E. Weldon, C. Gertie Heck, Christena Hadcock, Aggie E. Willson, J. Watson.

Our American colored man, Uncle Billy, in discussing the civil rights bill, gave his opinion on it in this way: "We can smoke whenebber we please, stop at the hotela, spit on de carpets, and make de white folks 'tend on de old nigger. You bet dar's fun comin'." But when he was asked if he understood the provisions of the bill, he exclaimed: "Bless de Lord, am dere provisions in it? Den I'm 'heart and soul for it."



### Deduction from Puzzle Picture (Illustrated Rebus) in Oct. No.

1st Prize awarded to Annie Taylor, London, Ont.; 2nd, James Shannon, Wolverton, Ont.; 3rd, Fred E. Earle, Oakville, Ont.

The poultry represent farm hands or any branch of laborers. The puzzle in this picture may not be noticed by many, it being so well concealed at first sight, but close examination reveals the enemy of all poultry, the fox, which represents one of the crafty, cunning, hidden robbers that prey and live on the life blood of the laborers of the earth; they may be beautiful in appearance, intellectual, active and graceful, commanding confidence at once by their friendly interest, while in reality they are wily and deceitful, only watching quietly their opportunity to lead unsuspecting victims into a snare. They it is who reap the benefits of other men's toils, and the laborers, their prey, are at last awakened to the fact that they fought and labored only to feed the cunning deceiver who had devoured all. This teaches us to try and look into the meaning of all we read and all our undertakings, lest we be in as bad a predicament as the poor rooster.

This illustrated puzzle is useful as it is amusing, it teaches the young to study, examine and think. Such attractive instruction causes many a child to long for the paper in which it appears, and after reading the amusing parts they will often turn to the sounder and more valuable information in regard to agriculture, etc., thus becoming better farmers and more enlightened and useful than they otherwise would be.

I am and have been delighted, and I think improved, by the illustrated puzzles seen in the *ADVOCATE*. Many contain excellent mottoes.

Perhaps this is too prosy to deserve notice; though having tried before and failed, try, try again is my motto. Whether I win a prize this time or not, I wish a Happy New Year and success to the *ADVOCATE* and Uncle Tom.

ANNIE TAYLOR.

### That Dreadful Doctor.

He warns us in eating, he warns us in drinking.  
He warns us in reading, and writing, and thinking;  
He warns us in football, foot race, eight oar "stroking."  
He warns us in dancing and cigarette smoking.  
He warns us in taking champagne and canoeing;  
He warns us in wearing red socks and sham-pooling;  
He warns us of drains—in our snug country quarters;  
He warns us—of fever—in mineral waters,  
He warns us in—everything mortal may mention.

But—what gives rise  
To but little surprise—  
Nobody pays him the slightest attention!

The politest man in Boston has been discovered. He was hurrying along the street the other night, when another man, also in violent haste, rushed out of an alleyway, and the two collided with great force. The second man looked mad, while the polite man, taking off his hat, said; "My dear sir, I don't know which of us is to blame for this violent encounter, but I am in too great a hurry to investigate. If I ran into you, I beg your pardon; if you ran into me, don't mention it."—and he tore away at redoubled speed.—*Boston Journal*.

### Little Gues' Column.

#### Pet and Her Cat.

Now, Pussy, I've something to tell you:  
You know it is New-Year's Day;  
The big folks are down in the parlor,  
And mamma is just gone away.

We are all alone in the nursery,  
And I want to talk to you, dear;  
So you must come and sit by me,  
And make believe you hear.

You see, there's a new year coming—  
It only begins to-day.  
Do you know I was often naughty  
In the year that is gone away?

You know that I have some bad habits,  
I'll mention just one or two;  
But there really is quite a number  
Of naughty things that I do.

You see, I don't learn my lessons,  
And oh! I do hate them so;  
I doubt if I know any more to-day  
Than I did a year ago.

Perhaps I am awfully stupid;  
They say I'm a dreadful dunce.  
How would you like to learn spelling?  
I wish you could try it once.

And don't you remember Christmas—  
'Twas naughty, I must confess—  
But while I was eating my dinner  
I got two spots on my dress.

And they caught me stealing the sugar;  
But I only got two little bits;  
When they found me there in the closet,  
And frightened me out of my wits.

And, Pussy, when people scold me,  
I'm always so sulky then;  
If they only would tell me gently,  
I never would do it again.

Oh, Pussy! I know I am naughty,  
And often it makes me cry:  
I think it would count for something,  
If they knew how hard I try.

But I'll try again in the new year,  
And oh! I shall be so glad  
If I only can be a good little girl,  
And never do anything bad!

#### The Lament of a Left-Over Doll.

BY JOSEPHINE POLLARD.

I'm a left-over doll, and I grieve to relate  
How sad is my fortune, how lonely my fate;  
For I had no notion that I should lie here,  
Forlorn and neglected, at this time of year.

Oh, long before Christmas they dressed me up  
fine—

No dollie had clothes any better than mine;  
And I rather imagine I looked very nice,  
As many fine ladies inquired my price.

I was handled and dandled, and fondly  
caressed.  
My beauty admired, my value confessed,  
And yet for some reason or other was I  
Put back in the show-case; the buyer went by.

One dear little maiden came into the store;  
She saw me, and for me began to implore,  
And said that there wasn't a doll in the place  
With a handsomer dress or a lovelier face.

She stared at me long, so of course I stared  
back,  
And saw that her eyes were a beautiful black;  
And I wanted to speak, but I couldn't, because  
I hadn't been made with a hinge in my jaws.

I dreamed about Christmas, and how I should  
be  
Stuck into a stocking or up on a tree,  
Then carried about in my mistress's arms  
That all might admire my wonderful charms.

But Santa Claus came, and he went on his way,  
And took with him many a doll, I dare say;  
But as I've a chance to look round me, I find  
That dozens and dozens have been left behind.

If you were a left over dollie yourself,  
You'd know how I feel lying here on the shelf  
So long after Christmas; and wouldn't expect  
Me to smile at old Santa Claus' cruel neglect.

They've marked down my price; and I very  
much fear  
That those who buy cheaply will hold me less  
dear,  
And the army of curious shoppers I shun  
Since I had no part in the holiday fun.

#### How to Handle a Gun.

The first thing to do when you go out gunning with another boy is to guard yourself against accident. The best way to do this is to shoot the other boy before he has time to load his gun. Then take both guns to the nearest creek and throw them in. Throw the powder and shot in after them. If you have any matches about your clothes throw them in also. Then start at once and go home as fast as ever you can. And if you are under eighteen years of age, the chances are, even with these precautions, that you will get both legs and a section of your back filled to the brim with bird shot before you reach home.

"How?"

Goodness only knows how, my son, I don't. I have often wondered how it did happen, but I could never ascertain. I am not here to advance ingenious theories, but merely to state cold facts, and I know that a boy with a single barrel gun twice as long as himself can manage somehow to shoot himself in more places at once than a man can do with a seven shooter revolver. "And am I going to buy you a gun?" Yee, I am, sometime in the long vacation when times hang heavily on my hands, and I think I would enjoy entertaining you by picking shot out of your legs with a nut pick.

"But you would be very careful with it?"

So is a woman very careful with an umbrella, my son, and yet science is unable to account for the startling increase of one eyed men every summer.—[*Burlington Hawkeye*.]

#### The Bashful Boy.

Robert, a bashful young student of Cupid, recently summoned enough courage to escort a young lady home. At the breakfast table next morning his father said:

"Well, my son, did you go home with any of the girls last night?"

"Yes," said Bob.

"Who was she?"

Robert hesitated, but finally blurted out:

"I thought it was Annie Warren, but when we got to the turn of the road she went into Ella Ham's house."

"But I should think you might have told by the sound of her voice," said his father.

"Neither of us said a word," said Bob, blushing and stammering.



**The Demon on the Roof.**

BY JOSEPHINE POLLARD.

'Twas an ancient legend they used to tell  
 Within the glow of the kitchen hearth,  
 When a sudden silence upon them fell,  
 And quenched the laughter and noisy mirth;  
 That whenever a dwelling was building new,  
 There were demons ready to curse or bless  
 The noble structure, that daily grew  
 Perfect in shape and comeliness.

And when the sound of the tools had ceased,  
 Hammer and nails, and plane and saw,  
 Ere yet the dwelling could be released  
 From the evil spirits,—there was a law—  
 No master mechanic could be found  
 Able or willing to disobey—  
 That a ladder be left upon the ground  
 For their enjoyment, a night and a day.

And when the chimneys begin to roar,  
 And voices harsh as the wintry wind  
 Howl and mock at the outer door,  
 The ancient legend is brought to mind.  
 And we think, perhaps, that a careless loon  
 Not fearing the master's stern reproof,  
 Has taken the ladder away too soon  
 And left a demon upon the roof.

And in every dwelling where joy comes not,  
 And the buds of promise forget to bloom,  
 Be it a palace, or be it a cot,  
 Ample splendid or scant of room,  
 We may be sure that a demon elf,  
 Fiendishly cruel and full of spite,  
 Is sitting and grinning away to himself  
 Up on the ridge-pole, out of sight.

But let it ever be borne in mind  
 By those who often this legend quoth,  
 That with every evil some good we find,  
 For every ill, there's an antidote.  
 And if we use but the magic spell,  
 And hearts draw near that were kept aloof,  
 Good angels then in our homes will dwell,  
 Despite the demon upon the roof.

**How to Drive the Boys from the Farm.**

If you wish to drive boys from the farm, send them out to cut green wood at the back door and tell them they must get up at five o'clock and make a fire from it. Send them to milk by lantern light, in the dead of winter, when the cold winds are blowing through the cracks of the barn. Have them drive the cattle to water and be obliged to chop a hole through the ice in order to let them drink. Let them carry water the year round up hill from a spring. Have them turn the grindstone for hours. Send them out to pull wool from the dead carcass of a sheep, when they have to hold the nose with one hand and pull with the other. Make them do all the drudgery and disagreeable work found to be done on the farm. Tell them there is no time to go fishing or hunting. And when you come to your meals, when everything should be pleasant, and you should have a smile on your face, cry out and say: "We are going to have a drouth, and we will have to go to the poor-house," and "The season is so wet there will be a failure of crops, and I will not be able to pay my taxes." Fret and scold about everything that does not go just right. These, and many other things that could be mentioned, are driving the boys from the farm.

"Now, Willie, dear," says Fanny. "do have a little courage; when I have a powder to take I don't like it any more than you do; but I made up my mind to take it, and I do." "And when I have a powder to take," replied Willie, "I make up my mind not to take it, and I don't."

**OUR USEFUL PREMIUMS for 1885.****For One New Subscriber:**

YOUR CHOICE OF THE FOLLOWING

**Trees especially adapted to the Northwest.**

**The Crab Apple.**—Two plants by mail, of what is said by Mr. Leslie to be the best in the world. These useful and valuable trees should be planted by all farmers, particularly in the Northwest.

**The Ash Leaf Maple.**—One packet of seed or six plants of this ornamental and hardy tree. For description and illustration see page 297 of October number.

**The Silver Poplar.**—One packet of cuttings or six plants. This tree is of very rapid growth and when dry makes good fire wood. See articles on page 297, October number.

**The Norway Maple.**—One packet of seed or six plants of this beautiful and hardy variety of the maple, a description of which appears on page 297, October number.

Adapted to Southern Ontario.

**The Horse Chestnut** is one of the most beautiful and useful trees grown, of very rapid growth, and for shade or ornament cannot be excelled. One packet of seed from a grand tree owned by the proprietor of this journal, and can be seen from the study window, see page 264 of September issue; or six young plants.

**The Black Walnut.**—Of all timber for making furniture or other useful purposes this is considered the most valuable, and is now very scarce. This excellent timber will pay for cultivation. One package of seed from trees growing on the old homestead of the editor of this paper, or six young trees.

—OR THE—

**CHROMOS**

Chromo "Life's Voyage."—Or Lithograph "Yes or No." Beautiful pictures, and highly prized by those who have received them.

**SEEDS.**

A useful collection of **Vegetable Seeds**, ten varieties, and one packet novelties for 1885.

A choice collection of **Flower Seeds**, ten varieties.

**STRAWBERRY PLANTS.**

Two plants, **Prince of Berries**, said to be the latest and best of the many excellent varieties, and is of the finest flavor lately introduced.

Two plants, **Daniel Boone**.—This plant has grown in favor greatly during the past season, and bids fair to be in great demand, both as to flavor, productiveness and keeping qualities.

Three plants of **James Vick Strawberry**.—In addition to the already favorable opinions expressed about this berry, it has this season averaged fully as large berries as the Wilson, and produced more fruit. One large grower states that he could fill a basket sooner from the James Vick than from any other strawberry.

Two plants of the **Dwarf Juneberry**.—These plants should be in every garden. The plant is very hardy. The fruit ripens early, and in enormous quantities.

Six plants of the **Russian Mulberry**.—The popularity of this plant still continues, and we have decided to give it again for another year.

**ROSES.**

So very few really good roses are to be found in the country gardens of Canada that we have decided to offer two of the best varieties grown, one a dark crimson and the other a deep yellow. The ordinary price for these roses if bought from florists is 50 cts. to \$1, but we offer your choice of either of the following for one new subscriber:

One plant of the **General Jacqueminot**.—This rose is one of the finest and prettiest; in color it is a rich velvety scarlet, changing to brilliant crimson. The buds of this variety are magnificent, rendering them of especial value for bouquets, and for wearing in the button hole. It is also a good rose for forcing. See issue for April, 1884.

One plant of the **Isabella Sprunt**.—In color is sulphur-yellow. It is a very free bloomer, and is one of the most beautiful of the yellow roses, and in the bud state can scarcely be surpassed. It is of especial value for bouquets, and makes an excellent potting plant.

The **Lady's Manual of Fancy Work**.—Four hundred illustrations, paper cover, containing a great variety of excellent designs for dress or household decorations. It is a book which will please, and should be in the hands of every lady.

**For Two New Subscribers:**

YOUR CHOICE OF THE FOLLOWING

Large and beautifully finished

**CHROMOS**

"Windsor Castle," or "Balmoral Castle."—These fine pictures are 30x24 inches, and form a pretty ornament to any home.

Or Lithograph of **Lorne and Louise**. The picture contains a puzzle which few are able to solve.

The **Novelty Rug Machine**.—Makes rugs, tidies, door mats, etc. Is an entirely new invention. Performs its work satisfactorily, is simple of construction, and can

be worked by a child. This little machine not only saves much time and labor, but much of the material used by the use of the ordinary mat hooks. For making Turkish rugs it cannot be excelled. Every housekeeper should have one. See page 307 of October issue.

**For Three New Subscribers:**

YOUR CHOICE OF THE FOLLOWING:

**The World's Cyclopedia and Library of Useful Knowledge.**—Giving concise information on nearly every subject. Contains 800 pages, 50,000 references, and 1,200 illustrations, and is an indispensable library of universal knowledge.

**The White Mountain Apple Parer.**—This machine does its work economically and quickly, leaving the fruit ready for drying, &c. This parer is the best and most serviceable one which we know of, and can strongly recommend it to every person. Per express at receiver's charges.

**The White Mountain Potato Parer**—is said to be not only the best one made, but the only one manufactured which will pare a potato better than it can be done by hand, taking off a thinner paring from every shape or kind of potato, but will go into and clean out the eyes. Per express at receiver's charges.

The "Household" Special Premium, the new **American Dictionary**—Contains 1,000 engravings, and more pages than any similar work. No house should be without one.

**OUR RULES.**

Each new name must be accompanied with \$1 for the annual subscription.

The premium is for the person who secures the new name, and does not in any way belong to the new subscriber.

All plants, seeds, &c., will be sent free by mail early next spring. Books, chromos, &c., will be mailed free as early as possible after receipt of name. The apple and potato parers will be forwarded by express at cost of receiver.

Send for sample and commence your canvas at once. Sample copies sent free.

Address:

The FARMER'S ADVOCATE, London, Ont.

**Commercial.**THE FARMER'S ADVOCATE OFFICE,  
London, Ont., Jan. 1, 1885.

Christmas week in Ontario was most seasonable and enjoyable, and must have been enjoyed by all who love to keep up the good old customs of our fathers and grandfathers. The grocers have been very busy selling fruits and all the other good things that load the Xmas tables; the hardware dealers, skates and plated goods; the dry goods men, fancy goods; the provision dealers, hams, turkeys and fowls, while the jewellers, the confectioners and stationers, have been as busy as they very well could be. Trade in these lines has been good, and dealers and merchants have no reason to complain.

**WHEAT.**

There is no change to note, nor does there seem any prospect of any for some months to come at least. The New York Produce Exchange makes the following remarks:

"The 1883 Wheat crop of the United States was reported to be 421,000,000 bushels measure by the Agricultural Department, and later 398,500,000 bushels of 60 lbs., or upwards of 20,000,000 bushels difference. The crop of 1883 was poor in quality, both Winter and Spring Wheat.

"The Wheat crop of the United States in 1884, per preliminary report, is placed at 500,000,000 bushels measure, or thereabouts. The Spring Wheat crop in quality in 1884 is superior to that of 1883. The Winter Wheat crop of 1884 at the harvest was believed to be superior in quality to the crop of 1883; but later, the quality of the crop of 1884 is not so very much



better, as the inspection of rail Red Winter Wheat at this port since July 1st will show viz.:

Grades Red Winter—	No. Cars.
No. 1 Red Winter.....	220
No. 2 Red Winter.....	6,779
No. 3 Red Winter.....	754
No. 4 Red Winter.....	5
Unmerchantable.....	79
No established grade.....	2,220
Steamer No. 3 Red.....	465
Steamer No. 2 Red Winter.....	752
<b>Total number of cars.....</b>	<b>11 274</b>

"It appears from the inspection that nearly 38 per cent. of inspected Red Winter Wheat was below the grade of No. 2 Red Winter. The Winter Wheat crop comprised the larger ratio of the total crop of Winter and Spring Wheat together—probably full 70 per cent. The difference in quality on 38 per cent. of Winter Wheat crop would make a large difference in the bushels by weight—perhaps not so large as was the difference in 1883. In the computations of the probable surplus available for exportation, this difference in the quality has not, so far as is known, been at all considered. It is hoped the Agricultural Department will compute the bushels of 60 lbs. in the crops.

"Cost of Wheat growing in England, as given an Evesham correspondent of Beerbohm's London Evening Corn Trade List:

Income one acre Wheat.	Expenditures.
5qrs Wheat, 31s 4d	£7 16s 8d
Straw..... 17s 0d	
Plowing.....	£1 0s 0d
Harrowing twice.....	8s 6d
Seed'g, pl't'ng, &c. 1	4s 2d
Harrow'g in spring.....	12s 0d
Rent paid..... 1	2s 8d
Hoing & w'ding.....	5s 0d
Reaping.....	10s 0d
Cart'g & rick'g.....	3s 0d
Six men & 1 boy.....	3s 0d
Horses' labor.....	2s 6d
Thresh'g, 1 sp. sk.....	10s 0d
Deliv'ry to station.....	3s 0d
Thatching.....	1s 0d
Insurance.....	6d
Profit.....	2 11s 4d
<b>Total.....</b>	<b>£8 13s 8d</b>

"Interest on capital, depreciation of machinery cost of carrying on farmers' business not included. The £2 11s 4d profit and loss and the tenant-right aspect of the question will determine the profit remaining. The usual method of farming is three crops Roots, Beans and Wheat. Next year must be bare fallow the lowest cost of which is 50s per acre, and rent at £1 2s 8d still being added. Should a Grain crop be substituted for this, the cost of consuming it, with cake, corn, &c., will be greater than the expense incurred by allowing the land to lie fallow; but the latter better restores fertility. The average Wheat yield is much less than five quarters."

English farmers have been subject to severe losses since the bad crops of 1879. In that year more than half of the grain growers of the United Kingdom were ruined, or very seriously crippled. Numbers of farms have been thrown on the owners' hands. The value of the fee simple of millions of acres of land in the United Kingdom has declined 30 to 50 per cent.

The estimated losses of the agriculturists of the United Kingdom from 1873 to 1884, as placed by English authority, is \$367,500,000. In France, owing to the depression in agriculture, a duty of 4 to 5 francs per 100 kilo is proposed. In Germany, a petition signed by

3,000 persons, asks for an increase of duties on cereals. The petition complains of American and Russian competition in wheat, and asks the German Parliament for relief by an increase of the import duties.

CATTLE AND SHEEP.

"There has been additional depression in the British cattle markets during the past week, which is shown in a decline of half a cent per pound, but the enquiry at the lower prices has been more active. The receipts of Canadians and Americans have been light, and, all being from American ports, were treated as American cattle under the regulations concerning them, which necessitate them to be slaughtered at the point of landing. Our Liverpool special to-day reported the market with a fairly healthy tone at the decline, the demand being steady and more active than on last Monday. The offerings were fair, and a more satisfactory clearance was effected than for several weeks. Prime steers sold ½c. lower at 13½c., against 14c. on December 15, 14c. on December 8, 14½c. on December 1, 15c. on November 24, 14½c. on November 17, 14c. on November 10, 14½c. on November 3, and 13½c. on October 27. Lower grades show a similar decline. Fair to choice were quoted at 13c., poor to medium at 12c., and inferior and bulls at 9c. @ 10½c. The sheep trade has been dull and without new feature. At Liverpool to-day there were ample offerings and a slow demand. Prices were nominally unchanged. Best sheep were quoted at 13c., against 13c. on December 15, 14c. on December 8, 14c. on December 1, 15c. on November 24, 14c. on November 17, 14c. on November 10, and 15c. on November 3. Secondary qualities were dull and depressed at 11c. @ 12c., merinoes at 10½c. @ 12½c., and inferior and rams at 8c. @ 9½c. Dressed beef in Liverpool is cabled lower at 4½d, while mutton is unchanged at 4½d."—[Gazette.

James Pritchard, in a letter to the Montreal Gazette, dated Liverpool, Nov. 13th, 1884, gives the following advice and warning to Canadian feeders and exporters:

"Having been very extensively engaged in the transatlantic live stock trade for many years, I venture to offer to the feeders and shippers of the United States and Dominion of Canada, a few words having reference to the experience of the past and the prospects for the future.

"It is well known and very generally felt that the shipping of live stock from the continent of America to England has of late years been productive of disastrous results to those engaged in the trade—the high prices ruling abroad and the bad markets and very low rates current in England have brought about this natural result.

"I have seen instances this last season where cattle have lost as much as \$30 per head to the shippers—not few, but numerous instances; in fact, I think I am correct in saying there have been very few cargoes of cattle shipped here this year which have not lost money. Those cases where a profit has been made have been few and far between.

"The present prospects in England are far from encouraging to shippers of cattle and sheep to this country. It is not only my own opinion, but also the opinion of all connected with the trade who are in a position to judge,

that prices of both cattle and sheep are almost certain to rule very low in England in the immediate future. In the first place, the immense importation of wheat and grain of all kinds has so depressed the markets that the farmers at last see that it is absolutely impossible to produce corn at a price which will allow of competition with the foreign producer, and immense acreages of tillage have been and are now being laid with grass for the purpose of stock raising, the consequence being that we have a large increase in the numbers of our home cattle and sheep which later on will be still more felt.

"Secondly, we are receiving immense quantities of dressed meat from all parts of the globe.

"The Australasian trade has increased tenfold within the last three years, the river Plate trade is being rapidly opened up, and from the United States we are getting enormous and increasing quantities, while Russia is also supplying us with large weekly consignments. In Russia there is a practically unlimited supply to draw from, and I hear on good authority that preparations are being made to greatly extend the operations in this trade between the two countries.

"It is also expected that before very long live cattle and sheep may be imported from Australasia; the experiment has already been tried and the thing has been found quite practicable.

"In face of these influences and particularly of the large importation of dressed meat which lands day after day in splendid condition, and in many instances sells for as much per lb. as English killed; and the steady increase of our our flocks and herds, what can the natural result be? Certainly no rise in prices, but on the contrary low rates must be anticipated.

"The trade of England is bad generally, and we are passing through a period of depression. The extensive emigration which has been going on has to a great extent lessened the demand for meat, and trade in all branches is in a wretched state, with little prospect of improvement.

"My advice to all interested in the Canadian export trade, to the large distillery feeders, to the feeders generally and to the shippers, is, that in order to avert further disaster, they must at once take action to enable them to meet the low rates which are certain to rule in the British markets, for I am persuaded that the values of the past are distinctly a thing of the past, and no such rates will be obtainable in the future.

"All stockers should be bought at least \$2 per hundred less than previous years. Unless this be done the trade will inevitably find itself in an even worse position than during the past season. We hear of such prices as six to seven cents per pound, live weight, having been paid last year for winter fed cattle, so that it is not surprising that losses of \$10 to \$30 per head were made, or on an average \$20, for little less could have been reasonably expected. At the outside 4 to 4½ cents for bulls and 5 to 5½ cents for steers should have been paid, and even at these prices with the vast expense and risks incurred in shipping live stock to England, the profits would have been far from high.

"What will be the rates paid for cattle and sheep next spring in Canada? Judging from



the present outlook shippers will not be able to pay more than 5 and 4 cents respectively, and I cannot urge too strongly upon feeders generally the necessity of insisting upon having their stock cattle at least \$2 per hundred less than last year, for unless they do this they will most assuredly find themselves in the same position as the shippers are now, and, in fact, have been for a long time past, it being patent to every one engaged in the trade that the shippers have lost hundreds of money of late years.

"I trust that these few words of warning may be in time and not altogether out of place, and that you may consider them worthy of insertion in your valuable journal, which, I understand, circulates largely among those engaged in this trade."

The Liverpool Mercury says: "Some dissatisfaction exists in Canada on account of the losses sustained by cattle shippers to the English markets during the last season, and it is stated that many of the Canadian stock feeders have decided to curtail their operations during the winter, and are going to feed fewer cattle for shipment. There has lately been a considerable glut of common and inferior cattle in our markets; but prime animals fetch quite as much as they did at this time last year. The losses have been attributed to depression in trade; but we think that the shippers in the Dominion must look to other causes for the condition of the market. The total imports of cattle into this country during the nine months ending September 30th, were 251,263 head, valued at £5,579,354, or an average of £22 4s 1½d each. During the same time in 1883, the number of cattle imported was 278,735, valued at £6,003,213, or an average of about 12s per head less than this year. The number of cattle imported from Canada during the first nine months of 1884 was 41,468, valued at \$886,784, or an average of \$103.71. The number imported from Canada during the same period in 1883 was 38,692, costing £849,501, or an average of \$106.48, or \$2.77 more than the average price of the Canadian cattle imported this year. From this it would appear that while the average price per head of the cattle imported to our markets from all sources was about 12s. more than last year, the average price of Canadian cattle was a little over 8s. less than last year. This depreciation in price is undoubtedly attributable to the fact that in many instances the Canadians have been sending here inferior stock. No doubt they pay a much larger freight for conveying their cattle from Montreal to Liverpool than the United States graziers pay from Boston to Liverpool; but then the Canadian shipper should remember that his United States rival has to slaughter his animals at the port of debarkation. Instead of decreasing their herds during the winter, the Canadian stockfeeders should endeavor to improve their breeds of cattle, and also find, if possible, a cheaper means of transhipment than they appear to have at present. Feeding stuffs are lower in price than they have ever been, and Canadians should not lose sight of the advantages which they have in landing and driving their cattle alive to our markets.

CANADIAN APPLES.

Enormous quantities of Canadian apples continue to be landed in Liverpool. Unfor-

tunately the familiar complaint in regard to their condition must be told again. Through the gross carelessness, or one might almost say cupidity, of shippers, the barrels have been in a large number of instances, "alack"; that is, insufficiently filled. This is spoiling the ship for a penny-worth of tar, for in consequence of the shrinkage on the voyage the fruit becomes quite loose, and the whole barrel arrives in a bruised and in many cases utterly worthless state. Better packing would ensure good condition on the whole consignment, as well as the realization of the proper value in the English market. Canadian apples when properly packed and in good condition are so rapidly extending in favor here that it is an infinite pity shippers on your side of the Atlantic cannot be persuaded to adopt a wiser policy, which in the long run must prove far more conducive to their interest. —[English Letter.

PRICES AT FARMERS' WAGONS, TORONTO.

	Jan. 1st, 1885
Wheat, fall, per bushel.....	\$0 73 to 0 75
Wheat, spring, do.....	0 73 0 75
Wheat, goose, do.....	0 66 0 68
Barley, do.....	0 54 0 56
Oats, do.....	0 31 0 32
Peas, do.....	0 66 0 57
Rye, do.....	0 66 0 00
Beans, do.....	1 00 1 25
Dressed hogs, per 100 lbs.....	5 80 6 10
Chickens, per pair.....	0 40 0 50
Ducks, do.....	0 65 0 85
Butter, pound rolls.....	0 15 0 17
Butter, large rolls.....	0 20 0 23
Turkeys.....	0 75 1 50
Geese.....	0 65 0 85
Cheese.....	0 14 0 15
Eggs, fresh, per dozen.....	0 22 0 24
Potatoes, per bag.....	0 40 0 45
Apples, per bbl.....	1 50 2 25
Cabbage, per dozen.....	0 20 0 25
Turnips, per bag.....	0 35 0 35
Carrots, per bag.....	0 35 0 45
Beets, per bag.....	0 50 0 55
Parsnips, per peck.....	0 15 0 20
Hay, Clover, per ton.....	7 00 9 50
Timothy.....	11 00 15 00
Straw, do.....	8 50 10 00

NEW YORK, Dec. 30th, 1884.

Following is the usual comparative table:

	Receipts.	Exports.	Cable.	Ft. Price.
Dec. 30, 1882.....	29,957	15,517	66s.	40s. 13½c.
Dec. 29, 1883.....	30,144	11,943	62s. 6d.	27s. 6d 13c.
Dec. 27, 1884.....	13,272	8,963	62s.	35s. 13c.

LIVE STOCK MARKET.

BUFFALO, Dec. 29th, 1884.

CATTLE—Receipts 8,105, against 8,662 the previous week. The receipts of sale cattle on Monday were moderate, only 120 car loads being on sale. The attendance of buyers was light, and trade opened slow. Prices on all grades of shipping and butchers' steers averaged 40 to 50 cents lower than on the Monday previous, and a large number were left over. Mixed butchers' stock was slow of sale, but did not suffer as much of a decline. For Tuesday and Wednesday the receipts were light, but there was no improvement in the market. Of Michigan cattle, 18 steers av. 1,112 lbs. sold at \$4.60; 19 do. av. 1,470 lbs. at \$5.37½; 17 do. av. 1,147 lbs. at \$4.45; 15 do. av. 1,084 lbs. at \$4.60; 11 do. av. 1,132 at \$4.15; 20 do. av. 1,234 lbs. at \$4.75; 16 cows av. 1,038 lbs. at \$3.25; 11 stockers av. 577 lbs. at \$3.10; 10 do. av. 718 lbs. at \$3.40; 7 bulls av. 996 lbs. at \$3.80; 12 do. av. 675 lbs. at \$2.87½; 1 do. extra weighing 2,250 lbs. at \$5.50; 1 do. 1,950 lbs. at \$4.65.

SHEEP—Receipts 41,800, against 41,000 the previous week. The market opened up on Monday with 75 car loads of sheep on sale. The market ruled dull with prices on common lots 25 to 35 cents per hundred lower than the closing rates of the previous week, and 10 to 15 cents on the best. Tuesday's market was bad, and 10 to 15 cents lower, several loads remaining unsold. On Wednesday there was but little done and prospects were bad. At the close fair to good 70 to 80 lb. sheep sold at \$2.75 to \$3; 80 to 90 lb., \$2.26 to \$3.75; 90 to 100 lb., \$3.65 to \$4; fine wool feeders 90 to 100 lb., \$3.85 to \$4.25. Store

sheep, \$1.50 to \$2.50; lambs 50 to 70 lb., \$3.70 to \$4.75. We note sales of 205 Michigan sheep av. 85 lbs., at \$3.75; 172 av. 86 lbs., at \$3.80; 172 av. 90 lbs. at \$3.80; 288 av. 84 lbs., at \$3.25; 205 av. 84 lbs., at \$3.75; 848 av. 81 lbs., at \$3.40; 672 feeders av. 90 lbs., at \$4.25; 52 lambs av. 77 lbs., at \$4.50; 128 do. av. 76 lbs. at \$4.50; 34 do. av. 79 lbs., at \$4.50.

HOGS.—Receipts, 59,465 against 55,530 the previous week. The market opened up dull, and averaged 25 cents per hundred lower than at the close of the previous week on all grades. There was an active demand on Tuesday, and prices ranged 5 to 10 cents higher, closing steady on Wednesday at the advance. Good to choice Yorkers sold at \$4.35 to \$4.40; fair do \$4.25 to \$4.35; medium grades, fair to choice, \$4.20 to \$4.40; good to extra heavy, \$4.40 to 4.50; pigs, common to choice, \$4.30 to \$4.46; skips and culls, \$3.25 to \$3.75.

Stock Notes.

Mr. James Armstrong, Yarmouth, Elgin Co., informs us that he has 5 cows, between 7 and 8 years old, which he is feeding for the butcher, all being high grade Shorthorns, nearly thoroughbred, and their rate of gain is something phenomenal. One cow gained an average of 5½ lbs. per day for 5 weeks, and the other 4 gained 4 to 4½ lbs. daily during the same time. He weighs them regularly, and their weight now ranges between 1,400 and 1,500 lbs. He commenced keeping these records shortly after taking the cows off the grass, and they were in a fair condition before he commenced stall feeding. His feeding ration for each cow is ½ bushel sliced turnips 3 times a day, 4 quarts of a bran and grain mixture three times daily, and all the good early-cut timothy and clover they can eat. The mixture is composed of peas, barley, and oats, equal parts, and the same quantity of bran by measure, that is, 2 quarts bran and 2 quarts grain.

An Illinois breeder gives a bit of his experience as follows:—"The principal reason why I fatten off my breeding sows at three years is because after that they are very likely to become 'cranky.' Of a lot of twenty breeding sows I had several years ago, thirteen were kept until they were five years old, and my experience with that lot convinced me that without special care old sows, unless very valuable, are undesirable property. They become altogether too cunning. As I could not feed them all the corn they wanted without making them too fat for any purpose; they undertook to supply themselves. Four of them excelled a white-faced cow at fence-breaking. They were constantly hunting for a loose board or weak spot in the fence, and their chief object in life seemed to be to get out of the pasture and forage on my neighbors. As for the fowl that ventured within their reach! One of them caught and chewed up a cat so quick that I never knew what took it in."

Ventilate the stables sufficiently to insure fresh air, but at the same time do not freeze the stock. Also keep the stables clean and never allow stock to stand on manure, as the ammonia which escapes from it is very injurious.

(Continued on Page 29.)



### Notices.

The annual exhibition of the Ontario Poultry Association will be held in Guelph from 20th to 23rd of January. Their annual meeting will take place Thursday, Jan. 22nd. For further particulars address Geo. Murton, Secretary, Guelph.

The annual convention of the Dairymen's Association of Western Ontario will be held in the town hall, Stratford, Ont., on the 14th, 15th and 16th of January, 1885. Papers will be read by the leading dairymen of Canada and the United States.

The winter meeting of the Fruit Growers Association of Ontario will be held in the city of London on Wednesday and Thursday, 28th and 29th of January, 1885, in Victoria Hall, Clarence Street. There are several interesting and important questions in the programme for discussion. Delegates are expected from New York and Michigan.

We call the attention of our readers to the Enterprise Meat Choppers advertised in our last issue. The demand for these Choppers has attained such immense proportions that the manufacturers have been compelled to largely increase their facilities for making them, and we are assured that they are now being turned out at the rate of 2,500 per week, 150 hands being steadily employed on them. They have been tested by the editors of nearly 100 agricultural papers, who have given them a hearty endorsement. We cordially recommend them to all our subscribers as by far the best machine of the kind ever introduced to public favor.

The New Orleans Exposition is making elaborate preparations for a successful world's show, and arrangements are being brought to a state of completion. The department of agriculture is particularly complete and attractive. The live stock barns are favorably situated for the landing of stock, both by rail and water. They are six in number, each 400x60 feet, with stall and pens complete, well lighted and ventilated, and there will be eighteen electric lights in each barn for the benefit of evening visitors. A supply of pure water is convenient, and feed can be had at cost. Facilities are completed for the sale of stock, both privately and by auction.

THE SCIENCE OF AGRICULTURE.—We are in receipt of a neatly executed work on this subject, published by Messrs. John Wiley & Sons, 15 Astor Place, New York. The author is Mr. Frederick James Lloyd, F. C. S., lecturer on Agriculture, King's College, London, and late assistant chemist of the Royal Agricultural Society, England. The book is chiefly a reproduction of the author's lectures delivered at King's College, and contains as little technical language as possible, so that it just meets the wants of the practical farmer who makes no pretensions to scholastic attainments. The work is revised by some of the ablest and most practical farmers in England. It contains the latest investigations in all departments of husbandry, and should be found in every farmer's library.

The largest cattle ranch in the United States under one management is that of Captain Richard King, of Texas. It comprises upward of 800,000 acres, all under fence, and nearly 200,000 head of cattle, horses and sheep. The entire property has been sold for \$6,500,000 to the United Land and Investment Company.

The recipe for the United States Government harness dressing is as follows:—"One gallon neatsfoot oil, two pounds bay-berry tallow, two pounds beeswax, two pounds of tallow. Put the above in a pan over a moderate fire. When thoroughly dissolved add two quarts of castor oil, then while on the fire stir in one ounce of lamp black. Mix well and strain through a fine cloth to remove sediment, let cool, and you have as fine a dressing for harness or leather of any kind as can be had.

Two remarkable experiments affecting the production of milk have lately been made in France. In one case two cows were taken, each giving the same yield of milk, and were fed upon exactly the same kind of food, except that the water given to one was warmed to a temperature of 66° Fahrenheit. The latter animal's return in milk was shown to be one third greater than that of the other. A similar experiment was made at the Agricultural College at St. Remy, the results being precisely the same.

The National Live Stock Journal says:—"An outbreak of swine fever is reported among pigs in the New Forest. It appears that some 4,000 swine are feeding in the forest, the property of various owners in the counties of Hants, Wilts, and Dorset, who have common rights therein during the autumn months. Some trouble is anticipated, as these herds return at this season to their respective owners, and at the same time an order, known as the "New Forest Swine-fever order, 1884," expires. This title would seem to indicate that this disorder is not new to the locality.

The Farmer's Review, Chicago, says:—"Prof. Thomas Taylor, of the Department of Agriculture, who has been giving special study to the subject of adulterations in butter, reports that the simplest and most satisfactory method of discovering adulterations in butter, and the one best adopted to general use is the use of sulphuric acid. If a few drops of the acid be combined with a small quantity of pure butter, the butter will assume at first an opaque whitish yellow color, and after about ten minutes turn to a brick red. Oleomargarine when treated with the acid, if made of beef fat, changes at first to clear amber and after about twenty minutes to a deep crimson. A glass rod should be used in making the mixture because of the active corrosive properties of the acid. He has also been investigating the disease of poultry and found in many cases examined that they were due to the presence of a microscopical parasite (Acaria) present in the membrane of the throat—the lungs and tissues of the body. He concludes as a result of his examinations that a considerable amount of disease prevailing among domestic poultry and not referable to any known type, may be due to the presence of these parasites. He suggests the use of carbolic acid as an antiseptic, sprinkled freely in the poultry houses over the nests and perches.

### NEW ADVERTISEMENTS.

#### ADVERTISING RATES.

The regular rate for ordinary advertisements is 25c. per line, or \$3 per inch, nonpariel, and special contracts for definite time and space made on application. Advertisements unaccompanied by specific instruction inserted until ordered out, and charged at regular rates. *The FARMER'S ADVOCATE is the unrivalled advertising medium to reach the farmers of Canada, exceeding in circulation the combined issues of all the other agricultural publications in the Dominion. Send for advertising circular and an estimate.*

### Dairymen's Association OF WESTERN ONTARIO.

THE ANNUAL CONVENTION OF THE DAIRYMEN'S Association of Western Ontario will be held at the  
**TOWN HALL, STRATFORD,**  
—ON THE—  
**14th, 15th & 16th January Next**

Arrangements have been made with the Grand Trunk Railway for the usual reduction of fares on presentation of the certificate of membership required, which can be obtained from the President, L. R. Richardson, Stratford; Thomas Ballantyne, Stratford; H. S. Lossee, Norwich; or from the Secretary, in Ingersoll.

By order,

**C. E. CHADWICK, Secretary.**

Secretary's Office, Ingersoll, Dec. 15, 1884. 229 a

### POULTRY ASSOCIATION OF ONTARIO

THE ANNUAL EXHIBITION of the above Association will be held in the  
**CITY OF GUELPH**

—FROM THE—  
**20th to 23rd JANUARY, 1885**

Prize Lists giving all information can be had on application to  
**GEO. MURTON, Secretary, Guelph.**

The Annual Meeting will be held in the Drill Shed on Thursday, January 22nd, 1885, at 2 o'clock p.m. 229 a

### The London Mutual Fire Insurance Company of Canada

THE ANNUAL GENERAL MEETING of the members of this Company will be held at their place of business on Richmond Street, in the City of London, Ontario, on

**Wednesday, 28th January, 1885,**

at 2 o'clock p.m., when a statement of the affairs of the Company will be submitted, and directors elected in the place of those retiring, but who are eligible for re-election. By order,

**D. C. MACDONALD,**

Manager and Secretary.

London, Ont., 6th Jan., 1885. 229 a

### ANNUAL AUCTION SALE

### PURE BRED SHORTHORN CATTLE

Under the auspices of the  
**BRITISH-AMERICAN SHORTHORN ASSOCIATION.**

A large number of valuable cattle will be offered at the above sale, which will be held in

**TORONTO, ON WEDNESDAY, FEBRUARY 25th, 1885**

Rules of sale similar to last year. No reserve bid other than catalogue price. For further information apply to

**R. L. DENISON, Secretary,**

64 King St. East, TORONTO. 228 d



**25 YEARS IN THE  
POULTRY YARD.**

16th Edition, 108 Pages, explaining the entire business. Gives symptoms and best remedies for all diseases. A 50-page illustrated catalogue. All for 25c. in stamps.

**A. M. LANG,**  
Care Dalt. Lewis Co. Ky.

229 a



**STOCK NOTES.**

(Continued from page 27.)

Hog cholera is prevailing extensively in Macon county, Ill., the loss from this cause in one township being estimated at \$35,000.

Messrs. Green Brothers, of the Glen Stock Farm, Innerkip, Ont., have sold their imported bull "Enterprise," by the Cruickshank bull, Ventriquoist, dam Evangeline 2nd, to Messrs. Smith Brothers, of Westborn, County of Oxford Ont., and have sold to the same parties the heifer calf Lapuring, by the Earl of Mar, dam Lily, by Royal Bampton.

Messrs. Lord, Cook & Sons, Aultsville, Ont., announce the following sales of Holstein cattle during the month of December: Calves—"Maid of Osnabruck," H. H. B, 6070, and "Brilliant" 2905; to Caleb Cotton, Sweetsburg Que., for \$400; yearling heifer, "Helen Mar," to A. D. McNeil, Gananoque, Ont., for \$500, also bull calf "Baron Lisgar," to same for \$225. A new importation just arrived at Aultsville from quarantine includes some of the finest Holsteins that ever crossed the Atlantic.

A good horse will always show well standing at rest. The man showing a horse for sale who keeps the animal constantly stepping about, to show off, is to be looked upon with suspicion. The time to examine a horse is when he is at rest. It is then that his weak points will be shown. If the horse "flies up" at some object on the ground, nearsightedness may be suspected. If brought suddenly into the light, from a dark stable, and the light oppresses him, his eyes are weak. His gait and speed should be tested by actual service. At rest, if the horse is sound, he will stand square on his limbs, without moving any one of them, the feet being placed flat on the ground, and all his legs plumb and naturally placed. If one foot be thrown forward, with the toe pointing to the ground, and the heel raised, or if the foot be lifted from the ground, and the weight taken from it, disease or tenderness may be suspected.

The American Cultivator says:—Despite the evidence of one of our agricultural professors, that of two lots of steers fed alike, and one carefully carded each day while the others were left uncarded, the latter gained the most pounds in weight during the winter, the most of our practical farmers who delight in well kept and nice looking animals will continue to groom their stock each day. Nor will many of them believe that the grooming was the cause of the loss of weight in the case referred to. But the carding should be done in such a way that it will be a pleasure, instead of a torment, to the animal.

Who has not seen a thin skinned animal writhing under the card in the hands of some one who was displaying more strength than judgment in his endeavors to do the work faithfully. And who has not seen another animal standing with a look of evident pleasure and content while its master carefully went over it with card and brush? Can we doubt that the first might lose flesh under the instrument of torture, while the latter would thrive all the better for its care.

Continued on page 30.

**IMPORTANT PUBLIC SALE OF SHORTHORN CATTLE & SOUTHDOWN SHEEP at Oakland Farm, Kettleby, Ont., on FEBRUARY 18th, 1885.**

The subscriber will offer for sale at the above farm about 25 head of Cows, Heifers and Bulls, including specimen descendants from the stock of the Hon. Samuel Campbell, of the New York Mills great sale of Sept. 10th, 1873, also from Campbell, of Kinnelara, and other eminent breeders in Ontario; also about 30 Southdown Ewes, Ewe Lambs and Rams, bred direct from imported stock—the rams used have been bred from Webb's, Walsingham's and Prince of Wales stock.

Oakland Farm is 4 1/2 miles from Aurora Station, on N. & N. W. R. R., 3 1/2 miles north of Toronto. Teams will be in waiting at Aurora on morning of sale.

Catalogues on application to 229-b

SETH HEACOCK, Kettleby, Ont.

**TO FARMERS and SHIPPERS**

**American Co-Operative Dairy Company**

Incorporated May 24, 1884, with a CAPITAL STOCK OF \$100,000

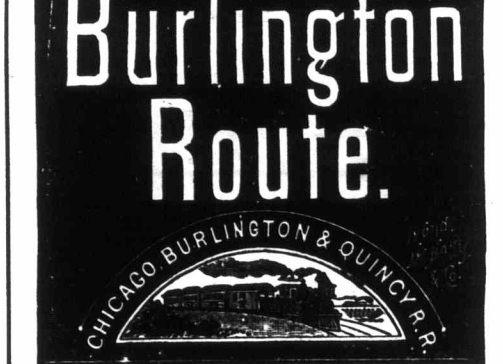
Offer extra inducements for consignors of BUTTER, EGGS, BEANS, CHEESE, POULTRY, GAME, and All Kinds of FARM PRODUCE.

This Company is duly established by law, and farmers, shippers or dealers can depend upon prompt and honest returns for all consignments. For particulars address

J. W. WHITE, Secretary, 31 Beach Street, BOSTON, MASS. 229-c

Mention the FARMER'S ADVOCATE.

**THE LINE SELECTED BY THE U. S. GOV'T TO CARRY THE FAST MAIL**



**GOING WEST. ONLY LINE RUNNING TWO THROUGH TRAINS DAILY FROM CHICAGO, PEORIA & ST. LOUIS,**

Through the Heart of the Continent by way of Pacific Junction or Omaha to DENVER,

or via Kansas City and Atchison to Denver, connecting in Union Depots at Kansas City, Atchison, Omaha and Denver with through trains for

SAN FRANCISCO, and all points in the Far West. Shortest Line to KANSAS CITY,

And all points in the South-West.

**TOURISTS and HEALTH-SEEKERS** Should not forget the fact that Round Trip tickets at reduced rates can be purchased via this Great Through Line, to all the Health and Pleasure Resorts of the West and South West, including the Mountains of COLORADO, the Valley of the Yosemite, the

**CITY OF MEXICO,** and all points in the Mexican Republic.

**HOME-SEEKERS** Should also remember that this line leads direct to the heart of the Government and Railroad Lands in Nebraska, Kansas, Texas, Colorado and Washington Territory.

It is known as the great THROUGH CAR LINE of America, and is universally admitted to be the

**Finest Equipped Railroad in the World for all classes of Travel.**

Through Tickets via this line for sale at all Railroad Coupon Ticket Offices in the United States and Canada.

T. J. POTTER, Vice Pres. and Gen. Manager, PERCEVAL LOWELL, Gen. Pass. Agt. Chicago.

JNO. Q. A. BEAN, Gen. Eastern Agt., 47 Broadway, New York, and 306 Washington St., Boston.

229-y

**FARM FOR SALE.**

50 ACRES IN FRUIT!

250 ACRES in the Township of Seneca; 200 acres cleared, balance well timbered. Immediate possession; crop in the ground in the bargain. TERMS—\$8,000; \$4,000 cash, balance at four per cent. For particulars address THOMAS STEPHENSON, Appleby, Ont. 229-b

**SMALL FRUITS**

Cornelia, Daniel Boone, Prince of Berries, Atlantic, Connecticut Queen, James Vick, and other new and old Strawberries.

Marlboro, Beebe's, Golden Prolific, Souhegan, Tyler, Hopkins, Shafers, Hansell and other leading Raspberries.

Early Cluster Blackberry, Fay's Prolific Currant.

Gooseberries, Grapes, and other Small Fruits. FIRST-CLASS PLANTS—LOW PRICES

Send for Illustrated Catalogue with Colored Plates free to any address.

W. W. HILLBORN, 225-11 ARKONA, ONT., CANADA.

**USEFUL BOOKS**

**FARM, GARDEN AND HOUSEHOLD**

- Allen's (R. L. & L. F.) New American Farm Book..... \$2 50
- American Dairying, by Prof. L. B. Arnold..... 1 50
- Allen's (L. F.) American Cattle..... 2 50
- Barn Plans and Outbuildings, 257 Illustrations and Designs..... 1 50
- Bees and Honey, or Management of an Apiary for Pleasure and Profit, by T. G. Newman; in cloth 75c, in paper covers..... 50
- Butter and Butter Making. Hazard..... 25
- Bonner's Method of Making Manures..... 25
- Brill's Farm Gardening and Seed Growing..... 1 00
- Clock's Diseases of Sheep..... 1 25
- Cook's Manual of the Apiary..... 1 25
- Dado's Modern Horse Doctor, illustrated..... 1 50
- Dog, The—Idstone..... 1 25
- Dog Training—S. T. Hammond..... 1 00
- Elliott's Lawn and Shade Trees..... 1 00
- Feeding Animals, by E. W. Stewart..... 2 00
- Fuller's Forest Tree Culturist..... 1 50
- Flax Culture. (Seven Prize Essays by Practical Growers)..... 30
- Fuller's Grape Culturist..... 1 50
- Fuller's Small Fruit Culturist..... 1 50
- Gregory on Squashes (paper)..... 30
- " Cabbages..... 30
- " Carrots, Mangolds, etc..... 25
- Onion Raising..... 1 00
- Quenon on Milch Cows..... 1 00
- Harlan's Farming with Green Manures (new)..... 1 00
- Harris on the Pig..... 1 50
- Henderson's Gardening for Pleasure..... 1 50
- Henderson's Gardening for Profit..... 1 50
- Henderson's Practical Floriculture..... 1 50
- Hop Culture. By nine experienced cultivators..... 30
- House Plans for Everybody. S. B. Reed..... 1 50
- Hunter and Trapper..... 75
- Johnson's How Crops Grow..... 2 00
- Johnson's How Crops Feed..... 2 00
- Keeping One Cow Profitably; illustrated with full page engravings of the most desirable Dairy Cows 1 00
- Law's Farmer's Veterinary Adviser: Canadian edition..... 2 00
- Our Farm of Four Acres: paper, 30c; cloth 60c; extra cloth..... 1 00
- Practical Farm Draining, &c (By J. J. W. Billingsley)..... 1 0
- Packard's Our Common Insects..... 1 50
- Quincy (Hon. Josiah) on Soiling Cattle..... 1 2
- Quinn's Pear Culture for Profit..... 1 05
- Randall's Sheep Husbandry..... 1 50
- Rarey's and Knowlson's Complete Horse Tamer..... 50
- Roe's Play and Profit in my Garden..... 1 50
- Stewart's Stable Book..... 1 50
- Stoddard's An Egg Farm: paper, 50c; cloth..... 70
- Talks on Manures: Joseph Harris..... 0
- Tanner's First Principles of Agriculture; an Elementary Work treating of the soil, composition of Crops, &c..... 50
- Ten Acres Enough..... 1 00
- Thomas' Fruit Culturist..... 3 00
- Warder's Hedges and Evergreens..... 1 50
- Wheeler's Homes for the People..... 2 00
- Willard's Practical Butter Book..... 1 50
- Williams' Window Gardening..... 1 50
- Waring's Dairying for Profit and Health..... 1 50
- Waring's Elements of Agriculture..... 1 00
- Wright's Practical Poultry Keeper..... 2 00

Any of the above useful books will be mailed from the FARMER'S ADVOCATE Office, on receipt of price named, and 5c. extra for postage on books valued \$1, and 10c. for books over \$1.



## STOCK NOTES.

(Continued from page 29.)

Mr. Arthur Johnston, Greenwood, Ont., has just imported eight Shorthorn bulls and twelve heifers. His herd now numbers 65 head, and are all either imported, or are from recently imported stock.

A prize bullock weighing 2,600 lbs. has been shipped from Galt, Ont., for the Birmingham show. The monster is a Shorthorn grade, and is to compete for the prize for the heaviest and best beast exhibited in this class. The enterprising exhibitor is Mr. George Roddick, of Liverpool, England.

Mr. Smith Evans, Gourack, Ont., recently sold to Alonzo Morris, M. D., New York, one Oxford Down ram lamb; one to Mr. Andrew Boyle, St. Catharines; one to Mr. Wm. Jackson, Peel; one to Mr. Laycocks, Puslinch, Ont., and one to Mr. T. S. Arineshaw, Guelph, Ont. He has also made several sales of Cotswold sheep and Berkshire pigs.

Cattle are suffering from ergotism in Indiana. This is the disease which caused the foot-and-mouth scare last spring. Ergots similar to those in wild rye have been found in the timothy, red top and blue grass. The disease first manifests itself by a swelling of the lower extremities of the legs, with lameness. In about a week the hoofs fall off, and then the legs begin to rot away. Ergot is only found in late cut hay.

The 87th Annual Fat Stock show of the Smithfield Club (Eng.) was one of the most successful ever held. The number of cattle entries was 261, against 214 in 1883, and there were 69 more sheep pens. In the system of judging there was a tendency to reform, ponderous, excessively fat cattle having depreciated in the estimation of the judges. "Quality" was their motto, and this they could not find in animals that were not a true reflex of the stall. It is possible that the high forcing bungle will rectify itself by degrees, without creating any sudden revolution, as has been anticipated by feeders.

The English Live Stock Journal says:—"We regret to have to state the unwelcome fact that foot-and-mouth disease is still amongst us. The Newstead Abbey outbreak, notwithstanding the slaughter of all the animals at the infected place, has extended to an adjoining farm. A more serious matter still is the report of an outbreak near Redditch, in Worcestershire, in a herd of eight cattle, three of which were reported to the Agricultural Department on Wednesday last as diseased. It is somewhat alarming to find diseases cropping up at such distances apart as Nottinghamshire and Worcestershire, when we had already congratulated ourselves on the absolute extinction of the contagious malady. It is to be hoped that no further cases will be heard of, although further reports should not surprise us after the experience of the past fortnight, from which it appears that foot-and-mouth disease, after all, is only scotched, not killed.

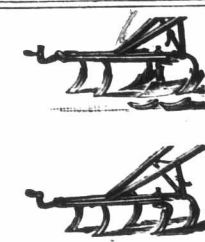
## SEEDS! RELIABLE SEEDS!

EVERYTHING FOR THE FARM AND GARDEN!

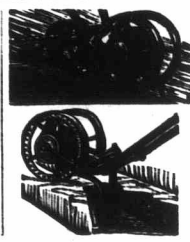
Our New Catalogue for 1885 mailed free to all who apply, containing 1,000 varieties of seeds. Send your name for a copy. The Canadian Mail brings our Seeds direct to your door post-paid.

Choice samples of Clover, Timothy, Flax Seed, Hungarian Grass, Peas, Beans, Corn, &c., for which the highest market price will be paid. Address

PEARCE, WELD &amp; CO., London, Ontario.



THE "PLANET JR" HOLLOW STEEL STANDARD HORSE HOE  
As lately introduced, has no equal in the world. Its excellent work in the field has distanced that of all competitors. It is, in some sections, doing in one passage, the work of four or five old-style implements, and in others superseding the cumbersome and expensive two-horse tools. The "PLANET JR" HAND SEED-DRILLS AND WHEEL HOES are the newest and best, lightest and strongest known. There are 7 distinct tools, each with special merits, no two alike or the same price; all practical and labor-saving. Let no Farmer or Gardener fail to study up during the winter evenings our 1885 CATALOGUE, which gives reduced prices, careful and exact engravings of these different machines, and such descriptions as will enable the reader to judge correctly of their merits. Thirty pages and forty engravings. Free to all. Correspondence solicited. S. L. Allen & Co., Mfrs., 127 & 129 Catharine St., Phila., Pa.



Many Agents are Making \$5 to \$10 per Day "HOW THE FARM PAYS."  
SELLING OUR NEW WORK ON FARMING.  
Single Copies mailed for \$2.50. Send for Table of Contents and Terms to Agents. PETER HENDERSON & CO., 35 & 37 Cortlandt Street, New York.



SEED Warranted to Grow.

or order refilled gratis. I have sold vegetable and flower seed to over a million farmers and gardeners in the United States, perhaps some are your neighbors, if so ask them whether they are reliable. Mr. Thomas Henshall of Troy, Kansas, writes me: "For 26 years I have dealt with you. I have lived in Iowa, Missouri, Colorado, and Kansas, and no matter what the soil or climate, the result was always the same, to wit:—religiously honest and good." This is the kind of seed I raise and sell. The Hubbard and Marblehead Squash, Marblehead Corn, Marblehead Cabbages, Ohio Potato, Eclipse Beet, are some of the vegetables of which I was the original introducer. A Fair with \$500 in premiums. See my catalogue, free to all.

JAMES J. H. GREGORY, (Seed Grower), Marblehead, Mass.

## SCALES! SCALES

MANUFACTURED BY

Burrow, Stewart & Milne,  
HAMILTON, ONTARIO,

Superior to any in the Market in Quality, Accurate rate Adjustment, and Beauty of Workmanship.

Hay Scales,  
Cattle Scales,  
Hopper Scales,  
Flour Mill Scales,  
Dairy Scales,  
Pork Scales,  
Grain Scales,  
Fish Scales,  
Steelyards,  
Union Scales,  
Butchers' Scales,  
and all kinds of Platform and Small Counter Scales.

Send for Catalogue.



## Trees! Trees!! Trees!!!

AN IMMENSE STOCK!

1,000,000 Russian Mulberry.  
50,000 Dwarf Juneberry.  
50,000 Russian Apricot

And a general variety of other nursery stock. A paper one year free to those who buy \$1 worth of trees. Send for price list. Address CARPENTER & GAGE, Bower, Jefferson Co., Nebraska, U. S. A.

## CORRESPONDENCE BUSINESS SCHOOL

451 MAIN ST., BUF-ALO, N. Y.  
Thorough and Practical Instruction given in Book-keeping, Business Forms, Penmanship, Arithmetic, Short-hand, Etc., at home, by mail. Distance no objection. Terms moderate. Send stamp for Pamphlet.

J. M'PHERSON ROSS, PORTRAIT PAINTER  
Equity Chambers, Toronto.

Satisfactory and beautiful portraits painted from small photographs. Write for sizes and prices of pictures. Reference FARMER'S ADVOCATE.

VIRGINIA FARMS & MILLS  
For Sale & Exchange.  
FREE Catalogue.  
R. B. CHAFFIN & CO., Richmond, Va.

## MATTHEWS' SEED DRILL.

Hand Cultivator,  
Wheel Hoe,  
SINGLE OR COMBINED.

Admitted by leading Seedsmen and Market Gardeners everywhere to be the most perfect and reliable implements in use for planting and cultivating garden crops. Beware of cheap imitations! Inquire for the genuine machines which are made only by

T. B. EVERETT &amp; CO., Boston, Mass.

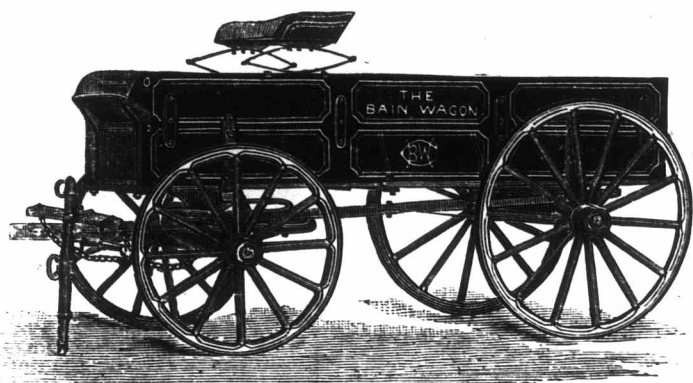
Send for circulars, giving latest prices and improvements.

RUGS Beautiful Colored Designs of Flowers, Birds, Animals, Etc., printed on Burlap (cloth) to be worked in rags, yarn, etc. Wholesale and retail. Large discount to dealers. Send to manufacturer for catalogue.

GEO. R. ANDREWS, Biddford, Me.



— THE —  
**BAIN WAGON**



**IS THE FARMER'S FAVORITE.**

Because it is the lightest running wagon made.  
 Because it is made in the most careful manner, from the best selected seasoned timber.  
 Because no inferior iron is used, and special attention is paid in ironing it off.  
 Because the wheels before the tire is put on are thoroughly saturated in boiling linseed oil, which is a sure preventive of loose tires.  
 Because the patent arms made from our own patterns are superior to those made by other makers.  
 Because all material used in painting it is of the finest quality, which gives it a superior finish.  
 Because every wagon is inspected in all its parts by one of the members of the company before being sent out.  
 Because it is just as represented every time.  
 Because "the Bain Wagon" is warranted to be well made and of good material, and any breakage occurring with fair usage within one year, by reason of defective material or workmanship, will be made good by any of their agents, upon the purchaser producing the broken or defective parts as evidence.

Agents wanted for every county. Send for descriptive circular and prices to the  
**BAIN WAGON COMPANY, WOODSTOCK, ONT.**  
 N. B.—We make a specialty in spring wagons. Prices given on application. 225-f

**HAMILTON  
AGRICULTURAL WORKS**

**The Pioneer Threshing Machine  
Works of Canada.**



Our Celebrated **GRAIN SAVER** is the Best and Most Perfect **THRESHER** and **SEPARATOR** made in the Dominion, being first over all others for

**Durability, Workmanship, Fast & Clean Work,  
Perfection of Parts, Ease of Management,  
Simplicity of Construction, Light-  
ness of Draft, Capacity for Work.**

We have Machines working in all parts of Canada, giving the very best satisfaction, when driven by either **Steam or Horse Power.**

**It is a General Favorite with the Farmers, who prefer it  
for Fast and Clean Work.**

**SPECIAL ( ) FOR STEAM POWER.**

Address us for Circular and Price List of **THRESHERS, CLOVER MILLS, HORSE POWERS, REAPERS AND MOWERS.** A personal inspection is solicited.

178-100m

**L. D. SAWYER & CO.,  
HAMILTON, ONT., CANADA.**

**HAVE YOU A FRIEND WHO WANTS TO GET INTO** a good paying business, or would you prefer to go in and win yourself. Agents and farmers will find this an easy way to make money. Write for particulars, enclosing 3c. stamp; don't delay. Address, **JAMES LAUT,** 281 Yonge Street, Toronto, Ont. 219-y

**NIAGARA GRAPE VINES**—No restrictions as to planting. First class two year vines \$2.00 each. Grape vines of all the leading kinds at bottom prices, small Fruit plants, old tried kinds and latest novelties. Russian Mulberry very cheap. Send a list of your wants for quotations, and a free price list. **E. D. SMITH** Winona, Ont. 226-4f

**BUY ONLY THE  
DOHERTY  
ORGAN**

220-y



**CHAMPION  
STUMP AND STONE  
EXTRACTOR.**

Warranted to do more work with the same labor than any other. For circular, price, etc., send to inventor and manufacturer

**S. S. KIMBALL,**  
577 Craig St., Montreal, P. Q.

222-4f

**AGENTS WANTED** for best Family Bible published, containing 2,500 engravings, &c.; also Prof. Fowler's Science of Life, Moody's Sermons, Story of the Bible, Our Department (new edition), Home Cook Book. No publishers offer such terms. Send for circulars. Address **J. S. BROWN & SONS,** Box 55, Paris, Ont. 225-y

**DERICK'S HAY PRESSES.**



the customer keeping the one that suits best.  
 Factory at 90 College Street, Montreal, P. Q.  
 Address for circular **P. K. DERICK & CO.,** Albany, N. Y.

**SWISS SOAP!**

**Guaranteed Best in the World!**  
**Ask Your Grocer For It!**  
 Manufactured only by the  
**HURON SOAP COMPANY, Goderich, Ont.**  
 220-y

**ONTARIO LADIES' COLLEGE**

**Whitby, Ont.,**  
 Affords an advanced collegiate course with the privilege of taking professional or University examinations; a full conservatory course in instrumental and vocal music under the direction of Mr. Edward Fisher, of Toronto; a fine arts course by two specialists from the Ontario Society of Artists; judicious training in home and social life by the lady principal, Miss Adams. Buildings and grounds unrivalled in the Dominion for elegance and completeness.  
 For calendar apply to  
**Rev. J. J. Hare, M.A., Principal.**  
 225-f

**The NOVELTY RUG MACHINE**

(PAT. MARCH 6th, 1882.)  
**Makes Rugs, Tidies, Hoods, Mittens, Door Mats, &c.,**  
 with ease and rapidity. Price only one dollar. Single machines, with full directions, sent by mail on receipt of price. Agents wanted. Apply for circulars to **R. W. BOSS,** P. O. Box 541. Sole Manufacturer, Guelph, Ont. Also dealer in Rug Patterns. 220-f

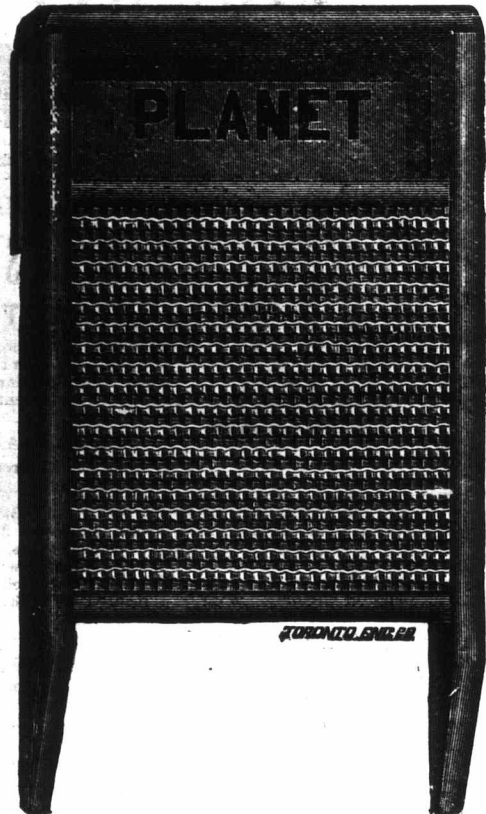


227 **FAY CURRANT HEAD-QUARTERS. GRAPES** BEST STOCK IN THE WORLD  
 SMALL FRUITS AND TREES. LOW TO DEALERS AND PLANTERS. EVERYTHING FIRST-CLASS. FREE CATALOGUES. GEO. S. JOSSELYN, FREDONIA, N. Y.

# WASHBOARDS

THE BEST IS THE CHEAPEST.

P  
L  
A  
N  
E  
T



—THE—  
**PLANET**

IS THE BEST.

ASK FOR IT AND TAKE NO OTHER!

SATISFACTION GUARANTEED

Saves Time, Labor and Soap

**E. B. EDDY,**  
HULL, P. Q.

Manufacturer of

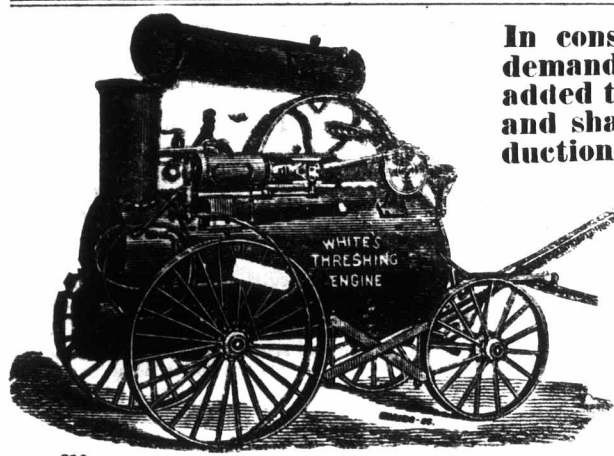
PAILS, TUBS, WASHBOARDS and MATCHES

All goods manufactured by me bear my name and are guaranteed to be the best in the market. [E. B. EDDY.]

WHOLESALE AGENTS:

**H. A. NELSON & SONS, TORONTO and MONTREAL.**

221-y



219-y

In consequence of the increased demand for my ENGINES, I have added to my shops and machinery, and shall largely increase the production of engines for 1884.

It is licensed by all Insurance Co.'s and has proved itself to be the most durable.

The Engine for the Northwest is made to burn either coal, wood or straw. Farmers, procure a Genuine White Threshing Engine at the Forest City Machine Works, London, Ont., Can.

**GEORGE WHITE, Proprietor and Manager**

H. B. WHITE, Supt. of Machinist Dept.  
A. W. WHITE, Supt. of Erecting Dept.  
HUB. J. WHITE, Secretary-Treasurer.  
F. J. WHITE, Assistant-Secretary.

The engines may be seen at Van Tassal's foot bridge warehouse, Belleville.

DR. W. E. WAUGH—Office, The late Dr. Anderson's, 218-1  
 Prident Street LONDON ONT 27-y

**FIRST-CLASS ENGRAVING**  
 DESIGNS SUPPLIED IN WOOD  
**TORONTO ENGRAVING CO.**  
 BRIDGEN & BEALE CORP.

## FARMS FOR SALE

In Western Ontario a number of choice Farms. Full description list sent on application. Correspondence invited, full information given, and on personal application at my office, plans of the townships shown, enabling strangers to see the position of properties and their proximity to towns, railway stations, &c. Farms with acreage to suit every one. Send to

**CHARLES E. BRYDGES,**  
Real Estate Agent.

Land office, 98 Dundas street west, London, opposite to the City Hotel, for list of farms for sale. 176-1

## Gurney & Ware's Standard Scales

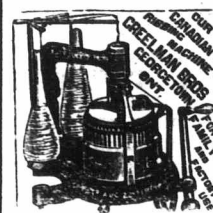


Send for catalogue to 201-1 eom

GURNEY & WARE, Hamilton, Ont.

Have taken first Prize at 22 Provincial Exhibitions; first Prize at Provincial Exhibition, London, 1881. Prizes taken in England and Provinces of Quebec and Nova Scotia. Hay, Cattle, Coal, Stock, Mill, Grain, Dairy, Railroad & Grocer Scales. None genuine without name on. All makes of scales promptly repaired.

## Our FAMILY KNITTING MACHINE



Under Shirts, Drawers, Scarfs, Children's Wear, Hoisery, Caps, Gloves, Mits, &c. All sizes can be made on

### Our Family Machine.

Our Book of Instructions will teach you all. It is so simple six undershirts can be made in one day, giving a profit of 75 cents each. Blind girls an knit and finish one dozen pairs of socks per day, and \$2, \$3 and \$4 per day can be easily made on our "Great Family Canadian Ribbing Machine."

Send for descriptive Catalogue and Testimonials from the blind.

**CREELMAN BROS.,**  
Georgetown, Ont.

219-eomy

## W. & F. P. CURRIE & CO.

100 Grey Nun St., Montreal,

MANUFACTURERS OF

## SOFA, CHAIR AND BED SPRINGS.

A LARGE STOCK ALWAYS ON HAND

IMPORTERS OF

Drain Pipes, Vent Linings, Fine Covers, Fire Bricks, Fire Clay, Portland Cement, Roman Cement, Water Lime, Plaster of Paris, Borax, Whiting, China, Clay, etc. 210-y

## Ontario Veterinary College

TEMPERANCE STREET, TORONTO.

The most successful Veterinary Institution in America. All experienced Teachers. Fees, Fifty Dollars per Session. Session 1882-3 begins Oct 25th. Apply to the Principal, PROF. SMITH, V. S., Edin., TORONTO, CANADA. 201-1

## Agricultural Savings & Loan Company

LONDON, ONTARIO.

President—WM. GLASS, Sheriff Co. Middlesex.  
 Vice-President—ADAM MURRAY, Co. Treasurer

Subscribed Capital, - \$600,000  
 Paid Up do. - - - - 575,000  
 Reserve Fund, - - - - 61,000  
 Total Assets, - - - - 1,339,000

The Company issues debentures for two or more years in sums of \$100 and upwards, bearing interest at highest current rates, payable half yearly by coupons.

Executors and Trustees are authorized by law to invest in debentures of this Company.

For information apply to **JOHN A. ROE, Manager.**



**J. N. ANDERSON, M. D.**  
 M. C. P. S. Ont.—Eye and Ear Surgeon, 34 James St. Hamilton, Ont. Dr. Anderson gives exclusive attention to the treatment of the various diseases of the EYE and EAR.

**CROSS EYES STRAIGHTENED.**