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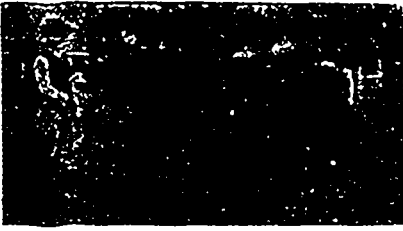
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A Paper for
Farmers and Stockmen

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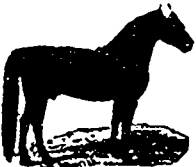
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GOMBAULT'S
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A Safe Speedy and Positive Cure

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish.

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For Lump Jaw

Not one case in a hundred that cannot be cured by one to three applications of

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LUMP
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Lump Jaw has heretofore baffled treatment. It has infected herds and pastures, and caused loss of hundreds of thousands of dollars. This new remedy cures quickly, thoroughly, and permanently. Leaves jaw smooth and sound. Easy to apply; costs but a trifle compared with results.

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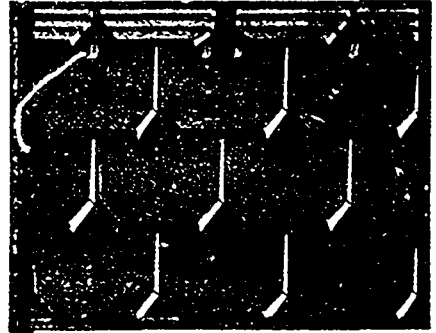
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They do not require any changes in construction to cover up defects. They offer now, as always, perfect durable protection from all kinds of weather, are specially economical in cost when you consider the time and labor saved in laying them.

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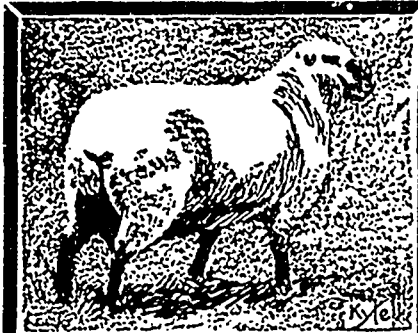
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d-5-23



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For the complete and effectual removal of all
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Powerful, without being harsh. Immediate in
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Express Prepaid.

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No after charges. Satisfac-
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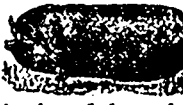
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I have the 1st-prize
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2nd prize boar under 6 mos-
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and 6 mos. old. Have 2
of the sows for sale that tried for 1st of the three pigs
bred from one 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
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Twenty Cows and Heifers, served by imported
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If once gains a foothold in your herd will
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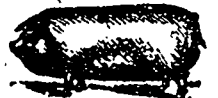
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Largest herd of imported Yorkshires in America. Purchased from the most noted breeders in England.
Also 200 Canadian-bred pigs of all ages for sale. Stock guaranteed as described. All trains met at
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The Largest Herd of Pure-Bred Yorkshires
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For Immediate Sale

Six choice Holstein Bulls, 9 to 14 months old, just imported. Bred by Chapman and Horr Bros., Ohio. Sired by the richly bred bull Pauline Paul's Grandson Clothilde dams of these bulls are g enter producers in this fine herd. We have personally selected these bulls to suit our dairy customers.

Write for particulars At Once.

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COME grand January Pigs to offer, sired by Whiteacre Crystal (Royal Prize Winner). Also, a few Boars, ready for spring service. Two Sows, 10 months old; one Imported Boar, 7 months old. Herd numbers 100—most select in America. All ages for sale. Am booking orders for Barred Rock Settings.

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FOR SALE—Two choice young bulls, sired by Lord Everet and, a great grandson of Barrington; one of the best bulls ever imported. Dams are Cecilia Mink Mercedes, 1st and 2nd, both of good milking strains. Also heifers and heifer calves. Prices reasonable. **T. W. CHARLTON, St. George, Ont.**

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J. A. RICHARDSON, South March, Ont., Breeder of Holsteins, Dorset Horned Sheep, Tamworth Swine.

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DAVID McCRAE, Janefield, Guelph, Canada, Importer and Breeder of Galloway Cattle, Clydesdale Horses, and Cotswold Sheep. Choice animals for sale.

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J. BUCHANAN, Napier, Ont. Breeder reg Aberdeen-Angus Cattle. Stock by Lord Forest for sale.

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Oshawa Poultry Yards Eggs \$1.00 per 15, from High-Class, Pure Bred, Rose Comb Black Minorcas, Silver Laced Wyandottes and Snow White Plymouth Rocks. **W. H. KIRBY, Oshawa, Ont. d-5-9**

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Emden Geese, Pekin Ducks, Bronze, White Hol and Narraganset Turkeys. Collie Dogs and Oxford Sheep. All of the best strains.

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MALCOM DULMAGE, Belleville, Ont.

EGGS EGGS EGGS

Black and White Langshans, Barred and White Rocks, Silver-Laced and White Wyandottes, Black Minorcas, Houdans, Cornish Indian Game, Single Comb White and Brown Leghorns.

EGGS—\$2.00 per 15, \$3.00 per 30, or, \$8.00 per 100, straight or assorted

Sbetland Ponies, Dorset Sheep, Jersey Cattle. **STRATFORD BROS., Brantford, Ontario**

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Letters should be addressed:

FARMING,
CONFEDERATION LIFE BUILDING,
TORONTO

Stock Notes

MR. ALFRED MANSELL, secretary of the English Shropshire Sheep Association, is on a four weeks' visit to Canada and the United States, and will be the guest of Mortimer Levering, secretary of the American Shropshire Association, most of the time. He desires to make the personal acquaintance of as many farmers and breeders as possible. His chief object in visiting this country is to make himself better acquainted with the wants and requirements of the farmer of the country in British pedigree live stock. He intends visiting Toronto during his trip.

MESSRS. STRATFORD BROS., of Brantford, Ont., have a lot of beautiful Dorset lambs, Tamworth pigs, Shetland ponies and young Jerseys, which they are offering in this issue at special prices. They report that orders are plentiful for eggs and that it takes practical handling to induce the hens to lay in order to keep up with the demand upon them, which is largely increased by the present use of incubators.

SHIPMENT OF HEREFORDS.—The popularity of the Herefords in the Western States appears to be increasing and their adaptability to the uses and purposes of the large ranching companies assured. Two weeks ago the estate of the late Mr. F. W. Stone, of Guelph, shipped two car loads, comprising fifty head of purebred young bulls, to the Reynolds Land and Cattle Co., for their ranch in the Pan Handle district in Texas. This ranch consists of over two hundred thousand acres, and is stocked with some twelve thousand head of cattle, more than ninety-five per cent. of them being Herefords. The company have purchased all their bulls for the past fifteen or twenty years from the late Mr. F. W. Stone, the Stone estate, and Mr. Alfred Stone, of Guelph. This year they are importing the same herd largely from Great Britain, and it was expected that a consignment of 25 young bulls from England would join the shipment from Guelph at Chicago. The company have also another large importation of Hereford bulls in the U. S. quarantine.

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CHEAP FARMS FOR SALE

\$775 Lot No 6 in 12 and 54. Lot 7 in 12th Con of Brudenell, County of Renfrew, 211½ acres. Good buildings. Three miles from Killaloe Station. Apply.

J. L. SCARTH, 11 Toronto St, Toronto.

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PINE GROVE STOCK FARM,

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On the C.P.R. and G.T.R. Railways. Special bargains on young bulls of superior merit and select Scotch breeding. Also thick young heifers at the right prices.

Ayrshires, Jerseys, Shropshire Sheep, and Clydesdale Horses.

Post Office, Telegraph Office, and Steamboat Landing, Rockland, Ont., on the C.P.R.

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A. E. SOHRYSER,
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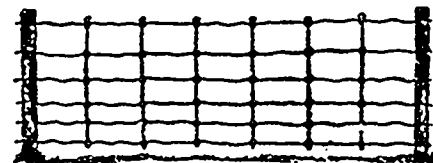


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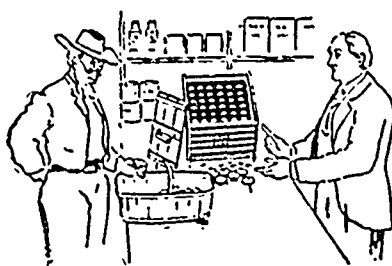
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They are exceedingly cheap and very strong and durable.

Be Sure You See Them.

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MAN'G CO LIMITED

If your dealer
has not got them
send to us for
Circulars.

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OFFERS FOR
SPRING of 1899

A full line of stock, both fruit and ornamental, at very moderate prices. No agent's commission to pay.

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The Finch Wood Preservative
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For farmers' use—for Barns, Shingle Roofs (old or new) where cheapness and durability are desirable. Used and highly recommended by the Councils of Toronto and Montreal, Toronto Board of Education, the Industrial Exhibition and the Ontario Government. Write for Circulars. Agents wanted. d-5-23

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Make of Pure Manila Twine

The Farmers' Binder Twine Co.,
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Agents Wanted

We want a special representative in every township. Write for terms and full information to

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Farmers! Don't be taken in. There is none "just as good." These twines will not bunch at the knotter, and a Binder will run all day without stoppage, thus saving time, annoyance and a "lot o' cussin'."

We pack our twine in bags of the size of ordinary grain bags, and we are not ashamed to put our name upon it. Don't take any other.

CONSUMERS' CORDAGE CO.

LIMITED,

MONTREAL.

FARMING

Vol. XVI.

MAY 16th, 1899.

No. 37

Our Farm Products in England

Professor Robertson gave some interesting evidence before the Committee of Agriculture recently relative to the outside markets for farm products. He pointed out that the market for cheese in Great Britain was not so good as it might be, owing to cheese getting heated in curing and developing a flavor which the British people did not like. Butter was making headway, except that on the way from the steamer to the retail shops it seemed to lose its flavor. Other countries used some sort of preservatives besides salt, which were not harmful. Since 1895 Canadian butter had steadily advanced on Australian butter, and last year was, on the whole, above it in price. There had been a similar gain on Danish butter to the extent of about six to eight shillings a hundredweight. Canadian bacon is taking very well, but a large proportion of it was classed as second; that is, too fat, although of good quality otherwise. This sells for $1\frac{1}{2}$ to $1\frac{3}{4}$ c. per lb. less than first quality. The apple trade was in a bad way, and should be thoroughly discussed by the committee, which was agreed to. The exports of agricultural products have increased from \$48,791,388 in 1896 to \$55,533,592 in 1897, and \$75,834,000 in 1898.

The Outlook for Wool

Last week we pointed out that in many of the great sheep-raising countries wool has become a kind of by-product. The frozen mutton trade and the demand for large and well-fed lambs have caused the farmer in the countries referred to to engage in sheep-raising, with the object of supplying the lamb and mutton trade rather than for growing wool. This new condition of things has brought about a distinct change in the quality of the wool produced, and has caused an over supply of the coarser or cross-bred wools. This changed order of things is especially noticeable in Australia, the greatest wool-growing country in the world.

One direct result of these changed conditions has been, as we have just stated, an over-production of the coarser and lower grades of wool. But they have also brought about a scarcity in really fine wools. To such an extent is this the case that at the leading English and European wool markets since the beginning of the year there has been a regular boom on in Merino wool. At Antwerp the prices for Merino wools have ranged from 43c. per lb. in January to 51c. per lb. at the end of April. There was a decrease in the supply of wool in Australia in 1898 amounting to 70,000,000 lbs., as compared with that of the three previous years. As the proportion of cross-bred wool has largely increased, it is safe to assume that all this decrease in the quantity of Australian wools is composed of Merino wool. In South America there has been a large increase in cross-bred wools, due to the sheep raisers there raising sheep for mutton purposes.

This scarcity of merino wools and the high prices they bring in European markets may have some effect upon the price of other wools. In fact there are indications of this in the English markets, but the advance is only in proportion as the wools are nearest to the merino in quality. But the quality of coarser and cross-bred wools being produced

is such as to prevent these higher prices from ever reaching them. The wools approaching the merino in quality may reap some benefit from the scarcity of the latter, but the bulk of the wool produced in this country will hardly be affected by it.

The fleece wool situation in so far as Canada is concerned is very well summarized in the following paragraph taken from the *Monetary Times* of recent date: "The past year has been in this department in every way unsatisfactory. Dealers have been working on a declining market and have made little money on the clip of 1898. It is estimated that there yet remains from 750,000 to a million pounds of 1898 combing wool in Canada, and about one-third or half this quantity is in Toronto warehouses. Of the remainder of the clip, about 200,000 pounds is held in Hamilton and the rest is in the hands of the woollen mill owners and country merchants. The clip of 1899 will soon be on the market, and as wool is a by-product, and its production uninfluenced by market rates, it is improbable that there will be any diminution in the quantity of wool marketed during the present spring and coming summer."

From all this we may fairly conclude that we are not likely to see any higher prices for Canadian wools the coming season than last year. In fact, it would not be at all surprising if prices were considerably lower. The bulk of the wool produced by the farmers of this country does not class as fine wool, and consequently has to go to a market that is over-supplied. But, as we have already stated, wool must be looked upon as a by-product, and the farmer must be prepared to take just what he can get for it.

This unsatisfactory condition of the wool market, however, should not deter anyone from raising sheep. The profit in sheep-raising in this country is in the lambs, and what returns there are from the wool should be looked upon as an extra.

Seed Growth and Selection

Prof. Robertson Advances Some New Ideas on the Subject

In his evidence before the House of Commons Committee on Agriculture last week Prof. Robertson made some new and important statements in regard to the fundamental principle of agriculture, more particularly in reference to the growth and selection of seeds. From a condensed press report in the *Daily Globe* we take the following in regard to his address: "Moisture was controlled by rolling and cultivation, and experiments had shown that the temperature three inches above the soil on rolled land was $3\frac{1}{2}$ degrees higher than on unrolled land. He adduced a mass of evidence to prove that by carefully selecting the seed the best crops were secured, by raising from year to year the varieties that had been found to be most productive in each particular locality. That, while the characteristics of each variety were the same in all localities, productiveness varied according to locality and conditions, and, therefore, it would pay farmers to carefully collect the best seeds from their crops for this year and plant them in a seed plot for their next year's seed. If farmers grasped this principle of seed selection they would secure an increase, as shown by actual and extensive experiments, of 10 per cent. in their crops.

The productiveness of seed was not an inherent quality, but depended on the conditions under which it was grown."

Without a more detailed report of Prof. Robertson's address it is not possible to make any comment, favorable or otherwise, in regard to his claims. Suffice it to say that the theory in regard to the growth and selection of seeds, which he has elaborated, is somewhat at variance with generally accepted beliefs and practices in this country. That this is so, however, in no way affects this new theory; and on the other hand, that a line of practice has been followed for a number of years and has become the generally accepted one does not prove that it is the best practice to follow and that there is nothing better. There is always a tendency on the part of farmers to become wedded to certain practices and systems because they are the generally accepted ones, and to follow them somewhat blindly believing that there is nothing better. Therefore, a new theory or practice advocated will do good if it only leads people to think and look beyond their own spheres.

There is one point in this new view of seed growth and selection that we might mention just here. In raising live stock it is claimed that "feed is half the breed." And may not the same thing apply to "raising" seeds? No matter how good his breeding may be, an animal must have a sufficient supply of the right kind of food in order to maintain his natural vigor and strength. And might we not look upon a seed in the same way and claim that no matter what the climatic or local conditions are surrounding its growth, if it is not supplied with a sufficient amount of the right kind of food, it will not come to that vigor and strength required in a seed in order to produce vigorous and robust plants. This view applied to any one locality or to any particular farm might show that the soil of that locality or farm had not within itself the food constituents necessary to produce vigorous seeds and the result would be a supply of seeds with less vigor and vitality than the ones sown. This, however, could be avoided by the farmer, in adopting Professor Robertson's plan of having a seed plot, seeing to it that the soil of this plot is well supplied with the foods necessary for vigorous plant growth and in this way maintain and increase the vitality of the seeds.

The whole question opens up a wide field for thought and we shall welcome a further and more detailed statement of Prof. Robertson's address on the subject.

Plank-Frame Barns

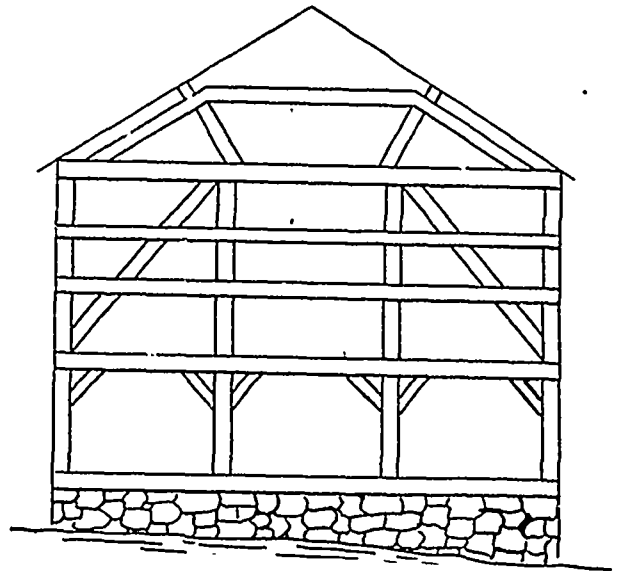
A New System That Meets the Need of Districts Where Timber is Scarce

In this country, as well as in many others, barn building is becoming a serious problem where good timber is scarce. In the older parts of Canada tall stately trees suitable for barn timber are becoming less in number every year. In fact in some localities farmers who have to remodel their farm buildings or to build new ones have very great difficulty in finding timber suited to the work. Hence any system of barn building that will do away with the necessity of long or large heavy timber cannot help but be of distinct advantage to the farmers of this or any other country.

In several of the states of the Union a new system of barn building has come into almost general use and is meeting the conditions caused by a scarcity of good barn timber. By this system, which is known as the Shawver-Lockhart system, planks are substituted for heavy timbers. We reproduce a description of the system by the inventor, Mr. Shawver, together with illustrations taken from the *Michigan Farmer*, as follows:

The constantly increasing scarcity of timber, even in localities once covered with stately trees, has demanded some improvement in barn framing that would call for less material in its construction. This demand has been met by what is known as the plank-frame, or Shawver-Lockhart system of construction. The entire structure is made from planks two inches thick and of various widths. The sys-

tem has been in use in central Ohio for fifteen years, and presents so many advantages that few who learn of them,



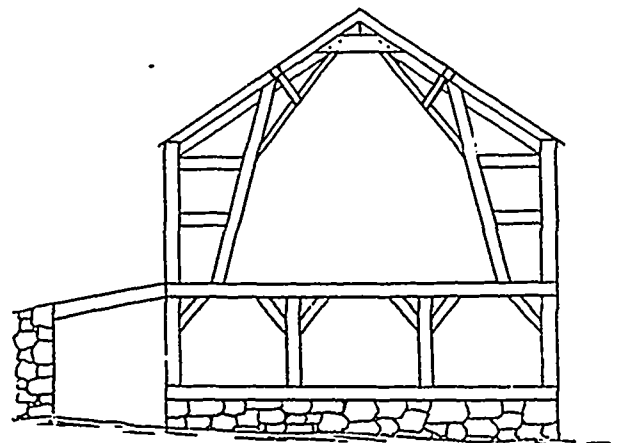
End Bent

and none who once understand them, would think of building a barn in the old way.

Let us enumerate some of the advantages: First, the saving of timber. Since planks are used in constructing all the timbers, and these are filled in with blocks and tenons, a post is made, say, 8 x 10, yet it only contains material enough for a solid stick 8 x 6, securing a saving of 40 per cent. Then by the method of supporting the roof and inserting the braces in and through the beams and ties, another big saving of timber is secured, so that in a structure of any considerable size fully one-half of the timber is saved. To illustrate: In the spring of 1894 we built an addition to a barn 60x60 that would have required, if framed of old style timbers, 40,000 feet of timber; as it is, it required less than 20,000.

Second, less danger of decay. The two-inch planks season readily, and there are no mortises in which moisture can collect from leaking roofs, or from rain or snow blowing in through cracks, blinds, ventilators or open doors. This has always been a fruitful source of trouble in solid timber frames, and few barns are up over twenty-five years without some of the tenons having become decayed.

Third, no timber in the way. In this, as in other self-supporting roofs, there is no timber in the interior bents to interfere with the storing away of grain or hay, or in getting grain to the threshing machine. Horse-forks and slings are used here to the best advantage.



Interior Bent

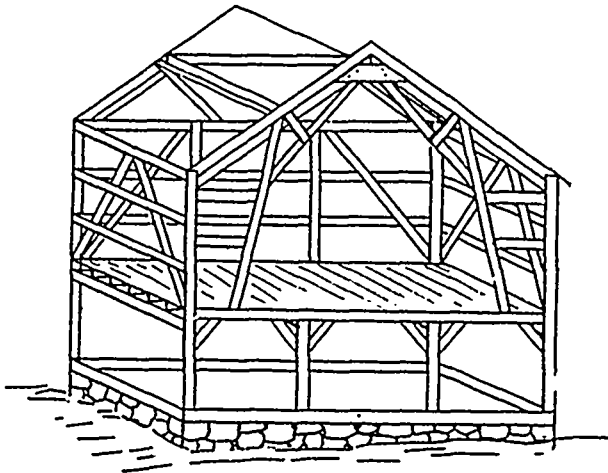
Fourth, saving of time. Since it requires so much less timber, it takes much less time to place the material on the ground; but, what is of much more importance, it requires much less time to "frame" it and make it ready to "raise." To illustrate: It took us four days to get our barn ready

to raise. Counting wages at \$2 and board at 50 cents, the cost was \$20. Had it been framed of solid timber it would have required about four weeks. Counting wages and board as before, the cost would have been \$120, a difference of \$100. It thus gives also,

Fifth, a saving in cost. For besides the \$100 saved in the cost of framing, we have a saving of 20,000 feet of timber, which, at \$15 per thousand, is worth \$300. Now, let the farmer's wife figure the value of all the time spent in work and worry in cleaning after the hands through the extra twenty days in framing, and while hauling the extra 20,000 feet of timber, and you can form some idea of this advantage.

Sixth, a saving of labor. In addition to the saving of labor effected by the manner of framing, there are no very heavy timbers to handle, and anyone who has ever handled the timber for one barn will appreciate this fact. Then, too, the man who has turned a two-inch auger in a boring machine beneath the burning rays of a midsummer sun, will be glad to know that both mortises and tenons are found already made in this system.

Seventh, greater strength. Some will doubt if such a frame can be substantial. They are accustomed to timber 8 x 8, 10 x 10, and even 12 x 12. But the first thing carpenters do with such timbers is to cut them full of



Two Bents combined, showing haybay over basement

holes, and cut down the ends to 2 x 8 or 2 x 6 for tenons. Shipbuilders use planks in making timbers that must sustain a great amount of strain. Bridge builders apply the same principle. The great cables that support suspension bridges are made of many small wires, whose united strength is greater than that of a single wire equal in dimensions to all combined.

Again, the timbers are so placed in this system as to resist the weight of strain endwise rather than crosswise. They also form triangles, rather than squares or rectangles, the triangle being the strongest of all geometrical figures, because it is absolutely impossible to change any angle without at the same time changing one of the sides.

Some ask if this frame will support a slate roof. Yes, two of them if desired. Is not every principle of support to the roof fully met? If the work is rightly done, it is stronger than many old style frames in which the laws of mechanics have not been regarded.

Can I have a gambrel roof? Yes, you may have gambrel, mansard, curb, French, Italian, Gothic, gable, hip, or even a shed roof, just as you wish, and the barn will not be weakened a particle.

Can I build an octagon barn thus? Yes, an octagon, a hexagon, or any doggon shape you desire.

The system is no untried theory, but a well-established fact. When the first barns were thus constructed the idea was not fully developed, but the barns have withstood heavy winds, the system has withstood many striking remarks, and the idea has been more fully developed, hence it cannot now fail to satisfy any intelligent farmer or stockman of the capabilities of such a barn.

In basement barns the basement may be built of solid timber, if desired, with joist-bearers lengthwise of barn and sills crosswise, or inverted T posts, thus \perp , without sills.

Ontario Crop Prospects

The Ontario Department of Agriculture has issued its first crop report for the present season. The weather records for the six winter months show that, while the severity of the weather was slightly more intense than the average, the conditions which prevailed during February were especially unfavorable to agriculture. The absence of the protection generally afforded by a thick covering of snow during midwinter explains the serious injury sustained by fall crops and other vegetation.

The weather during the winter and the early spring has been exceedingly unfavorable for fall wheat, and as a consequence the crop, which promised well before the snow-fall, has been greatly injured by the inclemency of the season, and is practically a failure in many localities. The dry weather which has prevailed in some neighborhoods since the opening of the growing season has also wrought some injury. A considerable percentage of the area sown to fall wheat has been plowed up. There are slight losses from insect pests reported, wireworms and the Hessian fly having appeared last fall in a few localities in the western part of the province. At the time correspondents wrote rain was urgently needed at several points to ensure the remaining crop.

A large proportion of the clover crop in every section of the province has been winter-killed owing to the scarcity of snow. The thinness of the old growth by reason of the drought of last season, and the poor catch on newly-seeded areas, contributed to the result. Winter rye is not extensively raised in any part of the province, but where grown it has generally come through the winter in good condition and promises well. In some quarters clover is beginning to suffer from lack of moisture.

The late opening of spring, which rendered vegetation generally behind in the earlier part of the season, has been compensated for by recent warm and favorable weather, which has resulted in so rapid a growth that in many localities the 1st of May found vegetation well advanced, affording good pasture for live stock. There are considerable varied reports regarding seeding, and while some of them state that the seed-bed has been favorable, a large number describe the soil as being too wet. The prospect is that a full area of spring grains will be sown, particularly of oats.

Reports as to the condition of the fruit trees vary in different sections and sometimes in the same localities. In the Essex district many peaches have died during the winter, while in the Niagara district the loss reported is small. Generally speaking there has not been serious injury to fruit trees other than peaches. A majority of correspondents speak of an abundant bloom on orchard trees, and some fear that the blossoms are out so early that the late spring frosts may attack them. There are some references to black-knot on the plum, but the chief trouble complained of is the appearance in large numbers of the tent caterpillar.

As a rule, live stock have wintered well, and are in good condition, fodder being abundant, though some correspondents note a scarcity, especially in the west and on the Lake Erie frontier. Many of the cattle are reported rather thin in flesh, though healthy. The market for both horses and horned cattle is brisk, and prices good. Horses have suffered in some places from influenza and distemper. Sheep have been remarkably prolific, and the young lambs are mostly strong and healthy, though in a few localities considerable losses have taken place. The most serious disease affecting live stock has been an ailment described as crippling or rheumatism which has destroyed very large numbers of pigs, especially the younger animals, in almost every part of the province.

A considerable quantity of hay beyond that necessary for home requirements remains in the hands of farmers in

most localities, the low prices prevailing having been insufficient to bring it to the market. In many places, however, the extra demands of the late spring have left them with little, if any, available surplus. Oats are much scarcer, and the remaining supply will be mainly required for stock feeding. A large proportion of the wheat harvest is yet retained by those who can afford to do so in the hope of an increase in price. The great demand for cattle at good figures has resulted in the sale and shipment of an unusually large number of fat and store animals, so that there is almost a universal scarcity, especially of the former, some places being left with an insufficient supply for local slaughtering demands. Several correspondents note that farmers are beginning to realize that it is more profitable—at least when feed is selling at a low price—to fatten their own stock for market instead of selling them as store cattle.

Condition of Winter Wheat and Live Stock in the United States

In Report No. 156, United States Department of Agriculture, some interesting statistics and information are given as to the condition of winter wheat on April 1st and the losses of farm animals for the year ending March 31st, 1899. The average condition of winter wheat on April 1st was 77.9 against 86.7 on April 1st, 1898, 81.4 on April 1st, 1897, and a ten year average of 84.4. Of the thirty states producing winter wheat twenty, containing over 69 per cent. of the total winter wheat acreage, report a condition below their respective ten year averages. With an average of 93, or 10.3 points above the mean of the last ten years, California constitutes the only really notable exception to that unfavorable condition of winter wheat which is reported from almost every part of the country.

The estimated percentage of mortality among farm animals, swine excepted, was higher during the twelve months ending March 31st, 1899, than for many years past. The total loss from exposure and disease was over 7,500,000 head, of which swine constituted 41.9 per cent., sheep 29.2 per cent., cattle 24.7 per cent., and horses 4.2 per cent. The losses of swine and horses were practically all from disease, but in the case of cattle and sheep the loss from disease was considerably less than that from exposure. On the basis of the average values, as ascertained on January 1st last the estimated loss from exposure aggregated about \$26,000,000, and that from disease about \$49,000,000, or a total of \$75,000,000, five-sixths of which may be said to be theoretically preventable.

The aggregate loss of horses for the whole country is given as 319,250 and the general condition as 5.6 per cent. below normal healthfulness and average flesh. The losses of cattle from all causes during the year ending March 31st are given as 1,865,176 and have been exceeded only three times during the last fifteen years, and on all these occasions the total number of cattle on farms was greater by several millions than it is at present. The average condition of the cattle for the country at large is 7.5 per cent. below that of normal healthfulness and average flesh. The total loss of sheep from exposure and disease is estimated at 2,208,956, which number has been exceeded but twice in the last ten years. The average condition of sheep for the entire country is 7.6 per cent. below that of normal healthfulness and average flesh. Swine seem to have fared better than any of the others. The total loss is estimated at 3,173,862, which falls considerably below that reported for eleven years out of the last fifteen. But the average condition for the country at large is 11.5 per cent. below the standard of normal healthfulness and average flesh.

Considerable information is given as to the 1898 grain crops in other countries, that relating to Canada being gathered from bulletins issued by the various provincial governments. Some up-to-date matter regarding the 1899

wheat harvest in India seems to indicate approximately three fourths of a nominal crop for India as a whole. The reports as to the condition of winter grain in Europe are almost everywhere favorable. The reports as to spring cultivation and seeding are also generally favorable.

Potato Growing

(Continued from last issue.)

Some interesting experiences are given of successful potato growers in England and Scotland. The following experience of a successful Ayrshire grower gives a good idea of how the business is carried on in that country:

Potato District.—The land devoted to the raising of the earliest varieties of potatoes is confined to those farms bordering on or very near the sea—certainly not more than a mile from the shore may be put at a limit.

Climate.—The climate, as a rule, is mild during winter, and the spring free from injurious frosts. This undoubtedly is due to the influence of the Gulf Stream, a branch of which breaks upon the Ayrshire coast.

Quality of the Soil.—The land is light loam, and in some parts sandy, and of a fair depth. On many fields potatoes have been grown without a break for years, some we know of from twenty-five to thirty years, and the productiveness of the soil is not impaired, but to meet this constant potato-cropping heavy manuring is necessary.

Cultivation.—In the autumn and early winter the land is ploughed with an Oliver plough, or a plough of a similar pattern, which gives a deep furrow and breaks the soil well. Well-rotted manure is spread on the land before ploughing, twenty five to thirty tons per acre being the usual quantity. Sea-wrack is plentiful, and, where the shore is of easy access, largely taken advantage of. This, where used, takes the place of farmyard manure, and, being rich in potash, a surface dressing of any of the forms of potash is not necessary. The crops grown are quite as satisfactory as from farmyard manure, but rather more artificial is used 2 cwt. per acre. If the land is fairly clean very little work is necessary upon it in spring; at the most a heavy grubber or cultivator is passed over it, it is then harrowed to get rid of any weeds, and levelled up ready for drawing into drills. Very soon after planting the drills are harrowed down to allow the influences of sun and moisture to work upon the seed. When the leaf is showing well above the top of the drill a thorough grubbing is done by a two-horse grubber, taking out weeds between the plants is then proceeded with. This is easily done by woman by hand. Constant stirring of soil between the drills is carried on by drill harrows and grubbers all through the period of growth.

Surface Dressing.—3 to 4 cwt. of crude potash, kainit, etc., is put on the land some time before the planting season, sown on the surface as left by the plough.

Seed.—When the crop is lifted in June and July seed is selected and placed in boxes, not more than two deep. Some years ago it was customary to keep very small seconds for seed, but now fairly large seed is used, of course planted whole. Potatoes are planted out of the boxes by women—light square scoops being used to fill and plant out by the hand—ten to twelve inches apart.

Planting.—When a dry, mild spell of weather occurs, planting is sometimes begun in January and often in February, but the greatest breadth is done early in March. The principal reason for the very early start is simply to get forward with the work, many farms having eighty to one hundred acres. It is of very great importance not to plant till the land is in a nice free state.

Drills.—The land is drawn off in drills by a combine, driller and artificial-manure sower, which makes two drills at a time, some machines three drills—drills twenty-five inches wide. Manure ten to twelve cwt. per acre, usually ten cwt.

Artificial manure.—The standard for artificial manure for early potatoes is ten per cent. of ammonia, six per cent. sulphate of potash, sixteen per cent. soluble phosphates.

Top dressing.—The custom is not to apply any artificial manure after planting, but top dressing is sometimes done with, say, one cwt. nitrate of soda or sulphate of ammonia per acre when plants are just weeded, and in many cases proves beneficial.

Raising.—Taking one year with another, raising of the crop begins about June 20, and by the first week in July it is general.

Varieties.—The most satisfactory varieties grown at present are Early Puritan, Nonsuch, Windsor Castle and Seedling. The Puritan is the earliest of all, followed often by Goodrich, both of middling quality.

After crop.—Immediately after potatoes are raised the land is sown with rape, Italian rye grass, or barley—rape by preference if there is no chance of finger-and-toe—and excellent crops are secured which are eaten off by sheep, an easy and profitable method of bringing up the fertility of the soil.

To sum up, the successful early-potato grower plows deep, and keeps working amongst the crop all the time;

Some breeders consider it wise where winter lambs are raised to shear the ewe flock in November and again in May. The wool by this plan will not have as long a fibre and may not sell for as much, but there will always be enough more of it to make up the difference in the price, while the extra thrift of the sheep is of value. An American veterinary authority has this to say in regard to sheep shearing:

"If the flock is to drop their lambs in March then I would say shear them just as soon as the lambs were well and thriving. If the ewes were to drop the lambs about May 1st then shear from April 1st to the 15th, and do not wait until the lambs are dropped, as the ewes will become so overheated that their vitality stands a great chance of becoming reduced and weak lambs or other evil results follow. Yearling sheep should as a rule be shorn not later than April 15, and if ticky even earlier. The English breeds need shearing earlier than the American Merino, as they will not hold their wool as well, and when the warm days of April and early May come it will begin to start and not infrequently there will be loss. The old notion was per-



Sheep Corral on a Western Farm

plants not before his soil is in fine condition; manures heavily and uses pure seed.

Sheep-Shearing

The practice on the average farm in this country is not to do any shearing till after the sheep are washed. And as it is considered necessary to wait till the water becomes warm it is well on to the first of June or later before the sheep are relieved of their fleeces. The wisdom of such a practice is open to doubt. With reasonably warm sheds and barns sheep may be shorn very much earlier than is now the general practice. About six weeks ago we visited a large stock farm near this city where we saw a number of sheep, or rather yearling lambs, already shorn. These sheep looked to be thriving well, and the shed they were in was no warmer than sheds to be found on many farms where sheep are not shorn for two or three months later. In some of the Eastern States the practice of washing the sheep has almost died out, and consequently shearing is done very much earlier.

haps all right with the old sheep, but the modern sheep needs a modern man to manage them in many ways, and shearing them is one of them and only one of the many. The grease notion worked well in its time, but the manufacturer now wants wool and not grease. True, a little oil is not objectionable, but a well-kept sheep has enough of that at any time, so there is no need of waiting till June for that."

The Farmer's Garden

One reason why many farmers have poor success with their gardens is because they grow the same kind of vegetables year after year in the same place. A system of rotation should be followed in the garden as well as on the farm. If this is not done care should be taken to have a goodly depth of subsoil turned up each year. In England a system of trenching is followed by some farmers, that is, digging the soil to a depth of 2 ft. or 3 ft., according to the nature of the soil, and adding a certain amount of subsoil

to the surface soil. Barnyard manure is most valuable for garden purposes.

To keep up a method of rotation and a succession of vegetables requires both thought and skill. An English gardener gives a plan of rotation for a garden of a quarter of an acre, in which the lot is divided into four parts, one of which is trenched every year. On the first quarter he grows savoys, cauliflowers, potatoes, etc., on the second, onions, beans, cabbage, and such like; on the third, garden peas, and on the fourth, celery. This list makes up the principal crops on the various lots, but other vegetables, such as lettuce, beets, radishes, parsnips, etc., are grown chiefly mixed in with the others. Other vegetables are grown around the sides of the garden, and every bit of space is utilized.

While the farmer in this country might not be able to follow any specific plan of rotation in his garden, he could follow the principle and not plant the same kind of vegetables several years in succession in the same place. Attention to this feature of the garden and to maintaining the fertility will make the returns greater and the work in connection with it more pleasant and agreeable.

Look After the Setting Hens

Many sittings of valuable eggs are lost each year from a lack of knowledge concerning the proper care for the eggs. It may seem a "simple trick" to put eggs under a hen or in an incubator and take out the chicks in twenty-one days; but this, like a great many other things, is often easier said than done. But we can all learn how it is done, and then it will not be such a difficult thing to do.

Eggs should not be old. We do not think a few days or even a week or two injures the vitality of the eggs if they are kept in a cool place where the air is rather moist. It is evaporation that destroys the vitality of the egg. Eggs of the ruffed grouse, quail and wild turkeys all hatch, as a rule, and some of the eggs cannot be less than three or four weeks old when large clutches are laid by single females.

The nest must be warm and cosy in early spring where the rain, snow and wind cannot blow directly upon the hen. When the hen comes off to feed, it is a good plan, especially upon raw, cold days, to cover the eggs with a warm cloth until the hen is ready to return. Not more than ten or eleven eggs should be given to a hen early in the season, because if more are placed under her she will very likely chill all of them at different times during incubation, moving them to and from the body, killing or weakening the embryo chicks. Many a dozen of strong, fertile eggs have been lost in just this way, and the poor breeding stock or the expressman made to carry the blame. Nine eggs for very early hatches is a much safer rule than a dozen. If we had purchased a costly clutch of eggs we would not put more than six or seven eggs under each hen, filling up to eight or ten eggs of other kinds. This has been found a very wise plan by many who have tried it. Some even use three hens if they can be had, and any fickle inclined hen that gives one the slip some evening and goes upon the roost cannot spoil our whole sitting of eggs, only a third of our valuable ones.

When the season advances and the weather becomes warmer the nest should be constructed with special reference to moisture.

It should be on or near the ground or made of soft earth, sods, or anything that will retain the moisture. We pour a little water about the nest each week during very hot weather, thus keeping the bottom of the nest as damp as a quail's nest upon the ground. A nest of fine hay should always be made in the hollowed out earth.

If an egg is broken during the hatching process take it out of the nest, place some fresh soft hay in the nest, wash all the eggs with luke warm water, dry and place in the nest and let the hen on again. Always have the nest so arranged that the hen need not fly or jump up on the eggs when going on the nest, and fronted up so that she will not

take any of the eggs with her when she leaves the nest. Use an egg tester. Don't have the hen bothered with unfertile eggs after the eighth day. They will become stale and produce a very disagreeable smell about the nest, unsavory to the olfactory nerves of the attendant if not to the hen. Use judgment and common sense. Learn how to do it and you will succeed.—*Exchange.*

Feeding the Brood Sow

From a Paper on the "Bacon Hog Industry," Prepared for the Nova Scotia Pork Packing Co., by J. J. Ferguson, B.S.A., Smith's Falls, Ont.

After the sow is separated from her spring litter, she will be able to find a living upon good grass or clover pasture, with little or no additional grain ration. Two or three weeks before she is due to farrow her fall litter, her ration of meal should be increased. We have found a mixture of bran and shorts, equal parts, about the best at this time. The sow should not be made over fat by heavy feeding, but a thin condition often results in weak, puny pigs at farrowing time. After the fall litter is weaned, the sow can be very cheaply carried through the winter upon a ration of mangolds or sugar beets. Of these we feed about thirty pounds per head per day, in two feeds, morning and night, with two or three pounds of whole oats fed at noon. Turnips can be used, but to get the best results they should be sliced or pulped: our mangolds are fed whole, which is quite a saving in time and labor. Not only is this ration cheap and convenient to feed, but it carries the sows along in first-class breeding condition. This, combined with exercise taken at will in roomy yards, results in a much smaller loss of young pigs, when farrowing time comes, than is usually found where sows are kept closely confined during the winter and fed entirely upon a grain ration.

A month or so before farrowing, the sow should receive a lighter ration of roots and more meal. Large quantities of cold watery roots, fed shortly before the birth of the pigs, may give them such a chill as to result in their death. Roots do not contain sufficient mineral water to build up a proper bony framework in the litter. The sow should farrow in a warm, dry pen, to which she has become accustomed for some time. A fender should be placed around the base of the walls, projecting out at the foot, and ten inches from the floor, to prevent her over-lying any of the young pigs. For the first week after farrowing she should be fed but a light meal ration of bran and shorts, or bran and finely-ground oats mixed to a thin slop with warmed water or skim-milk. Over-feeding of the sow at this period, or feeding her heavily on barley, or pea-meal, is very likely to cause a milk fever, often resulting in the loss of dam and litter. Her ration during the time she is suckling her litter should consist largely of bran, since this is one of the very best milk-producing foods obtainable. When the young pigs are two weeks old, they should be provided with a supply of new milk in a shallow trough or pan, protected from the old sow. After a time, skim-milk may be substituted, with the addition of a small quantity of ground oil cake, shorts, or oat-meal. When treated in this way they become well able to do for themselves at seven or eight weeks old, and will suffer no set-back when taken from the mother.

It is a serious mistake to wean pigs at four or five weeks, as is so often done, resulting in their making slow growth during the second month. Every day of lost time on the pig's part means money lost for the owner; they must be kept moving right along steadily from start to finish. The sow and litter should have access to a roomy yard, or, if she farrow in late spring to a small clover or grass patch. When the pigs are ten or twelve weeks old they will make good use of pasture of this kind; in many sections of Ontario the farmers carry their hogs during the summer months almost entirely on clover. Light movable fences or

hurdles are made use of to confine the hogs to a portion of the field. When this is pastured off, the hurdles and hogs are moved to a fresh piece. This seems to give better results than allowing the hogs to roam over a large area. In every case, the hogs should have two or three copper rings inserted in their snouts to prevent their changing the face of nature; these will do it effectually. A hundred of them, and a pair of pincers for inserting them, can be bought for twenty cents. It is well to provide a light shelter of boards to protect the pigs from sun and rain.

While pigs will grow and gain on clover alone it is always advisable to give them a light grain ration in addition, one-half or one third of the amount they would receive if fed on grain alone. Hogs finished on clover alone seem to yield a larger number of soft bacon sides than those properly finished on a grain ration, so that care must be exercised not to run to an extreme in this matter. Hogs on clover pasture should have a plentiful supply of clean water available at all times. If skim milk can be supplied them, at the rate of six or eight pounds per head per day, it will be found of great advantage. About a month before the hogs are to be marketed the finishing feeding should commence. This is not to be taken to mean "fattening," but rather a firming up or ripening. Much has been said as to the injurious effects of certain feeds in the production of soft bacon. Of this we are satisfied, with the right pigs, good bacon can be produced with greatest certainty by feeding a mixture of the different grains commonly grown upon our farms. No hard and fast rule can be laid down as to what grains to feed, as this matter will be regulated largely by current market prices, and also by the quantities of each which can be grown in each locality. A mixture of oats, peas, and barley, seeded at the rate of one bushel of each per acre, will not only give a larger yield than any of these sown separately, but will be found to furnish a first-class grain ration for finishing hogs. An exclusive diet of any one grain will not give as good results. We now know that corn can be fed to finishing hogs without injury, if they have been fed on a good bone and muscle-forming ration earlier in life, and do not at any time receive more than, at most, one-half of their meal ration of it. In all cases it is better to keep the hogs' appetite sharp; he should not have meal food lying almost constantly in his trough.

Crops for Poultry

The farmer who keeps poultry should aim to grow each year crops suitable for supplying food for them. A very good one for this purpose is clover. To be of the most value, clover should be cut early and cured in the cock and not allowed to become wet or sunburned. The second crop of clover is about as good if treated in the same way, but if allowed to ripen and the seed taken out, it is of no more value than straw. Corn is another good crop for poultry feeding.

Another crop highly recommended by some authorities for midday feeding and for young chicks is millet. The Japanese millet is recommended, and, if sown early, will ripen a good crop of seed. It is not necessary to thresh the grain; let it remain in the straw and throw a fork full into the scratching pen each day. The straw makes good material for the hens to scratch in, keeps the house warm, and promotes exercise. Buckwheat is also a valuable poultry crop. From the 1st to the 12th of July is about the right time to sow it. It is a good plan to feed this crop in the straw also, but it can be easily threshed with the flail.

Sunflowers make another good crop for poultry and could be planted around the outbuildings and in the fence corners without interfering with other crops. If the plants are protected until they get a start they will keep out of reach of the poultry and afford a shade during the hot months. The soil around them should be loosened once or twice with the hoe and they will grow without much trouble. In harvesting cut the heads off, tie together and hang over poles; or nail on a rack similar to a board fence, only higher.

Then there should be a plentiful supply of green foods

grown. Cabbages, beets or mangels, either chopped up or split open and allow the hens to pick them to pieces, serve the purpose well. There are other forage crops that might be made available for winter or early spring feeding such as winter vetches, rape, etc. These can be grown usually after some of the earlier crops on the farm are harvested with good results.

"Farmer"

The other day we received a letter from a farmer in Oxford county, written on neat note paper, with his name and the word "Farmer" beneath it in the left hand corner, and with his post office and a blank space for the date printed to the right. This heading struck us as being unique, and still, something that every farmer should copy. It is quite common to receive letters from breeders of purebred stock with their name and special line of business printed on their letter heads, but this is the first instance that we have come across where a plain, every-day farmer announced the fact on his letter paper. By this act he shows that he is not ashamed of his calling, and he desires to let those with whom he does business know that he is proud to have the word "Farmer" in cold type after his name.

But why should not every farmer adopt a similar plan? His vocation is a business as much as that of the grocer, the dry goods merchant or the manufacturer, who never fail to advertise their calling, not only on letter heads, but in every other way, and if farmers would make that fact more prominent in their business dealings it would make their relations with their fellowmen more pleasant.

There is a tendency, though we are pleased to note that it is gradually dying out, on the part of many farmers to belittle their own calling and look upon other vocations in life as much superior in many ways to their own. Because of this tendency we frequently hear the expression "I am only a farmer," which would read very much better, and would add dignity to the calling referred to, if the word "only" were left out. We have sometimes heard farmers complain that the townspeople looked down upon them, a condition of things that the farmer is himself to a large extent to blame for. If he is not willing to uphold his calling and put it forward as one of the best in the land, socially and every other way, he may rest assured that people in other walks in life are not going to do it for him.

The farmer to-day is following a vocation that for the exercise of the keenest intellect, the greatest skill and the most mature judgment, has no superior, and when he has successfully coped with all the difficulties and with all the various elements entering into it, such as different soils, different climatic conditions, etc., and made his business a profitable one, he has great reason to be proud of what he has done, and should not hesitate in the least to stand up for his calling and everything implied in the word "Farmer."

CORRESPONDENCE

Growing Flaxseed and Barley

To the Editor of FARMING:

I see in FARMING for May 2nd under the heading of "Questions and Answers" that "Farmer W." wishes to have some information on flaxseed growing. I have grown flaxseed every year for the last twenty years and it has cost me but a trifle. I grow from eight to ten acres of barley every year for feed and sow about a bushel of flaxseed on the ten acres with the barley. It ripens at the same time as the barley and when the crop is cut and threshed I take the flaxseed out with the fanning-mill screen.

I take one bushel of the flaxseed and mix it with two bushels of good wheat and have it ground fine. This mixture is, I think, as good as oilcake or flaxseed ground. I feed it with other foods according to what the animal will stand.

This is a little of my way of farming and if you think it will give some light to Farmer W. you are welcome to it.

St. Thomas, Ont., May 8th, 1899. FARMER J.G.C.

The Farm Home

The Country Home

A Paper Read by Mrs. F. M. Carpenter
on March 30th at the Saltfleet
Women's Institute.

Mrs. President and Members,—I have jotted down a few thoughts on the place where the great are sometimes small and the small are often great. The father's kingdom, the children's paradise, the mother's world, the place where you are treated best and grumble most, the comfort of which youth does not fully appreciate, which the young men and maidens desire, which the middle-aged generally possess, which the old rightly value, and which is of such vital importance to those living in the country, namely:

THE COUNTRY HOME.

There is a magic in that little word, *Home*. It is a mystic circle which surrounds comforts and virtues never known beyond its hallowed limits. The Home, where God purposes to give to His children a little foretaste of Heaven—a world of strife shut out, a world of love shut in. Home is the sweetest word in the Saxon tongue. It has in it the brightness of sunshine and the fragrance of flowers. It suggests love and rest and gladness. It calls up pictures painted imperishably on our hearts. It speaks of father's care and mother's love and wife's tenderness and devotion.

The Home is the safeguard of the nation, a nursery where can be grown manly men and womanly women. The happiness of that home depends in a great measure on what you take into it. Whether we live or die or how we live or die are largely determined by our household conditions, and yet young men and young women marry and make for themselves homes daily in cheerful ignorance of the structure of their bodies, the food necessary for their development, or the sanitary conditions which govern the laws of health.

Helen Campbell, in her valuable work on Household Economics, says "The human animal feminine trusts that instinct will teach her how to rule a house and guide her young. The human animal masculine believes that Providence arranges these things and that scientific cookery, sanitation, and all that are the fads of a small school of cranks." We recognize the truth of this, humorously as it is put, and we recognize, too, that books of this kind are needed to open the eyes of men and women to the duties of which they are ignorant.

To this ignorance can be largely traced the filling of our homes of refuge, our asylums and jails.

Long ago the art of doing housework well was acquired by a long and slow process, in a time when women had few pleasures which could com-

pete with it, and when it was considered a disgrace to be ignorant in this direction. Those times will never come again, but it is unquestionably the duty and privilege of every woman to be the homemaker and fit herself to fulfil worthily her duty in her allotted sphere. Our education can never be too broad, our wisdom too deep, our sympathy or enthusiasm too large for the infinite variety and delicacy of relation and situation incident to a household of children. If school has unfitted us for domestic life our education has been on too narrow and too low a plane.

It does not require very wide opportunity to observe and to realize that there are thousands of women and girls who have no opportunity to become good housewives, no matter how much they desire to learn the art. How are these girls, who are during the early part of their lives in factories, to know the art of home making when marriage comes to them? They enter into the new domain inexperienced, untaught and unskilled. What is the result? The lovely picture of the home by which they were so recently enchanted has vanished, the task supposed to be so easy, so light, so natural that no training is required, is found in reality to be so intricate, so burdensome, that the young wife is overcome by discouragement or settles into mediocre methods that fall far short of the *Model Home*. If all women were by custom and usage compelled to show proof that they were prepared to enter upon a line of duty and employment that so largely affects a nation it would work a moral elevation the magnitude of which can scarcely be conceived. Is it not a fitting time for women to plan and devise methods that, if politically considered, would elevate and protect what is essentially ours—the *Home*? Please do not mistake me. I am not asking, nor do I wish for, the franchise to be extended to women, but that the country should wake up and have training schools in the country or branches of domestic science taught in our schools as they are having in the cities; branches particularly practical, that will elevate and benefit the home. I think most women, and, I hope, some men, are by this time convinced that the average woman requires education as well as men to become skilled in any line of industry.

(To be continued.)

A Domestic Science Association.

About a year ago a few women in the State of Illinois formed an Association of Domestic Science. This Association was organized for the purpose of

arousing greater interest in home-making. It is to be to the farmers' wives and daughters what the Farmers' Institute is to the farmers—a means of gaining knowledge and creating an interest in the work of housekeeping. It is the purpose to have the farmers' wives in every county organized into County Associations which shall meet at the same time and place as the County Farmers' Institute.

At the first annual meeting of this Association held recently the President, Mrs. Joseph Carter, Champaign, Ill., spoke as follows:

"Without aid from any source the housekeeper has had to solve her own problems and think out for herself such changes and improvements as she saw necessary in the affairs of the home. It is little more than half a century since the first agricultural society was formed in this State. Since then all Illinois farmers have had their organizations and each of the separate interests of the farm has had its own organization—horticulture, the dairy, the stock and all save the housewife and her work of home-making.

"If we compare the farming of fifty years ago with the methods and results of farming at the present time, we see what these organized societies have done, not only for the farmers themselves, but for the world. It would be a waste of words to enumerate the benefits, but it is hardly possible that all this could have been accomplished without the organizations.

"One is led to wonder what might have been done, and what housekeeping would now be, had the farm wives formed societies fifty years ago and planned and worked for better things in housekeeping, as did the farmers for their work, and we wonder what will be the result of fifty years of organized effort for improved methods and greater knowledge in household economy.

"We are fully convinced that the future has in store for us things far in advance of what we are now doing if we will strive for them, but so long as we remain content with our present condition and knowledge we shall make no progress.

An Experiment with a New Food.

An interesting food experiment was conducted during March and April at the Kingston Military School with a new vegetable food called "Protein" or "Protose," with a view to testing its efficiency as a military food. Previously experiments had been conducted at Montreal and elsewhere in treating cases of diabetes, dyspepsia, and other diseases of nutrition with marked success.

At Kingston five candidates offered themselves for treatment from among the men of "A" Battery, Royal Canadian Artillery. These men took absolutely no other kind of solid food, either vegetable, meat or fish, for a period of twenty-one days in one case, twenty-eight in another, and thirty days in the remaining three. At the conclusion of the test the men stated that their hunger had been appeased, their bodily force fully sustained, their general health improved, and they felt no craving for other food during the whole period of the test.

The maximum amount of food taken was seven to eight tablespoonfuls of powder, and two to three slices of Protose bread, or two or three biscuits per meal, the powder being administered in weak beef tea or hot water. The thin men gained from two to four pounds in weight, and those who were over-stout lost some of their corpulency, from which they derived great benefit.

An analysis of the food shows that it contains 85 per cent. of proteid matter, 8 per cent. of water, and the balance mineral salts and fats; experiments carried on for artificial digestion showed that the food compared very favorably in this respect with beef blood and egg albumen. The Protose powder is said to be six times as nourishing as meat and seven times more nourishing than eggs, in the same quantities.

The discoverer of this new food is an Austrian. He has devoted a number of years to its study, and has obtained a proteid powder absolutely free from starch, which is the solution of the difficulty of nourishing a patient suffering from diabetes. It will keep good in any ordinary place for an indefinite period, and occupies less than four times the space of foods of less richness and nutriment. A factory for the manufacture of this new food has been started in Montreal.

Food for Children.

By Anna Virginia Miller.

The question arises as to what may be used as a substitute for mothers' milk and for modified milk. To this subject scientists have given much attention. Shall cows' milk be given? According to a report of the American Health Association, one-fifth of the mortality among infants may be traced to the milk supply. There is no doubt that much of the sickness of bottle-fed children, during the summer months in particular, is due to the unhealthy condition of their food.

The first object, then, if cows' milk be given is to secure a good quality. Never use the milk from one cow, not even if you are sure she is in a healthy condition. The germs of tuberculosis lurk in the system of a cow long before it is possible to discover the condition, and the milk may become impregnated with the germs of that dread disease when the cow is apparently in a healthy condition. If cows' milk be

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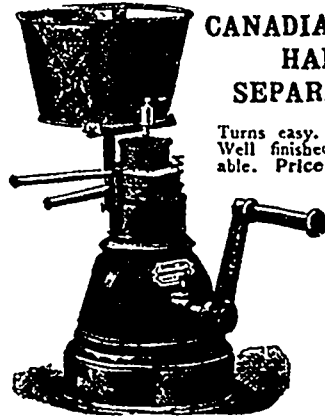
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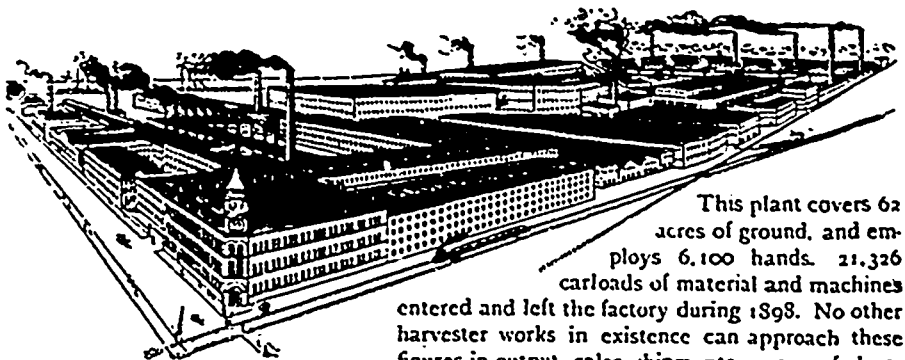
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given, know that it comes from a dairy where the cows are healthy, well kept, and well fed. The milk should be put up in bottles, so that it cannot be contaminated with bad air, and is not likely to be tampered with by a middleman. In this way each customer gets exactly a quart of milk with all the cream that belongs to the milk. Where it is not possible to get milk put up in jars, search for the cleanest dairy and see that the milk is delivered as quickly as possible after being received at the dairy. Never buy milk from the small stores. After it is received in the house it should be sterilized, cooled and covered. When it comes in bottles this may have already been done. The child should be given this milk at a temperature of 100°F. As cows' milk is richer than human milk it should be diluted with a small proportion of water. Remember that the water also must be sterilized and tightly covered.

The albuminous properties of cows' milk differ somewhat from human milk in the way in which they coagulate in the stomach or in the presence of acids. Human milk forms into small, light, feathery curds; cows' milk into large and compact curds that are not easily digested by an infant. It is necessary, then, to use some harmless substance to dilute the milk, and to prevent its coagulating into larger curds. Something is necessary that shall partially predigest the milk, and, if it is nutritious, so much the better.

Lime water neutralizes the acid of the gastric juice so that the milk is not acted upon strongly by the acid of the stomach, and consequently forms into lighter curds.

(To be continued.)

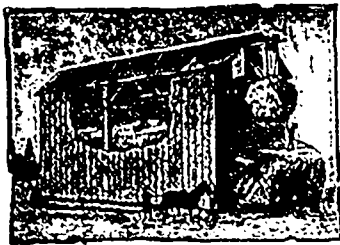
Papering Pointers

A good paper is much easier to hang than a cheap one, will hold its color better, and will protect old walls.

Study your room. Large figures are out of place in a small, low room. Dark papers, though stylish and rich-looking, require high walls, strong light and spaciousness.

Low rooms require narrower borders. Eighteen-inch border may be used by extending the upper half up on the ceiling. In this case the border should be cut in two and joined again to match perfectly. This method tends to heighten the room in appearance. If windows are set well up toward the top of the room let the lower edge of the border come just to the top of them. Sometimes when there are only one or two windows in the room the lower part of the border may be trimmed to fit around the casing without spoiling the general effect, but it is not often best to do so.

Select a warm, sunny paper for a north room, a cool shade for sunny rooms, light papers with floral patterns for bedrooms. The more delicate the better. In choosing paper for any room the carpets and other furnishings should be considered lest the color scheme be spoiled. Don't try to live amidst a profanity of colors. Have



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them harmonize enough to prevent quarrelling or swearing at each other, or your disposition will suffer in consequence.

Before papering remove as much old paper as possible, especially all that is loose around casings and baseboards. A tub of boiling water set in a closed room will loosen the paper. If an extra good job is desired sandpaper the walls to remove old paper. Paste strong, clean cheesecloth over all cracks, small holes or loose plaster. If painting of woodwork is necessary choose the same color as groundwork of paper or a shade lighter, and let the paint become entirely dry before papering.

Questions and Answers.

Sheep-worrying and the Dog Tax.

To the Editor of FARMING:

I have read with much interest your many articles on the sheep-worrying nuisance. During the last seven years I have had three visits from dogs, and on the last occasion I may say entirely cleaning out my flock, as the dogs only left four living and two of those were half dead.

A long time ago we had a dog tax in our township and the council made a remuneration for sheep worried by dogs. But twenty-five ratepayers signed a petition to do away with the dog tax and since then the council passed a by law doing away with the tax, and now they claim they have no funds to pay for sheep killed by dogs.

I see in your answer to Mr. Goodwin, Palmerston, Ont., you say when a council decides not to levy the dog tax, damages for sheep killed by dogs can be collected the same as if the tax were levied. Will you, therefore, kindly tell me in your next issue how to proceed against the council, giving chapter and statute, as they have refused to do anything towards a great many other heavy losses besides mine? The members of the council are

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S. D. A. A. STOBO.

Teeswater, Ont., May 1st, 1899.

The last sentence in the reply referred to in FARMING for April 25th is somewhat misleading. It was not the intention to convey the idea that damages could be collected from the municipality when a council decides not to levy the dog tax, but to state that damages could be collected from the owner or keeper of the dog or dogs, whether there was a dog tax collected in the municipality or not. The reply was prepared rather hurriedly before going to press, which may account for the lack of clearness in the last paragraph.

The act relating to sheep worrying and the dog tax is given in chapter 271 of the Revised Statutes of Ontario.

The sections of the act pertaining to the above questions are as follows:

Sec. 2. Upon the petition of twenty-five ratepayers the council of any city, town, township or incorporated village may provide by by-law that the said tax or any part of it shall not be levied in said municipality.

Sec. 17. In case the owner of any sheep or lamb so killed or injured proceeds against the owner or keeper of the dog that committed the injury before a justice of the peace as provided by this act, and is unable on the conviction of the offender to levy the amount ordered to be paid for want of sufficient distress to levy the same, then the council of the municipality in which the offender resided at the time of the injury shall order their treasurer to pay to the aggrieved party two-thirds of the amount ordered to be paid by the justice under the conviction, in addition to the costs of the proceedings before the justice and before the council.

Sec. 18. The owner of any sheep or lamb killed or injured by any dog, the owner or keeper of which is not known, may within three months after the killing or injury apply to the council of the municipality in which such sheep or lamb was so killed or injured for compensation for the injury; and if the council is satisfied that the aggrieved party has made diligent search and inquiry to ascertain the owner or keeper of such dog, and that such owner or keeper cannot be found, they shall award to the aggrieved party for compensation a sum not exceeding two-thirds of the amount of the damage sustained by him; and the treasurer of the municipality shall pay over to him the amount so awarded.

Sec. 21. If the council of any city, town, township, or incorporated village by by-law decides to dispense with the levy of the aforesaid tax on the municipalities within its jurisdiction, the owner of any sheep or lamb may, notwithstanding, sue the owner or keeper of any dog or dogs for the damage or injury done by the said dog or dogs to the said sheep or lamb; and the

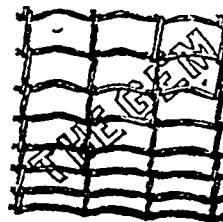
**The Prejudice
Against
Prepared Paint**

Yes, prejudice is the right word; that is, an opinion before trial. When one investigates fairly he is simply forced to the conviction that a paint composed of the best possible ingredients, selected by those who have special knowledge of their nature and their use, and then thoroughly ground and mixed by special machinery, is better than any one man and one stick can supply. Such paints are

THE SHERWIN-WILLIAMS PAINTS

They are not patent paints, nor chemical paints, but simply the best paints that unusual care, skill and experience can produce. "Paint Points" will make painting easier. It is sent free on request.

THE SHERWIN-WILLIAMS CO.,
PAINT AND COLOR MAKERS,
Canadian Dept.,
21 St. Antoine Street, Montreal



4-31

FENCE MACHINE

Still at the front!
Not only the cheapest,
but fastest and best.
Price \$5 00.

Highest grade
Coiled and other **WIRE**
for sale. Write for particulars. Agents Wanted
McGregor, Banwell
& Co., Windsor, Ont

BIG MONEY FOR AGENTS

New and Novel, a
Sight
Seller.

Combination
WRENCH AND JACK
for Buggies, Carriages & Light
Wagons. Removes and grasps
burr while
PRICE \$1.00 Jack acts as continuation of axle, supporting
wheel and leaving spindle clear for oiling.
No lost washers. Agents write for special prices.
ENTERPRISE MFG. CO., - TORONTO, ONT.

**To Dairymen of Manitoba and
N. W. T. Districts:**

We beg to call your attention to our having opened a Branch of our business at Winnipeg, where we will carry a complete line of all articles required in the manufacturing of Butter and Cheese, for either Creamery or Dairy, and at such prices as will enable you to save money.

Heading lists of goods stands the full line of "De Laval," "Alpha" Power and Hand Separators, which are to day conceded by our leading Experiment Stations and Dairy Schools, as well as advanced Creamery and Dairymen, to be the best cream separators on the market to-day, and other goods of the same standard of merit, which will appeal to all dairymen as worthy of their consideration before purchasing elsewhere.

Our object in opening this branch is to be near the dairymen of Manitoba and the N.W.T., so as to better serve those who have favored us with their patronage in the past, either direct or through local agents, and to acquaint ourselves with new customers. All of which will result to our mutual interest.

The users of any style of "De Laval" separators, who are not fully posted on operating same to best advantage, or those desiring any more information on the Separator question, we shall be pleased to hear from, assuring them that such enquiries will have prompt and satisfactory attention. Any who contemplate the purchase of a cream separator this spring, we should be pleased to hear from, so as to send them reading matter that will prove of much interest and benefit, giving experience of dairy authorities on cream separators, showing first cost is not the only consideration in a separator purchase. If what facts we produce are not convincing enough to any intending buyer that the "De Laval" "Alpha" Separators are the best, we will be pleased to place one of such separators in any dairy on a 15 or 30 days' trial, against any cheap infringing separator, to prove by practical results that the "DE LAVAL" is not only the Best but also the Cheapest. Let us hear from those in any way interested.

For further information or particulars, address

THE CANADIAN DAIRY SUPPLY CO.,
236 King St., Winnipeg, Man.

We want local agents in every Dairy District.

1f

same shall be recovered in the manner provided by Section 15 of this act.

Sections 17 and 18 no doubt apply to municipalities where the dog tax is levied, as the spirit of the law is that only the receipts from the tax shall go towards paying damages for sheep worried. In the operation of the law the receipts from the dog tax collected each year over and above the sum required to pay for damages by dogs go into the general fund of the municipality. If, in the present instance, when the tax was in force some years ago, the surplus receipts from the dog tax went into the general fund, and have not since been paid for damages caused by sheep worrying, it might be possible — though we are not sure on this point — to collect damages from the municipality to the extent of this surplus, provided the owner of the sheep worried has made every effort to trace up and get damages from the owner of the dogs.

Diseased Plums.

John S. Campbell, Komoka, Ont., writes: "I sprayed my plums, etc., as per FARMING of May, 1897. But my plums were stung with small yellow jackets. Then a hard, dry spot would form, which would enlarge and spread through the cluster, which, when it decayed, would become coated with a mildew and would fall off. This tree was over loaded; but the other plums were not affected, namely, Mores Artic, Bradshaw and Shipper's Pride. The kind affected was the Lombard."

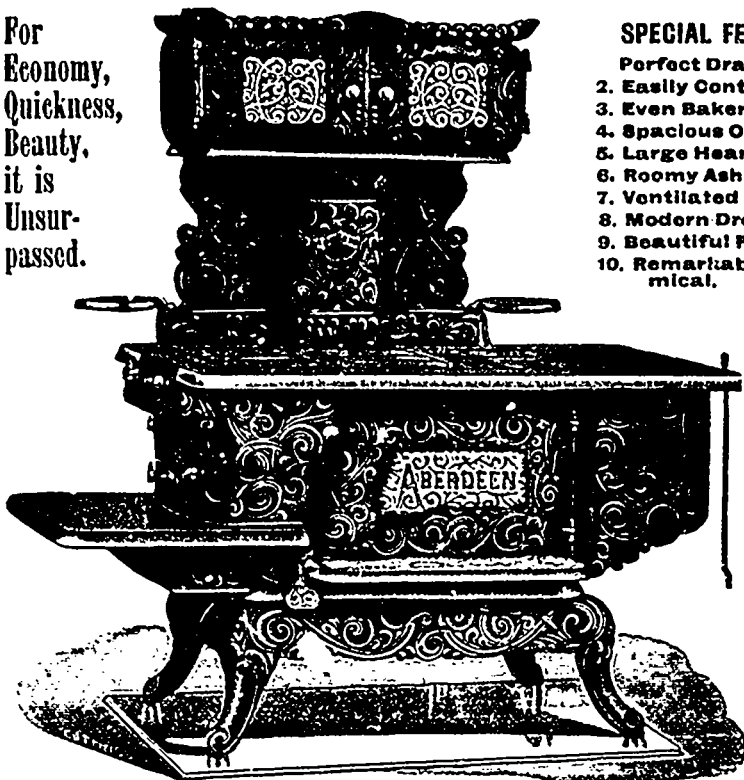
Answered by Dr. Fletcher, Entomologist and Botanist, Central Experimental Farm, Ottawa.

The statement by your correspondent, referring to spraying plum trees, is somewhat vague, and I am not quite sure what the information is which he requires. The reference to the stinging of his plums by small yellow jackets may refer to the attacks upon the fruit by wasps which sometimes do considerable injury to plums and other fruits by biting holes in them and consuming the fruit. Particularly is this the case when they have acquired the habit in seasons when the fruit cracks. The latter part of your correspondent's letter, where certain varieties of plums become coated with a mildew and many fall to the ground, refers, I believe, to the attack of a fungous disease, known as the plum rot.

I know of no remedy which will prevent wasps from attacking fruit except covering the trees with netting, which, of course, in large orchards, is impossible. For the plum rot, spraying the trees early in the season before the buds open with a simple solution of copper sulphate, one pound in twenty-five gallons of water, and later on, beginning soon after the plums fall, and repeating the application three times, ten or twelve days apart, with Bordeaux mixture and paris green, will largely control this disease and prevent injury. It is, of course, too late now for your correspondent to get the full benefit of this treatment, as the copper sulphate application cannot now be used without injury to the trees; but I be-

ABERDEEN RANGE.

For Economy, Quickness, Beauty, it is Unsurpassed.



SPECIAL FEATURES.

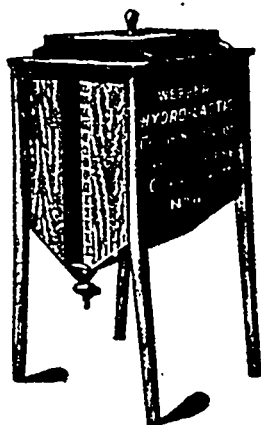
1. Perfect Draft.
2. Easily Controlled.
3. Even Baker.
4. Spacious Oven.
5. Large Hearth.
6. Roomy Ashpan.
7. Ventilated Oven.
8. Modern Dress.
9. Beautiful Finish.
10. Remarkably Economical.

Our Range has been an unqualified success. It has never failed, a remarkable record in itself. Buy it in preference to any other.

The COPP BROS. COMPANY, Limited, Hamilton

BUTTER WRAPPERS.

THE SENTINEL-REVIEW WOODSTOCK, ONT., imports Genuine VEGETABLE PARCHMENT for butter wrappers. It is the largest house in Canada selling and printing butter wrappers. This paper is not an imitation. It is the GENUINE VEGETABLE PARCHMENT, made to our order in Germany, especially for the Canadian market, and its purity and sanitary qualities are guaranteed. It is very strong, has a nice, silky finish, fine fibre, and will not taint the butter like cheap imitations. Highest testimonials from dairymen all over Canada. We sell these butter wrappers, 7 1/2 x 11 inches, cheaper than any house in Canada, and large dealers who have wrappers printed should get our samples and quotations. Free samples sent anywhere. Address, **SENTINEL-REVIEW, WOODSTOCK, ONT.**



If You Keep from 2 to 15 Cows THIS IS WHAT YOU NEED

IT SAVES ↑ Time Labor Money * MAKES ↑ More and Better Butter

Than any of the old systems, and takes the place of the Centrifugal Separator at one-tenth the cost.

Send for descriptive circular, price list and testimonials of the

Webber Hydro-Lactic Cream Separator

Sel in Ontario and Quebec at from \$7 to \$14. Every farmer can have one

Agents Wanted.

J. F. GILL & CO., Niagara Falls, Ont.

lieve it will pay him well to spray his trees with Bordeaux mixture and paris green immediately after the blossoms fall, and twice later. Should the green fly, or aphid, appear upon plum and cherry trees, an application should at once be made of a tobacco and soap wash, made as follows: Soak in hot water for a few hours ten pounds of tobacco leaves (home grown will do), strain off and add two pounds of whale oil soap; stir until all is dissolved and dilute in forty gallons of water. Apply early and two or three times at short intervals.

A New Food for Stock.

In both Denmark and Sweden, for the past few years, experiments have been made with blood as an ingredient for animal feed. Similar experiments have been made in Germany, with apparent success. A patent has been issued for the manufacture of an animal food mixture called "Kraft-futter" (strength feed) or "Blutmelassefutter" (blood molasses feed), of which the principal ingredients are fresh blood (collected at the city slaughter houses), sugar refuse, and "grain cheat," by which I mean screenings or blowings from wheat, barley, rye, oats, etc. Turf mull, or turf flour, has been tested as a substitute for "cheat," but not with success.

This feed is prepared in three different mixtures—for horses, for cattle and swine, and for poultry. The retail price is 6 marks (\$1.41) per 100 pounds. The preparation is not intended to be fed raw, but as a mixture with other regular feed—for instance, when the amount of oats given per day is 15 pounds, with the use of "Kraft-futter" the quantity of oats is reduced to half, or seven and one-half pounds, to which is added five pounds of "Kraftfutter."

I have been informed that at present the government is experimenting with this feed on artillery horses, it being claimed that the albumen in blood, coupled with sugar and the other ingredients, makes an exceptionally strengthening food, in addition to being inexpensive.

Factories for the production of this mixture are now in operation at Berlin, Stettin, Kiel, and Konigsberg.

JOHN E. KEHL,
American Consul.

SALE OF THOROUGHBREDS.—Mr. Walter Harland Smith, of Grand's Repository, sold by auction on May 10th, a large consignment of thoroughbred horses from Hamilton. Thirty-six head were offered in all, twenty-six of them belonging to the celebrated stables of Mr. William Hendrie and ten to Mr. Geo. E. Tuckett. The whole lot sold at what was considered good average prices, \$30 being the lowest and \$175 the highest price paid. One horse which was sold for the latter figure was afterwards bought by Mr. Joseph Seagram, of Waterloo, for \$250 and it is said he would not now accept \$1,000 for the animal.

Publishers' Desk.

Finch Wood Preservative.—The application of this to silos, barn sills, fence posts, cellar floors and all wood liable to

HOGS WILL ROOT

but the hog hasn't been bred that will tear up or break through the

ELLWOOD WOVEN FENCE.

Made of hard Bessemer Steel Wires, rust proof, and proof against all attacks of animals, heat or cold, dry or wet, wind or weather. Although the best,

The Ellwood Costs but Little and is practically everlasting.

Your dealer ought to have it. If he hasn't, write for catalogue, etc., to

AMERICAN STEEL & WIRE CO.
CHICAGO AND NEW YORK.

SALT

"A WORD TO THE WISE"

SALT may be described as a powerful chemical agent for providing and preparing soluble foods for plants from the materials present in the soil. This is a most important consideration when we remember that in all soils there are about two-thirds lying dormant and only one-third in active condition.

We sell all kinds of Salt in all kinds of packages. Barrels, bags or bulk. Unequaled shipping facilities. Higher grades of Salt for dairy uses a specialty.

Established 1868

R. & J. Ransford
CLINTON, ONT.

decay is highly recommended by experts. The fact that it is largely used by the authorities of some of the principal Canadian cities and towns for outdoor woodwork and structures subject to the variations of temperature and weather shows that it has met with the approval of those qualified to judge its value. Read the adv't. in another column.

West's Disinfecting Fluid.—For the large number of uses to which it may be applied and its efficiency as a remedial agent and preventive in all of them there can scarcely be anything better than this fluid. It is an effectual sheep-dip, and a preventive of all germ diseases in cattle, sheep and swine such as hog cholera, abortion in cows, pleuripneumonia, tape worm, mange, chicken cholera, etc., and it is also a powerful vermicide. The circulars used by the company in relation to these and other diseases are valuable and should be in the hands of every owner of stock. Copies of them will be sent free on application to the West Chemical Co., Department F, Toronto, Ont.

No Mystery About It.—Charles Austin Bates, the New York advertising expert, says, "I want to tell you there is precious little mystery about advertising. If you go about it in the right way, it pays. If you are wrong,

BOWHILL STOCK FARM,
... . Teeswater, Ont.

FOR SALE

1 SHORTHORN BULL, 14 months old, color red, in fine form and good quality. Dam English Lady 8th, by Victor G.; Sire Albert Victor (Imp.)

G. B. ARMSTRONG,
Box 3 TEESWATER, ONT.

D. G. HANMER & SONS
MOUNT VERNON, ONT.

Importers and Breeders of
PURE-BRED.....

Shropshire Sheep

Offer for sale 60 head choice Shearling Rams; also 15 Shearling Ewes and 20 Shearling Rams, which are now being fitted for coming fairs. Expect to leave for England last week in May to select ewes and stock rams to increase present flock. Orders for all kinds of stock will be executed for intending purchasers at a moderate commission. Will attend the Royal Show

Address—

D. G. HANMER & SONS

16-5 MOUNT VERNON, ONT.

it doesn't pay. The reason a deal of advertising doesn't pay is that it is only half done." This is just what we have been trying to impress upon the Canadian live stock breeders. A few of them put the requisite spirit and energy into their advertising and find it to be the most certain means they can employ for increasing business. The other kind move along in a rut year after year neglecting almost entirely the opportunities afforded them. They get results, perhaps, but they are away behind their competitors. Then they grumble at the medium and say, "No wonder advertising pays Smith" (the enterprising advertiser) "See what a lot of prominence you give him." They forget that the same facilities for prominence as are afforded to Smith are equally open to them if they would only use them. Our columns are open to all, and those advertisers who complain in this way have only themselves to blame. We are always pleased to publish items of news respecting the stock, the business, and the successes of our friends in connection with their enterprises. We suggest as a starter, however, that every one of them could profitably follow the example set by the most successful men in their business and have their advertisements appear every week in the year. The money it will cost to do this will be well invested.

The Ontario Agricultural Gazette

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

No 31.

THE DOMINION CATTLE BREEDERS' ASSOCIATION.

Shorthorns.		
Birdsall, F. & Son	Birdsall	Stock, both sexes.
Bonnycastle, F. & Son	Campbellford	7 bull calves, 2 to 7 months; heifers and heifer calves.
Bright, J.	Myrtle	6 bull calves, 6 to 12 months; females, all ages.
Calder, C.	Brooklin	2 bulls, 10 to 15 months.
Douglas, J.	Caledonia	2 bulls, 17 months; bull calves; young cows and heifers.
Fried, J.	Roseville	5 bulls, 10 to 14 months.
Hauser, I.	Weisenburg	Bull, 12 months; bull calf, 3 months.
Hawkshaw, W. S. & Son	Glanworth	Bull, 11 months; bull, 3 years.
Howe, W.	North Bruce	30 head, 6 weeks to 8 months.
Jeffs, E. & Son	Bond Head	2 bulls, bull calves, 2 heifers, 2 years, young cows and heifer calves.
Johnston, A.	Greenwood	3 bulls, 12 to 16 months; females, various ages.
Fairbairn, H. K.	Thedford	12 cows, all ages; 5 heifers, 2 years; 3 bull calves, 8 months; 3 heifer calves.
Staples, F.	Ida	5 bulls, milking strain, 12 to 18 months.

Ayrshires.		
Ballantyne, W. W.	Stratford	3 bull calves, 4 to 9 months.
Davies, Robert	Toronto	7 bulls, 3 to 19 months.
Guy, F. T.	Bowmanville	2 bulls, 11 months; cows, heifers, young calves, both sexes.
Smith, W. M. & J. C.	Fairfield Plains	Bull, 19 months; 2 cows; 5 heifers, 1 to 3 years.
Yuill, J. & Son	Carleton Place	6 bull calves, under 8 months; 22 heifer calves, under 8 months; cows and heifers, all ages.

Jerseys.		
Birdsall, F. & Sons	Birdsall	Bull calves.
Davies, Robt.	Toronto	2 bulls, 8 months.
Duncan, J. H.	Sault Ste. Marie	2 bulls, 1 and 2 years.
Gibson, K.	Delaware	2 bulls.

Rolled Angles.		
Kaufman, A. E.	Washington	2 bulls, 1 year; 4 heifers, 1 and 2 years.

Galloways.		
McCrae, D.	Guelph	18 bulls and bull calves; 30 cows and heifers.

Holsteins.		
Hallman, A. C.	New Dundee	3 bulls, 9 months; bull, 3 months; heifer, 9 months.

THE DOMINION SWINE BREEDERS' ASSOCIATION.

Berkshires.		
Bonnycastle, F. & Son	Campbellford	30 head, 6 weeks to 4 months.
Cole, T. J.	Bowmanville	Boar, 2 years.
Green, G.	Fairview	Sows and boars, all ages.
Hauser, I.	Weisenburg	Sow, 6 and 7 months; 2 sows.
Johnston, A.	Greenwood	Sows and boars, various ages.
Julian, G.	Heathcote	Sows and boars, various ages.
McCrae, D.	Guelph	2 boars, 2 sows.
Reed, I.	Ardrea	Boar, 18 months; 3 boars, 6 weeks; sow, 8 months.
Ross, A. W.	Douglas	10 boars and sows, 8 weeks.
Rudd, W. J.	Eden Mills	25 pigs, both sexes, 2 to 3 months.
Teasdale, T.	Concord	20 pigs, both sexes, 7 to 10 weeks.
Vance, R. & Son	Ida	20 boars and sows, 8 weeks.
Yuill, J. & Sons	Carleton Place	Boar, 1 year; young pigs, both sexes.

Yorkshires.		
Brethour, J. E.	Burford	120 boars, 2 to 8 months; 140 sows, 2 to 12 months; aged sows and boars.
Cole, T. J.	Bowmanville	Stock, both sexes.
Drummond, D.	Myrtle	Boars and sows, 6 to 8 weeks.
Hawkshaw, W. S. & Son	Glanworth	3 boars and 4 sows, 7 weeks.
Honey, R.	Brickley	12 boars and 15 sows, 1 to 7 months.
Ross, A. W.	Douglas	11 sows, 9 months; 25 sows and boars, 2 months.

Tamworths.		
Cole, T. J.	Bowmanville	Stock, both sexes.
Hawkshaw, W. S. & Son	Glanworth	20 boars and 15 sows, 1 to 6 weeks; 2 boars, 8 months; 2 sows, 19 months.
Hoover, P. R. & Sons	Green River	Young stock, both sexes.
Laurie, R. J. & A.	Wolverton	Boar, 14 months; sow, 10 months; young pigs, 8 weeks; sow, 5 months.
Simolton, J. H.	Chatham	Boar, 12 months; 8 sows, 5 months; 6 sows, 4 months; 2 boars, 4 months; 60 boars and sows, 6 and 10 weeks.

Chester Whites.		
Birdsall, F. & Son	Birdsall	Stock, both sexes, 8 weeks.
Dimson, W. S.	Dimson's Mills	3 boars, 2 sows, 4 months; 4 sows, 3 months; 2 boars, 3 sows, 1 month.

THE DOMINION SHEEP BREEDERS' ASSOCIATION.

Shropshire.		
Davies, R.	Toronto	20 yearling lambs.
Hanmer, D. G.	Burford	60 shearing rams, 15 shearing ewes, 20 show rams.
Yuill, J. & Son	Carleton Place	Ewes and ewe lambs.

Cotswolds.		
Bonnycastle, F. & Son	Campbellford	Yearling ewes.
McCrae, D.	Guelph	3 rams; 20 shearing ewes

Suffolks.		
Rudd, W. J.	Eden Mills	40 sheep, both sexes, various ages.

Southdowns.		
Jeffs, E. & Son	Bond Head	Ram, 2 shears; 3 shearing rams, shearing ewes.
Smith, W. M. & J. C.	Fairfield Plains	Ram; 2 ewes.

Leicesters.		
Armstrong, G. B.	Teeswater	Ram, 2 shears; 2 shearing rams; ram lambs.
Jeffs, E. & Son	Bond Head	Stock, all ages.

Live Stock for the West.

A car of purebred live stock left Ontario for Manitoba and the West on Wednesday, May 10th. The car was consigned to Morley, Alberta, and contained stock shipped from S. J. Pearson & Son, Meadowvale; Jas. Leask, Wick; W. M. Smith, Fairfield Plains; Hon. John Dryden, Brooklin; W. C. Edwards, Rockland; J. P. Fisher, Hyde Park; John Bright, Myrtle and John Weylie, Streetsville, to be delivered at Brandon, Virden, Calgary, Cochrane and Morley.

It is expected another car load will be ready to ship about the 20th inst. Those wishing to take advantage of this shipment are requested to communicate at once with the secretary of the Live Stock Associations, Mr. F. W. Hodson, Parliament Buildings, Toronto, Ont.

LIST OF MEMBERS.

The following are lists of members which have been received since the last list published:

Algoma East	5
Glengarry	2
Lanark North	1
Manitoulin East	9
Middlesex East	2
Middlesex West	1
Muskoka South	4
Norfolk South	1
Ontario North	11
Peterboro West	4
Waterloo South	27
Wentworth South	27

Notice to Breeders.

Mr. Henry Ames, of Litchfield, Minn., proprietor of Walnut Grove Stock and Dairy Farm, writes as follows: "I see in FARMING that you assist breeders of purebred stock in making sales. Would you also be so kind as to give me the price per head of a car of "grade" Holstein heifers from 4 to 8 months old, no "scallawags," but fine ones from good milking herds f.o.b. in Ontario."

Parties having animals for sale are respectfully requested to correspond with Mr. Ames.

Secretary's Report

(Continued from April 11)

The last clause may seem rather stringent, but on the western ranches they wish none but spring calves, that they be as strong as possible before the cold weather sets in. They therefore do not wish to import bulls at any other time than in the spring. It is expected that a train load will be made up at that time and placed in charge of settlers going out to take up land.

GAZETTE—Continued.

Although the number mentioned above is limited to one bull for any one settler, it is possible this may not be strictly enforced. It will depend altogether on how the appropriation for this service lasts. The appropriation will all be used up, and if there is more than sufficient to pay the bonus on one bull the number allowed any one settler will be increased, or perhaps extended to females.

The appropriation consists of \$2,000 voted at the last session of the North-West Legislature, and out of this amount will be paid all expenses of shipping each animal, over and above the sum of five dollars.

All arrangements regarding shipping and assembling in Ontario will be taken charge of by the Dominion Live Stock Associations.

RATES TO BRITISH COLUMBIA.

The rate on a car-load of registered stock to British Columbia has been reduced by about \$60, as the following correspondence will explain:

TORONTO, Jan. 21st, 1899.

G. M. Bosworth, Esq., Freight Traffic Manager, C.P.R., Montreal, Que.

DEAR SIR,—Under date of November 22nd, 1897, you quoted me a rate to New Westminster, B.C., on a car-load of pure bred stock of \$251. The rate on a car load of pure bred stock, according to your circular, No. 41, of March 19th, 1897, to Lytton, B.C., is \$138. The rate on a car load of stock from Lytton, B.C., is, I understand, \$58. Should the rate on a car-load of pure bred stock from Ontario to New Westminster exceed \$196, the rate on a car load of thoroughbred stock to Lytton and a shipment of an ordinary car load from Lytton to New Westminster?

(Signed) F. W. HODSON.

Montreal, Jan. 23rd, 1899.

F. W. Hodson, Esq.,
Toronto, Ont.

DEAR SIR,—Your letter of the 21st inst. received. It is no doubt true that the rate on purebred stock to Lytton, plus the local rate from Lytton to New Westminster, will make a lower through rate than I quoted you, and I presume that you would be entitled to the rate you mention.

If you have any purebred stock for New Westminster I will make you a through rate of \$196 per car if advised before shipment.

(Sgd.) G. M. Bosworth,
Freight Traffic Manager.

MONTHLY LISTS OF STOCK FOR SALE.

A short review of the history and work of the ONTARIO AGRICULTURAL GAZETTE will enable you to come to a conclusion as to whether work in this direction should be increased or lessened. The object of the publication is to assist members of the association to sell their stock. The question that arises is, has it been successful in attaining this object, and if so is it capable of still greater usefulness by further development? These questions should be kept in view.



GOOD FARM FENCE

should turn all kinds of live stock and even traps; should expand and contract according to the weather so as always to be tight; should stand all storms—even fire and last indefinitely.

The Coiled Spring Page

is just such a fence.

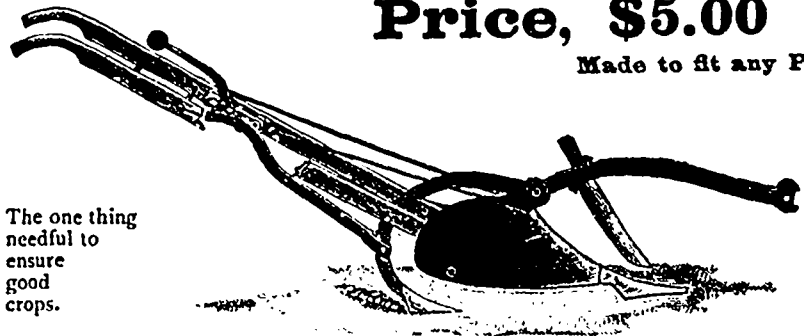
its virtue is attested by the fact that there is more of it in use than all other makes combined. Prices lower than ever this year.

THE PAGE WIRE FENCE CO., (LTD.)
WALKERVILLE,
ON T.

The Vessot Sub-Soiler

Price, \$5.00

Made to fit any Plough



The one thing needful to ensure good crops.

Mr. J. H. Peters, Mossomin, Assa., says: "We like it fine. You can tell the row where it was used."

Circulars on application

S. Vessot & Co.,
Joliette, Que.

NOW
IS
THE
TIME
TO
BUY

ALEXANDRA AND MÉLOTTE

CREAM SEPARATORS

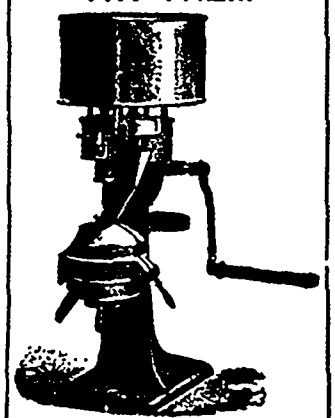
For Particulars apply to

R. A. LISTER & CO.,
Limited

Eastern Branch Works, 579-581 St. Paul Street,
MONTREAL

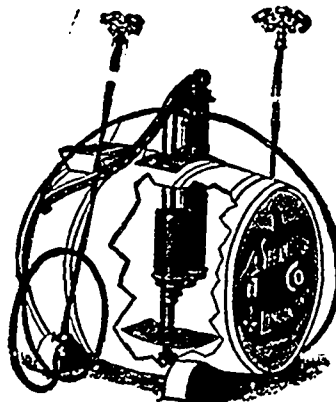
Western Branch, 232 King St., WINNIPEG.
Head Office and Works, DURSLEY, ENGLAND.

TRY THEM



TRY THEM

THE SPRAMOTOR FIRST



A TRIAL of Appliances when conducted by a BRITISH GOVERNMENT is sure to prove a valuable asset to the WINNER.

Rival manufacturers would gladly have us let the result of the Contest of Spraying Apparatus die, but how would this suit the purchasers of this kind of apparatus, who have been buying apparatus that has not been satisfactory in use and has caused more people to delay the practice of spraying than all other causes combined?

Send for full particulars in our copyrighted catalogue on the diseases affecting fruit trees, vegetables etc., and their remedies. Over 100 GOLD MEDALS AND THE HIGHEST AWARDS have been granted the SPRAMOTOR in three years.

Sixty-eight outfits are in use by the Ontario and Dominion Governments for experimental work. Adopted by six American and European Governments.

Certificate of Judges' Award:

THIS IS TO CERTIFY that at the Contest of Spraying Apparatus held at Grimsby, under the auspices of the Board of Control of the fruit experimental stations of Ontario, in which there were eleven contestants, the Spramotor, made by the Spramotor Co. of London, Ont., was awarded First Place.

Agents Wanted.

H. L. HURT, H. FERRIS, Judges.

SPRAMOTOR CO., 357 Richmond St.,
LONDON, ONT.

Market Review and Forecast.

Office of FARMING,
Confederation Life Building,
Toronto, May 15th, 1899.

Generally speaking the commercial outlook is brighter than it has been for years with the tone of business in a thoroughly healthy condition, there being less misgivings as to the future in wholesale circles. One of the satisfactory features to merchants is that many old overdue accounts have recently been settled in full. Money seems to be ample for all legitimate requirements, although rates are firm and likely to continue so.

Wheat.

There was a decidedly easier feeling in the wheat situation last week, due largely to the fact that late reports, and particularly the United States Government report, indicate a marked improvement in winter wheat conditions owing to the more favorable weather of the last week or two. The summary of the Ontario crop reports published elsewhere in this issue shows that winter wheat conditions in this province do not indicate a big crop unless the crop improves very much before harvest. But unfavorable reports from one locality do not affect the market very much. As a rule European crop reports are favorable, and the whole situation, as it applies to the wheat growing area of the world, does not indicate that a famine is near. The visible supply in the United States and Canada shows an increase of 4,938,000 bushels over a year ago, and the world's visible supply in sight is 67,786,000,000, as compared with 62,128,000 bushels a year ago, or an increase of 5,658,000 on the year.

The Chicago market has dropped 6½c. in three weeks. On Thursday May wheat sold there at 69c. and July at 70c., as compared with \$1.65 for May and \$1.08½ for July a year ago, when the Leiter boom was on. The English markets have been quiet, with a somewhat easier tendency.

The Montreal market is quieter at 72 to 72½c. for No. 1 Manitoba hard at Fort William. The market here is easier at from 67 to 68c. north and west; goose, 65 to 66c. north and west, and No. 1 Manitoba hard at 81c., and No. 1 Northern at 77c. Toronto. At Ontario points buyers are offering 66c. On the Toronto farmers' market red and white is worth 71½c.; spring five, 67 to 69c., and goose 65 to 66½c. per bushel.

Oats and Barley

During the past few weeks a large business has been done in Canadian oats in England, but during the latter part of the week there has been a lull, which has affected the market on this side, where holders have had to take a shade less in order to do business. Several large cargoes have arrived at Montreal from the States, which have weakened values a little. Oats are quoted there at 36½c. afloat. Oats are reported steady here at 31½ to 32c. west. On the Toronto farmers' market they fetch 37 to 38½c. per bush.

There is nothing doing in barley, which, on the Toronto farmers' market, is quoted at 45½c. per bush.

Peas and Corn.

The English markets for peas continue dull, though supplies are not large. The Montreal market is quiet and a little easier at 74 to 74½c. afloat. Peas are reported steady here at 65c. west in carlots. On the farmers' market they bring from 62½ to 63c. per bushel.

Chicago mixed corn is quoted at Montreal at 39½ to 40½c. and on this market at 41 to 42c. on track here.

Bran and Shorts.

These are a little quieter at Montreal, with Ontario bran quoted at \$15.50 to \$16.50 and shorts at \$17.50 to \$18 per ton. City mills here quote bran at \$14.50 and shorts at \$15.50 in car lots, f.o.b. Toronto.

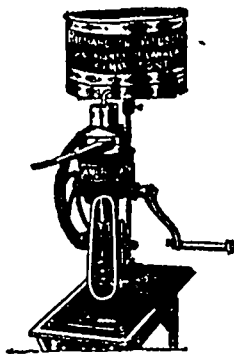
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That is why the

American
Cream Separator

Is considered such a great machine.

No simpler machine can exist and the result of the work is wonderful. Gasoline Engines for all purposes. Write us for full particulars and Catalogues.



Richardson & Webster,

ST. MARYS, ONTARIO

Clover and Timothy Seeds.

There is a fairly good enquiry at Montreal for these. Ontario timothy is quoted at \$1.75 to \$2, and American at \$1.50 to \$1.75; red clover at \$3.75 to \$4.50; alsike \$3.50 to \$4.50 and mammoth clover at \$4.25 to \$4.75. Flax seed is quoted there at \$1.25 to \$1.50 per bus. On the Toronto farmers' market red clover is quoted at \$3 to \$3.50; white clover, \$5 to \$8; alsike, \$3 to \$4.20 and timothy, \$1.20 to \$1.35. White beans bring 80 to 90c. per bus.

Eggs and Poultry.

English markets for eggs are quieter and with more liberal receipts from the continent prices are lower. Those in the trade at Montreal claim that prices are too high to admit of much being done for export. 11 to 11½c. are the prices quoted for large lots. But as high prices as these are reported at country points. There is a fair supply here and prices are easier at 11 to 11½c. On the farmers' market here fresh eggs bring from 11 to 13c. per doz.

Dressed poultry is quiet at about last week's prices.

Potatoes.

The demand at Montreal for potatoes from the west has fallen off. 67½ to 70c. per bag are quoted for the best. The market here is dull at 75 to 80c. in car lots on track and 90c. out of store. On the farmers' market they bring from 80 to 90c. per bag.

Fruit.

The Montreal apple market keeps steady at \$3 to \$5 per bbl. Prices here have not changed.

Hay and Straw.

Baled hay at Montreal continues firm. Clover, which sold at country points in car lots about a month ago at \$3.25 to \$3.50, sold last week at \$4 to \$4.50 f.o.b. Montreal quotations are No. 1, \$7 to \$7.50, No. 2, \$6 to \$6.50, and clover \$4.50 to \$5.50 per ton. The demand here is good and the market steady at \$7.50 to \$8.50 in car lots on track. On the Toronto farmers' market timothy hay is worth \$11 to \$13, clover \$7.50 to \$9; sheaf straw \$7 and loose straw \$4 to \$5 per ton.

Wool.

There is some excitement at Montreal over the foreign wool markets though it does not seem to have much effect on the prices for Canadian wool, which at Toronto are given as 13c. for fleece and 8c. for unwashed.

Cheese.

The cheese markets are quiet but steady, though a duller feeling is reported on the London, England, market, where prices are 1s. lower, choice old Canadians being quoted at 51s. to 52s.; seconds at 49s. to 50s. and new at 47s. 6d. to 49s. At Montreal the market is quiet but steady at 9½ to 9¾s. for choice new cheese. Some English dealers are desirous of getting new cheese at 45s., which

means 9½c. at Montreal. On the local market during the week prices have ranged from 9½ to 9¾c. A year ago 8 1-16 to 8½c. were the corresponding prices. There has been a large make of fodder goods, though from this on cows will have more or less access to pasture. During the nine days of May the exports were 12,151 boxes, as compared with 10,520 for the same period a year ago.

Butter.

The Trade Bulletin's London cable of May 11th reads thus: "Denmark has commenced to send in the new make pretty liberally, and this, along with home offerings, has caused a further drop of 2s. per cwt. Finest Canadian creamery, 88 to 90s.; seconds, 78 to 82s.; dairy, 65 to 70s." Though it was expected that the high price of cheese as compared with butter would induce a larger number of the factories than usual to begin making cheese earlier than usual, yet there is reason to believe that a large make of creamery butter is going on. The rain of the past week will generally improve the pastures and will insure a larger flow of milk. Quite a lot of business is being done on export account at Montreal, and prices for choice creamery at Montreal are from 16½ to 16¾c., though the latter is considered to be a shade too high. Last year at this time prices were 16½ to 17c. for the same grade of butter. Good to fine is quoted at 15½ to 15¾c., and western dairy at 12½ to 13½c. per lb. If the big export demand of the past week or two continues it is not expected that the market will go any lower.

Creamery butter in prints is quoted here at 17 to 18c. There is a large supply of dairy, choice tubs and pound rolls bringing from 11 to 12c. and large rolls 10 to 12c. On the farmers' market pound rolls bring 14 to 17c. and large rolls 13 to 14c. per lb.

Cattle.

The leading cattle markets have been steady during the week, with a stronger tendency at some of the Eastern markets. Receipts at Buffalo have not been large, but with outside reports favorable; the feeling was steady on Friday's market. At Cincinnati lightweights have been in better demand, with heavy and medium grades easier. The demand for stockers and feeders in the west continues active. The run of live stock on Toronto market on Friday, which was the last market day of the week, was not large, only 45 carloads all told. The quality of the fat cattle was good, with a sufficient number to supply the demand. Trade was fair and prices firm. Drivers complain that they have been paying the farmers too much money and consequently have been losing on the cattle sold here.

Export Cattle—Choice heavy well-fed finest exporters sold at \$4.80 to \$4.90 and light ones at \$4.40 to \$4.60 per cwt. Heavy export bulls fetch from \$3.75 to \$4.12½ and light ones \$3.40 to \$3.65 per cwt.

Butchers' Cattle—Choice picked lots of these equal in quality to the best exporters, and weighing 1000 to 1150 lbs. each, sold at \$4.50 to \$4.60 per cwt. Good butchers'

cattle bring from \$4.35 to \$4.40, and medium \$4.20 to \$4.30 per cwt. Common stuff and inferior lots bring from \$3.50 to \$3.85 per cwt.

Stockers and Feeders.—Buffalo stockers sold on Friday all the way from \$3.75 for common to \$4.60 for medium and \$4.25 per cwt for choice extra bred steers, with the market active at these prices. Stock heifers bring from \$3 to \$3.12½ and stock bulls \$2.50 per cwt. Heavy feeders are in good demand with prices from \$4.40 to \$4.60 per cwt. for well-bred steers, half fat weighing not less than 1000 to 1150 lbs. each. Feeding bulls are worth from \$3 to \$3.50 per cwt.

Cakes.—The Buffalo market for these is active and strong. On this market they are worth from \$2 to \$8 each.

Milk Cows.—These sold on Friday at from \$30 to \$50 each. Choice extra cows are wanted.

Sheep and Lambs.

These have ruled firm at American markets during the week, with the exception that the warmer weather has lessened the demand for very fat lambs or sheep, buyers preferring the lighter weights. At Buffalo on Friday the market was strong and higher on the desirable kinds, but on grassy stock the market was weak. On this market deliveries have been light and prices firm. Ewes sell for \$3.50 to \$4 and bucks for \$3 to \$3.50 per cwt., if they are not too heavy. Yearling lambs on Friday were scarce and are wanted. Good grain-fed ewes and wethers sold at \$5.50 to \$5.65 and common ones at \$5 per cwt. Spring lambs sold all the way from \$2.50 to \$4.50 each.

Hogs.

The hog markets show a little advance over a week ago. On Friday 1,000 hogs were delivered on this market, selling at \$4.62½c. per cwt. for choice select bacon hogs, weighing 160 to 200 lbs. each, off cars. Light and thick rats sold at \$4.12½c. per cwt. At Montreal during the week light bacon hogs sold at \$4.75, and extra choice at \$4.85 per cwt. Heavy hogs sold at \$4.25 to \$4.50 per cwt. The *Trade Bulletin's* London cable of May 11th, re the Canadian bacon trade, is a little more encouraging, and reads thus: "The market for Canadian bacon is steady at an advance of 1s. per cwt., and at the rise holders are not pushing sales, owing to lighter stocks."

Cheap Paint for Wood and Iron.

One lb. new unslacked lime, grind up with ½ lb. of boiled linseed oil; add this to 2 gals. skim milk, stir well; then add 14 lb. whiting and 1 pint raw linseed oil. Let stand 24 hours, and apply with a large brush. This paint is dead white, but may be colored by mixing any of the painters' pigments, ochres, etc. Another recipe.—Take any quantity of skim milk, and stir in gradually best Portland cement until the mixture is as thick as batter. Then apply with a large brush.

To Prepare Bordeaux Mixture.

Dissolve 6 lb. of sulphate of copper in four or more gallons of water. Slack 4 lb. of quicklime or 6 lb. of air-slacked lime in water in another vessel. When the latter mixture has cooled, pour it carefully into the copper solution, being careful to thoroughly stir the two mixtures together. Before applying add water to make about forty gallons of compound. Thoroughly stir before applying. This is the best fungicide that can be made. For potato diseases, spray the tops of the plants on the first indication of the trouble, and continue to make applica-

tions every ten days. The cost is nominal, and such applications will save the crop.

Scale of Points for Dorset Horned Sheep.

The following scale of points has been prepared, adopted and published by the Dorset Horned Sheep Breeders' Association of America, and embodies the views of its members of what constitutes a typical specimen of this breed:

- 1.—General appearance, head well up, eyes bright and alert, and standing square on legs. 20
 - 2.—Broad, full chest, brisket well forward. 10
 - 3.—Broad straight back, with well sprung ribs. 15
 - 4.—Heavy, square quarters set on short, straight legs well apart. 10
 - 5.—Legs white with small light-colored hoof. 5
 - 6.—Head small, face white, nostrils well extended, nose and lips pink in color. 5
 - 7.—Neck short and round, set well on shoulders. 5
 - 8.—Horn neat, curving forward and light in color. 10
 - 9.—Good foretop and well covered on belly and legs. 10
 - 10.—Wool of medium quality and good weight, presenting an even, smooth, white surface. 10
- Total 100

Danger in Farming.

According to the rates of a leading accident insurance company the work of a farmer is twice as hazardous as that of a commercial traveller. If a man spend his time in railway coaches, street cars and city hotels, his accident insurance will cost him only half as much as that of a working farmer.

This difference in rate of insurance is not based upon the Psalmist's statement that "a horse is a vain thing for safety," but upon statistics gathered from experience. Horses, modern machinery and carelessness have combined to class our occupation as more hazardous than those of most men.—*Alva Agee, Gallia County, O.*

Spray Pumps

Special Bargains During May we will offer the well known

Little Giant Spray Pump

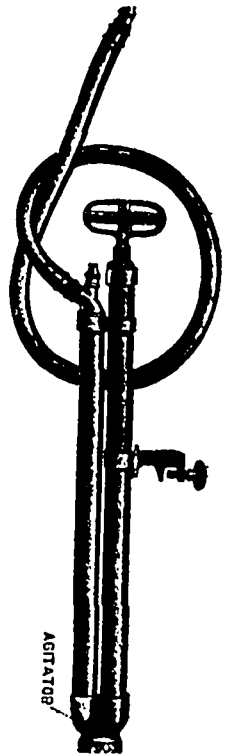
At \$3.00 each, ca. h.

POINTS } All Brass.
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Windmills (Canadian Air-Motor), Pumps, Hydraulic Rams, Tanks, Tools, Grinders, Etc.

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The Famous Sectional Head Weeder



With this Weeder you can cultivate the ground ten times at less cost than that of hoeing once, and the weeder is more benefit to the soil by the frequent stirring.

Write for Prices and Terms.

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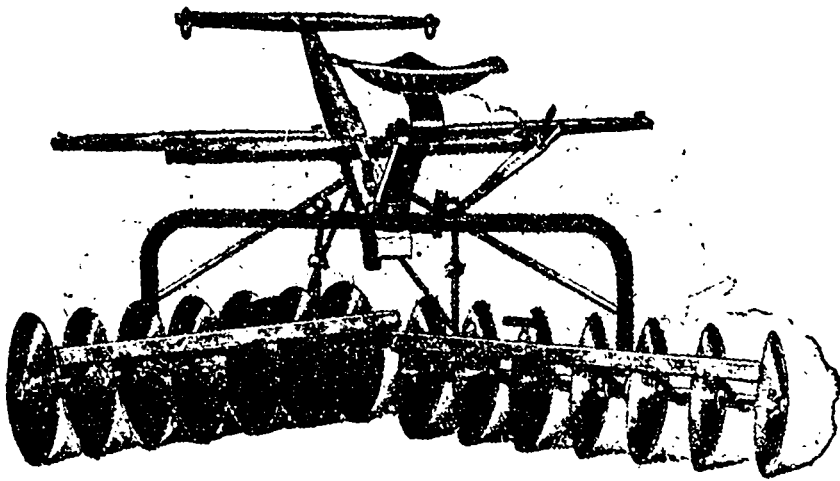
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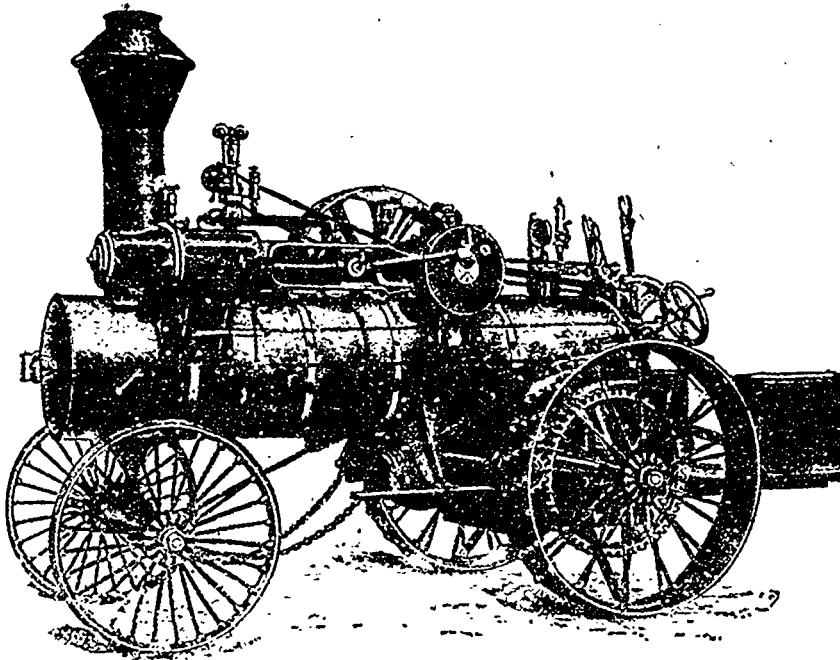


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MASSEY-HARRIS CO.
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FIRST IN THE FIELD—Established 1836—STILL IN THE LEAD



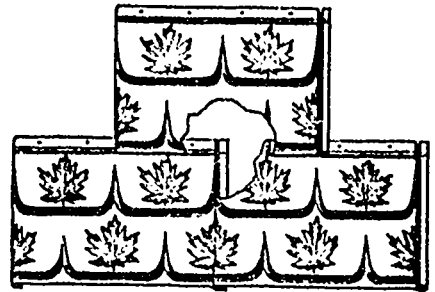
OUR NEW COMPOUND TRACTION ENGINE

Light Weight, Powerful, Economical. Fitted with Single or Double Speed. Adjustable Gear, and Friction Clutch if desired. Peerless, Daisy and Eclipse Separators, all fast and clean threshers. Illustrated Catalogue on application.

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IF PEOPLE ONLY KNEW

the advantages of using metal roofing, constructed on our patent "SAFE-LOCK" principles, they would not accept a substitute.



OUR "SAFE-LOCK" SHINGLES

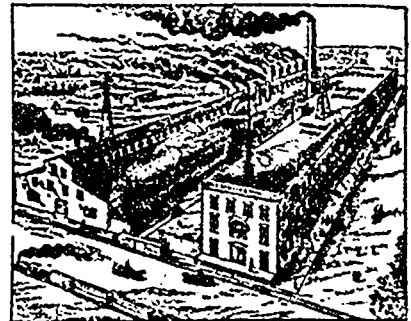
interlock each other on all four sides—leaving no openings for snow or rain to get in. They are easily put on by anyone—are practically fire and lightning proof and give a building a neat, finished appearance. We can tell you more. Ask for free catalogue and samples.

The Metal Shingle and Siding Co.

(Limited)
PRESTON, ONT.

Brantford

Galvanized Steel Wind Mills
Towers and Grinders



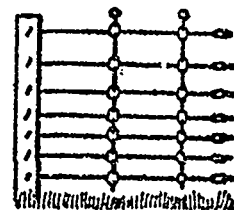
Our New Factory—Large and Well Equipped

Send for Illustrated Catalogue of Wind Mills, "Maple Leaf" Grinders, Iron and Wood Pumps, Bee Supplies, etc.
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Fence Machine Free

With 100 Rods. Gold Stem-Wind Watch Free.



To introduce Diamond Grip Fence in new localities. Don't have to wind wires around each other (like old woven fences), as cross wires are gripped and protected from weather; can never slip or break; 5 times as strong and lasts 10 times as long, as any woven wire fence made; can use coiled spring, plain, twisted or barb wire. Cheapest Fence in end that was ever invented. Agents wanted; write quick to



CANADA FENCE CO., London, Ont.

THE FROST & WOOD COMPANY, Limited

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SMITH'S FALLS, Ont.

FROST & WOOD No. 8 MOWER

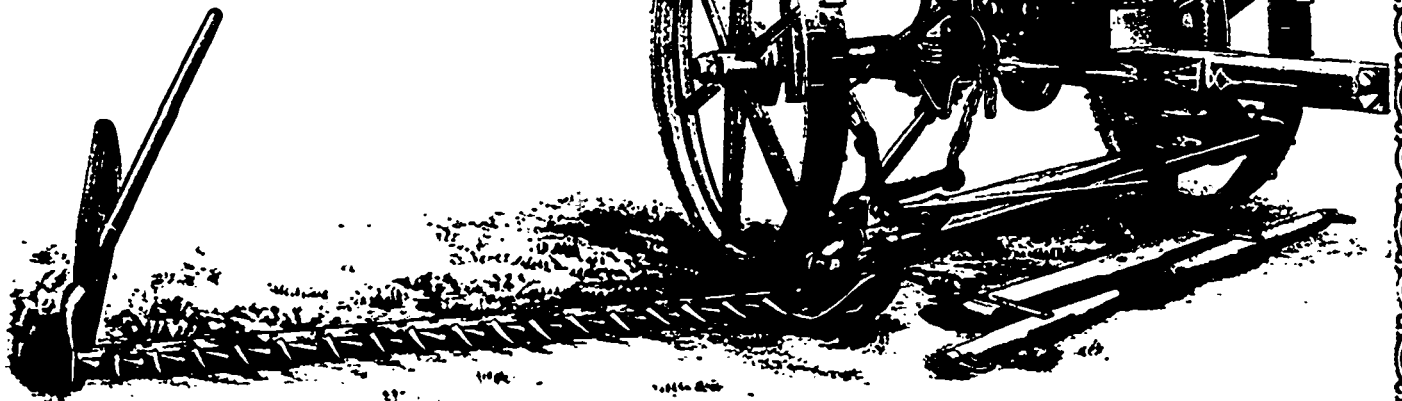
With Roller and
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Spring Footlift
All the Very Latest Improvements

SIMPLICITY
STRENGTH
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Call on our nearest agent and
see our samples before buying
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HAY SAVED AND MONEY MADE



WIDTH OF CUT, 4½, 5 AND 6 FEET.

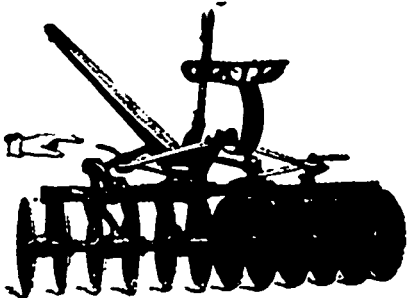
THE ONLY MOWER THAT REALLY DOES WHAT OTHER MOWERS CLAIM TO DO.

If your crop is **LIGHT** you need the **BEST CUTTER** to **SAVE IT ALL**. If your crop is **HEAVY**, you need the most powerful cutter to **CUT IT ALL**. The **FROST & WOOD No. 8** stands for the **HIGHEST PERFECTION** in grass-cutting machinery. You **MAKE NO MISTAKE**, and **SAVE MONEY** when you buy a No. 8. It is the **BEST**.

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Send for Illustrated Catalogue. When writing mention **FARMING**.

Farmers

We are surprised to read the claims of some of the makers of Disc Harrows. One would think it was the **WATFORD DISC** they had reference to.



The up-to-date disc of to-day is a throw-out harrow. Still the Watford will throw either in or out. The leading improvement in disc harrows to-day is the spring pressure and its application to hard or soft ground, to cut a uniform depth, and to avoid weight on horses' necks. This pressure must be applied directly over and in line with the centre of discs, just where

you will find it in the Watford, and where we have had it for years. Comfort for rider. Buggy Spring construction. (See Cut.)

Special Offer—Where Watford Implements are not sufficiently known we will name an interesting price, it being understood that special cut is to have no bearing on regular selling price—a special price for a special purpose.

Yours for up-to-date implements on the farm,

Thom's Implement Works, Watford, Ont.

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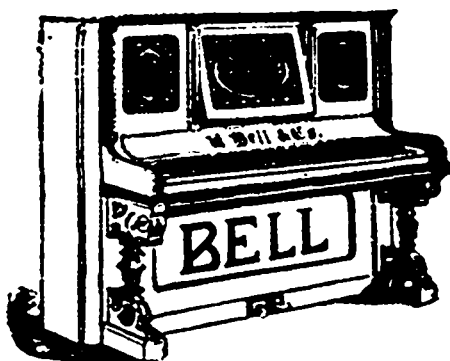
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ORGANS from \$40 upwards
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Only the best materials used. All others are rejected.
On Reasonable Terms from all Agents

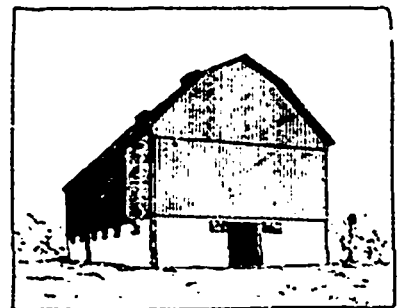
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Estate of JOHN BATTLE

THOROLD, ONT.



This is the Barn that the Hurricane Blew Down
but the walls built with Battle's Thorold
Cement stood firm as a rock.

The Thorold Cement is tested by a Hurricane
Read what Mr. Hunt Kennedy, of Ilderton, Ont.
says about Thorold Cement:

ILDERTON, ONT., Jan. 27th, 1899.

ESTATE OF JOHN BATTLE,
Manufacturers Thorold Cement,
Thorold, Ont.

DEAR SIR, We think Thorold Cement is the best
cement in use for building walls and floors in stables.
Last June I built a wall 36 x 109 x 10 ft. high at back,
and 8 ft. at front. We were 12 days building it, under
the management of Mr. P. Howey, Ilderton (five men
in all). We raised the barn on the wall in 12 days
after it was completed. The next day there came a
hurricane, which blew down the framework. It all
fell on the wall but one bent. The posts were 26 feet
long and seven of them broke. The wall stood the
test, which was a very trying one, and it only chipped
off a little in one place. I intend putting floors in the
spring with Thorold Cement, for I think no other ce-
ment could have stood such a test.

Yours truly, HUNT KENNEDY.

ESTATE OF JOHN BATTLE

Mention this paper. THOROLD, ONT.