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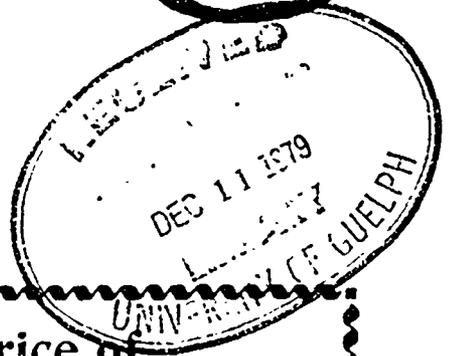
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Farming

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Farmers and Stockmen



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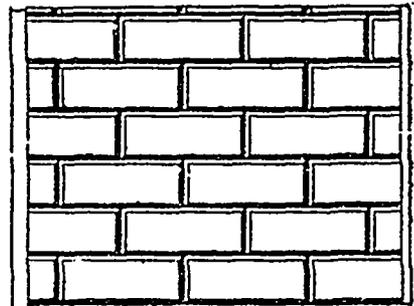
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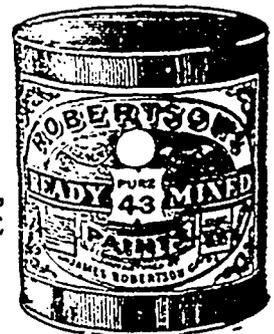
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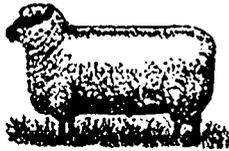
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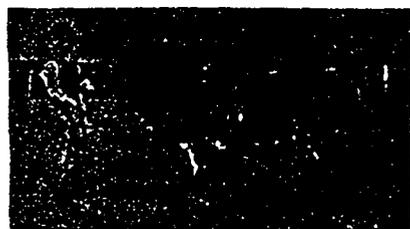
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FARMING

VOL. XVII.

OCTOBER 3rd, 1899.

No. 5

Balance of the Year Free to New Subscribers

Special attention is directed to our great premium offer on the inside of back cover in this week's issue. Any subscriber without very much effort can secure any of these splendid premiums at no cost to himself. They are for old and new subscribers. Talk to your friends and neighbors and remind them that the balance of 1899 is given free to all new yearly subscribers. A person subscribing now will get FARMING every week till January 1st, 1901, for \$1.00, or sixty-five issues in all, including all special numbers. Subscribers in arrears are urged to send in their subscriptions early. The new postal regulations requiring postage to be paid on all newspapers makes this request more urgent than ever before. Examine your address label on this week's issue. It will pay you to remit at once and get the full benefit of our premium offers.

That (Forced) Udder Affair

We had not intended at this juncture discussing again the now notorious case of tampering with the udders of Jersey cows shown at the Industrial Fair, but the following comment on the subject from our esteemed contemporary, *Hoard's Dairyman*, is too misleading to be allowed to pass by unnoticed:

"It has been an open secret for some days that the Miller & Sibley herd of Jerseys at the recent Toronto Fair and Exposition were 'jockeyed' by one of the employees that were caring for them. An erroneous scale of points and a fallacious method of judgment, whereby enlarged udders are given undue weight and prominence, was the temptation which led this super-serviceable employee to commit the offence which caused his employers such heavy financial loss and deep humiliation."

What strikes us as somewhat strange is that the gentleman who came to Toronto in charge of the Miller & Sibley herd and who acknowledged the wrong-doing, should be classed by the members of the firm and by the above journal as merely an employee. Since ever we heard of the Miller & Sibley Jerseys the name of that gentleman has been so closely associated with them that it is difficult to think of the business being carried on without him as it will now, no doubt, have to be. Practically speaking he has been the manager of this herd for years, and while the members of the firm may not have known anything about the Toronto trickery, yet it seems a small piece of business to shift the whole blame onto a mere employee. A mere employee in the proper sense of the term would hardly stoop to such low down business of his own accord.

But the statement to which we take strong exception is that contained in the last sentence of the paragraph quoted. We know for a fact that no scale of points for judging cattle in the show-ring has been authorized by the Industrial Fair Association. It was tried a few years ago in the case of the Jerseys, but was unsatisfactory. The judge is given "carte blanche," so to speak, and is allowed to use

whatever method he pleases in deciding which animal before him is worthy of a prize. The judge this year was an American, and, we understand, in no way antagonistic to the Miller & Sibley herd, and there was no need whatever, and not the least excuse, for resorting to the despicable practices which an American exchange aptly characterizes as a "scandal of the show-ring."

But, supposing the *Dairyman's* contention is correct and too much prominence is given to large udders in awarding prizes, it is in no way an excuse for such nefarious methods. Though the temptation be ever so great, it is no excuse for other than legitimate means to be used in fitting animals for the show-ring. As we pointed out in last week's issue, there is a danger of this fitting and fixing animals for the show-ring being carried a little too far, and it will not be an unmixed evil if this whole affair, though causing a large financial loss and a possible injury to the reputation of one or two breeders, results in moderating somewhat the too eager desire on the part of many exhibitors to "doctor" their animals before entering the show-ring.

Rumor of Another Big Wheat Corner

Another big wheat corner is talked of in New York of far greater dimensions than the one attempted by Joseph Leiter a year ago. It is stated by the *New York Herald* that this new corner is being quietly inaugurated by the Weares, heads of the Weare Commission Company of that city, backed by P. D. Armour's millions, thus making a combination many times stronger than that at the back of the famous wheat corner of 1898. It is also stated that this new "corner" will be founded on commercial common-sense, and may, therefore, be more successful than the former one.

If this rumor has any foundation this country may experience a condition of affairs similar to that of last year when wheat in a few weeks' time ran up over the dollar mark, only to fall flat again as soon as the "boom" had collapsed. But it is hardly likely that there is much foundation for the story in regard to this new "corner." It is not likely that the persons mentioned in connection with it would undertake such a task in a year of plenty. Besides, they would not be likely to let the affair leak out so early in the game, and when so much of this season's crop is still in the hands of the producer.

The *Montreal Trade Bulletin* in referring to the *New York Herald's* statement, says: "We are very much inclined to doubt the above despatch to the *N. Y. Herald*, for the reason that the Armours and the Weares would scarcely select a year in which the supply of wheat is plentiful, for if Joe Leiter made such a failure of his wheat corner on a short crop, how can it be expected that the Armours, etc., can run a successful corner in a year of plenty? Of course, we must admit that with sufficient capital, enough wheat can be bought up and withheld from the market to create an actual scarcity, but even then it would be doubtful in a year like the present if the manipulators of the corner could get rid of all their big holdings without sustaining an eventual loss. Besides, if Armour intended to corner the market, the chances are ten to one that his intentions would never leak out in its initial stage."

Soaking Corn for Cattle.

We recently received an inquiry from one of our Nebraska readers asking if there had ever been a test made of the results of soaking corn in cold water for feeding to cattle, particularly as to how long corn can soak without losing any of its fattening properties. The inquiry was submitted to Prof. W. A. Henry, the well-known authority upon feeds and feeding, who makes the following reply:

Relative to the merits of feeding soaked and dried corn, an experiment by Georgeson reported in bulletin 47 of the Kansas Experiment Station, is in point. One lot of five steers were fed dried shelled corn and another lot of the same number received shelled corn soaked until the grains had begun to soften. Shots were placed with the steers to work over the droppings and gain what they could from them. Georgeson summarizes the results in the following words:

a. "The five steers fed on soaked shelled corn gained a total of 1,632 lbs. in 150 days on 282 bushels of corn, while the five steers fed on dry corn gained a total of only 1,468 lbs. on 290 bushels of corn.

b. "The steers fed on soaked corn, owing to their better condition, brought a higher price in the market than the steers fed on dry corn. Balancing both cost of feed and market value of the two lots, there is a difference of \$25.50 in favor of soaking the corn.

c. "The hogs following the steers fed soaked corn made a total gain of 635 pounds, while the hogs following the dry corn steers made a total gain of 747 pounds. This makes a difference of 112 pounds gain in favor of the dry corn, and the market value showed a difference of \$5.58 in favor of the hogs following the dry corn steers.

d. "Based on the foregoing figures, it will pay to soak corn if it can be done for 6 cts., or less a bushel."

In experimenting with the amount of water required for soaking, Georgeson found that a bag containing 100 pounds of air-dried corn immersed in water for a moment, and then removed and allowed to drain thoroughly, weighed 106 1/4 pounds, that is, in this short time the corn had taken up over 6 pounds of water. When soaked 12 hours, 100 pounds would take up 21 pounds of water, and when soaked 24 hours it would take up 29 pounds. This shows that corn takes up most of the water it will absorb during the first 12 hours.

As to the query how long the corn can be soaked and not lose its fattening qualities, no direct statement can be made, for I know of no experiments or tests in this direction. Some of the substance of the corn grain passes out into the water, and so is lost in feeding. How much substance thus passes out, and what it consists of, has never been reported by our investigators, so far as the writer is aware.

W. A. HENRY.

Wisconsin Agricultural Experiment Station.

NOTE.—The above correspondence by Professor Henry in one of our American exchanges throws some light on a feeding problem which our cattle feeders would do well to note.—EDITOR.

Mr. Wm. Rennie

A Short Sketch of His Life and Work

This week an important change takes place in connection with the Agricultural Department of the Ontario Agricultural College. Mr. Wm. Rennie, who for the past six years has so ably filled the position of farm superintendent, tendered his resignation some weeks ago to take effect on October 1st. Prof. Day, agriculturist, a short sketch of whom appears in another column, will henceforth have charge of the farm department in conjunction with his other duties.

Mr. Rennie is one of the best known farmers in Ontario.

Before receiving the appointment of farm superintendent at the college in 1893, he had more than a provincial reputation as one of Canada's most successful farmers. He was born in a log cabin in Scarboro township, York county, in 1835, his parents having come to this country from near Edinburgh, Scotland, three years previous. Mr. Rennie received his early education in the Public Schools of those early days, when the rod played almost as important a part in a boy's bringing up as the book. In his twenty-fifth year he began farming on his own account in the township of Markham. In 1870 Mr. Rennie engaged in the implement and seed business in Toronto, which business is still being successfully conducted under his name by his three sons. Though launching out in an enterprise requiring so much of his time and attention, Mr. Rennie did not give up or in any way neglect his farming operations, which were continued with marked success until ten years ago. His farm was more than once selected as one of the prize farms of Ontario, which is a striking proof of his skill as a farmer.

Unlike many who undertake large things, Mr. Rennie has been eminently successful in every enterprise he has engaged in. While engaged in farming he made a number



of valuable importations of Clydesdale horses, and at the time of his retirement in 1889 twenty-one of these horses, including male and female, old and young, were sold at public auction, realizing the large sum of sixteen thousand dollars, or an average of nearly \$762 each.

Mr. Rennie's splendid work at the Ontario Agricultural College is too well known to need anything more than a passing notice just here. Under his management the college farm has been brought up to a high state of cultivation and productiveness, in which it has been clearly demonstrated that truly scientific farming is synonymous with successful farming. One of Mr. Rennie's specialties has been shallow cultivation, and in his crop rotations he has reverted back to nature as often as possible; that is, seeding to grass every few years.

In closing this brief sketch we cannot do better than quote Dr. Mills' testimony to Mr. Rennie's worth given at a gathering held recently at the College, when a farewell address was presented to him:

"As I have often stated before, I now repeat, that Mr. Wm. Rennie is one of the best tillers of the soil on the continent. I have met with a great many representative

agriculturists during the past twenty years, and I do not hesitate to make this statement upon any platform. Mr. Rennie has demonstrated since he came to this institution that his system of rotation and cultivation produces the best results. He has grown good crops every year and the fertility of the farm has gradually improved."

Professor G. E. Day

A Brief Sketch of the Professor of Agriculture at the Ontario Agricultural College and His Work

Among the younger men in Canada directly connected with the teaching and practice of higher agriculture, none stand higher in the estimation of the farmers of this country and of those with whom he is more intimately associated than Mr. G. E. Day, B.S.A., professor of agriculture at the Ontario Agricultural College. By close application to his work, and by bringing to bear upon it that practical ability and those common-sense methods so characteristic of all his undertakings, Professor Day has succeeded in rendering most valuable services, not only to the college, but to the farmers of this province. The results obtained from his careful and exhaustive experiments during the past two years, along the line of feeding hogs with a view to ascertaining something definite, as to the cause of soft bacon, etc., have been among the most valuable additions to the literature on the subject that this country has produced. One strong feature of Mr. Day's experimental work is that he is not too hasty in coming to conclusions, and weighs all sides of a question carefully before making any public deliverance on the subject.

Professor Day, who is a fine type of a young Canadian, was born on a Wellington county farm about



thirty-six years ago. Like all young men of his time he received his early education at the Public School. He remained on the farm till he was twenty-one years of age, when he left to take up a course of study at the Collegiate Institute, Guelph. After completing his training there he taught school for four years. But the monotony and drudgery of a school teacher's occupation were not at all con-

genial to one looking forward to larger and better things in life. Mr. Day's thoughts constantly reverted to the farm and its associations, and he resolved, a very wise thing for every young man to do, to properly fit himself for the farmer's calling; 1891 found him at the Ontario Agricultural College earnestly pursuing his studies in agriculture. His efforts in this line were so effective that he succeeded in taking the full three years' course, a very unusual thing, in two years, and was graduated from the college in 1893, with the degree of B.S.A., winning the gold medal of his year.

Though closely associated with farm life till a young man Professor Day was evidently designed for a wider field of usefulness than that which a farmer's vocation would give him. We find his services in demand for other purposes as soon as his degree has been received. During the summer of 1893 he had charge of one of the travelling dairies then giving object lessons in practical butter making at various points in the Province. In September of the same year he was appointed Lecturer on Agriculture at his Alma Mater. Since that time his advancement has been rapid. A couple of years ago the lectureship in Agriculture was raised to the standing of a professorship, and Mr. Day placed in charge. This fall, in addition to his professional duties, and, beginning on Oct. 1st, Professor Day assumes control of the farm department of the College, taking over the work that has been looked after during the past six years by Mr. Wm. Rennie.

From this necessarily brief sketch it will be seen that Professor Day is still a young man and just in his prime. What he has accomplished thus far may be taken as an indication of what he will do in this wider field of usefulness. Though much has been done already there are yet many problems of vital interest to the farmers of this country to be solved in connection with the bacon trade, the live stock trade, increasing and maintaining the fertility of our farms and making them more productive, etc., which afford splendid scope for Professor Day's energy and ability. His past efforts, however, justify us in coming to the conclusion that in the great work that opens up before him he will not be found wanting, and that in the additional duties that have come to him he will prove a worthy successor to even so capable a man as Mr. Rennie.

North-Western Ontario as Viewed from a Farmer's Standpoint

By John I. Hobson, Guelph, Ont.

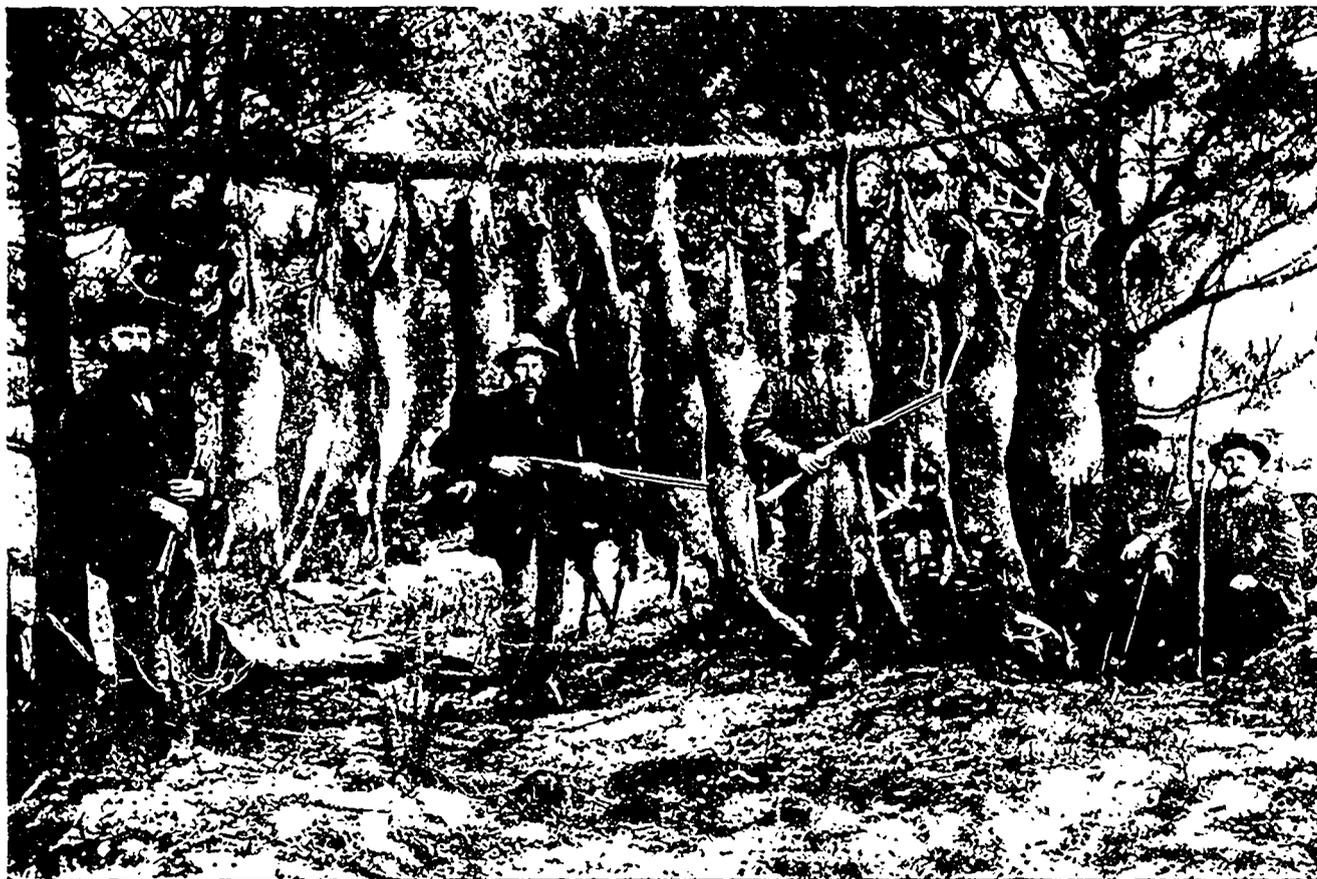
To most of the residents of older Ontario Algoma, as pictured in the mind, is a large stretch of country composed of rocks and hills and rivers and small lakes—a part of our country of little or no value excepting for its timber and its mineral deposits. Little has been said or thought about it as a field of settlement for the farmer of small or moderate means, or for the man who wished to become a farmer and who is looking about for a suitable location to settle. Having had, like most Eastern men, but scant knowledge of its agricultural resources, and being very desirous to know more about it, I thought it a very fortunate thing to receive an invitation to join the Algoma Legislative Tourist party on their trip through Western Algoma. There was much to be seen that was a revelation to us in many ways. And the best possible use was made of the exceptional opportunities given to us to study out that portion of our Dominion—its physical features, the forest, mineral and agricultural resources and its great possibilities.

In this article I purpose dealing with 'it, and what came under my observation, entirely from a farmer's standpoint. The arrangement of the tour was very complete in every

way. It was so planned that the best possible opportunity was given to us to study out from personal observation all that was best worth seeing, and it is my purpose in this necessarily short article to state the impressions left on my mind of North-Western Ontario as a field for settlement as compared with the other newer portions of the Dominion, and in doing so I will deal with the different sections as they come under my notice.

At the outset it may be as well to say that Northern Ontario can never be a great farming country. It is too rough and rugged, and many of the smaller sections of good land are so situated as to be valueless as farm lands. There are, however, many large stretches of fertile soil which may properly be spoken of as large areas, if measured in comparison with Great Britain or the smaller countries of Europe, yet are but of little extent when set beside the great area of grain and pasture land lying between Rat Portage and the foot hills of the Rocky Mountains. Nor can these Northern Ontario lands be recommended as a

market for farming lands. In this valley of the Kaministiquia, in which Fort William is situated, there are from 10,000 to 11,000 acres of deep alluvial soil, much of it equal in producing power to that of the best lands of Manitoba. On our way out to the above-mentioned farm we crossed a stretch of poor, light, sandy soil. After passing over this our first genuine surprise was when we came to the first of the farms in what is known as the Slate River valley. There are many farmers here working under favorable conditions. The land produces heavy crops. It is reasonably near one of the very best markets, passably good roads, and many of these farms have on them well-equipped homesteads. Talking to these men they were found to be well satisfied with their surroundings. The townships in which much of this good land is situated are Oliver, Paipoonee, and Blake, the last-named being in a measure inaccessible until two bridges are built and a few miles of colonization roads made. It is a pretty safe prediction to make, that in the near future the Ontario



The Result of a Six Day Hunting Expedition in New Ontario, November, 1898. (Kindly loaned by F. W. Hodson).

home for the well-to-do Ontario farmer, surrounded as he is with so much that goes to make life enjoyable. There is, however, much to be said in its favor as a field of settlement for the strong man with small, or, what is better, moderate means and a growing family for whom he is desirous of providing homes.

Our drive of fifteen miles back from Fort William was the first opportunity we had of seeing the rich farming lands of which we heard so much about at the twin towns (Port Arthur and Fort William). The objective point of the drive being Mr. Piper's 1,100 acre farm. For a few miles out the land seemed of great richness and admirably suited for mixed farming where stock raising was made a special feature—or as we were told, and as it also appeared to us, well adapted for market gardening purposes. Such being the case, we were somewhat surprised to find that although in close proximity to such an excellent market as Fort William, but very little of the land was occupied. On inquiry we found that it is nearly all held by speculators, and at such a price as practically places it out of the

Legislature will do something in the way of carrying out much called for and necessary work in the direction of opening up this township for settlement. It would occupy too much space to describe in any way minutely what came under our notice, but I must say a little about the Piper farm as illustrating what can be done on these rich farm lands when skill, good management, and the use of money are brought to bear in clearing and improving them. Here we found a farm of 1,100 acres of deep fertile soil, with 200 acres brought under cultivation. The cost of clearing being a small affair compared to that which had to be borne by the early settlers in Eastern or Southern Ontario.

On this farm is a large bank barn, 60 x 90, with stabling for over 100 cattle and horses, but even this was found to be insufficient to house the bulky crops, and at the time of our visit a large hay-barn was being built. The crops of clover grown on this farm are simply immense. It is quite within the mark to say that we saw clover growing there that would produce fully three tons to the acre, and surpassing anything that I, at least, have seen in any other part

of the country this season. Last year, from a twenty acre field of oats 2,000 bushels were sold and still some of the crop left in the granary. To some this may seem an exaggeration, but it is a fact given on the most reliable authority. A good deal could be said about the other successful farmers in the same neighborhood. Around here are some 200 families engaged in farming, and doing so under very favorable conditions. It may be said that, as far as we could judge, the class of men who have settled on these farms is of the right stamp, and that means a great deal in the early settlement of a country. The force of example is a powerful factor for good or ill.

Passing on to the much talked of

SETTLEMENT OF DRYDEN,

our train being late and it being near the gloaming, our visit was necessarily a short one. The writer having spent two days in the district in the summer of 1897 had an opportunity of noting the growth of the town and the improvements which have been carried out since that time. There are 33,000 acres of land now taken up. The class of men occupying these farms, are, speaking in a general way, men who would make good farmers anywhere. The ordinary farm crops grown in Ontario do well here. On the occasion of the former visit referred to, the crops on the Government farm—the soil of which is a fair average of the farming land around—were quite equal in quantity and quality to those to be seen on the average farms east of the great lakes, and this result had been brought about by no extra treatment, but simply by following the practice adopted by the other good farmers of the older parts of the country. This farm and what is being done upon it is an admirable object lesson for all around. The growth of the town and the development of important prospective industries which are likely to be gone on with in the near future will have much to do in giving a stimulus to agriculture in this new and important settlement.

ALONG RAINY RIVER.

From the hour we started we had been hearing much about the grand farming country that was to be seen when we reached the Rainy River. The people living in Algoma are optimists to a man—they are never tired of praising up their country, and especially of its great possibilities. And while they have much to say about all the other districts and are never tired of extolling them, yet they always ended by saying "Wait till you see the Rainy River country." The time came when we did see it, and we were not disappointed.

From the entrance into Rainy River from the Lake of the Woods to Fort Frances is 100 miles, the actual length of the river being eighty miles. The river is the dividing line between the Canadian territory and Minnesota. On the American side it is an unbroken forest, the land not yet having been put upon the market. On the Canadian side there have been settlers as far back as twenty-five years ago, but it is only within the last few years that there has been any considerable movement in the way of settlement. Last year 245 locations were taken up. The land on both sides of the river may be termed a timbered prairie, with deep alluvial soil apparently as rich in plant food as that of the best lands in the prairie province. The timber is composed mainly of elm, spruce, tamarac and poplar, all of which has more or less of a commercial value, depending partly upon the distance from the river front. If the prospective construction of the Ontario and Rainy River railway is carried out, and if it is built through this district, as it is expected it will be, it will give another outlet for the timber products, and will provide profitable employment for the settlers during the slack season of the year. This means a good deal to the farmer in the early years of his settlement.

What may be termed the belt of good agricultural land extends the whole length of the river and runs back, we are told, from ten to twenty-five miles. There are Indian reservations at different points along the river aggregating

over 60,000 acres. These reservations, it is said, include some of the choicest of the lands on the river front.

There is a pretty strong and growing feeling among the people in the district against the Indians holding so much of this good land, cultivating as they do only a small portion of it; their time being mainly occupied in hunting and fishing.

While the sections referred to, and no doubt many other large tracts which we did not see, and of which not very much will be known until they are tapped by the new railroads now under contract, will yet be the homes of thousands of prosperous farmers, yet it must not be understood that there are no drawbacks. But while this must be admitted, they are only such as are incidental to nearly all new forest countries.

The objectionable feature of the large Indian reservation has been spoken of. Then there is the objection in the minds of many to the comparative isolation for some time to come.

Further, there is the intolerable nuisance of one season of the year—lasting for about a month—of the fly and mosquito pest. But, to offset the above, there is strong, rich and productive land, easily brought under cultivation and easily tilled, splendid climate—perhaps a little too cold in the winter, but, on the whole, healthful and invigorating.

And lastly, and what is of great importance, there appears to be an absolute certainty that there is not only a first-class market for all that the farmer can produce at present, but that the demand for years to come is likely to go on increasing more rapidly than will the means of supplying it.

It must always be borne in mind that the men composing the great army of workers which will be required to develop the mineral lands are absolutely non-producers of food products, and that it is in close proximity to these farming lands of vast areas where are to be found earth's treasures in great abundance—gold, silver, copper, iron, nickel, the wealth of the forest and the waters are there.

Some Points of the Draught Horse

By "E. R.," in *Stockbreeders' Magazine*.

The general utility of a horse is not the only standard by which it should be judged. Authorities have marked out its various external features, and these points are considered. Some of the elements which go to constitute a good draught horse are indicated in the accompanying illustration, which has been lettered in order that the man who reads may see.

A.—Forehead: It is essential that this feature should be highly developed, and that it should gradually narrow downwards from a broad and well-formed base.

B.—Face: Much depends on the formation of this part; an arched or Roman cut, with a tendency to slope towards muzzle, is a desirable characteristic.

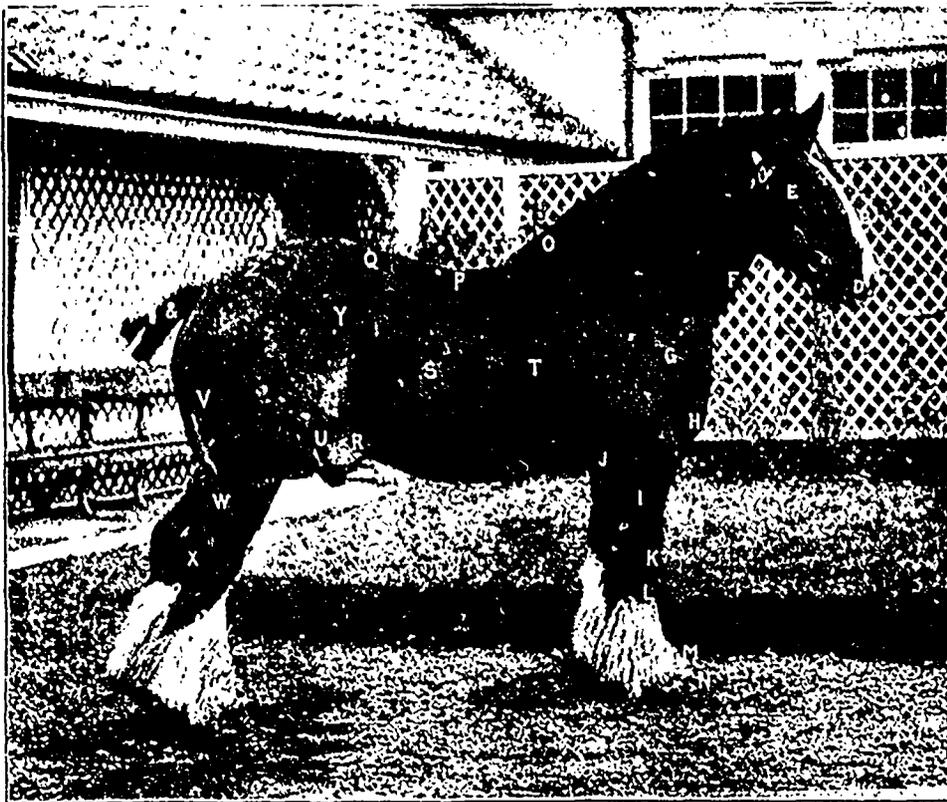
C.—Nostrils: As these organs play a most important part in the innate economy of the horse, they should be well formed. Largeness is a material desideratum, while the skin should be of fine texture, pliant and free from cuticular blemishes.

D.—Muzzle: The animal's sense of touch is mostly concentrated at this point. The feature, too, is indicative of the breeding.

E.—Eye: Brightness, prominence and good size are points necessary in this organ, the eyelid being thin.

F.—Neck: Length, depth, and a nice tapering towards the head should be evident. Form is obtained materially from graceful arching of the neck.

G.—Shoulders: Without well-formed shoulders, the draught horse is not of much worth. These important points, the seat of the posterior muscles, should slope towards the chine and possess both width and depth.



A Modern Shire Stallion.

H.—Breast: Muscularity and width should mark the formation of the bosom.

I.—Arm: Fine muscular power should be present at the juncture of this member with the shoulder-blade. It should stand prominently from the trunk, indicate power, and be broad and well formed.

J.—Elbow: This feature should not point inward; if anything, it should incline in the opposite direction.

K.—Knee: Flatness, good size, and a clean appearance are the necessary elements of this joint.

L.—Cannon-bone: Sheathed in strong muscles, this bone, from knee to pastern, should be straight and clean. Fine, silky hair on the tendons, from the knee to the fetlock, should be present. Coarse hair is a sign of weakness.

M.—Pasterns: These are the source of the elastic spring of the animal when in motion. They should be long and sloping. Undue labor manifests itself here, knuckling over, ring-bone, and abnormal ossification.

N.—Foot: This member should be proportionately large, with good width at heels. It should also be nicely dished, rising towards the front. Elasticity and toughness are necessary points in the horn. As ring-bone manifests itself by a bony protuberance on the coronet of the crust, care should always be exercised to see that this malformation is not present when an animal is bought.

O.—Withers: From a broad top these should slope to the back, arching to the crest.

P.—Back: Shortness is a necessary feature here, together with muscular indications.

Q.—Loin: This part of the animal must be fleshy, and of much strength and breadth.

R.—Flank: The underline should be straight all along. Depth is, too, a necessary feature.

S.—Ribs: Well-rounded ribs, springing clean from the backbone, to impart a cylindrical appearance, together with depth, should be the form of this part of the animal.

T.—Girth: Roundness and depth impart an appearance of stability and strength.

U.—Sheath: Forward placement and good development are desirable.

V.—Quarters: These should fall well down to the gaskins, and be deep, broad, and of great muscular development.

W.—Gaskins: Likewise muscular and short.

X.—Hocks: Here is one of the main points. A draught horse depends on the hock joint for his usefulness: it is a complicated and wonderful structure. While the animal here is equal to enormous strain, the hocks are easily liable to injury and the affections of disease. The joint should be clearly defined, and afford evidence of great strength.

Y.—Hips: The points here essential are squareness at the top, with fulness and width.

Z.—Croup: From the hips to the base of the tail there should be a slight fall.

& Tail: Quality is indicated by the setting of the tail, which should stand well from its juncture with the croup.

St. John Market Slip

We reproduce on another page a very fine view of the market slip at St. John, N.B. The electrotype showing this interesting maritime scene was kindly sent us by Mr. H. L. Spencer, of the *St. John Gazette*, some weeks ago for insertion in our Exhibition number, but as it did not arrive till after the forms were on the press we were not able to have it appear in that issue.

The market slip shown in the illustration is the headquarters of the coasting trade from Halifax to Boston. There are often from twenty to thirty vessels in the slip at a time. A great deal of the jobbing trade of the city is done along the wharves or in the immediate vicinity of this market slip.

But the spot has associations connected with it of greater interest to Canadians generally than being a place of great commercial activity. It was here that the Loyalists landed in the historic days of 1783. A few steps from the head of the slip, in what is known as the market square, the first child of a Loyalist was born, under canvas or birch bark, it is not definitely known which.

The Border Leicester

By Stockman

John Clay, Jr., formerly at Bow Park Farm in the days of the late George Brown, now of Chicago, writes of the Border Leicester and his home as follows:

Before me is Haymount, with its well-tilled fields and faultless fences, redolent with memories of a Thomson, a Wilson, and a Gibson, ground hallowed by fertile associations to every borderer, for it lies under the shadow of Smailholm Tower, and close by Tweed's wooded banks. Twenty-three years ago I attended a farm sale there. The kernel of the whole thing was in the flock of Border Leicesters that had been nursed by an enterprising tenant. He had passed over to the great majority some years before, but his handiwork still remained. Haymount lies close to Mertoun, the mother lode of Border Leicester blood. They had drawn heavily upon it, and there was a grand style and character about the Haymount flock.



Market Slip, St. John, N.B., where Loyalists landed in 1783.

They were spread all over the country at this sale, some of them going to Canada, where, for no fault of their own, they did little good. Near a quarter of a century rolls round, and here these pictures bring back to memory the old days, days when farming in Scotland had reached its zenith—another year and a blight came over it, and the British farmer has been laboring since under a more or less heavy load. In fair Tweedside, with a soil suited to mixed husbandry, and pre-eminently the land of the sheep with their golden hoofs, they have suffered less from depression than probably any other part of the British Isles.

In those Border lands, in Roxburghshire and Berwickshire on the Scotch, and Northumberland on the English side of the boundary line, they have studied out the question of the sheep most adaptable and suitable to the climate and soil. On the lower richer soils they have the Border Leicester, on the higher pasture lands the Cheviot, and then intermediate is the Leicester-Cheviot, a magnificent combination of constitution, carcase, and wool. There is a breadth, dash, and verve about these breeders that we could well copy here. The friendly emulation is most seductive to an outsider, and no student of fleecy flocks should miss a visit to that part of the world. The sheep are not suited to our country except in small districts, and under favorable conditions, but the methods of those Border flockmasters are beyond criticism. Long inheritance has gifted them with an innate knowledge which has almost become instinct, and it is with regret that we read year after year of certain flocks being dispersed. Fresh blood floats into other streams, and gives in most instances stamina and constitution, even if style and gaiety are left behind, although it is a fact, proved by long years of trial, that the Mertoun sheep, with no fresh infusion of blood, have held their own, and during my last visit, some eight years ago, were better than ever. Lord Polwarth has solved the problem of line-breeding better than the disciples of Bates and Booth with cattle, and has equalled, under almost exotic conditions, what the Cheviot breeders have done on a green hillside, where the survival of the fittest, added to a soil of wonderful soundness, has helped and fostered a prolific and hardy breed of sheep.

Shorthorns.—It is reported that Mr. Miller, Buenos Ayres, has sold the Royal Champion Bull, Bapton Emperor, for \$4,000. This bull was bred by J. D. Willis and sold to W. S. Marr, Upper Mill, from whom Mr. Miller bought him for \$2,500. He is now in Buenos Ayres.

Border Leicester Sales.—The Kelso auction sales of Border Leicesters have resulted in prices rather under those of last year. The Auchenbrain and Mertoun flocks did the best. Lord Polworth's Mertoun flock is the finest in the world. Last year the highest price ever reached was paid for a shearling ram from this flock, viz., \$1,375—by Mr. Leo Markle. This year the biggest price was \$350, and the average for the lot \$93. Auchenbrain is a farm of 200 acres, carrying a heavy stock of dairy cows and 45 ewes. Mr. Wallace, the farmer, sent up 15 shearling rams for this flock. One made \$550, another \$450, and the whole 15 made \$2,845, a very nice sum for such a farmer.

Milk Fever.

A correspondent of the *North British Agriculturist* has had good results from the use of a tablespoonful each of potassium bromide and chloral hydrate in two or three pounds of treacle after calving as a preventive. If the cow shows signs of the disease, repeat every two or three hours as the urgency of the case may require. Milk fever needs to be taken in time. In nineteen cases out of twenty the game is lost before the vet arrives.

Guard Our English.

Wm. Housman, writing in the *London Live Stock Journal*, calls attention to the growing use of the words "sired by." Of course it is understood that sired by is an utterly illiterate term. We first saw it in printed pedigrees from over the seas. This spurious coin, the new verb for the noun, appears to be one of the products of

ranche or colonial life. The old custom of saying or writing "got by" has become almost obsolete. Sire has become the common word now. It was first used in England by the late Col. Davy in the Devon Herd Book. It was adopted by Mr. Thornton in his catalogues and in the Jersey Herd Book from the first volume. It is all right. There is really no use for the verb. The substantive expresses the same thing more briefly and much more elegantly. We may soon have "sistered," "uncled" and "aunted," and the "sired" had better be dropped in time because it is growing with the infectious nature of a popular habit.

The Principle of Cream Separation

A Comparison of the Different Methods of Creaming Milk

Written for "Farming" by J. W. Mitchell, Dairy Superintendent Northwest Territories.

PRINCIPLE OF SEPARATION.

There are two methods of creaming milk, the *natural* or *gravity* method, or what is commonly spoken of as setting the milk; and the *mechanical* or *separator* method, in which the cream separator is employed. In both methods the principle of separation is the same, depending upon a well established law of nature, which may be stated as follows:

When a heavier and a lighter substance are mixed together and subjected to any outside force, the heavier substance moves as far in the direction in which the force is acting as the vessel confining it will permit of, compelling the lighter substance to move in the opposite direction; provided, of course, that the substances are of such a nature that they can exchange places, such as two fluids, or a solid and a fluid.

Now, milk may be looked upon as a mixture of a heavier and a lighter substance, the heavier being the *skim-milk* or *serum*, and the lighter being the *butter-fat*. A vessel which would hold 1,000 pounds of water would hold 1,033 to 1,036 of skim-milk, and about 930 of butter-fat. When we set milk, whether in a shallow or a deep vessel, it is subjected to the force of gravity which acts directly downwards; and as a consequence the heavier skim-milk or serum moves towards the bottom of the vessel, compelling the butter-fat to move upwards, or opposite to the direction in which the force is acting. Again, when milk flows into a separator bowl which is running at a high rate of speed—6,000 to 10,000 revolutions per minute—it is compelled to take the motion of the bowl, which subjects it to a great centrifugal force; and as a consequence the serum moves towards the outside of the bowl, or in the direction in which the force is acting, and compels the butter-fat to move towards the centre of the bowl. Thus we see that whether we set the milk in a vessel, or put it through a separator, the principle of separation is the same, namely, the heavier skim-milk moves in the direction in which the force is acting, and compels the lighter butter-fat to move in the opposite direction.

Now, if the fat globules in milk were large, the force of gravity would be quite sufficient to cause a ready and complete separation; but it happens that they are extremely small, it taking about 6,000 placed side by side, in line, to extend over an inch in length; and as a result of their minuteness, and of the serum being somewhat viscous in nature, they are offered considerable resistance in rising. Hence, as the centrifugal force that milk is subjected to in a separator bowl is several thousand times as great as the force that it is subjected to under the gravity method a much more complete separation is obtained from the use of a separator, and this within a very short space of time.

The writer having some time at his disposal after the close of the Guelph Dairy School, in the spring of 1898, devoted it to experimenting with the setting of milk in deep cans and in shallow pans.

DEEP SETTING SYSTEM.

In all cases the deep cans were set in water, sometimes with and sometimes without ice. When there was sufficient ice in the water surrounding the cans to hold its temperature down in the neighborhood of 40 degrees F. comparatively satisfactory results were obtained, the average test of the skim-milk being .29, or practically .3 (three-tenths) of one per cent. But where the cans were set in water at 50 to 55 degrees, without ice—a practice which is altogether too common—the skim milk tested as high as one per cent. and over; and since average whole milk contains only about 3.6 per cent. fat there was a loss of over a quarter of the butter in the skim-milk. Even when the milk was set in a tank of water at 45 degrees, without ice, the skim-milk, in several instances, tested as high as .8 (eight-tenths) to .9 (nine-tenths) of one per cent. fat, as the warm milk readily raised the temperature of the surrounding water.

Setting the milk for twelve, twenty-four, and thirty-six hours was also tried. More exhaustive creaming, and a richer cream was obtained from allowing the milk to set twenty-four hours than from allowing it to set only twelve hours; but no advantage was gained from allowing it to stand thirty-six hours before skimming.

Skimming the cream off with a conical dipper, and drawing the skim-milk off through a tap at the bottom of the can (the Cooley system) were also compared. The skim-milk tested practically the same under the two systems; but the Cooley system was found to be the speedier, and to give a slightly richer cream—less skim-milk going with the cream.

SHALLOW-PAN SYSTEM.

Under the shallow-pan system about $2\frac{1}{2}$ inches, in depth, of milk was put into each pan, and the pans were set in a room at a temperature of about 50 degrees. The average test of the skim-milk was .38 of one per cent. fat, when the milk was allowed to set 36 hours before skimming. Much better results were obtained, under this system, from setting the milk for 36 hours than for 24 hours. Of course, had the temperature of the room been much above 60 degrees the milk would have soured within 24 hours, and although the separation would have been very imperfect no particular advantage would have been gained from allowing it to set longer.

The results of experiments in the setting of milk in deep pans and shallow pans, as given in the foregoing, correspond quite closely with those carried on at the same institution, on a much larger scale, by Mr. Rogers, the butter-maker in charge. These experiments extended over a period of five years, and the results are shown in the following table:

No. of Tests.	Pounds of Milk.	Method of Creaming.	Per cent. Fat in Skim-milk.
150	7650	Deep setting	.31
150	7660	Shallow pans	.38
150	7660	Separator	.1

But the foregoing results were obtained under the most favorable conditions of setting milk, and are much better than those obtained in the average farm dairy. The same experimentalist, Mr. Rogers, went to the trouble of collecting and testing a large number of samples of skim-milk from several private dairies in the vicinity of Guelph, obtaining the following results:

Method of Creaming.	Av. Test of Skim-milk.	Remarks
Deep setting	.86	No ice used.
Shallow pan	.95	

This means a loss in the skim-milk of fully a quarter of the butter-fat.

CONCLUSIONS.

In order to obtain the best results, under the deep-setting system, the milk should be set as soon as possible after milking, and before it has cooled to any great extent, and should be surrounded by water whose temperature is

held down to about 40 degrees by the liberal use of ice. This insures a rapidly falling temperature in the milk, which is very favorable to separation in different ways: The serum portion of the milk cools more rapidly than the fat, thus creating a greater difference in their relative weights and causing them to separate more readily; and again the rapid cooling of the milk causes up and down currents, the colder milk, which is heavier, going to the bottom, while the warmer milk, which is lighter, flows to the top and carries the light fat globules with it. Also, the rapid cooling of the milk tends to prevent the formation of a network of fibrin, which, when it forms, holds a portion of the fat globules in its meshes and prevents them from rising.

A tank, with an overflow pipe for the water about two inches lower than the tops of the cans, should be used for setting the cans in. The water in the tank should always be as deep as the milk in the cans.

All who adopt this system should lay in a store of ice, which should be used liberally, a fresh supply being put into the tank before the old has all melted.

Where a conical dipper is used for skimming it should be about six inches deep and five to six inches across the top, and should have no wire or flange around the top. It should be dipped into cold water, or preferably skim-milk, before using, to prevent the cream from sticking to it. Where the skim-milk is drawn off the bottom of the can should slope downwards to the tap, so that any sediment that there may be will be carried off with the skim-milk instead of remaining to mix with the cream.

The best length of time to allow milk to set before skimming, under the deep-setting system, is 24 hours.

Where the shallow-pan system is adopted the milk should not be more than $2\frac{1}{2}$ inches deep, the temperature of the room should be below 60 degrees, and the milk should be allowed to set 36 hours before skimming. The best way, in so far as we know, to skim the cream off shallow pans is as follows:

First run a thin bladed knife, kept for the purpose, around the pan to free the cream from it; then, holding the cream back with the knife, tilt the pan and allow enough skim-milk to flow over to wet the edge and prevent the cream from sticking to it, after which the cream may be floated off, using the side of the knife to assist in so doing. A ladle-shaped, perforated skimmer should never be used, as it allows all the thin portion of the cream to flow through the small holes in it and mix with the skim-milk. Such a skimmer is a great source of waste.

Where the conditions for deep-setting are all favorable it is a better system than the shallow-pan system, giving slightly more exhaustive creaming, and keeping the cream sweeter; but where the conditions are unfavorable for deep-setting and fairly favorable for the shallow-pan system, it is frequently better to adopt the latter, provided the cream is churned at home. The shallow-pan system is not suitable where the cream is sent to a creamery, as the milk remains at a much higher temperature, during the time it is set, than milk in deep cans; and the cream is usually somewhat sour when skimmed off the pans, becoming over-ripe before it arrives at the creamery. If cream is to be sent to a creamery, either the deep-setting system or the use of a separator should be adopted.

When a separator is used the cream should be cooled immediately after separating, and before it is mixed with the cold cream.

A word by way of comparison of the different methods of creaming milk. With the adoption of the most favorable conditions under the gravity method, the skim-milk will contain about .3 (three-tenths) of one per cent. of fat, and usually the loss is much greater; while with the separator the loss need not exceed half a tenth to a tenth of one per cent. Since average whole milk tests about 3.6 per cent. a test of .3 (three-tenths) for the skim-milk means a loss of about one pound of butter in every twelve; while a test of .1 (one-tenth) of one per cent. for the skim-milk means a loss of only one pound in thirty-six; that is to say, a comparison of the best work done under the gravity

method with just average separator work shows three times as great a loss under the gravity as under the separator method. I feel perfectly safe in saying that results of average work under the gravity method will show a loss of at least one pound of butter-fat out of every nine that the milk contains, while there will not be a loss of one in forty where a separator is properly used.

I do not wish to be understood as urging everyone who keeps a few cows to buy a separator. Possibly a person keeping just three or four cows will not find it advisable to do so; this is a matter he must decide for himself after taking into consideration the losses he is sustaining under present methods. There is no doubt in my mind, however, but that where one keeps eight to ten milch cows, and frequently a much smaller number, a separator will pay for itself before any great lapse of time. Furthermore, the fresh milk from a separator has a greater feeding value.

Before closing I would strongly urge upon all who have to do with the creaming of milk to have a Babcock test of the skim-milk made frequently, to determine the amount of butter-fat it contains. It would be an eye-opener to many who, either through carelessness or faulty methods, are sustaining large and unsuspected losses. The Babcock test, freely and intelligently used, is one of the best educators a dairyman can employ.

[NOTE.—This article was sent us for publication several weeks ago, set up ready for the press, but owing to a rush of other matter connected with the fall fairs, it has been crowded out.—EDITOR.]

Some English Remedies for Gapes in Chickens

A popular remedy for gapes in many parts of England, and one that has proved very successful, is soaking the grain in urine instead of water. The ammonia escaping from the urine proves fatal to the red worms or their embryos.

A very simple method is inserting a feather down the throat of the bird and turning it round and round, thus detaching the worms. This is doubted by many to be efficacious, as they contend it is liable to push the worms further down the throat of the bird instead of drawing them up. It has, however, been tried by many who assert that it has cured their birds. The feather is sometimes dipped in paraffin oil or turpentine, but great care has to be exercised when using any of these remedies, or more harm than good may be done to the bird.

We have heard of one method, though we have never tried it, which, however, seems impossible, and that is of bending a piece of wire at the end in the form of a hook, and inserting this down the bird's throat, and by quickly extracting it one is able to draw up the worms. It seems as though the throat of the bird must be injured by this process, as the wire would go down easily enough, but would not come up so easily, as the part of the wire bent over must lacerate the throat of the bird. It might perhaps be possible to dislodge the worms in the pharynx, but we deny the possibility of their reaching the worms situated at the bottom of the trachea, where they are chiefly congregated.

By the addition of a little salicylate of soda in the drinking water, the ova and embryos are destroyed. The proportion is 3 drams of salicylate of soda to every quart of water.

Garlic has been used for many years as a cure for the gapes, and has almost always proved a great success. It can be chopped up in the food or given in pills. There is no difficulty in accounting for the efficacy of garlic. It has always been known as an excellent vermifuge, and it is at the same time volatile, and so escapes by respiration, thus reaching the trachea, where the worms are situated.

Tobacco smoke has been used to great advantage. Place the bird in a box, and fill it with tobacco smoke until it is dense, when the bird should at once be taken out and placed in the fresh air.

There are many powders and other preparations now upon the market for the cure of gapes. A well-known one is "Kalyde," which has been found very successful in many cases. Messrs. Gilbertson & Page's "Camlin" is also very efficacious.

When a bird is seen with the gapes it must at once be isolated. This is most important, as all parasitic diseases are infectious, and if not separated all the birds with which the affected one comes into contact will be liable to catch the disease. After an outbreak all the houses and runs should be thoroughly disinfected, and the houses rewhite-washed. An exceedingly important point is that the head and neck of any bird that may die with the gapes should be immediately burnt, by doing this the worms and their ova are effectually destroyed.

The Value of Clover Crops

One means of increasing the amount of nitrogen in the soil, and of making some of the nitrogen already there available for grain crops, is by the growing of clover and similar plants that have the power of taking some nitrogen from the air and organizing it into such forms that a succeeding crop may use it. A crop of clover contains a large quantity of nitrogen in itself, nearly twice as much as an equal weight of hay without clover. When a crop of clover is removed from the land it takes off about 50 pounds of nitrogen per ton of dry clover. At the same time it leaves the soil richer in available nitrogen than does a grain crop which has taken off the land less than one-quarter as much nitrogen. It is further found that the above-ground and under-ground stubble and root parts of a clover crop, leave in the land a greater quantity of vegetable residue than any serial crop; and the whole quantity so left is richer in nitrogen. Most valuable information on this point is furnished by the experiments at Rothamsted, England, which were reported on for a period of 32 years (1852 to 1883). I submit one striking instance of the effect upon a crop of barley of the growing of clover on the same land the preceding year.

A field had grown one crop of wheat, one of oats, and three of barley in succession, with artificial and nitrogenous manures but without any farmyard or other organic manure. The following year (1872) barley was again sown; that was the fourth crop of barley in succession. On one-half the field the barley was sown alone; on the other half it was sown with clover. The next year (1873) barley was again sown on the one-half; but the clover only was grown on the other half. The following table shows the quantity of nitrogen per acre removed in the crops:

	Nitrogen per acre; pounds.
1873, Barley	37.3
Clover	161.3

In the succeeding year (1874) barley was grown over both portions of the field. It is to be observed that the clover crop of 1873 had removed four times more nitrogen per acre than the barley crop of that year; but the barley crop of 1874, yielded 77 per cent. more on the portion of the field where it followed clover than it did on the portion where it followed barley. This agrees with what is well known in agriculture that the growth of clover increases the produce of a succeeding cereal crop as much as if a liberal dressing of manure had been applied.—*Professor Robertson before Agricultural Committee House of Commons.*

"I understand, Pat, that you have a big family dependent upon you?" "Yis, sor—tin childers, seven pigs, and the old 'ooman." That reminds me of the Dutchman when asked who that lady was with him out riding, said, "That lady was no lady, that was my wife."

"My horses don't thrive," said a farmer who had tried all the condition powders and everything he could think of. A stable boy saw the situation at once and said, "Did you ever try oats and corn."

All nature is but art, unknown to thee ;
 All chance, direction, which thou can'st not see ;
 All discord, harmony, not understood ;
 All partial evil, Universal Good ;
 And spite of pride, in erring reason's spite,
 One truth is clear, whatever is, is right.

CORRESPONDENCE

Liming Soils

To the Editor of FARMING :

In your issue of 22nd August a letter from W. A. Freeman appears, affirming that lime acts as a whip to a horse or spirit to a weak man, and suggesting that I take a five acre field and apply lime to one-half and good manure to the other half, and that I will find at the end of five or ten years that the limed part will become worthless, and the manured part will increase to the maximum of productiveness.

I use all the manure I can find, and in addition I apply lime, and in all cases my crops are increasing immensely. I have never found that the land becomes less productive. I invite attention to the farm belonging to W. M. Moore in the neighborhood of Milton, who has never sown fall wheat without applying lime for over 30 years, and his land has never yielded less than 50 bushels to an acre. I know of farms in Scotland where lime has been applied for 50 years, and the land has continued all that time to show no decline in productiveness. Mr. Freeman's claim, therefore, is without foundation where the use of manures are used in the ordinary way. But I will admit that I have never known lime to be used for five or ten years without manure being used as well.

I can see no reason why farmers should continue in ignorance of the effect of lime on their lands, as a dollar's worth of lime applied to a quarter or a third of an acre will satisfy them as to the effect it has on their own farms.

I will add that your note following Mr. Freeman's letter is to the point, and worthy of any farmer's consideration.

G.F.

Milton, Sept. 26th, 1899.

The Cause of Waning Fertility

To the Editor of FARMING :

There is no question in practical farming so little understood, and we may say, so much misunderstood, as manuring. Want of comprehension in this respect is by no means confined to the uneducated, for the educated, and even college graduates, share in the general ignorance. The term is not used in an offensive sense, but merely as signifying want of special knowledge.

It has been repeatedly pointed out that the three great essentials to the growth and maintenance of all kinds of plants and animals are nitrogen, phosphates and potash. In broad farming the loss of potash from the land is comparatively slight in comparison with the others, because there is such an abundant return of it in the waste of straw and the manure of domestic animals. Besides, we are not without considerable evidence that soda at least can supply the place of potash to a considerable extent. The nitrogen is used up pretty rapidly, and while the return of it in farm-yard manure is considerable, yet it should be well understood that enough of such manure cannot be produced to keep up anything like an adequate supply to meet the wants of vegetation. But by growing abundant clover properly, and utilizing it as manure, the necessary supply of nitrogen can be maintained.

The great drain which the land sustains in phosphates is the fundamental cause of waning fertility. Phosphate enters

into the ripened grains and in all ripened fruits, and is carried off the land. It makes bone and other parts of all animals, and they do not waste it in health, so that the manures have comparatively little of it. Throughout the whole operation of farming the lands are surely depleted of phosphate, until the "phosphatic heart" is destroyed and the quality of both the produce and the stock degenerates. That is the condition of all lands that have been under broad farming for a number of years without phosphating, and it is a hopeless task to economically restore such lands without the aid of applied phosphate. To rest the land for years by growing rough crops of clover, etc., on it and continually ploughing them under, or letting them die and decay on the soil, without taking anything from the soil, would in time partially restore fertility by bringing about gradual organization of the phosphates as well as the other minerals of the soil, but that is too big an investment for any farmer to undertake.

To restore these lands repeated dressings of phosphate are necessary. It is unreasonable to suppose that it can always be done in a magical sort of way by a single application, as such may but partially correct the starved condition. (An animal under similar conditions requires continuous good feeding before it acquires normal condition.) Great benefit is often noticed immediately and for years from one application, but when we once begin on that line we should continue repeating the dose until a maximum yield is obtained. This may sound expensive, but it is the correct and only way to restore lands so as to produce the most and best crops and the best animals. It is money spent on capital account, and since we have used up our capital by taking the bone out of our land, we must first make good the impaired capital before we can look for profits. We have burned our house, and we must build another. We have robbed our lands, broached our capital, as it were, and spent it in houses, implements, living expenses, and perhaps invested it otherwise, and we unreasonably lay the blame on Providence.

When are our educated farmers going to see the absurdity of the process of demoralization of fertility, which is eating the heart out of agriculture and renders farming for profit so difficult that the young men give it up as hopeless? Here and there we find that by dint of prodigious labor, fortuitous circumstances, or the sapping of a whole neighborhood of its fertility by drawing on its resources, a few farmers succeed pretty well, but a careful analysis of their methods easily convinces us that it is a plan for the few and not for the many. I am not discussing a theory, it is a hard fact, and has been abundantly proven as such in restoring the old soils of Great Britain. Phosphates and clover generously supplied to the land will restore the lands, and while it may be done with perhaps more immediate profit by an accompanying moderate application of a little extra nitrate of soda, nitrate of potash, or phosphate of potash, yet the foundation of the economical restoration of soil fertility must be recognized as phosphates and clover. Until this is generally recognized, and the remedy properly applied, no general recovery of our lands will take place, and even a waning fertility will continue to occur. A broader plan of land restoration must be followed.

T. C. WALLACE.

Fernside, September 26th, 1899.

In Prince Edward Island Crops and Markets—The New Dominion Live Stock Commissioner

To the Editor of FARMING :

The weather here now in Prince Edward Island is beautiful and fine, and the harvest is being saved in fine condition. The quality of the grain will this year be good, as little rain fell while the corn was in stock, so that it cured in the best condition. Rust, however, played sad havoc with a good deal of oats and wheat, and reduces the

aggregate by about one-fourth. The potato crop in P.E. Island is the best for many years. No blight, rot or disease of any kind, and at this date, September 20th, they are, except the early varieties, quite green. I estimate the total crop on the island this season at 6,000,000 bushels. The price is quite low, only 16c. is now being offered, and the chances for good prices this fall are not good. Cheese is king in P. E. Island this year, and will total very nearly double what it did last year, and that means a good deal. At the last board meeting in Charlottetown sellers would accept nothing less than 11 $\frac{3}{8}$ c. and no sales were made; the week before 11 $\frac{3}{8}$ c. was freely received. That is the highest price ever received here since the dairy industry first started in 1892. But "wait till you see us next year" in the cheese business.

It is gratifying to learn that so capable a man as Mr. F. W. Hodson has been appointed head of the new department of live stock in the Dominion Agricultural Department. Mr. Hodson will bring his many years of experience in Ontario. Now that his position has been widened, I would caution Mr. Hodson, in his new position, to recognize the fact that our wide Dominion comprises more live stock than is found in Ontario. Since Mr. Hodson has been secretary of the Dominion Cattle, Swine and Sheep Breeders' Associations his labors have been entirely in the interests of the Ontario stock breeders, while breeders in the Maritime Provinces and other parts of Canada have never been recognized by this F. W. Hodson. Now that he will occupy a much more prominent position in the Dominion Department of Agriculture, it is to be hoped that he will, at least, stifle his prejudices in favor of the Ontario breeders, and work in the interests of the breeders of every province of Canada alike. Nevertheless, I cannot believe, from his close association with breeders of his native province, that he can do this. Let him take an example from his brother commissioner, Prof. Robertson's, cosmopolitanism in this regard, and let these few words of caution be taken kindly, for they are in his own interest as well as the breeders outside of Ontario.

Kings Co., P.E.I.

J. A. MACDONALD.

[NOTE.—While the live stock organizations of which Mr. Hodson has been the efficient secretary so many years were called Dominion associations they were practically Ontario organizations, and received liberal grants from the Ontario Government to carry on their work. There are no grounds whatever for believing, as our correspondent intimates, that Mr. Hodson, though he has been closely connected with Ontario affairs for sometime, will be at all partial to this province and to Ontario breeders, when he assumes his new duties at Ottawa. In fact during his work here he has interested himself in many ways for the benefit of breeders in the other provinces. His efforts in behalf of inter-provincial trade and the shipping of pure bred stock at greatly reduced rates have been just as much in the interests of outside breeders as of those in Ontario.—EDITOR.]

Prizes for Dairy Exhibits

Prof. Dean Suggests a New Basis of Awarding Them

To the Editor of FARMING:

As this is the time of year when persons are especially interested in prize lists at the fairs, would you allow me to suggest a change in the method of awarding prizes, especially among exhibitors of dairy products? Where prizes are given for 1st, 2nd, 3rd and 4th it means that many exhibitors receive no share of the prize money for their trouble and expense, yet in many cases the judges are puzzled to know which samples shall be awarded the prize. Two samples may be so near alike that it is a "toss up" which shall be placed first. As both cannot receive a prize

the judge or judges are obliged to strain a point in order to arrive at a decision. It would be very much less trouble to do the judging if it made no difference in case two lots were scored alike, as they should be in many cases.

The plan, or at least a form of it, which I would suggest, has been adopted at several American exhibitions and has given good satisfaction so far as I know. We will suppose a case. \$100 is to be given for prizes in cheese or butter in any section. Set aside say \$10 for the exhibit which scores the highest, there is left \$90 to be divided *pro rata* among all exhibitors whose cheese or butter scores over, say 90 points. Suppose, further, that there are scores of 93, 94, 95, 95, 96 and 97. The total points scored above 90 are 30. $90 \div 30 = 3 = \$3$ value of 1 point. The person whose product scored 93 would receive $3 \times 3 = \$9$. 94 score = $4 \times 3 = \$12$. The two 95 point exhibits would receive \$15 each. The 96 point exhibit would receive \$18. The 97 point exhibit would receive $\$21 + \$10 = \$31$ altogether. I feel satisfied that this method would induce a larger number to exhibit and would do justice to many exhibitors who fail by possibly half a point. It would also do away with the necessity of asking for three cheeses or six packages of butter from one person in order to make a creditable exhibit at the fair.

H. H. DEAN.

Dairy Department O.A.S., Guelph, Sept. 25, '99.

Registration of Jerseys

To the Editor of FARMING:

I noticed in last week's FARMING a question asked by Moses Sutton re registration of Jersey cattle. I think by your answer that you are a breeder of A.J.C.C. Jerseys, as that is their explanation every time and appears to be all they seem to know of the case. I will state right here that there is as much chance for crooked work in registering in the Cattle Club Book as in the Herd Book if a member is so disposed. I have been breeding Jerseys for the past twenty years and purchased the first Jersey bull dropped in this part of Canada before, I think, the Fullers and Mrs. Jones commenced. I have had animals registered in both books, but have kept the most of my stock in the Herd Book. I have watched the movements of the Cattle Club Book through its main organ, the *Country Gentleman*, during the last twenty years and the booming it has done to raise its standard while the Herd Book has been doing a steady business. Stock registered in the Herd Book are of superior quality to plenty registered in the Cattle Club Book.

The Herd Book was established in 1864, and all stock registered in this book have to be got by registered sire and dam, and if either of them is not found on record you will not get your calf registered. This is the same law the Cattle Club Book goes by, and how is it that it is so much better than the Herd Book? If it is, Cattle Club breeders have been more honest than Herd Book breeders, and they all seem to know the fact. If you will take the trouble to write to O. B. Hadwen, Worcester, Mass., compiler of the Herd Book, he no doubt will give you all desired information, facts and figures, to publish in FARMING, and no doubt that plenty of Cattle Club breeders will learn something from headquarters. I have registered five head of young stock this fall and got my returns all right and hear nothing of suspension.

BRUCE E. JOHNSON.

Picton, Ont., Sept. 25, 1899.

Note.—By way of explanation we might add that the reply given by us to the question in FARMING for September 19th was based upon information obtained from a gentleman in this city who is thoroughly posted on all matters relating to the registration of live stock. If a mistake has been made we are pleased to spare the space to the above letter in regard to it. We would, however, be glad to hear from others who are posted in regard to the point at issue.—EDITOR.

The Agricultural Gazette

VOL. II.

The Official Bulletin of the Dominion Cattle, Sheep, and Swine Breeders' Associations, and of the Farmers' Institute System of the Province of Ontario.

No. 52

THE DOMINION CATTLE, SHEEP, AND SWINE BREEDERS' ASSOCIATIONS.

Annual Membership Fees:—Cattle Breeders' \$1; Sheep Breeders', \$1; Swine Breeders', \$2.

BENEFITS OF MEMBERSHIP.

Each member receives a free copy of each publication issued by the Association to which he belongs, during the year in which he is a member. In the case of the Swine Breeders' Association this includes a copy of the Swine Record.

A member of the Swine Breeders' Association is allowed to register pigs at 50c. per head; non-members are charged \$1.00 per head.

A member of the Sheep Breeders' Associations allowed to register sheep at 50c. per head, while non-members are charged \$1.00.

The name and address of each member, and the stock he has for sale, are published once a month. Over 10,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs; that is, to advertise cattle he must be a member of the Dominion Cattle Breeders' Association, to advertise sheep he must be a member of the Dominion Sheep Breeders' Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association.

The list of cattle, sheep, and swine for sale will be published in the third issue of each month. Members having stock for sale, in order that they may be included in the Gazette, are required to notify the undersigned by letter on or before the 9th of each month, of the number, breed, age, and sex of the animals. Should a member fail to do this his name will not appear in that issue. The data will be published in the most condensed form.

F. W. HOBSON, Secretary.
Parliament Buildings, Toronto, Ont.

Stock for Sale.

The next list of stock for sale will be published in FARMING October 17th. We will be very glad to have members of the associations avail themselves of the privilege of thus advertising their list of stock for sale free of cost. Lists to insure insertion should reach the office of the secretary not later than October 10th.

Farm Help Exchanged.

Help Wanted.

Mr. J. J. Fox, Marden P.O., Ont., requires a first-class farm hand, capable of taking care of a dairy herd. Mr. Fox is an exceptionally fine man, honorable and upright, and a good farmer. A suitable man would find a good home and a fair remuneration with Mr. Fox.

Matt. Richardson & Son, Caledonia, Ont., breeders of Holstein Friesian cattle, keep from 30 to 35 cows and make cheese, the year round, and carry on general farming as well. They wish to employ a man whose principal work in summer and winter would be to feed and milk the cows and be able in any spare time to do any ordinary farm work. They can give steady work by the year to a suitable man, and would prefer to employ a man who would be likely to stay with them for a number of years.

Mr. W. W. Spaven, Hagersville, Ont., wishes to employ a man who thoroughly understands farm work and is capable of taking charge of a dairy herd. For particulars address Mr. Spaven with references, stating wages expected and other particulars.

Wanted—A strong boy about 14 to learn farming in the Northwest. Must have some knowledge of horses. Apply with references to this office.

Situation Wanted.

As manager of an up-to-date stock and dairy farm in Eastern Ontario or Province of Quebec by married man,

37 years of age, who has had a life-long experience in all branches of farming; was manager for five years of an extensive stock and dairy farm in Quebec. Apply with references to this office.



Portable Hog Pen.

The Bacon Hog.

We find that the article entitled "The Bacon Hog" has attracted continental notice. Applications are being received for a complete copy of the article from agricultural professors and students resident in various States of the Union. The illustrated article which has previously appeared in these columns is a synopsis of a bulletin which will be published in the forthcoming report of the Superintendent of Farmers' Institutes, and was prepared under that gentleman's careful supervision.

The next report of the Superintendent is now in the hands of the Government printers and should reach the members of Farmers' Institutes before the 1st of January. Every farmer who is a member of a Farmers' Institute in the Province is entitled to a free copy of this work, which is undoubtedly the best yet issued by the Superintendent.

Portable Hog Houses.

Where swine are kept in an orchard or in fields at some distance from their ordinary quarters, temporary sleeping accommodation, which will also act as a shelter during stormy or wet weather, becomes very desirable. There are several forms of portable houses. Of these one of the best is the one described below, which is in use at the Iowa Agricultural College, Ames, Iowa. The illustration gives a good idea of its appearance. Prof. Curtis gives the following method of construction:

The house is 8 feet square. There are 4 posts on each side 2 feet 8 inches in length; the sleepers, five in number, which are 2x4 scantling, are made runner shape and are 8 feet long. Four plates are required which are also 8 feet long. Three sets of rafters are used which are cut in 5 feet

lengths. The ridge board is 8 feet 8 inches long. The flooring is made out of four 12x16 inch boards cut in the centre; the sides and ends are covered in with 8 inch drop siding with grooved inch roof boards 10x12 cut into two pieces without waste for the roof. The window in the end is 24x21 inches, that in the roof 2x5 feet. The door is made 2 feet 6 inches by 2 feet 8 inches. Where not otherwise specified the lumber is 2x4 inches.

Another pen which is very extensively used in Wisconsin is thus described by Mr. Geo. McKerrow, Superintendent of Farmers' Institutes: "My favorite size for a portable pen is 8x8 feet. I first make a plank platform 8x8 feet on oak sills, nailing a 2x4 bevelled scantling on each side on the end of the planks, to which the lower ends of the roof are nailed. The roof is composed of boards 16 feet long and 12 inches wide cut in half, making each side of the roof 8 feet. Thus the

pen measures 8 feet in every direction except the perpendicular, which is a fraction less than 7 feet in height. The door in front should be large

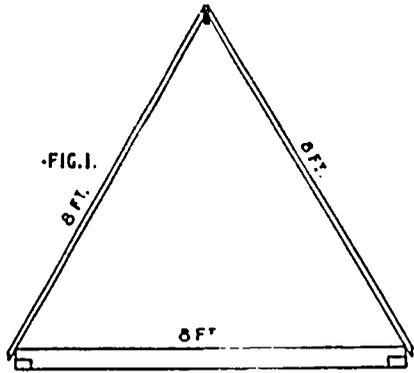


Fig 1.—Showing sills, made of 4' x 4' scantling, and slope of roof. Two 1" x 1" scantling, 16 feet long, make the sills.

enough to admit the biggest hog kept in the range, and windows and venti-

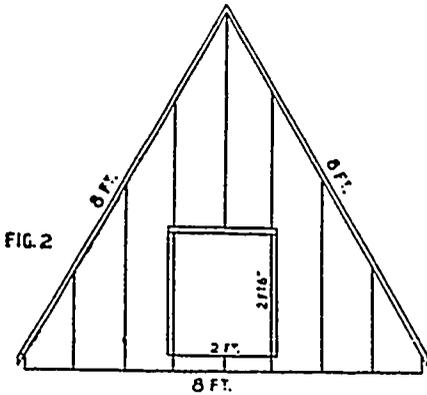


Fig 2.—Showing opening for pigs to enter.

lators can be made to suit. The pen can be moved on a stoneboat when-

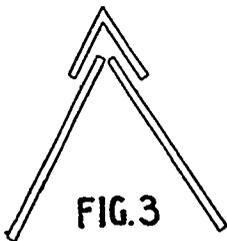
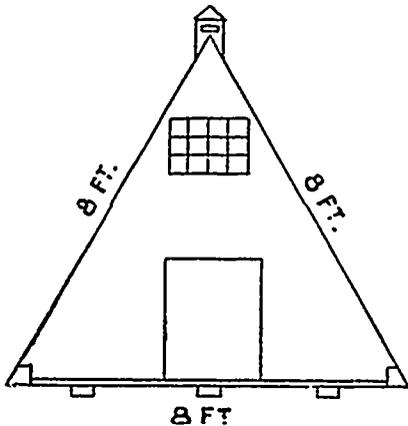


Fig 3.—Showing a method of arranging ridge boards to afford ventilator, when pen is intended to have doors closed.

ever it may be required. It will accommodate from one to ten pigs, according



to their size. If this pen is used in winter time, it would have to be banked up a little at the bottom.

A Canadian Portable Pen.

Prof. Day, of the Ontario Agricultural College, Guelph, sends in a plan

of a pig pen somewhat similar to the Wisconsin one. He writes:

The pen may be modified in many ways to suit the requirements of the person using it. For summer use it may be set on a high and dry piece of land, and used without a floor, or old boards may be laid on the ground and the pen set on top of them. If required for cold weather, the pen may be double boarded with matched lumber with building paper between. When a single thickness of ordinary lumber is used, it will be necessary to batten the cracks. The amount of lumber required for a pen will vary, therefore, with the style of pen. The pen is 8 feet square, and, as shown in Figs. 1 and 2, boards 8 feet long are used for the roof, therefore 16 foot lumber cuts to advantage. For summer use no door will be necessary, and an opening near the peak on the opposite side to the front opening will permit a free circulation of air. If required for cool weather, and a door is used for the opening, a window will be necessary. A door large enough for a man to enter may be made on the opposite side from the small door, if desired.

Exhibition Number.

More Press Comments.

A SPLENDID NUMBER.

The Exhibition number of FARMING, which is published at the Confederation Life Building, Toronto, was issued on Saturday. It is very taste ully zotten up and there is a large amount of very excellent matter. The front cover is done in colors and represents a neatly dressed young girl drawing back a Union Jack so as to disclose a Canadian homestead to view. Among the numerous illustrations are views of the leading markets in Canada and the old land. The articles are all on seasonable topics and of especial interest. For example, Prof. Robertson writes on Canadian products for the markets of Great Britain, while Prof. Day, of the Ontario College, furnishes "Notes on our Bacon Trade." The other contributors include W. C. Edwards, M.P.; John Campbell, John Jackson, J. W. Hart, Prof. H. H. Dean, A. G. Gilbert, W. R. Graham, John B. Pettit, R. F. Holterman, A. W. Campbell and T. C. Wallace.—*The Globe, Toronto.*

Apples

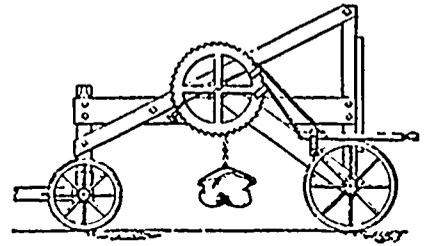
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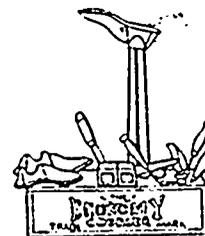
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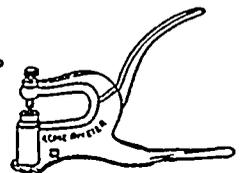
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Russill's AT THE MARKET

159 King Street East, TORONTO

The Farm Home

Information Wanted.

This department exists wholly for the farmer's home and for the women and young people on the farm. We would, therefore, like to secure the active co-operation of everyone connected with the rural home in making this page of our paper as useful as possible for the purpose for which it is intended. There are many subjects of vital importance to the farmer's wife that we would like to have discussed in these columns and we would be glad to have short articles from our readers suggesting topics for discussion. Don't be afraid that anything you might have to say would hardly be worth reading. It is really what are considered the most common things in life that people like to hear about, and which as a rule accomplish most in the way of making life in this world interesting and pleasant. When we wait before acting till we have something out of the ordinary to say or do, we generally fail to do or say anything at all, as these extraordinary thoughts and acts come to very few people in this world. If we take advantage of what we have at hand, that little will suggest something better and help to broaden our thoughts and ideas about things.

By way of opening up a discussion that we think will be very helpful to all concerned, we would like to have as many short articles as possible from the readers of these pages dealing with the following topics. Contributors can write on any one or all of the subjects as they see fit:

- (1) How can the long winter evenings in the farm home be most profitably spent?
- (2) What are your ideas as to entertainment for young people in the country?
- (3) What would be the best plan for arranging a reading circle in the farm home so that every member of it who could read could take part?

A School of Domestic Science.

A school of domestic science is to be established in Toronto. It is somewhat surprising that a great educational centre like this has been so long without a school of this kind. While universities, schools of law, schools of medicine and schools of technology and such like are necessary and advisable, the educational side of a city of this size is not complete without a school of domestic science.

The science of cooking and the ventilation and sanitation of houses is very little understood, even in our cities. Hundreds of young girls grow up into womanhood, get married and settle down as managers of homes without any real practical knowledge about the affairs placed in their charge. They pull through in some way, perhaps, after having started the inmates

of their homes on the road to a dyspeptic's life of pains and woes. We care not in what affluent circumstances a girl's parents may be, her education is not complete unless she understands and knows how to cook and prepare the food she eats. She may not have to put this knowledge into practice in her own home, but there is a great deal of satisfaction in knowing whether the persons who have to do this work are doing it in the right way. So we welcome this new educational feature in our midst, and trust that its influence will reach out beyond the city limits to the great farming districts of this province, which is our special field.

nursery, and in fact some quiet, affectionate, purring, useful cat is a valued inmate of nearly every household.—*From Pets and Animals.*

Rations for a School Child.

Questions Answered by Mrs. S. T. Rorer.

Q. Will you give a day's ration for a school child who has his dinner at noon?

A. A bowl of porridge with sub-acid fruit forms an excellent breakfast. The cereal may be changed; one morning it may be wheat, another oats, another some wheat preparation, another corn meal mush. Water



PRETTY PUSSY.

The Cat.

To-day the domestic cat is found in every country on the globe and can prove a known history of nearly four thousand years.

The cat was a sacred animal in Egypt. The Egyptians built temples and offered sacrifices in honor of the cat, even embalming its body after death. The large number of bronze inscriptions, monuments and cat mummies found give convincing proof of the great veneration in which the cat was held in ancient Egypt. As a pet, the cat is the favorite animal of the

should be the beverage. The noon-day meal should consist of a clear soup, a meat, as beef, mutton or chicken, whichever is most convenient, with two vegetables, one starchy and one green, such as beef, potatoes and stewed cabbage, or mutton, rice and spinach, or chicken, stewed maccaroni and cauliflower, or green peas or beans, and a simple desert such as rice pudding, an occasional gelatin pudding, cup custard or fruit. The night meal may consist of two soft boiled eggs and well toasted bread, or a dish of milk toast, or a little minced meat and a baked potato, or the hard boiled

yolk of an egg grated over milk toast, or two tablespoonfuls of cheese added to hot milk poured over toasted bread. Avoid, of course, excessive sweets, hot breads and fried foods.

Q. What about pie?

A. Well, it is better to eat the fruit in another way.

Q. Why?

A. Because acid fruits cooked with sugar change both the character of the fruit and the sugar. Even if we use cane sugar it is split into dextrose and lavulose by the acid and heat—two new sugars prone to fermentation. The fat and the flour are exceedingly nutritious, each one separate, but when the grains of starch are enveloped with the grease it prevents the direct contact of the starch with the mucous secretions of the mouth and hinders their digestion, so that, besides giving a great deal of extra work, good food is converted into bad.

A Voice. "Oh, my, but pies are good."

A. "It would be an unwise man indeed who would eat pie." (Laughter and applause.) "It is not the articles used in the pastry that are injurious, but it is the combination, especially as the fat is a covering to the starch."

The Art of Cookery.

The importance of the art of cookery is very great; indeed, from the richest to the poorest the selection and preparation of food often becomes the chief object in life. The rich man's table is luxuriously spread; no amount of money is spared in procuring the rarest delicacies of the season. Art and Nature alike contribute to his necessities. The less wealthy have, indeed, fewer resources, yet these may be greatly increased by the knowledge of what may be called trifling details and refinement in the art of cookery, which depend much more on the manner of doing a thing than on the cost attending it. To cook well, therefore, is immensely more important to the middle and working classes than to the rich, for they who live by the "sweat of their brow," whether mentally or physically, must have the requisite strength to support their labor. Even to the poor, whose very life depends upon the produce of the hard-earned dollar, cookery is of the greatest importance. Every wife, mother or sister should be a good plain cook. If she has servants she can direct them, and if not, so much the more must depend upon herself. To such we venture to give a few general hints. An old saying (to be found in one of the earliest cookery books): "First catch your hare, etc.," has more significance than is generally supposed. To catch your hare well, you must spend your income judiciously. This is the chief thing. In our artificial state of society, every income, to keep up appearances, has at least half as

much more to do than it can afford. In the selection of provisions, the *best* is generally the *cheapest*. Half a pound of good meat is more nutritious than three times the amount of inferior. As to vegetables, buy them fresh. Above all, where an income is small and there are many to feed, be careful that all the nourishment is retained in the food that is purchased. This is to be effected by careful cooking. Cleanliness is an imperative condition. Let all cooking utensils be clean and in order. Uncleanliness produces disorder, and disorder confusion. Time and money are thus wasted, dinner spoiled, and all goes wrong. In the cooking of meat by any process whatever, remember, above all, to cook the juices *in it*, not *out of it*.—*The Ideal Cook Book*.

An Insect That Can Count.

An account of a curious insect found in the French colony of New Caledonia is contributed by Lieut.-Col. Delauney, of the French army, who believes, from the regularity of certain gyrations that he has seen it make that it can count, or estimate numbers, up to six. We translate Col. Delauney's letter in *La Nature* (Paris, July 8). He says:

"In my capacity as an entomologist I have observed many curious customs and habits of insects. I have often employed my time in watching the sports of the flies in the sunshine; I have looked on with interest at the toilet of these same diptera, as they rub their legs, bodies, and heads; and I have seen many other things. But I never had the fortune to witness so extraordinary a spectacle as that offered to me by an insect in New Caledonia on September 29, 1892.

"I was walking, on that day, in my garden at Noumea, when my attention was attracted by the singular movements executed by a small insect on a banana leaf; it was turning about its own head as a pivot, describing rapid circles, every now and then it made a sudden stop and then went on again; it seemed, in short, to be a sort of 'skipper,' which was executing its gyrations on a leaf instead of on the surface of the water.

"All of a sudden the insect came to a full stop, and I waited patiently a good quarter of an hour to see what it would do. I resolved to observe and note the number of circles that it should describe in either direction, and when it began to move again, I put down the following data successively:

"Six turns in the direction of the hands of a watch, then a stop; six turns in the opposite direction, a stop; five in the first direction, a stop; five in the opposite, a stop; four in the first direction, a stop; four in the second, a stop; three in the first, a stop; three in the second, a stop; two in the first, a stop; two in the second,

a stop; one in the first, a stop; one in the second, a full stop.

"I waited for the insect to begin to move again, but I waited in vain; an hour was passed uselessly in this occupation; the creature was immovable and seemed to be asleep. I then decided to put it into my poison bottle, and some time afterward I examined its corpse at my leisure.

"It belonged to the order of *hemiptera*. Its length was about three millimeters ($\frac{3}{8}$ inch), and its form was in general that of a 'water boatman' with large head and powerful legs, although it was flatter than this celeopter. * * * * Its color was a light tan.

"I made a note of what I had observed, and placing the insect in a little paper box I packed it in cotton and sent it with a letter to M. Stanislas Meunier, at the Museum.

"Alas! Three months later this scientist sent word that he had received both my letter and the box, but that there was no insect in the latter. Owing to its smallness and lightness the *hemipter* had slipped out.

"Six months afterward I was fortunate enough to find one of the same kind of insects again. I hastened to capture it and placed it in a large box, with a glass cover. I then promised myself a very interesting series of observations.

"But on the morrow there was no insect in the box; it had disappeared. My servant had evidently involuntarily aided it to escape by displacing the glass cover of the box while setting my table to rights.

"During more than a year's stay in the colony I never met with the creature again.

"However this may be, in reporting the observation of September 20, 1892, I may be permitted to think that I have seen an insect that knows how to count, at least up to six, since it made movements numbering successively from six down to one."—*Translation made for the Literary Digest*.

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Part of Udder Lost.

To the Editor of FARMING:

If a cow loses a quarter of her udder does it ever happen that she regains the use of it again if no ulceration of the part has occurred? Would like to hear expressions of opinions on the matter.

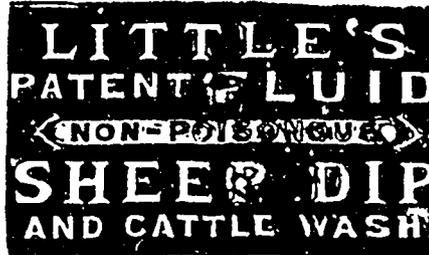
ENQUIRER.

Beatrice, Ont. Sept. 26th, 1899.

If a cow loses completely a portion of her udder she is not at all likely to regain the use of it. Sometimes a part of the udder may appear to be lost when it may be only temporarily useless. In such instances the part may be wholly restored.

Sorghums Popular with Kansas Stockmen.

The returns of assessors to the Kansas Board of Agriculture show the acreage of Kafir-corn to be 47,152 acres, or about 9 per cent. greater than last year. The counties now having 10,000 acres and more are Greenwood with 33,085 acres; Lyon, 27,246; Butler, 26,768; Dickinson, 22,877; Pratt, 19,862; Morris, 18,643; Reno, 16,815; Harper, 16,003; Clay, 14,992; Osage, 14,878; Kingman, 11,921; Ellsworth, 11,510; Coffey, 10,847; Comanche, 10,358; and Russell, 10,008. These fifteen countries comprise 45.5 per cent., or nearly one-half of the entire area of the crop in the State. In the remaining 90 counties the acreage ranges from 94 acres in Sherman county to 9,777 acres in Marion. An interesting feature in the returns is that the foremost corn counties, comprising 52 per cent. of the total corn



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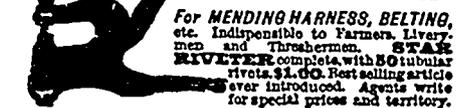


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acreage, have 33 per cent. of the total area of Kafir-corn. The rapidity with which Kafir-corn has found favor among feeders and farmers is demonstrated by the fact that seven years ago when the crop was first reported to the State Board of Agriculture there were but 46,941 acres, while the returns now give 582,895 acres, a marvelous increase of 1,142 per cent., showing that it has taken rank among the most valued foods for live stock in all sections of the State.

Milo maize and Jerusalem corn, non-saccharine sorghums near kin to Kafir-corn, and of no mean value, have for four years past steadily declined in acreage, the former about one-half, and the latter from 32,000 to 3,715 acres.

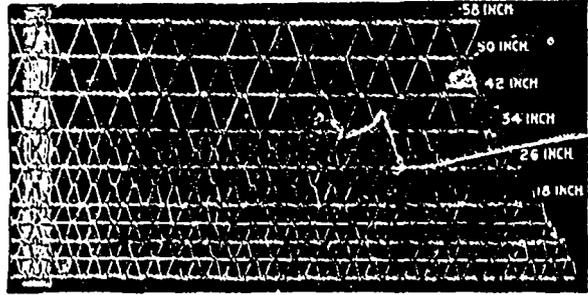
Saccharine sorghum, the running-mate of Kafir-corn as a forage, shows a superb increase in acreage, rising from 388,259 acres last year to 448,791 this year, a gain of 60,532 acres, or 15.59 per cent. The leading sorghum-growing counties are Pinney, with 18,148 acres; Butler, 17,264; Barber, 16,597; Cowley, 11,540; Sumner, 9,659; Marion, 9,240; and Dickinson, 9,032. Sorghum has made an annual average increase of nearly 20 per cent. since 1893, when Kafir-corn first came into prominence.

A Kansas Wool Grower's Methods.

Press Bulletin.

At the twenty-eighth annual meeting of the Kansas Board of Agriculture, Mr. J. N. Grau, of Mitchell county, (northern) Kansas, who is largely and profitably in the sheep business there, read a paper prepared at the suggestion of Secretary F. D. Coburn, giving his idea of how best to manage and care for the flock, and his method of selecting animals for breeding purposes. For the last fourteen years his flock has numbered from 800 to 1,000, and as he has succeeded by close attention to his business, his observations should be of no little interest and value. He says in part:

I fatten my surplus stock for market. In the selection of breeding ewes I never pay much attention to the fineness of the fiber, but more to the constitution, good form, no wrinkles on body, good fleece, or long, dense staple of wool, and good milking qualities—as this can be had in sheep as well as in cows, and to produce a good lamb they must have an abundant supply of milk. I sort out about one-third to one-half of my ewe lambs for breeders at one year old, sending the rest to market for mutton; always feeding the lambs well so as to get the size of the sheep the first year. If neglected they will grow smaller every year. By this way of selecting and feeding I have increased the average size of my flock twenty pounds. In selecting the rams I look for a good constitution, which will represent a good feeder and always the best in the flock, of a good



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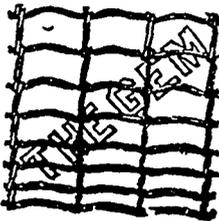
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form for mutton; shown by well sprung ribs, breadth across the shoulders, a deep breast, with front legs well set apart; a short neck and erect carriage; short head, with broad nostrils, giving plenty of room to breathe the pure air of the range; with three to four-inch staple of dense wool, with only a reasonable quantity of oil and weighing from 175 to 200 pounds at maturity.

I pasture in summer on prairie grass without grain, having my range divided into three separate pastures with four-barbed-wire fence. Changing from one pasture to another gives the grass a better start; it will produce more feed, and sheep will keep in better condition than when run in one continuously.

I wean my lambs in September. For the last two years I have turned them in a piece of standing sorghum, giving them also some cracked corn, which has given the best of results. As soon as the grass gets dry and poor, which is about the 1st of October, I commence to feed the older sheep one bushel of corn to the 100 head per day. Sometimes I feed corn fodder with corn on until I get my corn husked out; then turn them in the stalk field, and give one bushel of corn to the 100 head per day. My breeding ewes run out every day in the stalk field, from morning until night, except in severe snow storms, when I think it is not best to leave them out all day. Exercise is necessary for good health and constitution, and for raising strong lambs. From about the 1st of March I feed corn-fodder and alfalfa hay until grass starts to grow.

I have lambs drop in March and April. I pen my ewes in a shed over night, but never stay up with them; a lamb that will not get up and rustle, I don't want. In the morning I turn out the ewes, always keeping separate those that have lambs, examining all to see that the lamb has had its fill of milk; if not, I keep it separate until it has; keeping the ewes with young lambs separate from the flock for three or four days, I then turn them in to the large herd of ewes. If turned in before three days, and they get separated for twenty-four hours the mothers will not own them.

Years ago I sowed rye for early spring pasture, but of late I have been raising alfalfa, for hay, which is better than red clover. It is one of the best sheep feeds that can be grown, and which every farmer in Kansas should grow for cattle, sheep or hogs.

I shear in April, before turning out to grass. Having plenty of shed-room, there is no danger of losing any.

I keep plenty of Kansas fine salt where they can have free access to it at all times, and yard them every night. When accustomed to the yard they will come up at night of their own accord.

That evil is half cured whose cause we know.—*Churchill.*

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OAK LODGE HERD.—This year was Mr. J. E. Brethour's eleventh successful exhibit of improved Yorkshire swine at the Toronto Industrial. He had 30 pigs in the pens at this year's fair, and the prize list shows that he is still well to the front as a breeder of the class of hogs now so much in demand.

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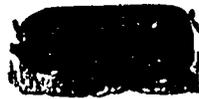
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I have the 1st-prize boar under 12 months at Toronto for sale, and 1st at Western Fair; also 2nd prize boar under 6 mos. at Toronto. Have 4 first-class boars fit for service, 5 and 6 mos. old. Have 2 of the sows for sale that tried for 1st of the three pigs bred from one sow, and the 2nd and 3rd prize sows under 6 mos. These winning sows are bred from Perfection, the unbeaten yearling. Have a few good sows bred for sale. Have 25 head of young pigs from 10 to 8 weeks. Am booking orders for March and April pigs.

T. A. COX, Brantford, Ont.

Wm. Butler & Son

Dereham Centre, Ont.

W. R. BOWMAN,

MOUNT FOREST,

OFFERS 30 Yorkshire Boars and Sows, all ages, at prices away down. 30 Shropshire and Suffolk Shearling Rams and Ewes, at \$12 to \$15. 25 Lambs, weighing 110 pounds, at \$10.

All Stock Registered.

FOR SALE —AT— **Maitland Stock Farm**

Large English Yorkshire Pigs of the best types. Young stock on hand from one month to ten months old. Prices to suit the times.



Francis Rusnell, Cedarville, Ont.

YORKSHIRES...



Noted prize-winners. Choice quality and heavy milking families. Extra fine young animals for sale. Also

Leicester Sheep and Berkshire Swine

DAVID BENNING

WILLIAMSTOWN, ONT.

HERMANVILLE

..TAMWORTHS..

I HAVE several litters nursing, and also a number of June litters of the highest quality and bluest blood in North America. The "Parkhill Mab" strain of Tamworth can only be obtained from me. I make a specialty of Breeding and Exhibition stock. I like to ship "ready to wean." I respectfully solicit your valuable orders, and will be glad to quote you prices, delivered free in any part of Canada or the U.S. Address—

Hermanville Farm, P.E.I., Can.

SUMMERHILL HERD OF YORKSHIRES



The Lengthy English Type

The largest herd of Imported and Canadian-bred Yorkshires of the large English type in Canada. 26 matured imported sows, among them being several royal winners. Six imported sows sired by Buddington Lad, Royal winner and gold medal boar for the best pig of the white breed. Have those imported stock boars bred by such breeders as Sanders Spencer and Philo L. Mills. 25 April pigs (imp.) of both sexes for sale. Also a number (imp.) in dam. 200 Canadian-bred pigs of all ages for sale. Write for prices. Personal inspection preferred. Prepay express charges and guarantee stock as described.

D. C. FLATT, Millgrove, Ont.

Oak Lodge Herd of Large Yorkshires



The Oldest Established and Largest Herd in America...

This herd has a uniform and fixed type, acknowledged by the best judges to be what the market demands. It has made a record of its own in the show rings, winning more prizes at the largest Canadian and American shows than all other herds combined. Parties wishing high class stock should examine this celebrated herd at the leading shows.

ALL STOCK FULLY GUARANTEED

J. E. BRETHOUR,

BURFORD, Brant Co., Ontario

R. P. Cooper, Mr. H. C. G. Parker, and Mr. F. W. Rudgard, Mr. J. S. Harding's prize ewe lambs and a very superior two-shear ram from Mr. W. F. Inge. The Oxfords came from Mr. Treweeke, and a splendid selection of prize rams and ewes from Messrs. Garne, Mr. Wm. Houlton, Mr. T. Gillett, and Mr. C. Gillett, Lincolns from the prize-winning flock of Mr. Dudding, and Hampshires from Mr. Hudson. Altogether this was a very valuable and well-selected lot of sheep, and reflects great credit on the judgment shown by Mr. Miller in selection.

The other shipments included a beautiful lot of shearing ewes (Shropshires) from Mr. D. Buttar's prize-winning flock for the Hon. John Dryden, and ten ewes bred by Mr. A. E. Mansell, and one ram for Mr. W. C. Edwards, M.P. Mr. John Milton's shipment included ram lambs and ewes from Mr. Minton, Mr. E. J. Frank, and Mr. A. E. Mansell and Mr. T. Davies, and a lot of good Hampshires bought from leading breeders. Prof. Curtis also got five extra good ewes from Mr. Buttar.

MEMO. OF SALES MADE BY W. D. FLATT.

To Mr. Charles Rankin, Wyebrid e, Ont. :

Gladys (imp.), a very handsome heifer of fine form and full of quality, and beautifully bred, having such blood as the noted Cruick-shank bull, Field Marshal. Mr. Rankin also purchased a young bull named Gladiator (imp.). He should develop to be a remarkably good one. His sire, Pride of Fashion, was by the noted bull, Pride of Morning, out of Royal Bell, by Scottish Archer. This bull has been used, and is prized very highly by Mr. Duthie. His great grandsire was by Cup Bearer (imp.), shown with unprecedented success in Scotland and the United States, and a bull which probably did more to popularize Scottish blood than any ever brought to America. Wyebridge is not very favorably situated for buyers, but, with such blood as this, Mr. Rankin need not fear but what the best buyers will find him when he has stock to offer.

To Mr. Robert Miller, Stouffville, Ont. :

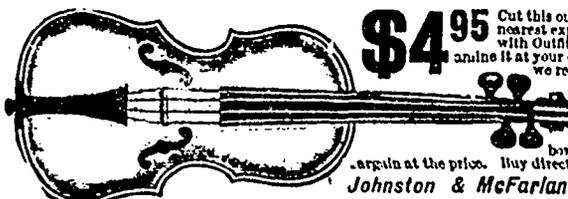
Six young bulls named Missie's Count, Trout Creek Chief, Trout Creek Archer, Trout Creek Marengo, Trout Creek Wrestler and Trout Creek King. The above is a very strong, even lot, and capably bred, having such noted blood as the Missie's, Strathallans, etc., in them. Trout Creek King is half brother to the young bull which won 1st at the Minnesota State Fair and was awarded champion over all beef breeds this year.

To James Gibb, Brooksdale, Ont. :

A young bull named Trout Creek Barmpton; he is an extraordinary good young bull, strong in all points, and richly bred, coming of the favorite Crimson Flower tribe. His sire, Vice-Regent, was by (imp.) Aberdeen, 1st prize Toronto Exhibition, two years, and sold for a high price to United States, where he has also proved to be a winner; the dam of Vice Regent was by (imp.) Vice Consul, 1st prize and champion at Toronto Exhibition, and undoubtedly proved to be one of the most successful stock bulls ever imported to Canada, being used for a number of years with great success by Messrs. Millers, of Brougham. The dam of Trout Creek Barmpton was individually as good as her breeding, her sire Indian Chief, was by Royal Lavander, by (imp.) Indian Chief, sire of many prize winners. Mr. Gibb was successful in securing the young herd prize at Woodstock on the 23rd, and he evidently intends to try and produce the very best. Trout Creek Barmpton was certainly one of the very best calves raised at Trout Creek Stock Farm this season.

To Samuel McClelland, Beachburg, Ont. :

The ten-months-old bull named Trout Creek Samson; this is a beautiful calf, and richly bred. His sire, Maxon, is capably bred, and was a really good individual, his dam was a very deep milker, his grand sire, Louis Strathallan [3392] was of the famous Strathallan family. Mr. McClelland can make no mistake in using such a bull as this, and, if properly cared for, he should be a winner in almost any company.



\$4.95

Cut this out and send it to us with the name of your nearest express office and we will ship you a Violin with Outfit by express, subject to examination. Examine it at your express office, and if you find it exactly as we represent it and entirely satisfactory, pay the express agent our special price, \$4.95 and express charges. This is a lovely finished, regular \$9.00 Stradivarius model violin, richly colored, highly polished, powerful and sweet in tone. Complete with fine bow, extra set of strings and resin. A genuine bargain at the price. Buy direct from us and save the dealer's profit.

Johnston & McFarlane, Box F Toronto Ont.

GOOD CHEER STOVES & RANGES

OUR BOOK MARK MAILED ON REQUEST!

JAS. STEWART MFG. CO. (LIMITED)
WOODSTOCK, ONT.

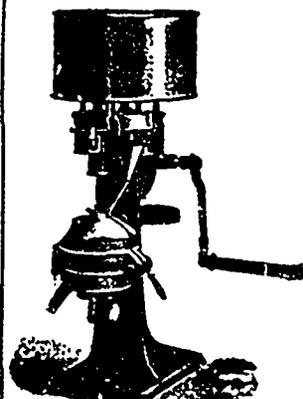
ALEXANDRA AND MÉLOTTE CREAM SEPARATORS

Have met with universal success at the leading Fall Exhibitions, beating all competitors. Several special awards have been given to the "MÉLOTTE" as being the most efficient and easiest running separator on the market. We only ask you to give the "Melotte" a trial.

For full particulars apply to

R. A. LISTER & CO., Limited
579 & 581 St Paul St., MONTREAL, QUE.

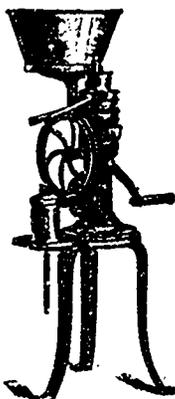
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The National Cream Separator

MANUFACTURED BY
THE RAYMOND MANUFACTURING CO. LIMITED
GUELPH, ONTARIO



Style No. 1.
Capacity—330 to 350 lbs. per hour.
Price, \$75.00

A wise investment that progressive farmers are buying as they buy other useful machinery. The National will yield from 1/2 to 1 1/2 lbs. of butter per week per cow more than is being done by the old laborious wasteful methods of skimming milk. One pound of butter per week from one cow for 9 months, at 15c. per lb., will pay 8 per cent. interest on the cost price of the National. Easy to run by boys 8 to 12 years old. Easy to clean. Simple to operate. The neatest in style and finish. A perfect skimmer. Guaranteed as represented, and a trial for one week given to intending buyers. If not satisfactory, may be returned to us at our expense. No risk. Sold on their merits. Send for testimonials and Catalogue.

GENERAL AGENTS

Creamery Supply Company

MARKET SQUARE, GUELPH, ONTARIO

Also Dealers in Creamery and Dairy Supplies.

ACTIVE AGENTS WANTED

Publishers' Desk.

Annual Announcement—The annual announcement of the Ontario Veterinary College, Toronto, Canada, for the approaching session has just been forwarded to us. And we are pleased to find that this popular institution maintains its well-earned reputation, and the prospects for a good attendance are so encouraging. The session will commence on Wednesday, Oct. 15th. For further information see advertisement in another column.—151.

In one of last week's exchanges we note the fact that Mr. John S. Pearce, of the firm of J. S. Pearce & Co., the well-known seed merchants of London, Ont., has retired from business. His successors are Messrs. Fred J. Darch and John W. Hunter, who have for years been connected with the firm. Both are enterprising young men and will, no doubt, carry on the large business of the firm in the same successful manner that it has been carried on under Mr. Pearce's management.

A Rich Find.—E. Gartly Parker writes: "Good news is in for Derby shareholders. This company own the Swansea Copper Mine at Windermere, East Kootenay, B.C. The results of development work up to date have proved so satisfactory that the Hall Mines Smelter want to contract for the whole of the ore now upon the dump because it carries considerable line and is easy to flux. The buyer had sampled the ore with the following satisfactory results: Average of 40 tons from centre shaft, 13 per cent. copper and 26 ounces of silver; average of dump of 20 tons at the north shaft, 9 per cent. copper and 6 ounces in silver; picked sample from the outcrop 26 per cent. copper. If the offer made by the smelter people is accepted, the net returns to the company would amount to about \$2,800 after providing the cost of raising and shipping to Windermere, freight to Golden, from there to Nelson and treatment."

This condition of things is encouraging, and the future prospects are even more so, to quote from a letter from the secretary, who gives the latest report from the resident engineer as follows:

"A tunnel is being driven at the 200 foot level, and is now in about 30 feet. The rock is becoming very heavily stained, and they expect to strike the main body of ore at about 150 feet. The work is costing about \$9 a foot, and if things turn out as we anticipate, there is enough money from the sale of ore in sight to put the property on a self-supporting basis, without disposing of any more treasury stock."

A Miniature Barn.

Thorold Cement at the Industrial.—The barn erected and occupied as an exhibit by the Estate of John Battle, of Thorold, Ont., was a great source of interest to visitors at the Toronto Industrial Fair. The barn was 14 x 20 feet in size, the floor and the walls for three feet underground and for five feet above being built of the celebrated Thorold Cement, thus making a permanent foundation. The frame superstructure was built upon these walls and was covered with a shingled hip roof, the frame portion being painted outside and of dressed wood inside. Six windows afforded ample light. The interior contained a full-sized cow-stall with concrete floor and gutter to receive the excreta, while across the passage was a horse-stall similarly built. In front of the cow-stall was a sample concrete pig-pen, which was not intended as an essential feature of the barn, but as an exemplification of the adaptability of the Thorold Cement for such purposes. The exhibit was in charge of Messrs. James and John Battle, Jr., whose explanations were listened to by thousands of interested visitors. The firm have reason to be proud of their record this year. The adaptability of the Thorold Cement to the various classes of farm buildings, including dwellings, as well as the buildings for all kinds of stock, has been established by practical use in all parts of the Dominion, and the rapid increase in the demand for it proves that its popularity is based upon sufficiently solid grounds, and that it is one of those things which gains in public estimation the better it becomes known,



NAIL THIS IN YOU MEMORY

**WINDSOR
SALT**

gives to butter that delicious sweetness and freshness..... which brings the high price. Perfectly pure; natural..... crystals. Try it.

The Windsor Salt Co., Limited
Windsor, Ont.

It is to your advantage to mention **FARMING** when writing to advertisers.



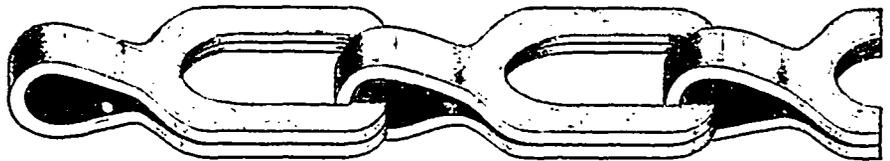
Patent Roller and Ball-Bearing Galvanized Steel

Wind Mills Towers and Flag Staffs

"Maple Leaf" Grain Grinders. Iron and Spray Pumps. Send for New Illustrated Catalogue.

SHAPLEY & MUIR CO LIMITED
BRANTFORD CAN

LIGHTNING WELL MACHY
IS THE STANDARD
STEAM PUMPS AIR LIFTS
GASOLINE ENGINES
WRITE FOR CIRCULAR AT
THE AMERICAN WELL WORKS
AURORA, ILL. - CHICAGO - DALLAS, TEX.

American Cow Ties Will Outlast all others

This is because the form of the link, the exact size and shape of which are shown above, is such that the wear is distributed evenly over its entire end. The tearing surface is thus very large, and the chain will wear for years without becoming worn appreciably.

With other styles of chain the tearing surface is only a very small portion of the extreme end of the link. Grooves are soon formed, and in a comparatively short time the links are worn—or, properly speaking, cut—through.

These facts are well shown on a cow tie recently brought us for repair. It was an ordinary No. 00 three-chain tie. One chain was wire, the other two American. One of the wire links was worn entire through. The others were nearly as bad—a strong pull would have broken almost any of them. With the American chains, on the other hand, the wear was very slight, and hardly noticeable—three times this amount would not have weakened the chains seriously.

American Cow Ties are made in all the standard patterns and sizes. If your hardware dealer does not handle them, kindly let us know, and we will see that you are supplied.

See our Special Cow Tie Catalogue—just published—sent Free on application.

ONEIDA COMMUNITY, Limited, Niagara Falls, Ont.

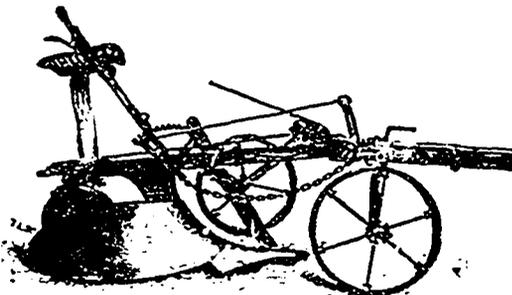
BEST SULKY PLOW

IN THE MARKET

The Lightest
in Weight.

The Simplest
in Working.

The Easiest
in Adjustment.



The Lightest
in Draft.

The Strongest
in
Construction.

The Highest
in Quality.

THE LOWEST IN PRICE

Adjustments for any ground or any depth made by one lever. Fitted with the only perfect Tilting Coulter and Stubble Cleaner. A Plow without an Equal. Send for Circulars and Price List.

The Perrin Plow Co.
LIMITED
Smith's Falls, Ontario

Market Review and Forecast

Office of FARMING,
Confederation Life Building,
Toronto, Oct. 2nd, 1899.

Everyone seems to be agreed that the trade of the country was never in a more prosperous condition than at the present time. Failures seem to be at a minimum and remittances continue to improve. Money though firm seems to be ample for all legitimate purposes. Call loans are firm at 5 per cent., though some banks are refusing to lend at this figure. Discounts on commercial paper continue steady at 6 to 7 per cent.

Wheat.

The wheat situation, though showing no striking change, is on the whole, strong. Cable reports during the week have been of a better tone, showing more activity in the market and a lessening of stocks in some centres, which is having the effect of making holders more conservative in their offerings. The Chicago market has been, as a rule, strong and active all week. There seems to be more outside speculation and the market is broadening considerably. September has ruled at 74½c., December at 73½c., and May at 76½c. Firmer cable reports have tended to make the market more bullish. The *Price Current* has the following to say in regard to the market and crop conditions: "The rains favor seeded wheat and help further seeding. The total area may come near to last year. All the corn has matured without frost. The early grain is good in yield and quality, but the late is poor in both. Restricted wheat marketing. Fair corn movement."

The market at Montreal is steady for through shipments. Manitoba wheat is firmer and higher. West of Toronto No. 2 red winter wheat is reported selling at 67 to 68c., and some as high as 69c. Goose wheat is quoted here at 70c. north and west; No. 1 Manitoba 80½c., and No. 1 Northern at 76½c., Toronto. On the farmers' market here red and white bring 68 to 70c., spring Fyfe 69½c., and Goose 75½ to 76c. per bushel.

At time of going to press the Chicago market was reported dull and weak.

Oats and Barley.

The oat markets both on this side and in Britain have ruled easier during the week. Sales have been made at Montreal at 30½ to 30¾c. afloat. White oats are quoted here at 25c. west. On the Toronto farmers' market they bring from 30 to 31c. per bushel.

The Montreal barley market is easier and feed barley will not bring as much by ½c. as a week ago. The quotations here are 40 to 42c. for No. 2 west and 35 to 36c. for feed barley. On the Toronto farmers' market barley brings 44 to 45c. per bushel.

Peas and Corn.

The market for peas has ruled fairly steady during the week with some falling off in values towards the end. Peas are quoted here at 60c. north and west for immediate shipment. On the farmers' market they bring 60½ to 61c. per bushel.

Prices are higher for corn at Montreal for future delivery. American corn is still quoted here at 40c. on track.

Bran and Shorts.

There is a good demand at Montreal for Ontario bran, and sales of car lots have been made at \$14.50 to \$15.25 in bags. Shorts are in good request at \$17 to \$18 per ton. City mills here sell bran at \$13 and shorts at \$16 in car lots f.o.b. Toronto.

Eggs and Poultry.

There is a good demand at the leading English markets for fresh Canadian eggs at improved prices and some enquiry for pickled stock. Supplies are increasing at Montreal and the market has ruled firm owing to higher prices at county points. There is a good export demand for fresh gathered stock and quotations are: choice candled stock 16½ to 17c., straight lots 15 to 15½c., and selected

fresh shipping stock 18 to 19c. per dozen. Here choice new laid-eggs are quoted at 14 to 15c. wholesale, and on the Toronto farmers' market bring 16 to 18c. per dozen.

On the Toronto farmers' market chickens fetched 40 to 75c. and ducks 50 to 90c. per pair, and turkeys 12 to 15c. and geese 6 to 8c. per lb.

Potatoes.

These are quoted at Montreal at 40 to 42½c. in large quantities, and 50c. per bag of 90 lbs. in smaller lots. There are evidences of a big crop. Potatoes here bring about 50c. per bag in car lots, and on the Toronto farmers' market 50 to 60c. per bag.

Apples.

Though the excitement in the apple trade has calmed down, there is still a very firm feeling for good winter stock. Sales are reported of some large orchards on the tree in the Burlington district at \$2.20 per barrel, the buyer to pick as well as to pack the fruit. This is a very high figure, and indicates a very strong undercurrent in the market. Few shipments are going forward from the United States this year, the bulk of the apples going forward from Canada. At Montreal the prices of fall apples range from \$1.50 to \$2.50 as to quality, and winter fruit to arrive is quoted at \$2.50 to \$3.50 per barrel. The Fameuse apple crop of the Island of Montreal will give a good average yield, for which \$3 per barrel is being offered. On the Toronto fruit market apples are quoted at 15 to 25c. per basket, or \$1.50 to \$2.25 per barrel.

Hay and Straw.

Some export business is being done in hay at Montreal. A report from Germany put the hay yield of that country at about half a crop. Baled hay at Montreal is in more liberal supply, but with an improved demand at last week's prices. Car lots of baled hay are quoted here at \$8 to \$8.50 on track, and baled straw at \$4 to \$4.50 per ton. On the Toronto farmers' market hay brings \$10 to \$12.50; sheaf straw, \$8 to \$8.25; and loose straw, \$4 to \$5 per ton.

Cheese.

Everything points towards a strong cheese market till the end of the season, with present prices well maintained, if not considerably advanced. Though receipts of Canadian cheese have been heavy in England, there is no great accumulation of stocks, and at Montreal stocks are less than they were last year at this time. About all the goods held there are on English account, as shippers on this side do not usually hold large stock at present high prices. A great deal depends upon the amount of cheese in factory men's hands, and what the fall make will be. Though factory men have not been selling very quickly the last week or two, there is not believed to be a very large stock in their hands. As to the fall make, some in the business think it will be the shortest for years,

owing to the severe drouth in August cutting off the milk supply.

The total shipments of cheese from Montreal to date are 1,378,528 boxes, as compared with 1,263,286 boxes for the same period last year, and the total shipments from this side of the Atlantic show an increase of 144,503 boxes as compared with the same period last year. The slump in prices a couple of weeks ago caused some shippers to make contracts of September at 50s. or under, but, as they will not be able to get them at this figure, large losses are expected. Though English dealers are not inclined to accept the advances on this side, it is now clear that they will have to accept present prices, or even higher prices, if they wish to get September goods. Finest western are quoted at Montreal at 12 to 12½c., and finest eastern at 11½ to 12c. At the local markets during the week the ruling prices were 11½ to 11¾c. Many factory men were not inclined to accept these figures, holding for 12c. At this time last year finest westerns were quoted at Montreal at 9½ to 9¾c., and finest easterns at 9 to 9¼c.

Butter.

The butter situation is just as strong if not stronger than that of cheese. Prices have advanced on both sides of the Atlantic and though supplies of Canadian have been large in England the demand is quite equal to them. Sales of finest Canadian creamery have been made during the week at 112s. to 116s. and fancy well known brands at 118s. to 120s. These are high prices, but they are likely to continue for some time to come. Many in the trade at least are counting on high prices for butter during the fall and winter. The English make is not so large this year and besides there has been an increased consumption of butter. The exports of butter to date from Montreal are 354,000 pkgs. as compared with 213,000 pkgs. last year for the same period, an increase of 141,000 pkgs. The exports from New York for the same period show an increase of 45,000 pkgs.

Prices at Montreal have advanced 1 to 1½c. during the week, and finest creamery butter is selling there from 23½ to 24c., as compared with last year at this time when the figures were 19½ to 19¾c., an advance of 4 to 4½c. in favor of this year. One or two creameries are reported to have sold at 24c. f.o.b. Some Manitoba dairy butter is being sent East. All the creamery goods made in that province find a market in British Columbia.

The butter market here is active with creamery prints bringing 22 to 23c., and boxes at 22c. Choice dairy tubs bring 17 to 18c., and prints 18 to 19c. Undergrades, which are somewhat plentiful, bring 13 to 14c. On the Toronto farmers' market pound rolls bring 20 to 25c.

Cattle.

The same conditions continue in the cattle trade generally as were noted a week ago.

WITH WHAT WE CANNOT KNOW

we cannot be concerned, but we do know that The

American Cream Separator

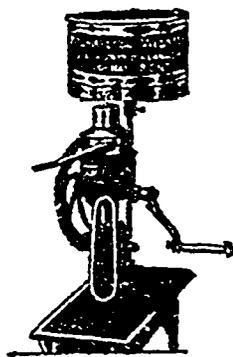
stands without rival on the market to-day.

THE AMERICAN will be sent on trial, and we guarantee perfect satisfaction.

Get prices and illustrated catalogue from

Richardson & Webster,
ST. MARYS, ONTARIO

Also Manufacturers of Cheese Factory and Creamery Apparatus.



Really good prime beeves are scarce and are bought up as soon as offered at top prices. There is, however, too great a supply of inferior stuff which, on the whole, continues draggy at generally easier prices. At the Toronto cattle market on Friday last one of the week receipts were very heavy. The market on the whole was very dull partially on account of the very poor quality of the cattle and also on account of the 600 cattle on the market, which are delayed in shipment by the grounding of the *Scotsman*. A few good loads of exporters were quickly sold at good prices. The bulk of exporters, however, sold at \$4.25 to \$4.85 per cwt., but better cattle would command higher prices.

Export Cattle.—Choice lots of these sold at \$4.80 to \$5.10, while light ones brought only \$4.30 to \$4.60 per cwt. Heavy export bulls brought \$4.12½ to \$4.40 and light ones \$3.40 to \$3.65 per cwt.

Butcher's Cattle.—Choice picked lots of these equal to the best exporters but not so heavy, sold at \$4.12½ to \$4.35 per cwt. Good butcher's cattle sold at \$3.65 to \$4 medium, mixed cows, heifers and steers, \$3.40 to \$3.65 and inferior to common at \$3 to \$3.37½ per cwt.

Stockers.—Canadian stockers continue steady at Buffalo. On Toronto market on Friday they sold at \$3 to \$3.40 for medium to good red and roan steers, while inferior black and white heifers and steers sold at \$2.25 to \$2.50 per cwt. Stock bulls sold at \$2.25 per cwt.

Feeders.—There was a large number of heavy feeders offered on Friday and prices were easier and well-bred steers weighing 1100 to 1200 lbs. sold at \$3.50 to \$3.80 per cwt. Light feeders weighing from 900 to 1000 lbs. each sold at \$3 to \$3.50 per cwt. and feeding bulls at \$2.75 to \$3 per cwt.

Calves.—Good veal calves are wanted. They bring from \$4 to \$8 each or \$4.75 to \$5 per cwt.

Milk Cows.—These bring from \$28 to \$46 each.

Sheep and Lambs.

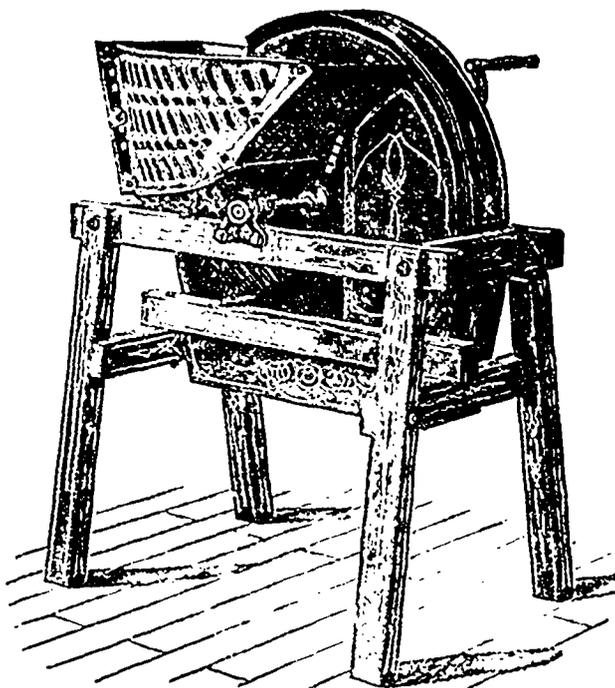
The Buffalo market is steady, with choice Canadian sheep and lambs 10 to 15c. higher. On Friday the offerings were pretty well cleared up. Deliveries were heavy at Toronto. Export ewes sold at \$3.25 to \$3.50, bucks at \$2.50 to \$2.75 and export sheep at about \$3 per cwt. The receipts of lambs were also heavy and prices easy at \$3.25 to \$3.50 per cwt.

Hogs.

The hog market on Friday was weaker with prospects of lower values this week. Receipts were fair with prices easy at \$4.62½ for best bacon hogs of good quality, not less than 160 nor more than 200 lbs. each (off cars) unfed and unwatered, and \$4.12½ for thick and light fats. Essex and Kent corn-fed hogs bring about \$4.12½ to \$4.25 per cwt. At Montreal packers are paying from \$4.50 to \$4.75 per cwt. for hogs. The *Trade Bulletin's* London cable of Sept. 28 re Canadian bacon reads thus: "The market for Canadian bacon has ruled steady during the week, but business has not been active, as holders have not pushed sales owing to light stocks. At the close, however, the outlook is for lower prices."

Horses.

The large buying of horses in the United States is stiffening prices here. Canadian dealers feel that a large number of suitable horses could be secured for this trade in this country, and an effort is being made by the Ottawa authorities to secure some of the orders for Canada. At Grand's Repository the wet weather early in the week made the attendance at the regular Tuesday's sale smaller than usual. Several geldings, some of them suitable for carriage purposes, sold at \$95 to \$135 each, as to quality. Heavy horses, suitable for the lumber woods, are hard to get. These should weigh from 1,000 to 1,750 each, and sell here readily at from \$100 to \$200 each, according to condition. Ordinary horses bring from \$25 to \$30 for second grades up to \$75 each for those in good condition. A notable sale of carriage horses takes place at Grand's this week when all the stock of the Essex Coach Horse Company will be offered for sale.



No. 7 horse cutter (truper and slicer combined)

THE NOXON CO. (LIMITED)

Ingersoll, Ont.

MANUFACTURERS OF

HIGH-CLASS FARM IMPLEMENTS

Please write for Price List and Descriptive Catalogue

ESTABLISHED 1877.

A. H. CAMPBELL, President.

R. H. TOMLINSON, Manager.

British Canadian

HEAD OFFICE:

25 Adelaide Street East

Toronto

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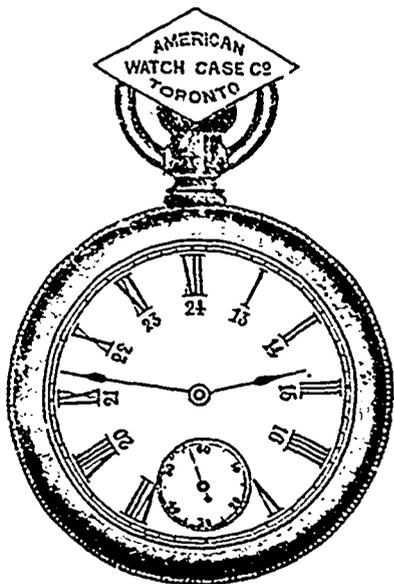
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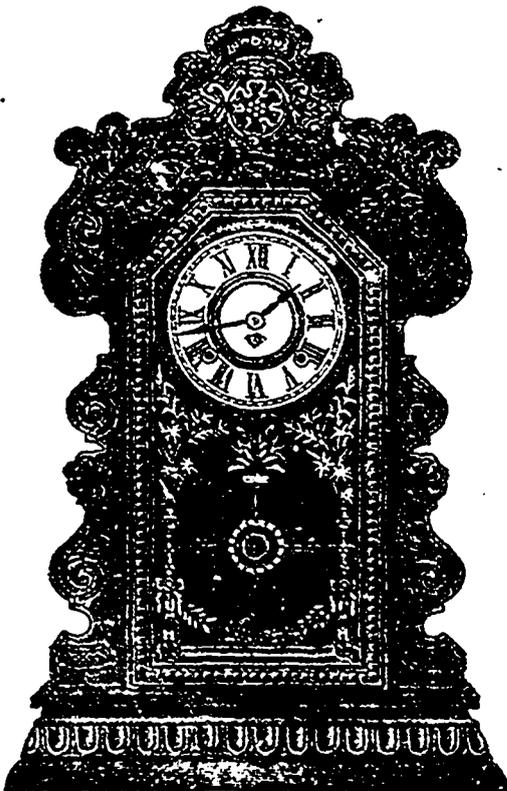
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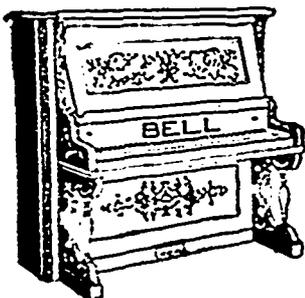
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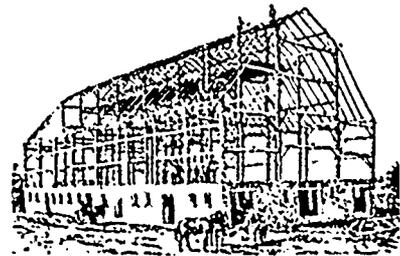
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