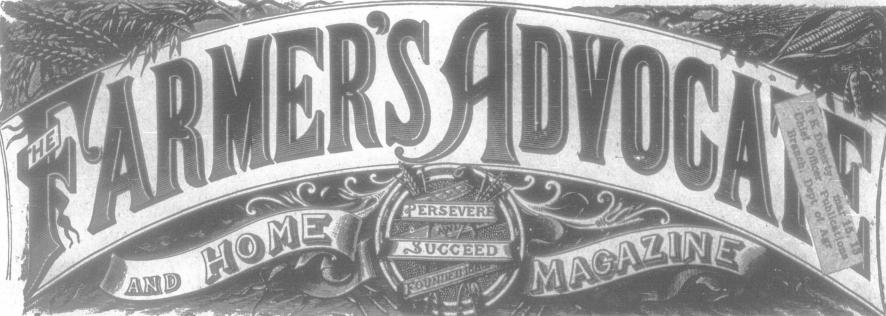
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Vol. XLVIII.

LONDON, ONTARIO, OCTOBER 2, 1913.

No. 1070

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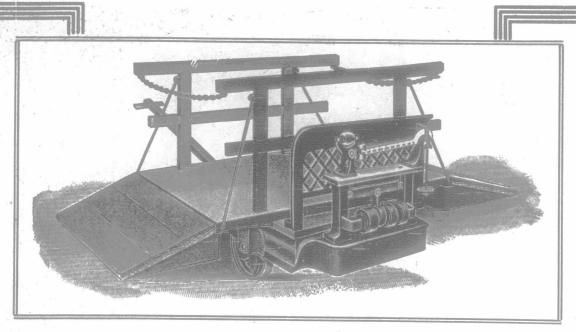
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Pandora Ranges are sold everywhere by good dealers who back up our guarantee on this splendid range— MCClary's 387

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Aylmer Scale is the only 3-point bearing scale on the market.

The only scale that will weigh correctly on an uneven surface.

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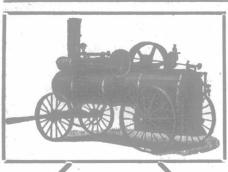
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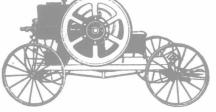
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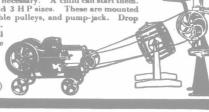
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See Buckeye Exhibit at Springfield, Illinois State Fair.

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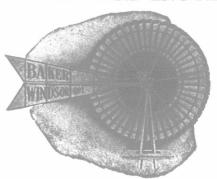
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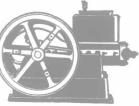
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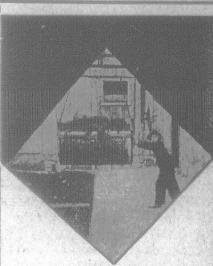
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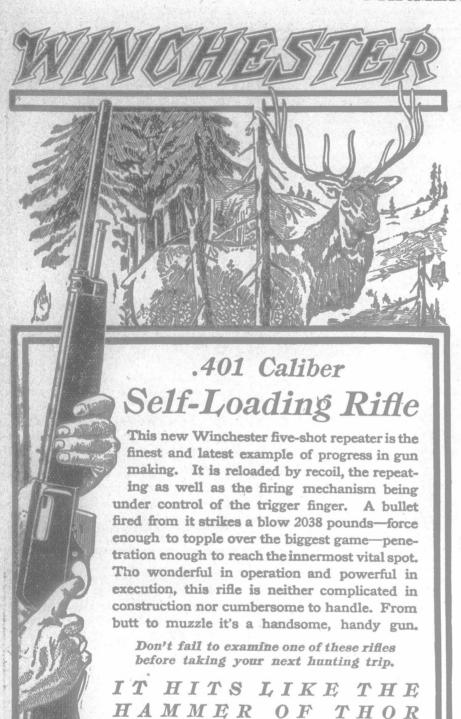
This boy cleans the stable in a quarter of the time it takes a man with a wheel barrow. He can run the manure out from the barn in a jiffy and no hard work. It's play for a boy, where strong men hated it balance. it before.

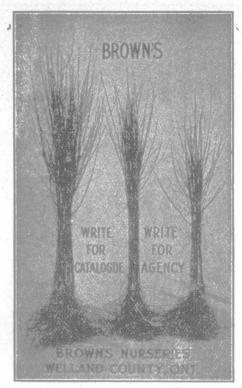
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The true value of a tree is based upon its root system and limb growth.

Trees grown at

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Welland County Ontario

Are famous because of these two points.

If you have land suitable for fruit or ornamental trees, send in your list for prices.

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3½ and 6 h.p. sizes. They have been only slightly used. They will be adjusted and in perfect condition and just like new before leaving our factory. Prices and further particulars on request.

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- -in special convertible box.
- -good matches always ready at the bottom.
- -burnt sticks are dropped in the top.
- -noiseless; heads do not glow.
- -and absolutely non-poisonous.

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Required to change "Tolton's No. 1 Double Root Cutter" from a pulper to a slicer.

"Tolton's No. 1" is the only Double Root Cutter manufactured, and the best of its kind made.

There are many advantages for the farmer using "Tolton's No. 1" Double Root Cutter. Fitted with Steel Shafting, Roller Bearings and the latest improvements, and made by skilled workmen.

Send a post card for prices and circular Write to-day.

Tolton Brothers, Limited Dept. A, GUELPH, ONT.

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Make Fall and Winter
Dairying More Profitable

THERE are special advantages in using a good cream separator during the fall and winter months.

The milk from cows long in lactation is hardest to cream,—and likewise hardest to separate with an inferior separator.

Moreover, cream and butter prices are highest, so that the waste of gravity setting

or a poor separator counts for most.

Then there's the sweet, warm, skim-milk for stock feeding, alone worth the cost of a separator in cold weather.

There is surely no reason to delay the purchase of a separator or to continue the use of an inferior one. A De Laval machine will save its cost by spring, and may be bought on such liberal terms if desired as to actually pay for itself meanwhile.

See your local De Laval agent.

De Laval Dairy Supply Co.

Montreal Winnipeg Peterboro Vancouver

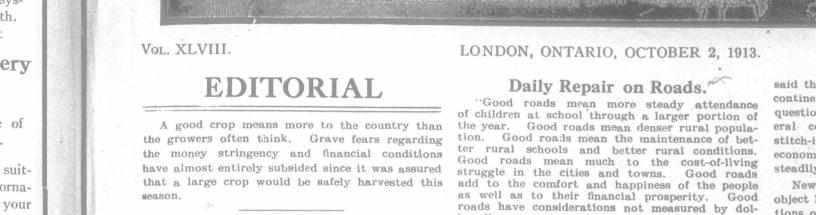
Cream Wanted

We guarantee highest Toronto prices, full weight and prompt returns. Our 15 years' experience ensures satisfaction. We furnish cream cans and pay express charges. Write:

Toronto Creamery Company, Limited Toronto, Ontario

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ral machine nd may be desired as vhile.



"We are determined not to sacrifice efficiency

and permanency to haste for mileage," says the

Secretary of the Massachusetts State Highway

Commission. As a result, Massachusetts has a

system of durable good roads, costing a remark-

ably small sum per mile for maintenance.

Thoroughness pays. It is time to stop jumbling

October is the season of mellowing fruit and dropping nuts; of corn husking and the in-

gathering of vegetables and roots; of brown fur-

rows streaking the stubble fields; of sport and

sports; of fattening game and migrating birds;

of cool nights and crisp mornings that put tone

in blood and nerves; of golden sunlight and

purple haze—the halo of the whole twelve

months. To live in October is to sample the

A real-estate dealer in Saskatoon, who was

formerly a farmer, suggests that the Dominion

Government issue a farm-mortgage currency in

notes of five, ten and twenty-dollar series against

first mortgages on farm land, stamped "First-

Mortgage Currency," and guaranteed by the gov-

ernment to be legal tender. Under this scheme

the government might loan a free holder any

sum from one hundred dollars up to fifty per

cent. of the value of his farm for a term of

thirty years, with the option to pay off said

mortgage at any time after six months without

notice or bonus. The mortgages would bear five

per cent. interest for the first and second year,

and three or four per cent. thereafter. Post-

masters would execute the necessary papers. It

is quite an idea, but we hardly expect to see it

adopted. It might lead to political and other

A comparatively new work is that carried on

by District Representatives of the Ontario De-

partment of Agriculture in connection with

School Fairs. This is one of the most worthy

branches of their varied means of reaching the

agricultural public, and Fairs officered by school

children, and with school children the sole exhibi-

tors, cannot but have a lasting value in impress-

ing upon the open minds of these young folks the

importance of producing the hest in the different

classes of crops, poultry and eggs, covered by the

prize list. The actual growing and attending to

these crops and the poultry by the children them-

selves teaches methods of cultivation and care;

the management of the Fair is a start in busi-

ness training so necessary, and the competition

has a great value in that it encourages interest

in growing things, and raises the children's opin-

ion of agriculture. These Fairs should get the

undivided support of the grown-ups, and every

adult in the sections where School Fairs are held

should turn out and help the children along with

their good work. Many are the surprises in

store for people who attend one of these Fairs

for the first time. It is a commendable under-

taking, and is worthy of the best support.

rich wine of life.

complications.

expensive road-surfacing metal into quagmire.

This terse epitome of the benefit of good roads appears in the first article of a journalistic campaign undertaken by the Toronto Globe in the interest of highway improvement and maintenance. A competent correspondent has been sent to make enquiry in New York and the New England States, where grave problems of cost of maintenance are facing existing systems; in Illinois, where they are grappling with 95,000 miles of middlewest dirt roads on the slogan, "Pull Illinois out of the mud"; in Missouri and Kansas, where Governors Major and Hodges have themselves donned overalls and handled pick and shovel in an endeavor to arouse interest and inaugurate a public-spirited revival in road-making; and in other States where special phases of the problem have developed. According to official estimates over \$1,500,000,000 has been spent on road improvement in the United States during the past twenty years. What has been done with the

money? Wherein can the experience of the Re-

public prove of value to Canada? Canadian effort has been considerable, even if results are not commensurate. British Columbia, in the last ten years, has spent fifteen millions on roads and bridges. Alberta has appropriated a million for north-and-south trunk roads, in addition to \$250,000 from current revenue. Saskatchewan has allotted five millions for trunk roads, in addition to her \$400,000 from current revenue. Under the Manitoba Highway Act, \$200,000 is set aside annually for provincial aid to main roads. Ontario spent \$850,000 last year on colonization roads in the North, and a quarter of a million on bridges. Local municipalities have been spending each year about 1,-100,000 days of statute labor, and \$1,400,000 in cash. In 1911 the expenditure under the Highways Act was \$711,000, of which the province contributes a third. Quebec borrowed ten millions on 41-year bonds. Three provincial highways have been built. New Brunswick contributes \$100,000 annually for roads, and Nova Scotia \$250,000, the counties levying a special statute-labor tax which aggregates a like amount. In Prince Edward Island \$32,000 a year is laid out. Results? Take Ontario, for example. In the past twenty years the municipalities have spent nineteen million dollars on the highways, and twentytwo million days statute labor has been applied as well; yet, out of fifty thousand miles of highway in the older portions, only four thousand are now reported in a good state of repair. "Canadians have been too inclined to 'build' roads by an extensive system of repair." The consequences are immense ultimate cost, few miles of permanent road, and nearly all the mileage in a state of greater or less disrepair. Like conditions prevail elsewhere.

The solution of the difficulty was touched by General Roy Stone in an address at Buffalo, who said that the great need of country roads on this continent was DAILY REPAIR. That is unquestionably correct. We shall never have a general condition of good roads without it. The stitch-in-time principle is the only sound or economical one, as "The Farmer's Advocate" has steadily contended.

TABLISHED

No. 1070

New York State is looking to England for object lessons. One of the most important functions of local government in Britain is systematic oversight of the roads. Every County Council has a standing committee on roads, which takes charge of the highways and keeps them in repair at the expense of the rates. The committee is a large one, and is subdivided into a series of small committees, each with its own district. There is an inspector for every division of the county, and he employs a force of roadmenders and holds them responsible for the sections of the road assigned to them. The roadmender lives in a cottage on the line of the highway which he is required to keep in order, and he is constantly at work. He is at once a scavenger and a roadmender. He goes over the road and removes in barrow everything that is unsightly. After a heavy rain his trained eye detects signs of wear at points where the water does not drain off rapidly, and he mends the break and restores the level by dumping a load of flint where it is needed. Supplies of material for roadmending are in reserve every half mile, where flint has been carted, broken up and left for his use, as mentioned by the writer of our current serial "Europe Through Canadian Eyes." He watches his section of the road all the year around, and keeps it neat, tidy, free from litter and in perfect repair. And he receives sharp warning from the inspector if he neglects his work. France employs 80,000 patrolmen to keep her roads in

That is the kind of system we need, with some modifications to adapt it to our conditions. And above all things we must keep it out of politics. A federal or provincial bureau of that kind would be very liable to develop into a great political machine. The auspices should be local. We have politics enough in municipal matters, but usually not so partizan as in the larger spheres.

Just a word about the trunk-road scheme. There has been some little agitation to have provincial and federal governments build great through highways for the special convenience of automobile traffic. "The Farmer's Advocate" believes the public interest will be better served by systems of municipal highways radiating from the important market and social centres. This will prove of much greater advantage to rural residents, will avoid the political evils of extensive bureaucratic control, will conduce to economy and keep the administration of the highways in the hands of the municipalities, where it belongs. Government grants should take the form of assistance and quasi-supervisory direction, and should extend to maintenance.

In conclusion let us quote this extra good paragraph from the newspaper correspondent's admirable article.

"Good roads in Britain are * * * * a practical detail of common-sense, efficient local administration. Nobody ever feels called upon there to preach the gospel of good roads. The English people have them because they pay for them, and insist upon having them kept in order. The poorest rustic loves the country road which leads to his humble cottage. It is his pleasure ground-his rightful share in the goodly heritage of a well-governed country."

The Farmer's Advocate HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

PUBLISHED WERKLY BY THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

"The Farmer's Advocate and Home Journal," Winnipeg, Man.

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is published every Thursday.

It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information, for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.

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Address THE FARMER'S ADVOCATE, or THE WILLIAM WELD COMPANY (LIMITED), LONDON, CANADA

State Landlordism.

The committee appointed by the British Government to investigate the land problem of England, as affecting the rural worker, have made the following recommendations:

1. A widespread system of small holdings cultivated by tenant occupiers holding the land at equitable rents with security of tenure.

2. The system to be safeguarded by the establishment of land courts with judicial powers.

3. The establishment of wages boards to adjust wages according to local conditions. 4. The readjustment of hour

more frequent holidays. A system of land purchase financed by the

State was rejected by the committee on various grounds, the chief of which was that a peasant proprietary must sooner or later become burdened with debt, and sink into the clutches of the money-lender.

The cablegrams do not indicate that the commission considered the idea of the government purchasing land and acting the part of the landlord, letting it out in small parcels on long-term leases, but keeping the whole proposition on a business basis. Such a suggestion is probably too radical as yet even for the redoubtable Lloyd George. It would, to be sure, entail problems in administration, but whether these would be much more difficult than those involved in the establishment of Land Courts and Wages' Boards is debatable. One great advantage of state ownership would be that any further unearned increment in the value of the land would accrue to the public instead of to the individual. With the increasingly dense population of the world and with the settlement of the great areas of hitherto unoccupied land in America and Africa, land values the world over are likely to greatly increase. And why should the increase not belong to the people as a whole? There are many arguments in favor of land being owned by those who use it, but if, as in Britain, the land is to be largely worked by tenants anyway, why not let the state become the landlord, advanced reasoners inquire? And why, they also urge,

should not cities own their sites, letting the lots on long-term leases to those who wish 'to build on them? Of course it would be necessary to have carefully worked-out provisions for periodic adjustments of rent and renewal of leaseholds on fair terms. Such a system would confer little or no immediate advantage on the community, because the net return from rentals would no more than pay the interest on the investment, but the prospective advantage, if the scheme proved practicable, should be immense, for all the enormous future increment in value would then belong to the community whose enterprise and effort created it. In time the increasing rentals would not only pay compound interest on the investment, but leave a margin out of which might be paid police, educational and other civic services now met by a tax-rate levy. The prospect is attractive but is not yet an issue of practical politics, and may not be for a long time to come. However, lit may some day command attention, and perhaps sooner than we think.

Nature's Diary.

By A. B. Klugh, M. A.

Our deciduous trees are now garbed in their brilliant and beautiful autumn dress. The leaves, pale-green as they open in the spring, deep-green and affording a most grateful shade in the summer, are even more glorious in their death. What causes the leaves to turn color in the autumn? The usual answer is "frost." But this is not correct, for many trees, turn before we have had any frost at all, and in some years all the trees show their brilliant tints before any frosts have occurred.

The real cause of autumn coloration is as follows: The leaves are the mouths and stomachs of the trees. In the cells of the green leaf are bodies called chloroplasts, which contain a green coloring matter termed chlorophyll (from two Greek words meaning "leaf-green"). This chlorophyll, by the aid of sunlight, turns the carbon derived from the air and the water taken up by the roots into starch, which is the food of the tree. Now at the end of the growing season the chlorophyll breaks down into substances which are yellow or red in color, and we have our autumn tints.

At the time that this breaking-down process occurs the constituents of the leaf which are of value to the trees are withdrawn into the petiole (leaf-stalk) and on down into the twigs and trunk. So that when the leaf falls from the tree only a mass of dead and useless cells is lost.

Frost is no more responsible for leaf-fall than it is for autumn coloration. Quite early in the season a layer of cork begins to form at the base of the petiole, and this layer gradually grows in until the leaf is cut off the tree. If we get a heavy rain storm and then a strong wind in the late autumn we find that a host of leaves have fallen, for the slender thread which remains uncut at the base of the leaf is broken by the action of the wind on the heavy, wet

The shedding of leaves by the deciduous trees is an adaptation to a climate in which seasons unfavorable to growth occur periodically. In our Canadian climate this season is, of course, the winter. It is not the cold which is the prime factor in rendering that season unfit for growth, but it is the extreme dryness. All moisture is then in a solid condition, as ice or snow, and is consequently unavailable for use by the tree. The evergreens take a different method of meeting this season dryness. They have leaves which are thick, and which are protected by a heavy cuticle.

In autumn coloration we find that most species have their characteristic tints, the red maple scarlet, the elm yellow and so on. Some species, however, have quite a range of coloration, for instance the sugar maple, in which species some trees are red, some yellow, and others display both these colors and intermediate shades.

We have in Eastern Canada the finest display of autumn tints to be found anywhere in the world, and at this season of the year we enjoy this glorious exhibit to the utmost.

In our rambles in the woods we frequently come across a heavy, lumbering animal, and our behavior towards it marks us at once as a true woodsman or as a greenhorn. If the former we leave it to continue its ponderous way in peace; if the latter we kill it. The animal referred to is the porcupine, and as it is the only animal found in our woods which a lost man without a

gun can kill, all true woodmen leave it unmo-

We have two mammals in our woods which are most efficiently protected and know it, but they are protected in very different ways,-the porcupine and the skunk.

Against all enemies but man the porcupine's quills make a very efficient armor. When desperately hungry some of the large flesh-eaters will make a meal of a porcupine. But the meal is often a fatal one, as the quills are not only sharp-pointed, but have numerous small barbs, so that they work in and in until a vital part is pierced. Thus some time after its demise the porcupine avenges itself.

There is a widely current popular idea that a porcupine can throw its quills. This is entirely erroneous. The nearest that a porcupine comes to throwing its quills is when it presents its back to an enemy and suddenly springs its tail, striking its opponent in the face and filling it full of quills.

This animal makes its home in a hollow log or in a den among the rocks. The female has a pair of twins each season.

The main food of the porcupine consists of the bark of trees, twigs and leaves. It has a positive mania for salt, though this must be an acquired taste for it is hard to see how, under natural conditions, this animal could have come across any salt. Whenever a porcupine finds an old empty pork barrel or any other wooden object which has been in contact with salt, it returns to it again and again until it has chewed it all I have seen the mangers in abandoned stables almost demolished by porcupines because of the trace of salt in them.

The derivation of the word porcupine is not. however, from its pining for pork or for pork barrels, but from the French "porc epin" meaning "spiny pig."

The only note I have heard this species utter is a peculiar whining cry, which is heard usual-

Commission Needed for Bank Inspection.

"I have the best of reasons for believing that if bankers felt that all bank audits would be made on uniform, thorough and broadly intelligent lines, most of them would welcome the measure (for shareholders' audit) heartily. But what will the condition be if some audits are made with a high degree of intelligence as regards matters of vital importance, while others are made with a microscopic attention to detail, but perfunctory as to real essentials?"

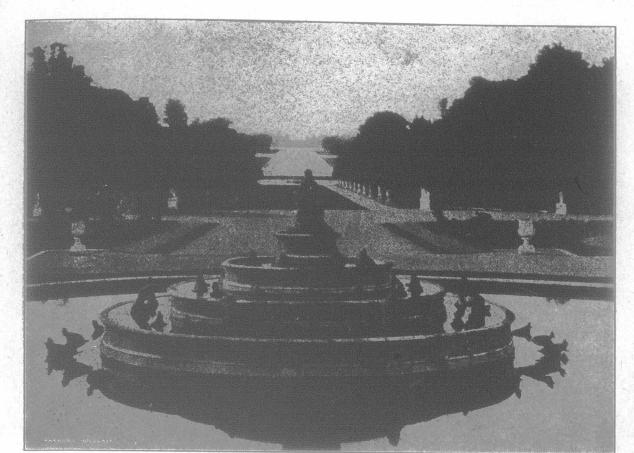
These words are by Vere C. Brown, Superintendent of Western Branches of the Canadian Bank of Commerce. Mr. Brown describes the efficient method of internal inspection by means of which the head offices keep check on the operations of their branches, and refers to the highly developed and efficiently controlled systems of our best banks.

"But," he concludes, "there may possibly be some exceptions, and in order to make audits really effective, it would be desirable that the knowledge and experience gained by the auditors of the best-administered banks should be available to the auditors of other institutions. | How this could be brought about is a question on which it would be premature to offer any opinion. It is only to be hoped that in due course some plan will be evolved under which the amendment to the Bank Act in this connection will be made to effectively fulfill the purpose in-

Would not a banking commission fill the bill?

City Growth and Cost of Living.

That the cost of living has been rising for many years is well known, and the cause must be world-wide, for the increase is world-wide as shown by statistics compiled by the London Board of Trade and just published in a volume of 400 pages. Taking the year 1900 as a basis it appears that the price of foodstuffs had, in 1912, risen 15 per cent in Great Britain and France, 20 per cent in Italy, 23 per cent in Holland, 32 per cent in Belgium, 35 per cent in Austria, 38 per cent in Japan (1911), 39 per cent in the United States (1911), and 51 per cent in Canada. Among the world-wide causes that have been suggested are the greater mining of gold, reducing its value, and the progressive withdrawing of labor from agriculture to manufac-That the percentage of increase should be larger in some of the important food-producing countries than in Great Britain, is worthy of It is especially remarkable that in Canada it should be highest of all. assigned have been operating in the Dominion with full force. From being a food-exporting nation we have become, in some lines, food-importing. While we boast of city growth, what is the consequence to the farm?



The Basin of Latona, Versailles.

Europe Through Canadian Eyes-VI.

Readers of the last article in this series may have wondered that no reference was made to the lifting up of the heart from nature to nature's God as the glories of the Alps were being viewed. The simple truth is that such uplifting of thought which might seem to be inevitable did not take place in the experience of the writer, nor, so far as could be learned or observed, in the minds of many of the party. Whether we had been surfeited with things religious during our eight days' stay in Zurich, or whether it was that we never had time to get into the restful attitude so essential to quiet meditation, certain it is that those shining peaks, whose tops plainly point heavenward, failed for the time to have the effect that might be expected on our spirits. We think, however, of the cogitations they ought to have suggested, as in memory we recall their appearance. It was otherwise with the sea. Once out of sight of land and of other vessels, its vastness, its loneliness, its hidden dangers and mysterious power possessed the soul, and made us think of Him in the hollow of whose hand it

What the Alps at the time failed to do was brought about also by the sight of a plain, old building in Geneva. A tablet on the outside informs the passing tourist that here John Calvin taught his students and preached from A. D. and that for two years, 1556-59, John Knox preached here also. A Presbyterian may be pardoned for feeling moved at sight of a place which so vividly recalls those two stalwarts, who were the principal founders of the polity and doctrine of his church. We stumbled on this old church almost by accident. We, that is a party of us, had searched for and found the ancient cathedral of the town, St. Peter's, first built in the tenth century on the site of a pagan temple that surmounted a hill in the city. And here, only a few yards from it and on the same area, was a plain structure, whose associations dwarfed those of the other into insignificance.

Whatever may be thought of Calvin or of the doctrine which bears his name, and opinions on these points differ as wide as the poles, no one questions the keenness and strength of his intellect or the energy and resolution of his character. He was buried in the common graveyard of Geneva, but, by his own expressed wish, no stone was erected to mark the place, and the exact spot has long been unknown. J. A. Froude, the historian, says of Calvin, "for hard times, hard men are needed, and intellects which can pierce to the roots where truth and Wes part company." John Morley, in his "Oliver Cromwell," has this to say of his doctrine, "It is a theory that might have been expected to sink men crouching and paralysed into the blackest abysses of despair, and it has, in fact, been answerable for much anguish in many a human heart. Still, Calvinism has proved itself a famous soil for rearing heroic nature. Founded on St. Paul and on Augustine Calvinism evalted its votaries Augustine. . . Calvinism exalted its votaries to a pitch of heroic moral energy that has never been surpassed." And Calvin was a Frenchman. That fact is sufficient answer to those who are inclined to think of the French as flippant and somewhat deficient in rugged strength. different, it is true, from those of the Teutonic

or Celtic races. As we came down through Holland, Germany, and into Switzerland, we had met scarcely any who might not have been claimed as cousins, so much were they like ourselves. But when we struck Geneva, which is largely French, we met people of another race. Of darker complexion, more aquiline features, and, no doubt, of a different cast of mind, we felt for the first time on our tour as if among strangers. But we soon became acquainted. Very much so indeed. As a people they are most approachable and suave. We like the French. We love them, to tell the truth. We were not favorably impressed with Paris, to which place we proceeded from Geneva. The ideals of that city, as expressed in many of the public buildings, are, in our judgment, unworthy of a great people. This feeling was accentuated upon visiting the palace of Versailles, twelve miles out. Here Louis XIV. had exhausted ingenuity in devising a palace and grounds surrounding it on a scale so vast and an expenditure so lavish as to make it a wonder to this day. One ornamental pool after another the visitor comes upon, each adorned with stone figures, grotesque or beautiful,—sometimes both—and with facilities for spouting fountain jets without number. These fountains once played incessantly, and, of course, at immense cost. Now, a few of them only, and these in succession and for a short time at stated hours, are active.

In sauntering along the driveways through the

pools such as described every quarter mile or so. Each forms usually a centre from which radiate six or eight avenues, the trees bordering which shoot straight up to a height often reaching eighty feet. At short intervals along the principal driveways marble statues are placed. In side the palace, room after room glows with elaborate decorations heavily gilded. And all to what end? Merely, as our local guide told we what end? Merely, as our local guide told us, for the glorification of Louis XIV. Almost every room, except the long display halls which are semi-public, is garnished with pictures or statues or bas-reliefs of that monarch in various attitudes. Our guide, remarking upon the thousands of men and horses that were employed in excavating and building work while the palace and its outside embellishments were under construction, said that all the remuneration these French workmen received was their food. were working for the grand monarch, and that was pay enough. The food, said he, supplied them for one day was a plate of soup, a loaf of bread and an onion. Think of the millions of money lavished without stint upon that tawdry palace, and of the proper second palace, and of the poor peasantry from which that money was wrung. No wonder there was a revolution.

In Paris the same misdirection of funds for the glory of a mere man, an unworthy one at that, is seen at the tomb of Napoleon. For rich and glowing architectural design and effects that tomb and the Hotel des Invalides—the building surrounding it—surpass anything we have been privileged to look upon. And all in honor of a man, who, according to British estimate at least, genius though he might be, wasted the French nation, caring for nothing and no one but nation, caring for nothing and no one but himself.

France has, by expatriation, in past centuries greatly enriched England, Holland, and the United States, to her own immense loss. From time to time she has sent out from herself of her choicest families who took with them the arts acquired during centuries. This whole sad matter has been the misfortune rather than the fault of her common people. Not intrequently those in authority have been injudicious, sometimes worse. France is in more favored circumstances now in this regard. Her presidents have been usually strong and wise, M. Poincare, the present chief officer, being an eminent instance of this. Nobly has France been retrieving herself of late, and recovering her rightful place are rec of late, and recovering her rightful place among the nations. The bitter humbling which she received at the hands of Germany, more than forty years ago, has given the charm of simple modesty to French character, which probably was rather lacking previous to that time. Beneath the outward glitter and glare of Paris and Versailles, which is after all but the froth on the surface, there is a patient people working, working, working. We had exceptional opportunities to form a just estimate of the French character, in addition to those which a mere passing journey would afford. A large number of French passengers were aboard the steamer on which we returned, and we became quite intimate with several of And this is how we place them. Their them. distinguishing features are industry, economy, and contentment. The little French chambermaids in the halls of hotels when nothing else was doing, did not sit or lounge with folded hands, but diligently and unobtrusively knitted. vast planted forest of Versailles one comes across The carters whom we met as we slashed back



The Church of Calvin and Knox.

The seats shown are not the the original ones, but are modelled after their design. The pulpit is the identical one from which these intellectual giants taught 850 years ago. The church is now used by a German congregation.

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from Versailles to Paris in a five-horse coach. sweated, grimy, tired-looking as they were, brightly saluted us with not a trace of envy on their cheerful faces. In addition to these virtues, the French, when a cause appeals to them as worthy, are ready to spill their blood and spend their last dollar in its support with an abandon which scarcely any other people can rival. At the present time in the art of aviation in which they excel, Frenchmen are courting the most dangerous risks, counting not their lives dear un-

One sore spot,-danger spot-there is. They are not seeking war with Germany, they say, they are not even hoping for it as they profess. But let Germany go too far, and a nod, a look, that tells plainer than words that revenge is harbored still. That, as a nation, they quietly gathering strength and waiting, with diminishing fierceness it is to be hoped, but yet waiting until Germany should overstep the bounds, and then with dreadful but joyful alacrity they would spring to the conflict and fight to the death. That is the feeling as yet. Let us hope and trust that it may pass away entirely without being gratified.

Horror fills us at the thought of what that would mean. We think of the smiling landscapes that would be desolated. Scenes of peace and loveliness that it is a pleasure merely to recall, these, or such as these would be blackened and blasted. The splendid specimens of young men with whom we became acquainted and for whom we have a most tender regard, would give their blood to dye the grass on many a field as shot and shell went tearing through their flesh shat-tering their bones. The bright, dark-eyed, French girls, so cheery and so industrious and their sisters of German blood with blue eyes and fair hair, would, if married by that time, be made widows, if still unmarried, left husbandless. Should the carnage be continued long enough the men left to propogate the race and continue the nation, would be the physically weak or those of cowardly spirit.

And to what purpose would be this waste? What would be the result of it all? Should the French be the victors, the sullen spirit of revenge which 'like a worm in the bud' gnaws the heart, would be but transferred from them to the German people, to be later on gratified in like man-In the French people themselves in all probability would be revived the spirit of national pride, which, at present, is the one flaw we see in the German character. If, on the other hand, the German power should again prevail, their lordliness would be intensified, causing them to be more the objects of dislike and mistrust by the other nations than at present, and the French people, humbled to the dust, would have bitter hatred added to the present desire for revenge. They would not be conquered. Never. A proud people can be subdued, not conquered.

The multiplying of cannons and the increasing of armaments is not the way to bring about world Like the family feuds among the Scotch Highlanders which were transmitted with increased virulence from generation, war breeds future wars.

In regard to this whole question it is well not to forget what the mere preparedness for war In no country that we visited did we ee so many women toiling in the fields as in Where were the men? Many of them Germany. as we know, young fellows at the most active age, were under drillmasters, serving their time in the conscription. In gay clothing and accoutrements furnished at their countrymen's expense they were being taught the steps and movements of the regulars, and practiced in the art of shooting to kill.

Meetings such as that of the world's S. S. Convention at Zurich, where man meets his brothers of other countries and confers with them as to how best he may help and save his fellows, are better calculated than is fighting to bring about that kindly spirit, without which no peace could be enduring. There French met German and both met Briton and American, and mutual appreciation and respect were much increased by better acquaintance.

A scene took place at the close of that great gathering of men and women from seventy different nations that seems like a prophecy of the good time coming when nation shall no more rise up against nation, and a suggestion of the means by which that glorious state shall be brought about. Acting on the word of the venerable Dr. F. B. Meyer, of London, Eng., the vast polyglot audience joined hands, reaching across the isles indeed, so that as he said there might be no Atlantic or Pacific there, and with heart and voice sang, "Blest be the tie that binds." The effect was extraordinary. Good friends with each other as everybody had been before, the sudden access of friendly spirit evoked was remarkable. No sooner was all over than a general desire for handshaking seemed to seize We confess to having thus saluted and bid hearty good-byes to several utter strangers within reach! A little French woman who sat close behind and who was somewhat addicted to chattering, seized our hands-there

were two of us-and shaking them with an energy astonishing in one of her size, volubly expressed her love for us. The whole thing brought to her love for us. The whole thing brought to mind the hopeful lines of Burns in which he refers to the glorious time,

"When man to man the world o'er "Shall brithers be and a' that."

T. B.

The suggestion offered in another column in this issue, that threshing machines be cleaned and treated to destroy smut, is one which should be

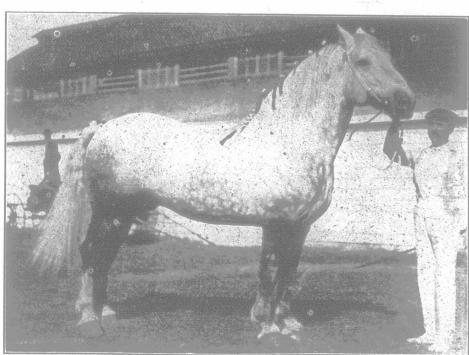
Geneva and Mont Blanc.

acted upon by farmers generally. The thresher is one of the worst offenders as a distributor of noxious weeds and grain diseases. It is next to impossible to keep a clean farm clean when the separator comes to it from a weed-infested, disease-contaminated farm, without having been thoroughly cleaned before leaving the dirty place. A certificate signed by the farmer whose threshing is completed should be produced by the owner of the machine to the man to whose farm he next moves, as a proof that the machine has been cleaned in the presence of the former man. Even though threshing did cost a dollar or so per day more than it does now, would it not be money well spent? A dollar doesn't go far in fighting noxious weeds once they gain a foothold on the farm, and the weed seeds in seed grain ruin it for seeding purposes.

THE HORSE.

Feed the draft colts this coming winter to develop size, bone and muscle, three essentials in all breeds of draft animals.

Keep the good clover hay for the horses and



Dictator [3773] 40785.

Percheron stallion; prizewinner at London and Michigan State Fairs in 1913.

cattle. They do better on it during the winter months than upon timothy hay, and besides it is worth more to the soil.

It is just as profitable, and often far more so, to feed and fatten horses for market as it is to finish steers, yet many horses are offered each year in low condition by those in the best position possible to put flesh upon them.

Now that harvest is over, we want active agents in every district to canvas for "The Farmer's Advocate." There are many farmers in every district losing money year after year through neglecting to subscribe.

Liberal terms given to good agents.

A writer in an Allierteen lieves that many farmers should have a guardian lieves tock. He says, A writer in an American contemporary be-"They seem to think that a few dollars saved in the Breeding end of the transaction is money made. They seem

to lose sight of the selling end where the values are at least 50 to 100 per cent more from good, pure-bred sires than from scrubs. such methods five cents wise and five dollars foolish. What man is there contemplating the erection of a skyscraper that does not give due consideration to the foundation and the material entering into the construction? It is just as important have the best of

feet, pasterns, with a joints, heavy, flat, clean, hard, flinty bone in the horse, and when you get such a foundation you can build on top just as large as you like.

Colts in the Fall.

Raw winds and cold, driving rains make the treatment of the colt in the autumn somewhat of a problem, and yet colts will stand more of this than many would suppose, particularly if they are used to "roughing" it. But, as with all other stock on the farm, there is a limit to their powers of endurance, and this is reached very often in their case before other classes of stock show any evil effects of exposure. We hear old and successful horsemen say that they have the best success with their colts when they turn them off to grass early in the spring, and leave them there until snow flies as a forerunner of winter, or even until the ground is white with nature's Colts forced to feed themselves and spend the nights in the open until late November or early December, soon develop a very heavy coat of hair which serves as a protection against the elements, but when the weather gets very cold and beating rains occur frequently, colts are far better in the stable nights or during the storms. It is not always an easy matter to get colts back and forth from

the pasture, especially where pastures are far moved from the gtables farms. An improvised shelter for them in a corner of the field or on the leeward side of a clump of trees would serve to protect them from the worst storms.

Horses dread the cord, raw winds accompanied by rain and sleet. They seem to penetrate to the animal's marrow, and it is no uncommon sight in late fall to see a number of colts huddled together in a corner of a bleak and comparatively large pasture field, with their heads hanging low and their backs arched, with rumps to the moisture-laden, penetrating wind. Such conditions

must detrimentally effect the horse, and, colts being younger and not so hardened through years of work and like conditions, cannot but get a set back. It is wonderful, however, how much they will stand if they are in good condition. Much depends upon this factor. Colts, very low in flesh, go down rapidly in bad weather, while those carrying a fair amount of flesh seem to stand it much better. Where colts are thin in late fall, it would often pay to take them in at

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night and give them an evening and a morning feed of hay and a few oats. Growth must not be retarded in the youngsters, or inferior horses are sure to result. Once stabled nights it is not safe to leave them out again when the nights get very frosty. Of course, where a colt is stabled one night because of a storm, this is no reason why the practice should be kept up on

following fair nights.

There is some danger coupled with stabling nights and allowing out during the day, particularly when the practice is first commenced. is necessary that feed be placed in the colt's manger night and morning, that he does not get too hungry and go out and gorge himself on wet or frosted grass producing acute indigestion, which often develops into inflammation, resulting Never turn a colt away to the field hungry. It is dangerous. Stabling and feeding must go hand in hand. Always take the pre-caution to keep the colt in the stable in the morning until after the frost has disappeared from the grass. These little instances of care may not be deemed necessary, and hundreds of colts have survived the more careless method of bringing them in to an empty manger and letting them out early in the morning hungry and eager to satisfy their appetites, but some die 'as a result, and it is not safe to take the risk. One dead colt is a greater loss many times over than a little feed and time. It would be far better to leave the colts out night and day in all sorts of weather until winter finally comes in.

Fat, healthy colts, which become gradually accustomed to the increasing coolness as summer lapses into early fall and this in turn gives way to late autumn and early winter, are remarkably little affected by cold weather. It is the storms which injure them most, and, in fine falls, we have seen colts which had an old shed for shelter remain out until the first week of December and come to the stalls in good condition doing well throughout the winter, although they had a coat of hair almost as long as that of a goat.

If possible give the colts a shelter in the field. If this cannot be done, don't neglect to stable nights, but always combine stabling and feeding. If a good clump of trees is situated in the pasture, they serve very well indeed as a protection. Last spring we saw colts which wintered in just such a place, and fed at a hay stack and from the dry grass of the pasture. These colts were very rough in the spring, but were in fair condition, and went on and did well this summer. It was a mild winter, or they would have suffered much more. One great trouble with many horsemen is that they stable their colts too much, and do not give them exercise enough. We do not believe in leaving colts out all winter, neither would we advise leaving them in the fields too late in autumn or without shelter during fall rains, but it is necessary for the best development of the growing colt that he gets daily exercise in the open, and far more of it than is usually given. Give shelter in season, feed liberally when stabling, and be careful about turning the colt out on frosted or dried grass in the mornings.

Developing Draft Colts.

The Pennsylvania State College Agricultural Experiment Station recently published a bulletin giving the cost of developing draft colts under conditions where pasture is scarce, and it is necessary to stall feed in summer as well as in winter. Their work has borne out the general practice of farmers in that district in buying rather than producing horses for their farm work. In October, 1910, ten grade Belgian and Percheron colts and one pure-bred Percheron were purchased. The ten colts were divided into two groups, one of four the other of six, and allowed purchased. to run loose in box stalls, getting no outdoor exercise more than that received in going to and from the watering trough twice daily and occasionally to the class room. Each group was fed a ration of five pounds per head daily in two equal feeds from a grain mixture of five parts shelled corn, three parts oats, two parts wheat bran, one part linseed meal, weighed and mixed in bulk. This amount of grain was fed until the end of the third month, when it was increased to seven and one-half pounds per head daily. No further increase was made throughout the winter. During the first half of the winter the group of four colts received a roughage ration of corn silage in the morning and hay in the even-The average amount consumed per head during this period was 8.2 pounds of silage and 7.4 pounds of hay. The other group received the same grain ration and 10.6 pounds of hay with-During the last three months of the winter period the grain was increased to 7.5 and the hay to 13.1 pounds per head daily in each group. With this method of feeding, all the colts came through the winter in excellent condithon of flesh, having gained 244.27 pounds per head during the winter-feeding period of 168

The summer-feeding period comprised 196 days. The colts were placed on pasture in pad-

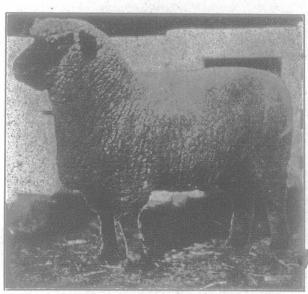
docks and on larger areas, but the amount of grass was limited, and it was necessary to supplement it with a soiling crop of green mixed hay. Seven pounds of grain mixture was fed to each colt daily up to May 9th, when fillies were given oats. On May 26th the stallions had oats substituted for the mixture. The fillies were on better pasture than the stallions, and only consumed from three to five pounds of oats per head daily until toward the end of August, when pastures failed and they increased their consumption of oats to eight pounds daily, which feed was afterwards substituted by corn and oats equal parts. It cost \$27.45 per colt for summer feed-

Kif Kif.

Percheron stallion; first in three-year-old class at Toronto. Owned and exhibited by T. H. Hassard, Markham, Ont.

ing, or twice as much as is necessary where good and sufficient pasture is available. It being necessary that the draft horse obtain the greatest possible growth and development before two years of age, the investigators advise that draft colts at pasture should receive as much grain as they will consume. With real, good pasture they hold that colts have very little appetite for grain, and will eat only a very small amount, which, however, they believe to be in the best interests of the colt's development.

The main point which we get from this first year's feeding of these colts is the importance of an abundance of luxuriant pasture in colt-raising, or in fact in all live-stock farming. Pasture is



Oxford Yearling Ewe.

Champion at Toronto and London, 1913. exhibited by Peter Arkell & Sons, Teeswater, Ont.

a great factor in reducing the cost of producing growth. Horsemen in this country would not think of attempting horsebreeding without pasture for their brood mares and young stock, but even though it is plentiful there is a tendency to undervalue it.

From November 2nd, 1911, to April 18th, 1912, the colts were in winter quarters again. During November the grain ration was largely oats, after which a mixture of six parts of shelled corn, two parts of oats, one part of wheat bran, and one part of linseed meal was used throughout the winter. This was fed during the first half of the winter at the rate of 8.4 pounds per head daily, after which it was in-

creased to ten pounds. Hay was fed at the rate of 16.6 pounds and 17.5 pounds daily during these periods. These colts increased in weight on this feed 219.25 pounds each during the 168 days, or about one and one-third pounds each daily. These colts were kept tied in narrow stalls all winter, and received little or no exercise. They were all broken to harness in the spring. It required an increase of 60 per cent in grain and 45 per cent in roughage to feed the colts the second winter over the amount required the first winter, and with all this increase there was a decrease in the increase of weight of ten per cent as compared with that made the

first winter.

The cost of feeding each colt during the first winter was \$26.-59, during the second, \$38.99, an increase of \$12.40 per head. The average cost of feed per head for the first year after weaning was \$53.97. These figures are based upon the average value of feeds for the period during which the test was in progress, and are ma-terially higher than the average of the past ten years. The method of feeding resulted in the use of slightly more than one-half times as much grain as roughage.

The average gain during 532 days was 720 pounds per head. No effort was made to secure extreme weight, but the colts were kept in good growing condition. The smallest individual gain was 665.9 pounds, the largest 806.2. The average daily gain gradually decreased as the age of

the colts advanced, and as they approached maturity. It is important in the development of draft horses that they progress steadily from birth to maturity without any period of semistarvation, either during summer or winter, which indicates the necessity of varying the amount of grain as the available supply of rough-age and pasture is either increased or decreased.

While the figures given as to cost of feed apply to conditions as they obtained in Pennsylvania, there are many good hints to horseraisers in the information given. The colt makes his fastest growth while young. It is important then that the youngsters are fed to keep them going ahead. Any stunting then means a smaller horse at maturity. Gains in weight are made with much less feed the first winter than during the successing week. during the succeeding years, and then is when the colt needs the best of care. The straw-stack is not enough for feed and shelter both. In fact it is neither suitable feed nor protection. One things these colts lacked-exercise. Gains might not have been any larger with it than without, but exercise is essential to the best development of any breed or type of horse.

The cost of keeping the colts the first summer, where pastures are scarce, should serve to bring home the importance of good pasture in colt raising. It keeps down the cost and makes better horses. True, on the best of pasture the yearling colt will eat very little grain nor does he require it. With all the grass he can eat, unless he is very thin in flesh, he needs little else to keep him growing. It is growth that is desired, not fat. There are times of short pastures in hot midsummer when a little grain may be necessary to keep the colts going ahead. agree with the investigators that it never is advisable to compel the colts to pass through even short periods of inadequate food supplies, and that if pastures are not sufficient to promote their best growth a few oats may profitably be added to their ration.

The sum and substance of the findings of these investigators seems to be grow the colt as fast as possible in early life, for then are the gains most cheaply produced, and use as much pasture as possible to make this growth at lowest cost. There are besides a few points in the figures on feeding and the kinds of feed given which may help some in preparing rations for the colts this winter. However, oats form a more important part of horse rations in this country than in the United States, and corn is little used

Now that harvest is over, we want active agents in every district to canvas for 'The Farmer's Advocate.' There are many farmers in every district losing money year after year through neglecting to subscribe.

Liberal terms given to good agents.

LIVE STOCK.

Co-Operation in Shipping Live Stock.

Co-operation is adaptable to a large number of the many branches of farming. It is successful in buying, producing and selling. Minnesota seems to have taken the lead in a form of cooperative effort which extends to the shipping of live stock. Litchfield was the birth-place of the idea, which has spread throughout the state, and, while it is comparatively new, several associations have been established, and, according to a paper by Prof. Tomhave, live-stock shipping associations bid fair to become within the next ten years as numerous as co-operative creameries

in Minnesota.

From a paper by Prof. Tomhave, published recently in Wallace's Farmer, we get an idea of the organization and operation of one of these livestock shipping associations. The Litchfield, being the parent association, is the one described. In this association live stock is brought as far as twenty miles by farmers, and all those who have tried the scheme unanimously praise the move-ment and support it from every angle. This as-This association has been shipping stock since 1910, and those who have sold their stock through the association claim that it has meant a saving of ten per cent. to them on all stock shipped. What this amounts to may readily be estimated when it is known that in 1910 live stock shipped through the association aggregated in value \$102,000, and that this amount was exceeded during the first nine months of the following year. The best possible price is obtained on the central market, and the scheme has had the effect of teaching the co-operators that it is profitable to properly finish cattle before offering them for sale, and a much higher class of cattle are now being sold through the association than was the case in the beginning. Like all other co-operative movements, the main essential is that it gets the undivided support of those interested, and an honest and capable manager is very essen-

It may be of interest to our readers to know how this association is operated. The constitution names the organization, its place of operation, sets the time of operation as an indefinite period, and the object of the association to obtain reasonable prices and to secure the best possible results in the marketing of live stock and farm produce. A small membership fee is paid by all those shipping through the association. The officers consist of a president, vicepresident and board of directors, elected at the annual meeting and appointed yearly. The board of directors appoint a manager, who acts as secretary and treasurer. The board of directors numbers five, the president and secretary being members of the board. When stock is ready to ship the owner is required to report the same to the manager, and, as soon as sufficient stock is reported, the manager orders a car and notifies the owners of the time stock is to be delivered. The manager has full charge of the shipment and seiling, and pays out the money to the shippers, deducting his commission. A protection fund is carried by deducting three cents on every hundred pounds of hogs and sheep shipped, and two cents on every hundred pounds of cattle shipped through the association. This is to pay for through the association. This is to pay for losses which occur from the time stock is delivered into the hands of the manager until final disposition of it is made. Injured stock is paid for at market price, deducting the cost of shipment. All stock to be sold subject to inspection is received at the owner's risk, and no damage is paid where unhealthy stock is delivered to the manager.

The association usually sets aside one day each week for shipment of live stock. Shipment is always deferred until enough stock is offered to fill a car. The manager does all the work by use of telephones and the mails.

Cattle, sheep and veal calves are all marked so that they may be identified when sold on city markets, and each consigner gets a receipt stating the number and kind of stock delivered and the weight of same. The system of marking is the use of Roman numerals clipped on the hips of the cattle and veals with a pair of small scissors. The number is given the consigner on delivery of his stock and remains the same. Sheep are marked with paint of different colors either on head, top of shoulder or hip. Hogs are not marked but classified according to weight and quality, those of goo'd quality weighing from 135 to 200 pounds are put in one class, those weighing 200 to 250 pounds in another, and those from 250 pounds up in another. Stags, sows, etc., are listed separately. This system of marking and classifying gives the farmer exactly what his stock brings on the market. Each consigner must bear the just amount of shrinkage, the man marketing his stock in good condition getting the full benefit, and the one bringing heavily watered and fed animals bearing the loss due to injudi-

Shipments are made to commission firms who take care of the stock upon arrival and make a full record of all stock marked. The manager makes no payment until returns are received. then deducts all expenses and mails checks to the shippers, covering the net proceeds of their shipments. The actual cost of operation usually runs from 20 to 25 cents per cwt. The manager's commission ranges from six to ten cents per hundred pounds. The association has met with opposition from buyers and drovers, but has been an unqualified success, and business grows annual-

The Measure of The Herd.

"The success of all breeding depends entirely upon the selection of good, well-bred sires, and it is in the selection of the sires used that a herd of cattle is made famous or utterly spoiled." So concludes an article in The Farmer So concludes an article in The Farmer and Stock Breeder. There is a great deal of truth in the statement. Many are the herds whose fame centers around the one or two great bulls which have headed them in the days gone A prepotent sire leaves an indelible mark upon his get, which lives through succeeding gen-It is through the sire that these lasterations. ing traits are passed on from year to year through the progeny. Nearly all stockmen agree that the sire is half the herd, and, in many cases, With so much importance attached even more. to him and his ability to get the right kind of stock, it does seem as though classes for male animals and their get could and should be made stronger features of our large live-stock exhibitions, and even of many of the county shows. The real measure of a bull or stallion, a ram or a boar is, after all, the kind of stock he breeds.

Whitewashing Stables.

As an aid in giving a bright, clean appearance to the interior of the cow barn and as an excellent hygienic practice, periodical whitewashing of the walls and ceiling cannot be too highly commended. As a wash for either inside or outside use, the following, if properly applied, will prove satisfactory Grisdale in his latest bulletin on milk production.

Half a bushel of unslaked lime, slake with warm water, cover it during the process to keep in the steam; strain the liquid through a fine sieve or strainer; add a peck of salt previously well dissolved in warm water, three pounds of rice boiled to a thin paste and stir in, boiling hot; half a pound of powdered Spanish whiting and a pound of glue which has been previously dissolved over a slow fire, and add five gallons hot water to the mixture, stir well and let it stand for a few days, covered up from the dirt. It should be put on hot. One pint of the mixture will cover a square yard, properly applied. Small brushes are best. There is nothing that

can compare with it for outside or inside work, and it retains its brilliancy for many years. Coloring matter may be put in and made of any shade, Spanish brown, yellow ochre or common

Good Milking Shorthorns.

"In spite of the claims of advocates of specialization-those who hold that animals should be selected for one special purpose-the demand for dual-purpose cattle is extremely wide in this country," says J. H. Grisdale in his new bulletin, "Milk Production in Canada." Many farmers prefer a type of cow that will fatten easily and will produce animals that can be fed into good veals or steers. This class of cow is no doubt peculiarly adapted for such sections as afford more or less extensive areas of rough land for grazing. Many breeds have claims to a place in this class, but the more common are: Brown Swiss, Devons, Lincoln Reds, Red Polls, Shorthorns and Sussex. Many strains of Shorthorns are noted for large yields of milk, while their unequalled value as beef-producing animals is universally acknowledged. number of herds notable for milk production have been established in Canada at one time and another. Two individuals in a herd established and maintained on the Central Experimental Farm for some years, produced over 11,000 pounds of milk each in single lactation periods. The average yield of milk from this herd was about 6,000 pounds of milk a year for several Steers from these heavy-milking cows when finished for beef were considered first-class animals.

"In England the Shorthorn with its grades and crosses is used almost universally for milk production. It is par excellence the farmer's cow—the 'rent payer'."

It is said that 1,600 head of cattle have been shipped from Toronto to Buffalo since last July, and recently Canadian stockers have monopolized the Buffalo market. Stockers sell higher in Buffalo than in Toronto, and the removal of the duty by the United States Government will give the raiser of the cattle in Canada the benefit.

The American Meat Packers' Association, in convention in Chicago, voted \$100,000 a year for five years to stimulate cattle raising in the United States.

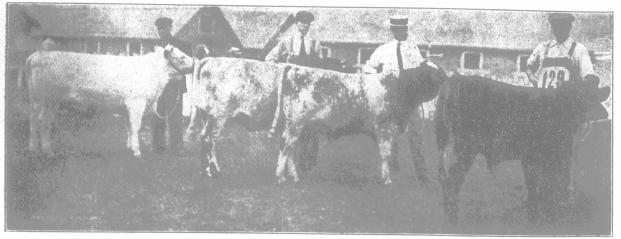
THE FARM.

Smut Spread by Threshers.

Farmers generally, understand how easily it is for a clean farm to become infested with noxious weeds through the use of threshing machines loaded down with the seeds of these pests as they move from farm to farm. Few, perhaps, have ever stopped to estimate the damage done by the spread of smut spores by this agency. T. Gussow, Dominion Botanist, Central Experiment Farm, Ottawa, points out in an article in Census and Statistics Monthly that the threshing machine is a carrier in no small measure of smut spores

"It is estimated that the annual loss to the farmers of Canada through lessened yields and lowered grades of grain caused by smut diseases amounts to not less than \$15,000,000 per annum. On the basis of the acreage of 1911 the average loss per acre is estimated at 84 cents. One of the most important agents in the wide distribution of smut diseases and in their introduction to farms previously free, is the threshing machine which moves from farm to farm. A machine which has been used for threshing smutted wheat is so fully infested with spores that any grain subsequently threshed, unless the machine is properly sterilized after use, will be-

come liable to infection.
"The importance of the threshing machine in serving as a means of disseminating weeds, is to some extent recognized, as may be seen by the Weed Act in force in some provinces, making it compulsory for the men in charge of the threshing machine to clean it, as well as the wagon and racks or any other part of the outfit, before removing them from a farm. But as regards the dissemination of smut diseases, the necessity of making it compulsory to fumigate the outfit is $\underline{\mathfrak{b}} y$ no means adequately dealt with. A machine which has been used for threshing grain infected with smut will contain millions of smut spores, which it will scatter all over the fields or roads over which it travels, besides infecting the next lot of grain to be threshed. The successful control of smut diseases will depend largely upon the exercise of every care, and the adoption of means by which the possible ways of dissemination are controlled. The method of treatment alone will not dispose of smut diseases; it is also necessary to cut off all means of infection. It is advisable to make it compulsory, not only to clean the machine after use in order to prevent the spread of weeds, but to clean it also from



A Winning Calf Herd. First-prize calf herd at Toronto, 1913. Bred and owned by J. A. Watt, Salem, Ont.

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the disease germs of smut. In the absence at present of any legal enactments, farmers are strongly advised to insist upon the use of clean machines. They should be careful not to use machines capable of introducing diseases, which it will cost much more time and money to control than would be required for the initial cleaning of the machine.

"Where a farmer has succeeded by years of

careful treatment in eliminating or practically eliminating the smut diseases from his farm, the use of a smut-infected machine will undo the work of years, during one single process of threshing.
"The time during which such cleaning operations would have to be performed is probably one of the busiest of the year, and many hundreds of threshing machines may be at work at one time; but this fact emphasises rather than diminishes the necessity of guarding against the spread of smut diseases. It is suggested that the provincial authorities should pass legislation to ensure the cleaning of threshing machines thoroughly be-fore use on new premises. The operation which would be required to destroy the smut disease germs is as simple as it is effective. sweeping the machines inside and out to get rid of the weed seeds, the foreman of the gang should immerse some old bags or sacking in formalin-one pound to one gallon of water-and place them inside the machine, after which, all openings should be closed or covered up to retain the formaldehyde which evaporates. If thoroughly air-tight, or as air-tight as possible, the fumes will effectively destroy the vitality of any smut spores while the machine is travelling from one farm to the other. After five to six hours fumigation, the inside of the machine contains no living smut spores. The outside of the machine, wagon, racks and any implements, etc., in use may be rapidly sterilized by means of an ordinary knapsack sprayer filled with the formalin solution above mentioned. After a little experi-

than one-half hour, and would cost little.

*Farmers should insist on seeing this treatment carried out, and the thresher should be provided with a card setting forth that this treatment was carried out before leaving the farm, which card should be signed by the farmer and be demanded by the next farmer on the list, when the machine arrives on his premises. Farmers by exercising such care would greatly aid in the reduction of smut diseases throughout important grain-growing areas."

ence the whole procedure would not require more

The Root Harvest.

With all the up-to-date improvements in farm. practice, root harvesting is still a laborious process. A few short-cuts have been introduced, but not many of great importance. Considerable hand work is called for. It is considered, in most localities, that root harvest should not be delayed after the middle of October. Exceptions apply in localities where the autumn is usually open till late, but, as a rule, it is well to have mangels and sugar beets under cover by the twentieth or, at least, by the end of October. Turnips in some sections are fairly safe until the middle of November, but it is well to have the work completed sooner. Pulling, topping and hauling roots in the mud with a drizzly rain one's clothes is bad for rheumatism, and is, besides, unpleasant work, as many of us remember quite clearly from last year. It is also considered unfavorable for the keeping of the roots, though, on this point, we have to report one of those paradoxical experiences that occur so frequently in farming. In 1912 we stored nine hundred bushels of mangels and sugar beets in a cement cellar. Continual rain had made it impossible to dry them. Nearly all were slipperywet, and several loads were pulled out of a sloughy clay and hauled direct to the cellar. We expected trouble, and counted on shifting, at least those in the centre where the loads were dumped. This did not prove necessary. roots lasted till the middle of April, and when feeding it was exceptional to find one even partially decayed. Under the dump, the roots were five feet deep, and part of the cellar remained at that depth for weeks. Whilst this was our experience last year, we certainly like to see the roots pulled out of a friable soil, allowed to dry a few hours and rattled over a slatted chute into the cellar, arriving there clean and dry.

Methods of pulling vary; the writer will describe his own. Two or more men going into a field of mangels or sugar heets each take a row, pulling the beet, twisting off the top with the right hand and hoisting the root to one of the small piles strung in a row through the Half a dozen rows may be thus thrown into one string of piles, being pitched from each Some merely throw them into a continuous row, while others drop them where they are pulled. The principal advantage of putting into piles is that they may be readily covered with leaves and a sprinkling of earth, if night falls before hauling can be completed. It takes very little more time in pulling to put in piles, and is, perhaps, of some slight advantage when load-Mangels will be injured after pulling by a

frost, from which their own tops would protect them if standing in the ground. There is a big difference in the crowns of different varieties. Some require a knife to trim them at all neatly. Others can be topped with a neat jerk of the right hand, hurling the globe to its place by the motion that jerks off the top. The biggest yielding kinds are sometimes the hardest to trim.

Turnips may be pulled in the same manner, but most growers prefer an easier way as they will stand rougher handling. One plan is to first top with a hoe, drawing the tops of two rows into the space between, and then, with a from which the moldboard has been removed, turn the two rows up, throwing them towards each other between the rows of tops. As other is to plow up the turnips, throwing two rows together, and afterwards top by hand, throwing four rows into one. The plowing, if skillfully accomplished, removes nearly all the needless roots. Some harrow out and top afterneedless roots. Some harrow out and top afterwards, while a sheep owner once wrote us that he grazed the tops off with sheep, harrowed out the roots and loaded them into the wagon with manure forks. Perhaps the method in most general use is to top first with the hoe and then harrow out by giving two or three strokes of a heavy harrow, after which the roots are either loaded as they are or are pulled into rows with Pulling and topping by hand is also a hoe. practiced, the roots being dropped four rows into one. Where the situation permits, a gravel box used for hauling may be quickly dumped, the roots being, if necessary, afterwards thrown into the cellar by hand or with a fork. Some prefer to shovel, fork or toss the roots

stanchions. One cow also had her hind legs fastened with a strap. The milking was being done by a boy about twelve years old, and three girls, ranging in age from ten to fifteen years, two of these being a neighbor's girls, as I found on inquiry, who were making a Sunday-morning call, and were assisting with the milking in a neighborly fashion. As the cows were milked, the milk was emptied into pails sitting in what was apparently the feed room, as the floor was covered with hay, straw and a litter of all kinds among which the milk pails were placed. Three or four hungry cats sat with wistful eyes, watching the milk pails. While I did not see them drinking from the pails, they had every appearance of doing so when the watchful eyes of the milkers were not on them.

The youngest of the neighbor girls was apparently learning to milk, as she was not getting much milk from the cow with her legs astrapped, and after about ten minutes the twelve-year-old son, who was evidently in charge of operations, took hold and finished the cow. The cows were then turned out through the narrow opening, with a rush that would have done credit to a Toronto street car conductor. Double-quick time was made to the pasture field, where the cows seemed to wear a relieved look—as much as to say, "Thank goodness, milking is over once more, though it was a little late."

Returning to the barn, the visitor was shown the horses, and particularly a driving horse named "Dan." Boys and girls were all very much interested in "Dan." The light blanket was removed, curry-comb and brush were got by the boy, and the horse was given a thorough cleaning, while, at the

cleaning, while, at the same time the group exp I aimed all the good points of the horse-how last he could trot, that he was not a I aim a incomplete a incomplete. All this took probably half an hour, during which time the milk sat in open palls, surrounded by feed litter, and the hungry cats. Asked if they (the young folks) always did the milk in g and the chores. "No, pa and ma help on week days. On Sundays they sleep in to get a rest."

Separating the milk was the next thing on the program. The milk was taken to an open shed, in which was a cement platform, and on which was the separator oldest girl and the son were running the separator. After watching proceedings for a time, I said, "Let me turn that separator to see how it runs." "Say, mister, you've got to keep



A Good Ayrshire.

Champion Ayrshire cow at Toronto, 1913. Owned by Alex. Hume, Messie, Ont.

directly from the wagonbox on to a slatted slope the down which they roll to place, leaving much earth outside the cellar. Another method claimed to be very quick and satisfactory is to haul with a manure spreader and crank the load back by hand. After storing leave the windows open till cold weather threatens, and even then one door or window may often be left partly open for a time. It is also desirable to have one or more open-slatted boxes standing upright in the mass of roots, especially near the drop This gives ventilation and often saves loss.

THE DAIRY.

Some Sunday-morning Dairying.

Editor "The Farmer's Advocate":

The never-ending work in connection with dairying has been frequently urged against it as a drawback. To the lazy man, this is undoubtedly one of the main reasons why he does not make dairying a feature of his farm work; or if he does keep cows, why they are handled in an

indifferent, slipshod manner.

We saw an illustration of this recently. It was Sunday morning; time, 9.30 a.m. We were out for a walk, and, noticing some persons milking in a stable close to the road, our curiosity caused us to investigate, as the hour seemed so late for milking. The manure from the previous winter had been thrown outside the door, and was piled so near the entrance to the stable that there was just room for a cow, or a large person to squeeze in the opening, when the door was pressed back against the manure pile. Inside the stable was fairly clean, but there were no windows, no whitewash, and no means of ventilation. The cows were tied with rigid wooden

handle up, plum tight, nail what ketches will drop out." I told him I'd try to keep it "up plum tight" and began turning. After about five minutes, I said, "Don't you think this separator runs hard?" "Naw," says the boy, "she runs easy, least she does when we've oil. We ain't got nothin' now but coal oil." It was a warm morning and we began to perspire, but still as was not used to work that I concluded, she run hard. In the meantime the neighbor's girl observed, what I had noticed for some time—the dirt and flies in the milk of the supply tank which were going into the bowl, or would go, when the milk got low. Calling the boy's attention to this, he remarked, "I don't see how the dirt kin git into the milk, cause its all strained through the strainer pail." On investigation be On investigation he found that the strainer of the pall had become loosened along the upper edge and when the pail was tipped, to pour the milk into the separator supply can, the milk and the dirt would pour over the top of the strainer and through the hole. Nothing daunted, he ran to the house and got a dipper with which he skimmed off the dirt and the flies, and threw them into an empty pail. All the time, I was trying to keep the handle of the separator "plum up" so the nail wouldn't fall out, and doing my best to maintain sufficient speed to separate the milk. After about ten After about ten minutes the boy relieved me of my task, and though only about twelve years old, he seemed to think the job easy. I should have liked to to think the job easy. I should have liked to take a sample of the skim milk for testing. I feel sure that considerable fat or cream was being wasted by this rattle-trap of a separator.
All this time 'Dad' and 'Mam' were having their Sunday rest. Who can blame them, but what about the boy and girl?

Several things suggested themselves to the writer's mind as he left this farm. Was it fair to the

cows to leave them until 9.30 a. m. before milk-Was it fair to the children to make them do the chores while the parents slept? these young people wish to stay on the farm when they grow older? The boy was smart, resourceful, full of energy, but evidently lacking in education—just the kind of a boy, who, with proper schooling, will make a good farmer, if he can be induced to remain on the farm. The girl was modest, good-looking, of refined appearance, but lacking in education—the kind of a girl, properly educated, that would make an excellent farmer's wife, but will she be inclined to do so, or will memories of that cow-stable drive her to marry a townsman? What pride those young people took in "Dan." This seemed the one thing about the farm which made them proud of the farm. What about the effect of this method of dairying upon the quality of butter made at the creamery where this cream is sent? Is there any connection between the methods of cream production here described and the fact that Alberta buttermakers were able to "scoop" a large share of the prizes at leading Ontario exhibitions? These are big problems in connection with the dairy industry of Canada. So far as the writer can see, we have not touched the man on 'the farm in the backward community, who does not read, attend farmers' meetings of any kind, and who is discouraged. Possibly nothing can be done for the older persons, but what about the smart boys and girls growing up on our farms under the most discouraging circumstances, as in the case cited? Can nothing be done for them? Here is a problem for statesmen to grapple with. Is it any wonder that rural population is decreasing in Ontario, and that boys and girls leave the farm, when there is so little inducement for them to remain?

Injuries to Cows' Teats and Udders.

In our station correspondence we have recentty received several inquiries concerning unusual injuries and troubles with cows' teats and udders. In one case cowpox was suspected by the owner, but only the ends of the teats were affected.

It frequently occurs that teats are injured between the cow's hocks and the floor as the cowarises, particularly the hind teats on low-hanging udders. If the injury is slight, there may be only a bit of dry blood at the end of the teat, or the cow may milk a little harder than usual. Such cases heal promptly.

If the bruised end becomes infected with any one of several different varieties of bacteria, the infection may extend up the teat canal and into the udder, causing a sort of catarrhal inflammation with perhaps a cordy swelling up the center of the teat, and varying degrees of garget in the udder.

Sometimes the teats are very severely bruised in this way, and the end of the milk duct may may be permanently damaged. In some cases such wounds are produced when the teats of a cow lying down are stepped on by a cow in a neighboring stall. The cow that is lying down jumps up suddenly while the other cow is standing on the end of her teat. In these cases there is usually some tearing or a severe bruise.

BEWARE OF THE MILK TUBE.

The treatment of all these cases varies greatly according to the peculiarities of each case. The milk tube should always be avoided when possible. Conservative treatment will usually save in good shape the teats that are but slightly injured. Long continued fomenting with hot water and gentle massage will frequently serve to open an apparently closed canal early in the case, and is decidedly safer than the use of the milk tube.

Much less damage may result from leaving the milk in the injured quarter for twelve or even twenty-four hours, than from radical treatment in an attempt to open the end of the injured teat with a milk tube or a probe.

Where teats are too badly injured to be saved by such mild treatment, the owner should refer the case to a competent veterinarian rather than to attempt treatment himself. In case of infection and consequent garget, the prospect is bad, when the normal milk changes to a watery fluid, and worse, as this fluid is darker in color.

It has been shown that repeated chilling of cows' udders, especially by washing and then exposing to cold air, may be responsible for trouble similar to that described by this farmer. This difficulty, due to chilling, may affect only one quarter or several. The teat canal becomes partially blocked, making the cow difficult to milk. Small masses of white, flaky material appear in the milk. This may be persistent or may disappear in a few days. In some cases the end of the teat canal is partially or entirely closed by a sort of scab.

We get somewhat similar symptoms in a certain catarrhal form of garget, due to infection, but in the case which I am describing now, the trouble was shown to be due to the chilling from

washing and exposure to draft, and not to germ infection. .

These chilling cases will usually show considerable irritation of the skin over the udder, particularly the lowest parts of the udder; that is, around the base of the teats, for the simple reason that this portion of the udder would naturally be wet longest and subject to most chilling.

The remedy for this latter class of cases is, of course, self-evident—a different method of cleaning the udder in cold weather where there is effort made to produce particularly clean milk.—
M. H. REYNOLDS, University Farm, Minn., in Hoard's Dairyman.

Condensed Rules for Milking.

The following rules for milking are given in the new bulletin, "Milk Production in Canada":

1. Do not disturb manure for at least one hour previous to beginning milking.

2. Do not feed dusty feed or scatter dusty bedding for some considerable time before milking.

3. Ten minutes before milking clean off all dust from cows to be milked.
4. Just before milking rub right flank of

udder with a damp cloth.

5. Draw first two streams from each teat to

separate pail.
6. Use narrow-mouthed pails.

7. Wash hands after milking each cow.
8. Milk with dry hands or else use vaseline
Never moisten fingers with milk.

9. Milk rapidly but smoothly.
10. Talk in low tones, if at all, and do noth-

ing else to disturb cattle.

11. Strain milk through three or four plies of cheese cloth as well as through a fine wire screen into larger receptacles.

Clipping Cows.

As an aid to cleanliness, clipping either the whole body of the cow, or at least the hind flanks, the udder and the inner and outer thighs, will be found advisable. The actual operation of clipping takes but little time, and the saving in time needed to keep the cattle clean will pay for it in a week, to say nothing of the almost certainly better quality of the milk produced.—J. H. Grisdale.

HORTICULTURE.

Two Baskets of Peaches.

Editor "The Farmer's Advocate":

Here is a bit of observation that will interest Mr. McArthur. Our grocer sent in two baskets of peaches, not specially selected, and both looking very n'ce under the pink muslin. shipped from the Lake Erie District. and stamped with the name of a co-operative association and of the packer; price 65 cents. fine, honest peaches, firm and good throughout, and were peeled and canned without waste. The other basket was stamped "Peaches, No. 1." The grading was all right, and there were perhaps half a dozen that could be called fancy; price 75 But peeling showed practically all to soft and bruised, leading to so much waste that my wife remarked, "that' basket is only worth about one-half of the other"-and it was a fair criticism.

Of course, this comparison may have been accidental, but it is just the sort of thing that comes to the notice of the average ultimate consumer. In this case, then, co-operative handling delivered peaches to my house, per the retailer, at 65 cents, and in first-rate condition. Other peaches, marked simply "No. 1" and costing 75 cents, turned out to be just about half as good. It would be interesting to know whether peaches at 65 cents afford any sort of profit to the grower. Compared with what we have sometimes paid they are absurdly cheap.

WILLIAM Q. PHILLIPS. Lambton Co., Ont.

Scab Bad - Prices Good.

Fall apples are continuing to sell at high prices according to reports from various districts From \$2.00 to \$2.75 per barrel seems to be the ruling price for No. 1's of the better varieties of fall apples. No. 1 winter apples are making \$3.00 per barrel, while No. 2's sell at \$2.50. Snow and McIntosh varieties have suffered most from scab, which is very prevalent in most districts, and particularly so where spraving was not properly attended to. In some places seven-eights of the crop of these dessert varieties is reported ruined. In other places eighty per cent. of the unsprayed crop of all varieties is useless, and in these same districts twenty-five per cent. of the sprayed crop is too scabby to pack. Good apples are not plentiful.

Selling and Buying.

By Peter McArthur.

The Glencoe Apple Growers' Association has sold its apples and now the work of picking, packing and hauling has commenced. The prices received are as follows: Firsts, \$3; seconds, \$2.50; thirds, \$1.75, f.o.b. at local stations. As far as I have heard the members are satisfied with the sale. The prices are the highest ever secured in this district, and thus far we have not heard of any association that has made a better sale. Of course apples are scarce this year, and we had a chance to get better prices, but according to the reports going around the country orchardists who are not in the association are obliged to accept much lower prices. I think we have ample proof that it pays to organize. While I had nothing to do with the sale beyond helping to accept it I was in constant touch with the selling operations. Because I have written much about apples I received many enquiries from New York, different parts of Ontario and the three prairle provinces. These enquiries were turned over to our salesman, but he was not able to do business with any of the applicants. Five of the applications were from co-operative societies, three in the country and two in citles. reason for the failure to do business with them and so eliminate the middleman entirely from the transaction was illuminating. It showed me very clearly that there is still a place for the middleman and that we must go much further with our organizing and methods of buying and selling before we can do without him.

The trouble was entirely due to the fact that neither the organized buyers nor organized sellers could set a satisfactory price. Perhaps this is not to be wondered at. As "The Advocate" pointed out editorially some weeks ago, farmers are forced to accept the price they are offered for what they have to sell and pay what they are asked for what they buy. This has been going on for many generations, and they have no experience of setting prices. The case of the consumers is no better, either in the country or the city. They have been accustomed to paying what they are asked and know nothing about setting When they try to deal with each other directly the sellers are afraid they will ask too little and the buyers that they will offer too Although they have the middleman's profit to divide between them they cannot decide just how it should be divided. As a matter of fact both seem to want to get the whole of the midd'eman's profit when they should really try to eliminate it altogether. While we were corresponding about the matter time was slipping by and when a dealer came along and offered a good price we sold to, him. The members of at least two of the associations with which we were negotiating will probably buy from that dealer, for he has stores in the cities where they are located. They will probably pay at least a dollar a barrel more for their apples than they would have had to pay to us. And that will go to the middleman because he had the gumption to fix buying and selling prices. We could have attended to all the of transportation and distribution just as easily as he can. As nearly as I can see the middleman holds his grip on the apple trade simply because he is the only man in the community who has had the experience that enables him to fix prices.

Two of the associations explained their inability to fix a price by saying that they were as yet in the educative stage. That strikes me as being the great weakness of all organizations of this kind. They pay altogether too much attention to the work of education and too little to action. They need to be educated in action and to get that kind of education they must act. The history of every successful business firm shows that its success is due entirely to the fact that its managers were not afraid to act when an opportunity offered itself. Of course it is hard for those who are doing business for an organization to take the responsibility of acting The members are all men of their own class and mistake is sure to be severely criticized. feel sure that the hub of the whole matter lies in the acts of selling and buying. The salesmen and buyers should be given as strong and independent a position as those who act in a similar capacity for corporations. This seems to be the point on which education is chiefly needed. the sellers decide on a fair price, that is lower than a consumer would have to pay to a dealer They should surely be able to get together somewhere within the dealer's profit. And if the sellers have not secured the highest possible price or the buyers the lowest possible price they should be free from criticism so long as their prices are higher than the dealer would give and lower than the dealer would ask. I hope that before another season comes round the work of education ED 1866

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ers to deal directly with consumers. As matters stand now the consumers wait to hear what the dealers are paying and try to buy from the producers at that rate, and the sellers in the same way try to get the prices that consumers are forced to pay to the dealers. This places them both in the power of the middleman and in the end they pay him his profits because he fixes prices for them.

Returning to our own sale, I think it is especially good because we are getting rid of our thirds at a good price. From what I have seen of the orchards this season there will be more thirds than firsts and seconds. Our orchards are full of fine apples, sound and well-colored, that will not pass as firsts or seconds because of the scab. This scab causes no material waste and for all practical purposes the apples are as good as the number ones. But they do not please the eye like clean apples. I understand, though I am not sure about it, that apples of this kind will be accepted as thirds. In any case there should be a good market for them when apples are as scarce as they are this year. With small fruits so scarce earlier in the season there should be a good markets for apples of all kinds and it would be a shame to let any of them waste. should be a market even for culls, that would make it worth while to take care of them, but if there is to be such a market I am a raid we shall have to look for it to the regular dealers. We may as well stop scolding at the middlemen until we have developed some of their initiative. They are not conducting any campaigns of education. If anything they are trying to suppress the facts. They center all their attention on acting and when the time comes for action they are ready to buy and sell in a business-like way. Before trying to do away with the middleman we should study his methods carefully—and then adopt them. His existence is not an accident, or part of a malign plan. He performs a very real service and until we are willing to add his services to the work of the seller and buyer we shall remain in his power. Between the producer and the consumer there lies a Slough of Despond which only the middleman seems able to cross

Bitter Pit of the Apple.

Editor "The Farmer's Advocate"

One of the most widely distributed diseases of the pome fruits-apple, pear quince-is that commonly known in this country as dry rot, in the United States as Baldwin fruit rot, in Europe as "stippen" and cork disease, and in Australia, New Zealand and South Africa as bitter pit. Indeed, the disease is almost co-extensive with the apple itself and in some parts of the world extremely common and injurious in certain seasons.

Almost every cause of any known fruit disease has been put forth to account for it, but nearly all the theories have failed to stand the test of experimentation. Sufficient progress in its study has been made to say that it is not infectious or contagious, nor is it caused by or prevented by spraying, that it is not due to insects, nor to fungi or bacteria, but that its cause must be sought in the arrest of the normal development of the fruit tissue, due most probably to an unfavorable combination of water-supply and temperature conditions.

The reader doubtless knows the symptomspits, or depressions in the skin as though imprest by hailstones, and a small, brownish, shrunken, somewhat corkey-looking pellet of tissue contiguous to the pit and bitter to the taste. are numerous on the blossom end of the fruit. Sometimes there are no external depressions, but the disease is recognized by the bitter taste and brown spots in the pulp. It was very well described by J. Craig in the Canadian Experimental Farm report as long ago as 1896.

The disease has been so injurious to the fruit industry in Australia that the Federal Government voted an expenditure of \$5,000 a year for a limited number of years to be devoted to investigation. tigation. D. McAlpine, the very capable pathologist of Victoria, was appointed conductor. His first report—an octavo of 150 pages with 34 fine plates-is a most valuable contribution to the anatomy and pathology of the apple and pear. In summary, he claims it to be demonstrated that no external agency is the cause of bitter pit and that it is always associated with abnormal conditions of the vascular cells—the cells specially concerned with the regulation of the distribution of food materials, especially of those just under the skin where the greatest and most rapid growth is naturally taking place. In position, the pits are correlated with the surface where transpiration through stomata is most active and in consequence the vessels most likely to be depleted of water necessary for normal circulation. Bitter pit is associated with dry seasons and with the seasons that are intermittent, also

will have progressed sufficiently to enable produc- at night when the warmth of the soil maintains great activity in the roots. The pitting continues in garnered fruit, but is retarded by temperature that suspends transpiration, namely, from 30 to 32 F. In the orchard, trees having a small number of large apples produce fruit worse pitted than adjoining ones with a larger crop of medium size, indicating the failure of the vascular system under its heavier strain of the larger-sized

> In discussing remedial measures, Mr. McAlpine recognizes the difficulty of controlling marked and sudden fluctuations of temperature, but he holds out hope from improved cultivation and the use of resistant varieties. He advises light pruning and the promotion and retention of good lateral Extensive experiments are planned or are in progress to determine the effects of different manures, variations of grafting, stocking and pruning, and methods of cultivation. The results of these will be watched with interest by fruitgrowers wherever the bitter pit is prevalent.

POULTRY.

Simplicity in Poultry Houses.

For average farm conditions a handy, simple and plain poultry house is undoubtedly advisable. In fact, the simpler the house the better under any circumstances, provided it is of a design to meet the requirements as to dryness, light and freedom from drafts. This is the season when many new ones are built or old ones re-modelled. The owner must be careful not to incorporate too many features which require much time to keep in the best working conditions. Expensive outside features designed to adjust the pen for all conditions of wind and weather require more time as a usual thing than a man busy with other work can afford to devote to them., Even the curtains in a curtain-front house are very little use unless carefully kept clean and regulated. An open front, or at least part of it open, is generally preferable. It is cheap, simple in design and requires no looking after if properly constructed. The inside of the house does not require a host of expensive fixings difficult to keep in order, and, if not so kept, a source of endless trouble, furnishing excellent breeding ground for lice and gathering filth of all The simpler the house the better. house recommended by the O. A. C. Poultry Department, and so often described through these columns, is simplicity itself. Twenty feet square, three feet high in front facing the south, and four feet at the back, with a double-pitch roof, the peak seven feet high in the center, with a door in the east end and a large window in the west, and having a two-foot wire open space the entire length of the front, and low roosts hinged to the back and nesting places at the east end, in a very good henhouse for the farm, is cheap, easily constructed, dry, light and well ventilated, and is easily kept clean, a suitable house for ane hundred hens.

FARM BULLETIN.

New Brunswick Provincial Exhibition.

The New Brunswick Provincial Exhibition was held this year at Fredericton with a larger live stock exhibit than at any previous show and with a record attendance of visitors. While the amusement features were perhaps the most striking part of the fair, agriculture was not neglect-Officers of the Provincial Department of Agriculture were provided with offices on the grounds, and the Women's Institute ladies also were in daily attendance with lectures and demon-The ladies connected with the Instistrations. tute from all parts of the Province availed themselves of this opportunity to meet experts in dietetics, sanitation, nursing, etc., and there was a most gratifying attendance at the various lec-

The industrial department of the show was well filled. Farm power was displayed in all sorts and shapes of gasoline and oil engines and many orders taken from farmers.

HORSES.

While the horse entries could not be said to be any larger in any one class, there was a good show in the aggregate and great interest taken in the competition from the ringside.

Thoroughbreds wese represented by Watertight, a 1,350-lb. rangy horse of good substance, imported from Kentucky in 1909 by the New Brunswick Government, and now owned by H. A Jamieson, of Canterbury Station, York Co., N.B. He was prize winner in his class and champion. Dr. Jenkins, Hampstead, N.B., showed a good with conditions that adversely affect circulation young horse by Baulder, a Kentucky sire. E. J.

Mooney, of St. John, had a three-year-old filly out of a Kentucky mare—"The Charmer," by Geralstein.

R. A. Snowball had a monopoly in Hackneys, bringing out his handsome "Model Performer" stallion of great substance, style and action. He also showed Langton Lily, although the dam of nearly a lozen colts still showing up with action worthy of a youngster.

The Standard-bred class brought out four stal-H. C. Jewett, of Fredericton, with Canadian Prince, a model of his kind, though on the small side, was the winner. H. G. Kitchen, of Fredericton, with two very fine fillies, took the honors in females.

In Clydesdales, Dunure Crag, by Baron of Buchlyvie, a very handsome three-year-old, bred by Wm. Dunlop, Dunure Mains, Scotland, imported and owned by Cossar Farm, Lower Gagetown, was first in his class and champion.

R. A. Snowball's Baron Belgraddon, by Baron Primrose, was first in his class and reserve champion. Wm. Seymour, Royal Road, with a colt by Sorbie Boy, was winner in two-year-olds. R. A. Snowball showed the best mare with Moss Rose, by Baren Belgraddon. D. Fraser & Sons, Plaster Rock, N.B., were first in two-year-olds with a stylish young mare by the imported sire, "Up to Time." H. S. Pipes & Sons, Amherst, H. S. Pipes & Sons, Amherst, N.S., had the best yearling in a filly by Handy

R. A. Snowball, Chatham, got first on foals, and Alphonso Kelly, Fredericton, second with a youngster by Sorbie Boy.

The Clydesdale Association specials went in stallions to R. A. Snowball's Baron Belgraddon, the Cossar Farm horse not having been entered, and on mares to Snowball's May Lothian.

In the aged Percheron stallion class six good animals faced the judges. Gresham, owned by H. C. Jewett, Fredericton, took first and the championship. In two-year-olds W. R. Christie, Caribou, Maine, and Chas. Symes, Minudie, N.S., took first and second, respectively, with two typical and promising colts. Chas. Symes, Minu-dle, showed a two-year-old of good substance, and he and Christie had the only brood mares and foals, dividing the honors.

There was only one Shire stallion on exhibit, a fairly good horse, owned by T. A. McDonald, Welsford, N.B.

Saddlers brought out three exhibits, the first prize being taken by H. W. D. Armstrong, Fredericton, with a beautiful chestnut mare recently brought from Hamilton, Ont.

The carriage classes did not bring out any really typical carriage horses. H. W. P. Armstrong's saddler came nearest to the desired

In the general-purpose class, Frank Burnett, Lower French Village, had the winner with a stylish mare of substance, and he also got first in pairs with this mare and her mate.

The roadster class was fairly well filled with some good horses. H. S. Pipes & Sons with a handsome three-year-old filly took first and championship. In the harness classes Mrs. A. B. Kitchen with a neat-turned mare, showing evidence of speed, took first as lady's driverand championship of driving horses. Mrs. Guy Lam-son, with a roadster of great substance and hand-

some appearance, got second.

The class for agricultural horses brought out some good useful animals. J. Burnett, Island View, got first on pairs with a handsome upstanding team. Frank Burnett got first in single horses with a Percheron-bred mare. George Pugh, Nashwaaksis, took first in two-year-olds with a handsome Clydesdale colt by Sorbie Boy. In yearlings E. H. Allen, Kingsclear, got first with a Percheron grade.

The heavy drafts were a good useful class, but not exceptionally large. Alphonso Kelly and D. Fraser & Sons divided first honors between them.

CATTLE.

The cattle exhibit, totalling 315 entries, was the largest ever brought out at Fredericton. Ayrshires were the strongest class. Bros., Sussex, N.B., and A. McCrae & Sons, P. E. Island, were the principal exhibitors, former taking both male and female championships, the first for bull and three of his get and for cow and two of her progeny. The other prizes were fairly evenly divided, McIntyre being strongest in the aged classes, and McCrae showing some very high-class youngsters.

Jerseys, with the exception of two individuals, were shown by H. S. Pipes & Sons and Roy Plpes, of Amherst, N.S., and included some very fine animals.

In Guernseys H. W. Corning, Chegoggen, N.S., had almost everything. R. R. Black, Amherst, got first on junior bull calf, and Wallace Cook, Salem, N.S., third on aged bulls.

Holsteins were represented by four herds. Harding Bros., Welsford, N.B., took both male and female championships and aged herd, also cow and two of her progeny. Lea & Clark, Victorla, P.E.I., got first on young herd and bull

with three of his get. / In Holstein specials Harding Bros. got first on bull, first on cow and rereserve champion on cow. Lea & Clark had the reserve champion on bulls, also first on three the get of one sire and two the progeny of one cow. Other exhibitors were C. H. Giles, Fredericton; W. S. Harding, Welsford, and C. C. Murray, Kingsclear, N.B. All took some of the awards. In the beef classes, Shorthorns were the

The exhibitors, D. largest entry. Fraser & Sons, Flaster Rock; R. A. Snowball, Chatham, N.B.; I. M. Lovitt, Yarmouth, N.S.; J. R. Jewett, Macinquac, and S. McCullough, Mouth of Keswick. R. A. Snowball secured both male and female championships, aged herd and young herd. I. M. Lovitt took first on bull and three of his get and cow and two of her progeny. D. Fraser & Sons took first on aged bull, and J. R. Jewett first on senior yearling bull. S. McCullough took first on senior heifer calf. R. A. Snowball got the balance of the firsts.

In Herefords, Wm. O'Brien & Sons, Windsor Forks, N.S.; A. Bradshaw, Amherst, and W. R. White, Fort Lawrence, N.S., were the exhibitors. Bradshaw took the male and female championships, first in both herd competitions and first for bull and and three of his get, with a large proportion of firsts in the regular classes. O'Brien took first in senior heifer calves.

Aberdeen-Angus were few in number. E. L. Al'en, Bangor, Maine, and F. S. Spafford, Compton, P. Q., having the only entries. Allen got both championships. Spafford took both herd prizes, first on bull and three of his get and cow and two of her progeny.

W. A. Pinckney, Yarmouth, was the only exhibitor of Devons with a few cattle, which would no doubt have been better bought out nad there been more competition.

SHEEP.

Nova Scotia and P. E. Island contributed most of the sheep entries. Charles Symes, Minudie, N.S.; A. C. Servant, Overton, N.S., and Wm. Craig, Nashwaaksis, N. B., showed. In Cots wolds Servant carried off nearly all the honors.

Albert Boswall, S. L. Boswall and Allan Boswall, all of Pownal, P.E.I., exhibited Leicesters and divided the prizes. The same exhibitors, with C. Pugsley, Barronsfield, N.S., showed I.incolns. Burder Goodwin, Baie Verte, N.B.; J. E. Baker & Sons, Barronsfield, N.B., and B. Goodspeed, Penniac, N.B., brought out Oxford-Downs and the two first named divided the honors pretty evenly.

Shropshires brought out more competition Cephas Nunn, Winsloe Road; George L. Boswall, French Fort, P.E.I.; Burder Goodwin, Baie Verte, N.B.; Frank Kilburn, Kingsclear, N.B.; John Jewett, Macinquac, N. B., and F. S. Spafford, Compton, P. Q., Boswall, taking most of the

In Southdowns, Cephas Nunn, Winsloe Road, P.E.I., and J. E. Baker & Sons, Barronsfield, N. Among the Cheviots Cephas Nunn was the leading exhibitor, and got most of the firsts with an even lot of good sheep. George Boswall and A. C. Servant were exhibitors of Dorsets and divided the honors pretty evenly. Albert Boswall, French Fort, and Almon Boswall, Marshfield, P.E.I., showed Suffolks, the former taking most of the firsts

Most of the above were also exhibitors of grades and fat sheep and brought out some good stock.

SWINE.

There was a very limited exhibit of pigs. Fiske Brothers, Florenceville, N.B., were the only exhibitors of Yorkshires. Berkshires were shown by Shaw Brothers, Victoria, N.B., and Robt. Long, Keswick, and the prizes were evenly divid-A. McCrae & Sons, Charlottetown, and W J. Gibson, Marshfield, showed Tamworths. B. Goodspeed, Peniac; H. W. Corning, Chegaggin; John Day, Fredericton; W. H. Moore, Scotch Lake, and J. R. Jewett, Macinguac, showed Chester-Whites, and divided the money. Symes and A. C. Servant showed Poland-Chinas, while J. E. Baker & Sons had out a few Duroc-Jerseys.

POULTRY

Interest in poultry raising in the Maritime Provinces is certainly increasing, and the exhibit at Fredericton bore strong evidence to this fact. A larger entry and better birds than ever shown before, was the verdict of the judges. Seth Jones, Sussex, N.B., and J. P. Landry, Truro, N.S.

AGRICULTURAL EXHIBITS.

There was the usual large display of highquality potatoes, and a fine lot of Swede turnips. Mangels were on the small side. The display of grain, while not large, was of good quality in all varieties.

The horticultural exhibits, including fruit, were not up to their usual excellence, though there were some fine individual exceptions.

The Provincial Department of Agriculture made most attractive display of boxed apples from the orchards which are being renovated under the direction of the Department.

The display of cheese and butter was small, but the quality was high. P. E. Island exhibitors got most of the awards on cheese.

The Provincial Department's bee specialist, H. Durost, gave demonstrations and lectures on the care and handling of bees.

Altogether the sum of \$7,800 was paid out in prizes, divided among the Provinces and States exhibiting as follows: New Brunswick, \$4,400; Nova Scotia, \$2,600; P. E. Island, \$600; Quebec, \$400; Maine, \$400.

The Dairy Division, Dominion Department of Agriculture, in a booth in the Main Building showed various appliances for cow-testing work, and distributed all the various bulletins issued by the Division.

The Live Stock Division, Dominion Department of Agriculture, was represented by J. L. Telfer, who had a tent showing all necessary appliances for the successful care of sheep and marketing of wool.

The judges who placed the awards on the live stock classes were: Dr. Sinclair, Cannington, Ont., light horses; John Gardhouse, Highfield, Ont., heavy horses; R. S. Stevenson, Ancaster, Ont., dairy cattle and swine; Andrew Elliott, Galt, Ont., beef cattle and sheep. S. J. Moore, Truro, N.S., and W. W. Baird, Superintendent Experimental Farm, Nappan, N.S., placed the awards on agricultural products.

All the Year Work.

Editor "The Farmer's Advocate":

In this week's issue of your excellent journal, under the heading of Editorial (Irish Farm Labor Movements), you remark in winding up, "Why not (Irish laborers) come to Canada, where there is employment all the year around on well-ordered farms." I must take exception to the latter part of this statement as not being correct in so far as my experience and the experience of many more of my countrymen (I am Irish) is concerned, unless you exclude the County of Middlesex and adjoining counties. So far as I can find out farmers in these counties do not require, or at least do not want to pay, men all the year round. What they want is men to work for about three or four months in the busy season, and then let them go and fish for work for the remainder of the year. They will never get satisfactory help until they (the farmers) do as you suggest, viz., provide a cottage and garden, and even then I fear there is only a meagre chance of getting Irishmen to any extent so long as the Irish laborer is catered for as he is at present. Good stone and brick three or four-roomed cottages are being built and a plot of ground provided for them all over the country at a nominal weekly rent of something like a shilling (25 cts.) Then owing to the scarcity of laborers they are able to command 2s. 6d. to 3s. 6d. (60 cts. to 85 cts.) per day. There is a great hubbub made in the Old Country over the wages to be had by laborers in Canada, but I must confess I cannot see it, certainly it is not around these parts they may expect to find anything more than they can get in dear old Ireland. JUST COME OUT. Middlesex Co. (West.),

Stallions to be Inspected only Once in 1914.

R. W. Wade, Director of the Live Stock Branch Department of Agriculture, Toronto, informs "The Farmer's Advocate" that at a meeting of the Ontario Stallion Enrolment Board, recently held in Toronto, it was decided to make only one inspection of stallions during the year ending July 31, 1914, the inspection to begin February 17th, 1914, and the inspectors will visit each stallion owner at his stable providing that he makes application for inspection to the Secretary on or before February 1st, 1914. The Board, now that stallion inspectlon and enrolment is better understood, did not deem it necessary to make more than one inspection during the enrolment year, two having been found necessary in the beginning. Stallion owners should make applications early to R. W. Wade, Secretary of the Board, Parliament Buildings, Toronto.

The Veterinary Director General has issued notices to the effect that a Ministerial Order has been issued prohibiting, for a period of six months, from the 2nd October, 1913, the shipment into Canada of cattle, sheep, other ruminants and swine from Great Britain, Ireland and the Channel Islands on steamers carrying horses from Continental Europe, and also that the Ministerial Order of 25th June last, prohibiting the cheese has been lowered from six cents per pound importation of hay, straw, fodder, feed stuffs or to two and one-half cents per pound. litter accompanying horses from Great Britain be a countervailing duty of ten cents per bushel has been renewed for a further period of six on wheat, and tariff on horses will be lowered to months, from 24th September.

Prince Edward Island's Big Fair.

The Prince Edward Island Provincial Exhibition was favored with excellent weather from start to finish, and the attendance was large. The show was rather smaller than usual on account of the late harvest season keeping many stockmen from being able to spare the time to place their animals on exhibition. For the same reason the show of grain, roots and vegetables was not up to last year. But the quality was good, and progress in this particular is quite noticeable from year to year. The show of the products of the dairy was strongly in evidence and the quality of the butter and cheese in packages was ex-

In cattle, excellent herds were out in all the different breeds except Shorthorns, though some good individual animals were shown in this class.

Holsteins were represented principally by the herds of Lee & Clark and J. M. Laird. These were two fine herds, containing many good producers. The first mentioned got first for aged bull in a strong competition, while the latter took first and sweepstakes on dairy cow. This was a heifer that good judges said would take first place anywhere in Canada. Lee & Clark got the herd

Ayrshires were well represented by drafts from the excellent herds of Easton Bros. and McRae & Easton Bros. showed a large aged herd, containing many excellent producers, with a grand good sire at their head. They got most of the The McRae herd had two notable red tickets. animals, Milkmaid, that held the world's record in Ayrshires as a two-year-old for a short time; the other was her heifer that the judge said deserved special mention, and would no doubt be heard from in the future.

In the Jersey breed, William Clark & Sons were the principal exhibitors. They showed some of the greatest producing Jerseys in the Maritime Provinces, and got nearly all the first prizes, as well as the herd prize.

Roper Bros. had it pretty nearly all their own way in the Guernsey class, winning almost everything in sight.

Shorthorns are never strong at this show. There was no complete herd shown, but some good individual animals from the herd of T. P. Cass were forward.

Sheep made a good showing in almost all the classes. The judge, J. M. Gardhouse, said that there were good individuals in all the breeds shown, but many of them lacked a little in condition, and a little more attention to fitting would be in order.

Hogs were a very strong feature of this show. Such veteran exhibitors as J. W. Calbeck, Colonel Crockett and some others had Yorkshires of the true bacon type that left very little to be desired in regard to quality. Berkshires, Chesters and Tamworths were also out strong and the quality was good.

In heavy horses, the judge, Fred. Richardson, of Columbus, Ont., who placed the awards, said that the aged stallion many good individuals. The first honors went to John Richards, who exhibited Baron Kelvin, a son of Baron's Pride. Second went to David Reid for a good horse, although a little under-Third went to W. W. Crosby.

In light larness horses the show was not so The judge, Duncan Brown, found some good individuals, but the breeds were too much mixed, and he suggested that a better classification be made in the future.

One of the great attractions was the display from the Experimental Station, which occupied the south gallery of the Main Building. either side of an imposing central arch were tastefully arranged many varieties of grain shown in individual heads (labelled), also in sheaf, and glass bottles. Vegetables, fruits and flowers contributed to complete a most excellent and educative display of the grand work that is being done at this station. Superintendent Clark or some of his staff were always on hand to answer questions and give information about any work carried on at this station.

The attendance at this year's show was a record one, and on the whole a very creditable exhibit was made.

The committee of the two Houses of the United States Government, appointed to adjust the tariff upon those items upon which the House did not agree, have placed cattle, sheep and swine on the free list. Cream, milk and eggs are also to enter free, while the tariff on butter and ten per cent.

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Bats, Guano and Mosquitoes.

The eradication of mosquitoes by the cultivation of bats." So runs the title of an article communicated to the International Institute of Agriculture by Dr. Chas. A. R. Campbell, San Antonio, Texas. Mosquitoes, he says, form the chief diet of bats, ninety per cent. being considered a conservative estimate. Not only do the bats destroy mosquitoes, but, where colonized in large numbers, as in caves, they produce a surprising quantity of guano, which may be and actually is collected and sold for fertilizing purposes. So the conservation of bats confers a double benefit. Dr. Campbell estimates that a bat roost, containing about half a million bats, would drop in eight months 20½ tons of guano worth, at \$30.00 a ton, \$607.50. A structure large enough to hold 500,000 bats could be built, he claims, for \$1,200.00.

In order to take advantage of the wonderful habits of the bat, Dr. Campbell devised a guanocollecting bat roost, so constructed as to protect the bats from their natural enemies, viz., coons, opossums, wild cats, skunks, civet cats and chicken snakes. This shelter was erected at the head of a large body of standing water, into which ten million gallons of sewage a day were dumped and which was used for irrigation pur-This lagoon produced ideal conditions for the breeding of mosquitoes, which were found a

desperate nuisance in the locality. after being finished, was sprayed interiorly with a chemical fluid giving the odor of bats, and in the hopper at the bottom of the roosts were spread 25 pounds of fresh guano. The shelter began to be used in four months, and the next year (1912) became so numerously tenanted that it took them several hours to come out. They came out in clouds. A personal canvass of the fourteen. families living on the east side of the lake revealed that the mosquitoes last year were very much less than the year before, and that the chills had almost vanished. To a man they had become friends to the bat, and instructed their children never to kill one. On December 18th, 1912, after a cold snap, the roost was opened for the first time, and between four and five hundred pounds of guano had accumulated in the hopper. Similar guano, collected from caves, is sold Texas at \$30.00 a ton. The roost stands ten

feet above the ground, and the structure itself, 28 feet above that, is twelve feet at the base and six at the apex. A wagon can be driven under the base, which is equipped with a hopper on hinges and opens downward. Bats, says Dr. Campbell, are free from disease, and their geographical range, whether of one species or an-

other, like their principal food, extends from Alaska to Patagonia, and the same is true in the other Hemisphere.

In conclusion he says:

That the mosquito is unquestionably one of man's most formidable enemies, not only "per se" but also by the subtle role he plays in trapsmitting disease-producing bacteria.

That the mosquito may be considered as a good food for the bat.

That we can build a home for the bat where he will be protected from his enemies, and propagate in countless numbers, at the same time protecting us by improving our hygienic condi-

That the commercial feature in the propagation of bats will insure its adoption, the hygenic benefits that follow will protect the community, especially the poorer classes who know nothing of the dangers of mosquitoes or the use of screens, and amongst whom we find the most

That when we propagate this most useful creature, he not only destroys the disease-producing mosquito that serves him as food, but he actually converts that most malevolent of insects into a high-grade fertilizer.

A meeting of the Canadian Bankers' Association held in Winnipeg last week appointed a committee to investigate the question of making loans to Western farmers to assist them in get-ting their threshing done. The bankers were in favor of advancing the loans.

Gossip.

The following award was omitted from our report of Sherbrooke Exhibition: Best dairy Shorthorn bull-1, J. H. M. Parker, Lennoxville, Que.; 2, F. R. Cromwell, Cookshire, Que.; 3, R. & S. Nicholson, Parkhill, Ont.

HOLSTEINS AT AUCTION.

Again we draw attention to the big Holstein sale of D. Campbell, Komoka, Ont., to be held Oct. 22. This is a good opportunity to secure first-class females and herd-headers. Don't miss it. See next week's issue for a fuller account of the cattle, all of which are well-bred and excellent individuals. Catalogues are now ready. Write Mr. Campbell for one, and be convinced that the breeding is right; attend the sale and make sure that the quality is right; and buy some cattle and prove that they are producers. Forty-seven Holsteins must go to the highest bidder.

HORSES AT GUELPH WINTER FAIR.

The Horse Show at the Ontario Provincial Winter Fair, to be held at Guelph, Dec. 9th to 12th, promises to be larger and better than ever. The Canadian Clydesdale Association having increased their grant by \$200.00, a class has been added for three-year-old mares in both the open and Canadian-bred department. This will no doubt result in a large increase in the number of entries of Clydesdale mares, both it and Canadian-bred, as heretofore the three-year-olds have had to compete with the mature mares, which placed them at a certain disadvantage. In the case of Percherons, which were given a classification for the first time in 1912, when all stallions three years old and over were obliged to compete together, this year a class has been provided for threeyear-olds, and one for four years and over. In addition, special prizes are being offered by different county councils for amateur exhibitors from their several counties of Brant, Wellington, Halton, York, Waterloo, Grey, Huron and Lamb-A prize list will be furnished on application to R. W. Wade, Secretary, Parliament Buildings, Toronto.

BLAIRGOWRIE STILL IN THE LEAD.

That old adage, "A straw will show which way the wind blows," can very aptly he applied to the enormous trade that is coming the way of the Blairgowrie Farm of John Miller, Jr., Ashburn. Ont. The last year has seen a demand for breeding stock from the noted herds and flocks of this farm entirely unprecedented in the many successful years of their past history. Their very satisfactory result of Mr. Miller's endeavors as an importer and breeder of Clydesdale horses, Welsh and Shetland ponies, Shorthorn cattle, Cotswold and Shropshire sheep must of necessity be due to cause and effect, the cause being the high standard maintained in the various lines of stock bred at Blairgowrie, and the effect being the recognition and apprecia-

tion by the buying public of that stand-The Shorthorns are imported and bred from imported stock and represent on blood lines the Cruickshank Duchess of Glosters, Cruickshank Villages, Marr Claras, Augustas, Lavenders, Rosewoods, and Kilblean Beautys. None of them are more than two crosses from imported stock, strictly modern in type. The herd is essentially a high-class one. anything is for sale, including about a dozen one and two-year-old heifers and a few young bulls, one of them out of a 50-lb-a-day cow, and her dam was also a big milker. This is probably one of the best-bred Shorthorn bulls on milkproducing lines for sale to-day. In Cotswolds there is a large selection in both rams and ewes from lambs up. About 20 of the rams are shearilings, and seldom is so choice a lot to be seen on one farm. In Shropshires the same high standard prevails and the same big selection is to be seen in both rams and ewes. For immediate sale in Clydesdales there are mares and fillies from five years of age down to foal, and among them is something to please the most critical unless he is looking up strictly high-class show material. In ponies there are a dozen Shetlands and Welsh, something to please the children and the big ones,

JOHN BRIGHT'S BIG SHORTHORN SALE.

Seldom indeed, if ever before, in the history of Shorthorn sales in this counchoice a lot of big, thick cattle as those to be sold at the big dispersion sale of John Bright, Dominion Live Stock Commissioner, at Myrtle, Ont., on Thursday, Oct. 16th. The entire offering will come under the hammer in the best possible condition-massive, thick cows averaging in weight about 1,750 lbs., bred on the most approved lines, some of them without a Canadian - bred sire in their pedigrees, representing such fashionable and profitable tribes as Jilts, Duchess of Glosters, Miss Ramsdens, Crimson Flowers, Fashions and Rosemarys, many of them daughters of the Rosebud bull. Royal Archer, Imp., a son of the renowned Prince of Archers, and out of Rosalie 5th, by the great bull, Radical. Others are daughters of the Lovely-bred bull, Sittyton Yet, Imp., a half-brother to the great William of Orange. Seven of the offerings will have calves at foot sired by the Duchess-of-Gloster-bred bull, Gloster Duke, a son of the good-breeding bull, All Scotch. The others will be in calf to the same bull. The majority of the younger things up to one year are the get of King's Councillor, a son of Imp. Royal Archer, and out of Imp. Queen Sunshine; she is by King's Guard, bred by the late King Edward in the Royal herd. From the foregoing it will be seen that nothing was left chance in the herd's breeding. Another thing of increasing interest to Shorthorn breeders of to-day is, that in the many years since the foundation of the herd Mr. Bright has never kept a cow on the farm that was not able to raise her own calf, and certainly the well-balanced ud- Agriculture at Ottawa.

ders of this lot are evidence of their ability to produce a profitable yield of milk. In short, the entire lot to be offered are high-class in individual merit and cannot fail to be a profitable investment, as there are no steriles among them, but they have been regular breeders of high-class offspring. It is need-less to say that rything will positively be sold for just what the buyer chooses to pay. Mr. Bright is compelled to move to Ottawa, and everything on a well-equipped farm is being sold, horses, cattle, implements, etc. Lunch will be served at 11 a. m.; sale at 12 sharp.

One hundred Berkshire pigs, property of W. V. Judd, Andover, England, sold by auction the first week in September, realized a total of \$4,535, the highest price being \$345, for the prizewinning ow, Moundsmere Metka.

Australia's flock of sheep now number 93,000,000, and in handling this large number the Australian shearers reach a high standard of proficiency. Working under good conditions, and in the healthi-est climate in the world, they are able to do a good deal of work daily. In South Australia, last month, George Denman shore 274 sheep in 8 hours and 40 minutes, and his average for the 12 full days was 1911 sheep a day. pen mate, J. W. Cooper, did 260 sheep on August 1st, and averaged 189 a day for the 12 days. Denman's performance on the first eclipsed the previous South Australian record of 264, established by W. Day, at Murnpeowie.

Smut Diseases of Cultivated Plants.

It is estimated by the Director of the Experimental Farms that smut diseases of cultivated plants cause an annual loss in Canada of at least fifteen million dollars. If these diseases were properly understood, and the best-known remedies applied at proper times, much of this serious injury would be prevented.

In order to teach crop-growers how best to protect their fields against damage by smuts, there has been issued by the Department of Agriculture, a comprehensive, plainly-written treatise, which is issued as bulletin No. 73, of the Experimental Farms. The author, H. T. Gussow, Dominion Botanist, has gone into the subject very thoroughly, not only describing the smuts, in their various stages, that affect wheat, barley, oats, corn, and millet, but attention is given to methods of infection as well as the preventive measures and curative remedies that have been found useful. The text, which occupies about fifty pages, is much helped by numerous illustrations. This work is being sent out free to all who apply for it to the Publications Branch of the Department of

A Creamery Laundry.

By establishing a co-operative creamery years ago, two hundred farmers of Fillmore County, Minnesota, relieved their wives from the drudgery of the churn. These farmers saw no reason why a coroperative laundry would not do just as much in raising the level of happiness of the whole community. The creamery had extra power available, and the daily trips of farmer and cream - gatherer could at the same time easily transport the family linen.

The organization of the business was very simple. The laundry company was incorporated; most of the creamery stockholders took stock in the new enterprise. The creamery company built an addition, which it rented to the laundry company, and sold it the necessary power. The cash capital-a modest amount-provided the necessary equipment.

The operations of the laundry have been both simple and satisfactory. The first month, fifty farmers sent 130 washings to the laundry, at a total net cost to them of \$114.64-\$2.80 per month per family. In addition, there was a cash business with the townspeople of \$210.58. In the next two months, 720 farm washings were done, at substantially the same rate. Three months later an addition was built to accommodate the business. The town business is done on a cash basis, but the farmers' work is carried on the creamery account, with no separate bookkeeping.

How close is the relation between the-

ory and fact with these farmers is shown by the fact that some months before the laundry was established a careful estimate set the probable cost monthly to each family at \$2. The actual figures are about \$1.96.

The laundry is both economical and effective—that is conceded. That it has changed a day of drudgery to one of comfort is demonstrated anew every Monday of the year. What it means for the community to release into new forms of activity the power of 125 women one or two days each week-power heretofore absorbed in the sodden misery of she washtub-can only be dreamed of, it cannot be figured in dollars and cents. The homes, the granges, the schools, the churches of Fillmore County will see the result. Watch Fillmore County.-The Independent.

"You advertise 'no mosquitoes,' " said the summer boarder, as he slapped his

"Yes," replied Farmer Corntassel, "we put that in the same as some hotels say 'no dogs,' meanin' that they will not he wanted."—Washington Star.

"I suppose you caught a lot on your last fishing trip?" "Didn't I? I caught the last train, a severe cold, and a lecture from my wife."

THE ROYAL BANK OF CANADA

Capital Authorized - \$ 25,000,000 Capital Paid Up - - 11,560,000 Reserve Funds - - 13,000,000 Total Assets - - - 180,000,000

HEAD OFFICE: MONTREAL

Branches throughout every Province of the Dominion of Canada.

> **Accounts of Farmers** invited. Sale Notes collected.

Savings Department at all Branches.

Markets.

Toronto.

At West Toronto, on Monday, Sept. 29, receipts at the Union yards were 192 cars, comprising 4,817 cattle, 221 hogs, 2,215 sheep and lambs, and 418 calves; quality of cattle fair; trade active. Exporters, \$6.80 to \$7.10; one load at \$7.25; butchers' steers and heifers, \$5.50 to \$6.75; cows, \$8 to \$5.60; bulls, \$3.75 \$5.60; milkers, \$50 to \$80; calves, \$4.50 to \$9.50; sheep, \$3 to \$5; lambs \$6 to \$6.60. Hogs, \$9.10, fed and watered, and \$8.75, f. o. b. cars.

REVIEW OF LAST WEEK'S MARKETS The total receipts of live stock at the City and Union Stock-yards last week were as follows:

	City.	Union.	Total.
Cars	44	606	650
Cattle	821	10,094	10,915
Hogs	58	6,867	6,925
Sheep	1,484	9,683	11,167
Calves	115	1,819	1,984
Horses		15	4 15

The total receipts of live stock at the two markets for the corresponding week of 1912 were :

	City.	Union.	Total.
Cars	58	373	431
Cattle	707	5,142	5.849
Hogs	1,050	6,982	8,032
Sheep	1,338	7,060	8,398
Calves	70	678	748
Horses		10	10

The combined receipts of live stock at the two markets for the past week show an increase of 219 carloads, 5.066 cattle 2,769 sheep and lambs, 1,191 calves, and 27 horses; but a decrease of 1,107 hogs, compared with the corresponding week of 1912.

Receipts of live stock were liberal, but not as large as those of the previous week, and not greater than the demand. Trade in all departments of live stock was active during the week, at about steady prices, excepting hogs, which were slightly lower. The quality of fat cattle was not equal to that of the previous week; that is, there were not as many of the good to choice butchers and exporters. One firm had an order for export cattle which they could not fill, as there was not enough of this class on the market. ' A few cattle good enough for export purposes were bought by the local abattoirs, at prices ranging from \$6.80 to \$7.12\frac{1}{2}.

Butchers' .- Choice butchers' steers sold at \$6.60 to \$6.80; good, \$6.25 to \$6.50; medium, \$5.90 to \$6.20; common, \$5.60 to \$5.80: inferior to common, \$5 to \$5.25; choice cows, \$5.25 to \$5.65; good cows, \$4.75 to \$5; medium cows, \$4 to \$4.50; common cows, \$3.50 to \$3.75; canners and cutters, \$2.50 to \$3.25; good bulls, \$5 to \$5.60; common bulls, \$3.75 to \$4.75.

Stockers and Feeders .- Receipts in these classes were liberal, and the demand was quite equal. Choice, heavy steers, were in demand, one load selling at \$6.25 per cwt. Steers, 950 to 1,000 lbs., sold at \$5.25 to \$6; stockers, 700 to 800 lbs., at \$1.50 to \$5.25; light Eastern stockers, sold at \$3.75 to \$4.50.

and a few of choice quality brought fancy figures. \$100, being white in color, and one of the finest white cows we ever saw. Prices ranged from \$45 to \$100, the bulk selling from \$50 to \$68 each.

Veal Calves.-Prices for veal calves still continue to be very high. Choice veal calves sell from \$9 to \$10 per cwt.; good calves, \$8 to \$9; medium, \$7 to \$8; common, \$5.50 to \$6.50; inferior, rough, Eastern calves, \$4.50 to \$8, and there was not enough in any class to supply the demand.

Sheep and Lambs.-There was little change in the sheep and lamb market, although the supply was liberal all week, but lambs were slightly easier at the close of the week. Sheep—Ewes, 100 to 130 lbs., sold at \$4.50 to \$5; ewes, 140 to 160 lbs.; at \$3.75 to \$4.25; culls and rams, at \$2.50 to \$8.50; lambs sold from \$6.40 to \$6.75; but the bulk during the week sold at \$6.40 to \$6.60; cull lambs sold at \$5 to \$6 per cwt.

Hogs.-Selects, fed and watered, sold at \$9.50 to \$9.60, and \$9.15 to \$9.25, f. o. b. cars, at country points.

BREADSTUFFS.

Wheat.-Ontario, No. 2 red, white or mixed, new, 83c. to 84c., outside; 86c. track, Toronto; Manitoba, No. 1 Northern, 91c.; No. 2 Northern, 90c., track, lake ports.

Oats.-New, white, 33c. to 34c., outside; 85c. to 86c., track, Toronto; Manitoba oats, No. 2, 40c.; No. 3, 391c., lake ports.

Rye.-No. 2, 61c. to 62c., outside. Peas.-No. 2, 83c. to 85c., outside. Buckwheat .- No. 2, 52c. to 58c., out-

Barley .- For malting, 50c. to 53c., out-Corn.-American, No. 2 yellow, 70c.,

Midland; 88 c., track, Toronto. Flour .- Ontario, winter-wheat flour, 90per-cent. patents, new, \$3.55, in bulk, seaboard. Manitoba flour - Prices at Toronto are: First patents, \$5.50; second patents, \$5; in cotton, 10c. more; strong bakers', \$4.80, in jute.

HAY AND MILLFEED.

Hay.-Baled, car lots, track, Toronto, No. 1, \$18 to \$13.50; No. 2, \$11 to \$12 per ton.

Straw.-Baled, car lots, track, Ooronto, \$9 to \$10 per ton.

Bran.-Manitoba, \$22 to \$24, in bags, track, Toronto; shorts, \$24 to \$25; Ontario bran, \$28, in bags; shorts, \$24 to \$25; middlings, \$25.

COUNTRY PRODUCE.

Butter.-Market firm, at unchanged quotations. Creamery pound rolls, 27c. to 28c.; creamery solids, 25c. to 27c. separator or dairy, 24c. to 25c.; store lots, 20c. to 21c.

Eggs.-New-laid, 27c. to 28c., for case

Honey.-Extracted, 12c. to 13c. per lb.; combs, per dozen, \$2.50 to \$3.

Potatoes.—Ontario potatoes, car lots, track, Toronto, 65c. to 70c. per bag. Poultry.-Receipts liberal, but prices remain about steady. Chickens, dressed, 22c. to 23c. per lb.; chickens, adive, 17c. 18c.; ducks, dressed, 16c. to 17c.; ducks, alive, 12c. to 13c.; hens, dressed, 16c.; hens, alive, 12c. to 13c.

Beans.-Imported, hand-picked, \$2.80 to \$2.40 per bushel; Canadians, hand-picked, \$1.75 to \$1.90; primes, \$1.60.

HIDES AND SKINS.

No. 1 inspected steers and cows, 13c. No. 2 inspected steers and cows, 12c. No. 3 inspected steers, cows and bulls 11c.; city hides, flat 15c.; country hides, cured, 13½c.; calf skins, per 1b. 16c.; lamb skins and pelts, 20c. to 65c each; horse hair, 35c. to 37c. per lb.; horse hides, No. 1, \$3.50 to \$4; tallow No.1, per lb., 5½c. to 7c.

WOOL.

Coarse, unwashed, 15c.; coarse, washed 24c.; fine, unwashed, 17c.; fine, washed, 26c, per lb.

FRUITS AND VEGETABLES.

Receipts of fruit and vegetables since our last report were the largest in the history of the Toronto market, especially for peaches and plums. Peaches are cheaper than apples, the choicest of Crawfords selling at 40c, to 50c, per basket. All quotations given are by the 11-quart basket, unless otherwise speci-

Milkers and Springers.—There was a fied. Peaches, 25c. to 50c.; plums, 20c. liberal supply of milkers and springers, to 50c.; blueberries, \$1.50 to \$1.75; apples, 30c. to 75c.; pears, 30c. to 40c.; One choice cow sold at grapes, 30c. to 40c.; beans, 25c. to 35c.; cucumbers, 20c. to 30c.; green peppers, 80c. to 40c.; vegetable marrow, 80c.; green corn, per dozen, 8c. to 12c.; canteloupes, 30c. to 60c.; tomatoes, 25c. to 30c.; apples, per barrel, \$2.50 to \$3; cranberries, \$7.50 per barrel; gherkins, 75c. to \$1.25; eggplant, 80c. to 40c.; onions, Spanish, large case, \$2.75 to \$3.

Montreal.

Live Stock.—There was a fairly active demand from American buyers in Montreal for common live stock for shipment to Buffalo, and prices paid ranged from 81c. to 4c. per lb. Butchers were also buying cattle freely, but there were very few choice cattle on the market. Best sold at 6½c. to 6½c. per lb., fine selling at 6c., good down to 51c., and medium to around 5c. The common stock sold as low as 4c. per lb., and canners were selling as low as 8c. per lb. The demand for lambs was moderately active, and prices were 6c. to 6%c. per lb., while sheep sold at 4½c., and calves from \$5 to \$7 each for common, and as high as \$14 to \$15 for choice. Hogs were slightly lower, sales taking place at 82c. to 10c. per lb., according to quality, weighed off cars.

Horses. Dealers reported a fairly active trade in horses, at unchanged prices. Heavy draft horses, weighing from 1,500 to 1,700 lbs., sold at \$300 to \$850; light draft, 1,400 to 1,500 lbs., \$225 to \$300; light horses, 1,000 to 1,100 lbs., \$125 to \$200 each; broken-down, old animals, \$75 to \$125, and choicest saddle and carriage animals, \$350 to \$500 each.

Dressed Hogs.-The market for dressed hogs was fractionally lower, prices of live stock having declined. Fresh-killed, abattoir-dressed hogs sold at 13%c. to 14c. per lh.

Honey and Syrup.-The market for honey was about a cent lower, owing to the new stock coming in. White-clover comb was 15c. to 16c. per lb.; extracted, 10 c. to 11 c.; dark comb, 13c. to 14c., and strained, 71c. to 81c. Tins of maple syrup sold at 9c. to 10c. per lb., and syrup in wood at 7c. to 8c., while maple sugar was 10c. to 11c. per lb.

Eggs .- The market continued to advance, and prices were very high for this time of the year. Strictly-fresh eggs were quoted at 34c. to 36c. per dozen; selected eggs were 29c. to 31c., and No. 1 candled, 26c. to 28c., while No. 2 were 21c. to 22c. per dozen.

Butter.—Butter showed further advances in price, both here and in the country. Choice creamery was quoted at 271c. to 28c. in a wholesale way, and fine at 26%c. to 27c., while second grades went as low as 25tc. to 26c. Dairy butter was unchanged, at 22c. to 23c. per 1b.

Cheese.-The market for cheese showed very little change, being fractionally higher. Prices were 13½c. to 13%c. per lb. for Western, colored, and 131c. 13%c. for Eastern. White cheese sold almost as high as colored.

Grain.-Oats were steady in price. No. 2 Western Canada, 41c. to 411c. per bushel, ex store.

Flour.-The market for Manitoba first patents was steady, at \$5.60 per barrel, in bags; seconds being \$5.10, and strong bakers' \$4.90. Ontario winter - wheat flour showed a decline, at \$4.60 to \$4.75 per barrel, in wood, for straight rollers. Millfeed .- Prices are firmer, at about \$1 per ton higher all the way round. Bran, \$22 per ton, and shorts, \$24 in bags; middlings, \$27 including bags; mouille, \$30 to \$32 per ton for pure, and \$28 to \$29 for mixed

Hay.-The market was steady. No. 1 pressed hav, car lots, Montreal, on track, \$14 to \$14.50 per ton: No. 2 good, \$13 to \$13.50, and No. 2, \$12 to \$12.50. Hides.-l'rices were steady, save for an advance of 5c. in lambskins. Beef hides were 11½c., 12½c. and 13½c. per lb., respectively, for Nos. 3, 2 and 1; calf skins, 15c. and 17c. per lb. for Nos. 2 and 1, and lamb skins, 55c. each, with horse hides ranging from \$1.75 for No. 2, and \$2.50 each for No. 1. Tallow sold at 11c. to 3c. per lb. for rough, and 6c. to 61c. for rendered.

Buffalo.

Cattle.-Steers, \$9 to \$9.25; shippers, \$8.25 to \$8.85; butchers', \$7 to \$8.75; cows, \$3.75 to \$7.50; bulls, \$5.25 to \$7.50; heifers, \$6.50 to \$8.50; stock heifers, \$5.25 to \$5.75; stockers and feeders, \$6 to \$7.40; fresh cows and springers, \$35 to \$90.

Veals.-\$6 to \$12.50. Hogs.-Heavy, \$9.10 to \$9.35; mixed, \$9.30 to \$9.40; Yorkers, \$8.50 to \$9.40; pigs, \$7.50 to \$8.25; roughs, \$8.10 to \$8.25; stags, \$6.50 to \$7.50; dairies, \$9

to \$9.35.

Sheep and Lambs.-Lambs, \$5.50 to \$7.50; yearlings, \$4.50 to \$6; wethers, \$5 to \$5.25; ewes, \$2.50 to \$4.50. Sheep, mixed, \$4.75 to \$5.

Chicago.

Cattle,-Beeves, \$7.35 to \$9.50; Texas steers, \$7.15 to \$8.10; stockers and feeders, \$5.40 to \$8.10; cows and heifers, \$3.90 to \$8.85; calves, \$8.50 to \$12.

Hogs.—Light, \$8.35 to \$9; mixed, \$8.05 to \$9; heavy, \$7.90 to \$8.90; rough, \$7.90 to \$8.10; pigs, \$4.25 to \$8.25. Sheep and Lambs.—Sheep, native, \$3.60 to \$4.65; yearlings, \$4.70 to \$5.60. Lambs, native, \$5.50 to \$7.15.

Cheese Markets.

Stirling, Ont., 13c.; Brockville, Ont., bidding 12 11-16c.; no sales; Kingston, Ont., 123c.; Cornwall, Ont., 127c.; Victoriaville, Ont., 121c.; Picton, Ont., 12 15-16c. to 13c.; Napanee, Ont., 127c.; Alexandria, Ont., 127c.; London, Ont., 13c.; Watertown, N. Y., 16c.; Belleville, Ont., 13 1-16c.; Cowansville, Que., butter, 28c.; Utica, N. Y., 15%c.; butter,

British Cattle Market.

Supplies continue about the same, and quotations for Irish steers and heifers remain at 134c. to 14c. per pound.

Gossip.

SALE DATES CLAIMED.

Oct. 16th.—Shorthorns; John Bright, Myrtle Station, C. P. R., Ont. Oct. 22nd.-Holsteins; D. Campbell, Komoka, Ont.

Pure-bred Shropshire sheep, including 25 ram lambs, and a few ewes and ewe lambs, all descended from imported stock; also pure St. Lambert Jersey cattle, are advertised for sale by 'H. E. Williams, Knowlton, Que. (Knowlton, C. P. R.).

News of the Week

Ex-President Diaz is said to have returned to Mexico.

At the fourteenth International Congress on Alcoholism, held last week at Milan, Italy, and attended by delegates from forty nations, a number of bureaus were formed to engage in the work against alcoholism.

Airman Pigoud, who found it possible to fly with his machine upside down, has been looping the loop, and executing other aerial feats in Paris. The Aerial Derby, an aeroplane race of over ninetyfive miles around the city of London, was won by an English airman named Hamel.

The demonstration against home rule for Ireland has been reaching a climax in Ulster, where for some weeks volunteers have been drilling. Last week a Provisional Government was set up for the purpose of "taking over the Province in trust for the British nation should the Government persist in the passage of "Home Rule." Sir Edward Carson, who headed the guarantee fund with £10,000, was named as "Premier," and as members of the Government, the Duke of Abercorn, Marquis of Londonderry, Lord Charles Beresford, Lords Annesley, Arran, Bangor, Castlereagh, and others. It is thought, at time of going to press, that a conference between Liberal and Unionist parties in regard to the question is likely to be held.

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OCTOBER 2, 1913

flowers.

The Pearson Flower Garden Contest.

By Miss L. Ida Alderson, one of the judges.

Yes, we have had that most delightful trip through Peel County again, and found the gardens remarkably fresh and attractive, for all it has been a very dry season.

Mr. Pearson, a fine type of lawyer—a fine type of man, and a man of affairs, being President of the Construction and Paving Co., also of the Atwood Co., manufacturer of Portland cement, and interested in industrial affairs of the country,—is to be highly commended for the flower garden competition, for it not only means financing the tours, but the time he gives to them.

Mr. James Pearson was born in Carleton Co., Ont., in a log cabin with scooped roof: his father, a man from Glengarry. You would enjoy a talk with this same gentleman, for besides being well versed in the burning topics of the day, political and otherwise, his reminiscence of boy-hood days and how he got along, are better than a book. The "how he made his way" with little help is told in all modesty, if you can but get him going.

A great factor in his early life was a father who, though he had no opportunities for education, was a reader, and what is better yet, a thinker. Just here is a "tip," to think and be ready to listen to the other person's point of view, is to go a long way on the road to success.

This father, as Mr. Pearson put it, "used to read aloud to the kids, and brought home books and pictures of scenes at home and abroad," which left so vivid an imprint that many places are almost as real as if actually visited. "I had no particular memory," said Mr. Pearson, "but reasoned out things," this method serving good in his law and all other enterprises.

In teaching school he did not treat the pupil's mind "as a vessel to pour into" but endeavored rather to "lead the mind out."

"Father encouraged us, seven brothers and three sisters, to go to parties." "James" was sometimes escort and other times chaperon—for sisters had plenty of beaux. Mother had the best vegetable garden around and paid the children for weeding, for these boys and girls were encouraged to have their own money. Father let them have prize money—all an incentive to take real interest.

But this was to be about the gardens. From a remark of Mrs. David Potter's last year, we gleaned she would be willing to be a judge this year. Do you see what this means? Well, one could not very well be a judge and be in the contest too, so you see she has been most magnanimous, for no other garden in Peel County that we have ever seen could claim first prize over hers. Besides the beauty of it all last year, and though not in the contest this year, Mrs. Potter has added beauty by leaps and bounds, by extending a bed in front and adding more flowers in great profusion to what were already there, at the back and on the sides, to say nothing of the new gateway and arches. We are fortunate to have so able a judge.

Owing to already existing conditions here and elsewhere, it is but fair that the decision has been to have a rule that no one can hold first prize longer than two consecutive years.

No end of praise is due each garden maker, for one but needs carry only three pails of water to know what it means to carry pail upon pail for continuous days.

Generally it can be told who are lovers of gardens by the approach, so we were a little prepared for what awaited us by the attractive view from the road of the Misses Morrison's (new competitors, Sandhill) home, the proud winners of the first prize. A charming expanse of lawn; a flaming solid geranium circle, edged with green: a spreading tree with inviting seats from which one has a view of all—this view consisting of still another place for rest in the corner there beneath tall spreading trees, a bench, some seats, a table, just ideal for a happy meal, flowers in plenty over there, choice foliage on the gallery here.

Yet not all, for like every true garden there is still more, as one wanders on around the house, where, at the back, the bell calls all to dine.

Some delicious cake and dandelion wine—the happy possesor of a lovely bouquet—we must needs speed away from a most delightful atmosphere. But ere I go, let me whisper in your ear: For attractive young women! What

gone by, had tripped about here, too. We were glad this year to award second prize to Mise Margaret P. Kirkwood, Terra Cotta. Do you call to mind the place 'last year, with lovely grape arbor over the door and "the neatest yard about the barn," of which the father is so justly proud? Well, that is the place. Miss Kirkwood has worked faithfully against difficulties of location for her flowers. Besides this she has introduced several very choice specimens of old, some new species of

Norval Station is the home of the Misses Fuller, who fell heir to the third prize. At one time this had been a fruit garden, thus some of the trees remain and lend a charm of their own. Adown the lane is a honey locust hedge. Within the pale, full length on either side are flowers, which extended on into a rear garden.

You know how the chicks and turkeys love to be in the garden! Well, here they have one all their own, for through a gate from the main garden is a road

holds our horse by the bit, Mr. Pearson reaches theirs, and holds the fiery steed, while we go carefully by. We are all so glad it is over! But what did that chauseur say? "That horse wouldn't run into a good feed." Fie, Mr. Chauseur!

Maybe you do not know Mrs. Mc-Colloch as "Aunt Jane," but Mrs. Pearson knew her at once as that, for is she not exactly like her Aunt Jane? We would have liked to have given a prize here, for it was a charming spot. From within a grape-vine bedecked bower, one lookes upon a vista of graceful sims and flower-edged walk. Here, too, was the old log house, which stands to the right of the lane, all lovely in its festion of grape and sheltered by grand elins.

Mr. McColloch takes pride, with his wife, in the appearance of the place, which is to be commended.

At Mrs. Robert J. Creaston's, Caledon East, is a not-to-be-equalled line of Norway spruce, a grove within their shadow and a soft fence of cedar. This place was cleared some sixty-five years ago, and pride was taken in it from the beginning or it never could have been what it is to-day. Nor could Mr. Cranston the elder be the fine-appearing man of seventy-five or more had he not taken the same pride in himself—for refinement and laws of rectitude are strongly stamped upon his features. Do you know that people who are lovers of flowers and shrub are lovable people?

How we would have liked to give all a prize, for there was so much that is deserving. There were Miss A. L. Wharren's, Mrs. McLean's, Miss Mona Kary's and Miss M. L. Potter's, all with their beautiful gardens, but, alas, there are but three prizes.

While some gardens were not improved there seemed to be an added interest.

What perfect days! What a congenial party! What a perfect trip, barring what is technically known as a "blow out" or so. It was during the repair of one of these that we sat upon a bank.

"Skinning" up the road came a fairsized dog. Chic, our mascot, who "did the trip" with us last year, was all alertness at once. He surveyed the situation. On comes the enemy! He

A bold front puts up Mr. Chic. "Bah," says he to himself. "Bowwow!" says he aloud with a dive. "Right about face, quick march for

me," says Mr. Enemy.

That streak down the road. Just those two dogs—one in full pursuit.
"Not worth bothering about," said Chic, for after a bit he came back. Not because he can't fight, for, small as he

is, he is good and plucky.

Now we're off for Miss Potter's.

Supper awaits us at Miss M. L. Potters,—the two farms join, for in the older days four brothers settled side by side, one hundred acres each, I think, "Grandpa" is the last and most lowable, as is Grandma too. He is an old Irish gentlemen in his eighties. Don't tell, but 'tis true, we were so glad to see him again that I kissed him on one cheek and Mrs. Pearson on the other; it was on the back veranda and no one else there.

The Misses Potter deserve that credit for their garden, for, besides this, they have the flowers that have become the mellow fruit, to care for, grandma and grandpa Potter, lovely beyond expression.

After tea on the sofa sat grandpa, all sunshine, Mrs. Pearson on one side, I on the other. In a burst of enthusiam, for I love old people, I said "Aren's you lovely grandpa?" With a steady look, snapping eyes and beaming face,



Nooks and unexpected walks in a garden, add greatly to its interest.

would you expect? Romance in plenty, surely!

A castle! A castle! Oh, take us in! Take us in! Our expectations were more than realized, for an exquisite piece of architecture it is-"The Grange"-and so we wandered to the side, in search of "some one home," quite unexpectedly a perfect miniature was framed by an aperture in the tower. It spoke kind words of greeting and welcome, and soon we were roaming through the halls and towerrooms, and never came from out the past, till we had climbed the tallest tower revealing a spacious view, and come to earth again. How pleased we were to learn that our kin, in days bed guarded by chicken wire, some lawn and still another, to the right. Some eighty turkeys gobbled and "wee-weed," strutted and minced, and numerous chickens "all dreessed in white" conclaved. Beside the old smoke-house were stately bunches of Golden Glow. Here the original homestead of seventy-years has been retained for rooms at the back, with its southern touch of running veranda in two directions, festioned with vines, and within, choice giant species of begonia. And listen! Two more attractive maids! Romanca, surely.

Oh, how we flew! But there; three women in a "rig," scared to death! The motor stops. While the chauffeur

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'Twas in the dark we sped along for our nest upon the foot hill-the Pearson log cabin, Mr. Pearson's summer cottage. Oh, those hills! To us in the back seat it seemed at times there was no road, just a leap into a great abyss. but Mr. Pearson and his chauffeur are careful men, or we would have cause to

The next day was what my host termed "a leaky day," good for the country, but not so good for us had our tour not been finished.

And say, here is another secret, Inglewood is a fine place to get "tanked up"-with gasoline,

The Hallowe'en Party.

"Will you kindly tell me how to carry out a Hallowe'en party ?"-"What would be a good programme for a Hallowe'en festival to be held in the school-room of a church?"-These are questions which have been raining upon us during the past fortnight. .

To come to the point at once there ever can be much that is "new" for Hallowe'en. The celebration is essentially an old one, hence it would not be Hallowe'en at all without the same old games, the same old decorations, the same old element of mystery, even though in fun, that originated in the belief that on this night, of all the nights of the year, ghosts and witches are at liberty to go about the earth.

INVITATIONS.

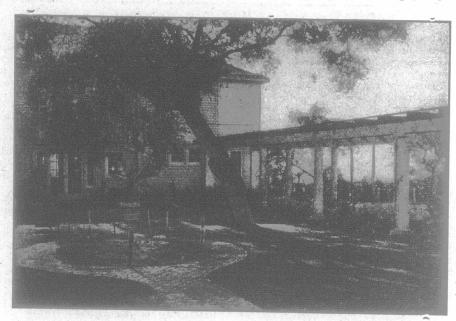
Perhaps the very most attractive way to introduce the Hallowe'en party is to send out invitations appropriate to the occasion, and the writing and decorating of these invitations by a few, jolly girls is likely to prove not the least enjoyable feature connected with the occasion. The wording may be either in rhyme or in formal prose, but each sheet should bear some little design suggestive of Hallowe'en. For instance, the note paper used may be deep cream, and the upper left corner or center of each may bear a tiny pumpkin, or witch with peaked cap, or a jetblack cat done in water-color. It is much easier than one might think to do these little figures; first draw them with a pencil, a child's box of watercolors supplying all the further neces-Instead, if one chooses, all the invitations may be written with a heavy pen and very black ink on pumpkin-yelated with a witch, or black cat, or Jack o' lantern cut from black paper and pasted on.

THE DECORATIONS.

Perhaps no decorating is easier or more effective than that for the Hallowe'en party, as, at no time of the year is there a more lavish supply of rich and corful material to work with. If trouble is no consideration the walls of the room or hall may be pillared with columns of corn-leaves, stalks and all,-with the husks split and drawn

luncheon, very long tables, capable of accommodating as many as possible at once, should be used. Over the snowy white cloth candles with little pumpkin paper shades shed a soft light, and bouquets of nasturtiums or chrysanthemums add an extra touch of beauty; the interspaces contain little dishes of pickles and nuts and glasses of plumed celery.

If the party is small enough for placecards to be used, a unique idea is to use "ghost-cards." To make these, write the name of each guest on notepaper with a stub pen, using plenty of



A pergola may be a thing of beauty, but it should lead to something-well, sundial, resting-place, or fine view.

back to show the gleaming kernels, yellow and red. If there is no danger of their being broken, mirrors may be placed panel-wise, between the pillars; while everywhere festoons of grapes, swamp-grasses and autumn leaves, strings and mounds of red apples, and grinning Jack o' lanterns made with real pumpkins or with band-boxes padded and covered with orange crinklepaper to represent them, add to the general effect. To be very orthodox the lighting should be very dim, supplied only with candles and the Jack o' lanterns, and if one wishes the effect to be very ghostly, green tissue paper should be pasted over the apertures of the latter.

If the company is to sit down to

ink, then while the ink is wet fold the sheet over. When opened out it will present an odd, skeleton-like appearance, and much fun will be occasioned by the efforts of the guests to read their names and so find their places, at the table. The slips of paper present a better effect if neatly pasted on cards,-made of pumpkin-yellow cardboard if it can be procured.

If preferred cotton dyed orange may be used as a tablecloth, with a border of owls, cats, witches, etc., in coal black, pasted or basted all around, and the centerpiece may be a black kettle filled with fruit and surrounded by autumn leaves.

The menu may consist of brown-bread sandwiches and Scotch scones, chicken salad, pumpkin pie, doughnuts, little cakes iced and decorated with witches painted on with melted chocolate, with "witch-cake" as the masterpiece. Any kind of cake may serve as the witchcake; the distinction comes in the fact that it contains the proverbial ring, button and silver coin, and that it has an especial decoration. A recipe recommended for the latter is as follows:

Make a paste thus: Melt one-third cup sweet chocolate, flavor with lemon juice and add 1 cup boiled chestnuts run through a meat-grinder; then mix in enough confectioner's sugar to make a paste. Roll the paste out and cut it into the forms of cats, owls or witches, to be applied around the sides of the cake which has just been iced with an ordinary white icing. The figures must, of course, be put on while the white icing is soft. Decorate the top with the paste cut to represent the figures and hands of a clock.

Coffee, fresh cider, nuts and toasted marshmallows may finish the repast.

A pretty way to serve the salad, by the way, is in cases made of very red apples from which the pulp has been scraped out. If preferred this pulp may be mixed with chopped nuts and chopped celery, blended with salad dressing to make the famous Waldorf salad.

THE ENTERTAINMENT.

For a house-party the guests may be asked (on the invitations) to come masked and dressed to represent some character. Of course, it is understood that hideous "false faces," vulgar as they are, will not be used. Masks should invariably be small ones made of black cloth or velvet, with holes cut for "eyes" through which to see.

One or two of the masqueraders must, of course, be gipsy girls, with red skirts, yellow waists with red or black hands, and any amount of brass ornaments,-curtain rings will do. Over the head a red scarf is worn. At some time during the evening, but before unmasking-a procedure that usually takes place when supper is served-these girls will retire to booths and tell fortunes either from tea leaves or by palmistry.

At the close of each "fortune" the fortune-teller may, if she chooses, hand to the suppliant a slip of paper containing a rhyme or joke previously written out to suit. For instance, on that handed to the musical girl may be written:

Do re mi, do re mi, Sound the notes from gay Paree. Over the sea I see you go, With never a thought of waiting beau; But he is following over the sea, There'll be wedding bells in gay Paree.

The flirt may be served with: Queen of hearts, what do you to-day,

Toying with hearts as though 'twere play?

But have a care, for Cupid is by, He's aiming an arrow; at you 'twill

Any group of girls, previously convened, can write a number of such All need not be sentimental, rhymes. of course, as for a Valentine party; some may be simply jokes based on a well-known incident connected with the recipient

A number of games are peculiarly appropriate to Hallowe'en. Have one doorway draped with a portiere of apples strung on strings of varying lengths. In the centre hang a horseshoe. Those who succeed in throwing three tiny apples through it are assured of luck for the year.

A big pumpkin hung by a strong cord elsewhere is sure to be a centre of interest. The outside of it has been burned with a hot poker to show all the letters of the alphabet. The pumpkin is kept twirling rapidly, and those about, in turn, stab it with a hatpin. The letter pierced will, of course, be the name of one's fate.

The old water charm, too, will be found as interesting to-day as when Burns wrote of it:

"In order, on the clean hearth-stane, The luggies three are ranged, And every time great care is ta'en To see them duly changed. Auld Uncle John, wha wedlock's joys Sin' Mar's year did desire,

Because he gat the toom dish thrice, He heaved them on the fire In wrath that night."



A Fine Flower-bordered Lawn.

Top-dress your perennial flower borders with fertilizer, if they need it, and mulch for winter protection in exposed

The "method" is, of course, to set uts, little th witches three dishes in a row, one containing clear water, one soapy water, and the plate, with third none at all. Those who wish to piece. Any test their fortunes by this test are the witchn the fact bial ring, blindfolded in turn, whirled about for a moment, then set out in the direction of the "luggies." Those who touch the hat it has clean water will be happily wedded, cipe recomthose who touch the soapy water will follows: marry a widow or widower, and those one-third ith lemon who touch the empty dish will not marry at all. chestnuts then mix

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To vary the fun a pumpkinshell filled with English walnuts is passed about, each guest to take one. Some of the nuts contain nutmeats, but others have been opened, the meats removed and containing "fortunes" substituted, the parts being lightly glued together afterwards.

If preferred instead of a character masquerade a ghost-party may be called for. In this case the black masks are worn, but the guests are all shrouded in sheets. If dancing is indulged in in the neighborhood a square dance may "open the ball," and the fun will come in triing to ascertain who one's partner is. For a ghost-party all the lights should be shaded with green.

It is scarcely necessary to remark that when candles are used for lighting, especially where inflammable decorations are used, such as corn leaves, oats, etc., every precaution shall be taken against the possibility of anything taking fire. Sometimes, to make sure of this, the candles are set in dishes of sand.

HALLOWE'EN MONEY FOR CHARITY.

At a Hallowe'en party where it is desired to make money for charitable or other purposes, a small fee may be charged at the door, and a festooned booth may be arranged at which boxes of home-made candy, the corners of which are decorated with pumpkins, owls, cats or witches, may be sold. Also an immense pumpkin may be made of yellow cotton and filled with small souvenirs.

So the evening closes, with music, as a matter of course, and all set off for home in most excellent humor, "Fu" blythe that night."

Hope's Quiet Hour.

The Lord Stood With Me.

At my first answer no man stood with me, but all men forsook me notwithstanding the Lord stood with me, and strengthened me and I was delivered out of the mouth of the lion .-

That was the secret of St. Paul's joyous outlook on life. He mentions it in this letter to his dear friend, showing how far from lonely and friendless he was, in spite of appearances, when brought before the cruel tyrant who thought himself so powerful. St. 'Paul was not afraid of Nero, because One mightier far stood with him. Read the Bible history, and you will find it a record of men who drew power from the Divine Friend at their side—and who witnessed to the truth that He is always "Emmanuel-God with us."

Think of Nehemiah, for instance. He was cupbearer to a heathen king, but his prayers were going up to God day and night for his people in distant Jerusalem. There was no lack of definiteness in his prayers. He knew what he wanted, and laid the case before God as definitely as if He had been an earthly king in ignorance of the matter. "Prosper, I pray Thee, Thy servant this day, and grant him mercy in the sight of this man," he said. Then-with the certainty of a mighty Helper at his side—he took up the wine and gave it to Artaxerxes the king. Swiftly the way was opened before him. The king asked the reason of his sadness, listened with sympathetic interest to his account of the misery of his beloved city and nation, and then said kindly: "For what dost thou make request ?"

It was a thrilling moment, so much depended on the answer, and time for deliberation was necessarily brief. Nehemiah saw the king and queen before him,

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unseen King beside him, so he sent up a swift prayer to the Heavenly King before making his request to the earthly ruler. His unselfish prayer was instantly granted, as he said: "According to the good hand of my God upon me."

Then he started off on his difficult and dangerous mission, undauntedly and patiently building the wall of Jerusalem, declaring before friends and enemies that "The God of Heaven, He will prosper us; therefore we His servants will arise and build."

This is a practical matter, and prayer is the most practical work anyone can do-but it must be earnest and definite prayer. It is well to keep up the habit of regular morning and evening prayer, but prayer is not a mighty force if it is only a habit. It will not help us towards success very much to hurry carelessly through a form of prayer and then forget God entirely for twelve hours or more.

Someone has declared that we send some prayers as we send some letters, saying: "Well, I do not expect to hear anything from this. I shall be surprised if I do, but it is only two cents, and I can afford to lose that much." Is it surprising that people who pray like that gain little benefit from praying? Prayer is not a parrot-like repetition of words, it is not a charm to avert danger and bring "good luck," it is reliance on a strong and wise Friend. Words are used sometimes, but often it is impossible to put into words our infinite longings. Then it is our greatest comfort to know that the unseen Friend understands our wordless prayers.

Yesterday I was talking to a young woman who was badly scalded about a week ago. Her face lighted up as we spoke of Christ, and she said eagerly: "He is my all in all!" Many who read this Quiet Hour can echo that declaration, and the certainty of the Presence of the Great Companion brings joy-it is light in the darkness. A woman, who had lost the sight of both eyes, said: "It's all dark outside, but it's all light inside." Can any earthly gain light a darkened path or give lasting joy in the midst of pain? Christianity is the most practical business anyone can engage in. The romance which is the spring of an ever-fresh interest in life is the Presence of the King with His beloved—unseen, yet ever near.

"They bade me lift my eyes to Thee, who art great Lord and King, Enthroned above the cherubim, who praise

eternal sing. And eagerly I gazed above, as other

mortals dare: Such radiant light was all too bright-I

could not find Thee there. And blinded, and with downcast eyes, I

Who walked beside me on my way, though close our pathways ran.

No pomp, no kingly pride was there: his footsteps pressed the road :

A staff like mine was in his hand; his shoulders bore their load.

One day I turned and saw his face-the pitying, human brow;

'Brother,' he said, with outstretched hand; and I, 'Why, this is Thou !' "

The human side of JESUS appeals more and more to, men in these days when the brotherhood of man is so generally recognized. If He had lived in luxury, His life would have no power to touch the heart of struggling humanity to-day. If He had not suffered, those who are weak and suffering would not turn to Him so confidently for sympathy and help.

Capt. Allen Gardiner laid down his life for the heathen in South America. his diary were found these wenderful words: "I neither hunger nor thirst, though five days without food. Marvelous loving-kindness to me, a sinner."

Twenty days after his death from starvation his body was found beside a rock on which was carved: "My soul, wait thou only upon God, for my expectation is from Him." The secret of his courage was his consciousness of the Presence of God. The Lord stood with him and strengthened him, and his prayers for the Tierra-del-Fuego Mission were abundantly answered-answered after he had stepped out into the light, martyred for his beloved Patagonia.

We admire his splendid life and noble self-sacrifice, let us not forget that its

but he was still more conscious of the inspiration and power came from his consciousness that the Lord stood beside him in life and in death. If we would help the world we must keep in touch with God. Without Him we are powerless, as helpless as a "dead wire" which is unconnected with the dynamo. If we keep in touch with Him, He can work in and through us whatever He may choose. Let us say in all earnestness:

> "Lord JESUS, make Thyself to me A living, bright Reality! More real to faith's vision keen Than any earthly object seen."

Yesterday a lovely book came to me, a present from our old friend "Mollie." It is a description of the last few months of Bishop Collins' life on earth. The writer tells how she was once making the house ready to receive the Bishop, who was ill and sad—his wife had lately died. The rooms were bright with flowers, the young ducks and green peas were being prepared for the expected guest, and the hostess was rejoicing in the wonderful thought: "Why did it all seem like an echo of the Great Life long ago? 'I am not worthy that Thou shouldst come under my roof,' had been ringing in my head, and now, here was Martha, careful and troubled about many things."

It was no fancy. The Master declared that anyone who received a messenger of His really received Him. The Lord is always standing by us, always gladdened when we make life pleasanter for His friends. He absolutely identifies Himself with the least of His brethren. Bishop Collins said in one of his letters: "Did I tell you, in 1901 we were going to the West Indies with a little colored boy whom I was taking to Hayti? On Christmas Day he suddenly announced that it was his birthday. I said: 'Why, Jim, I thought you said you were born in June?' 'Christmas Days's everybody's birthday,' he replied. Isn't it lovely and true?"

Christ takes the whole world into the joy of His birthday; and He is one with each of us, therefore it is His birthday every day. He stands beside us in our hours of joy, when no stranger has the right to intermeddle. Christianity is not only a light in the dark days, it is the crowning of our happy times. We always need a Friend who can understand.

The same Lord who "stood with" St. Paul in his hour of greatest loneliness "stands with" all sorts and conditions of men and women to-day. I will close with one more quotation from my new book (which, by the way, is called: "We bless Thy Holy Name for all Thy servants departed this life in, Thy faith and fear, Especially William, Bishop of Gibraltar, and Mary, his wife.") Rather a long title, is it not? but you can begin it "Especially."

The Bishop wrote to a worried friend: "What you really want now, as before, is just-JESUS. I am praying that in these days you may feel the touch of His hand, just that and nothing more. Do you know this little American poem written by a soldier, wounded in their great war? In spite of the little touch of cleverness in one line, I think it is almost the finest thing I know from that side of the Atlantic.

"I am not eager, bold, Nor strong-all that is past: I am ready NOT to do, At last, at last.

"My half-day's work is done, And this is all my part : I give a patient God My patient heart.

" And grasp His banner still, Though all its blue be dim: These stripes, no less than stars, Lead up to Him."

DORA FARNCOMB.

The leaves in autumn do not change color from the blighting touch of frost, but from the process of natural decay. They fall when the fruit is ripened and their work is done. Their splendid coloring is but their beautiful surrender of life when they have finished their offering of service. One of the lessons the fall of the leaf teaches is: Do your work well, and be ready to depart when God DED 1866

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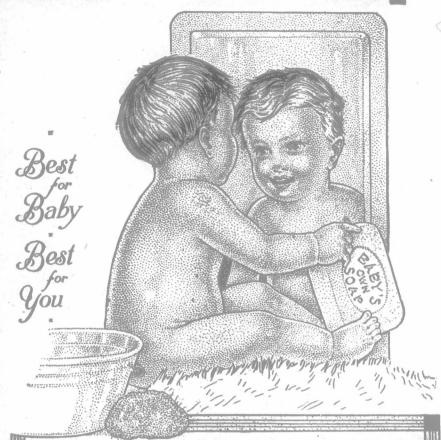
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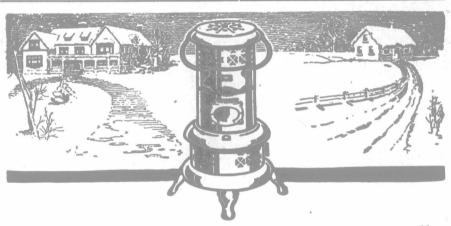
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Please Mention The Advocate

Our Senior Beavers.

[For all pupils from Senior Third to Continuation Classes, inclusive.]

Something About Railway Trains

Dear Beavers.-No doubt a number of you have passed the Entrance in June, and have started to High School since holidays. What an exciting experience it is, isn't it ?-New studies, new teachers, new aims.-why it just means that one whole chapter of one's life is closed and another one opened, a very interesting one too.

I suppose, too, that some of you, luckiest ones, are near enough home so that you can go there every night, going in and out on the train, and no doubt you enjoy the little trips very There is a never-ending interest in seeing strangers, and then you can always trust a jolly group of girls and boys to have a good time.

How fine the cars are, too, with their cushioned seats and fine panellling, and stained glass above. Do you ever wonder, when you are riding in them just what the first ones were like, and what the first engines were like that went puffing through the country, with all the people staring in wonder? And that reminds us that it was just one hundred years ago that the first locomotive began to haul trains regularly.

And now here, in very few words is the story of the locomotive. The idea of using steam to draw carriages about the country was first talked about in France a long time ago, and indeed as early as in 1770 a clever Frenchman named Nicholas Cugnot built a small steam locomotive which moved along at the rate of three miles an hour, just on the ordinary roads, because, you see, no one as yet had thought of railway tracks. This little engine has found a good resting-place, for it is now in a museum in Paris where it is looked at and smiled over every day by sightseers.

The next locomotive seems to have been made in England, for it is told that in 1784, William Murdock, an assistant to Boulton and Watt, the engine-builders, made a model of a road engine that run about the roads in England. It was his employer, James Watt, you remember, who invented the steam engine. Watt was really a Scotchman, but he finally settled in Birmingham, England.

The next vehicle of the kind was made in the United States in 1804, and a ingt a dradging very odd scow, weighing about two tons, which the builder, Oliver Evans, put on wheels and drove about the streets of Philadelphia, by the power of a little steam engine which it contained.

About the same time a man named Trevithick got the idea of a railway into his head, and so one was built, and an engine put on it which would draw some cars. It did not work very well, however, and so was given up.

For ten years very little was done, then two men in England, William Hedley, superintendent of a colliery, and Timothy Hackworth, designed a much improved engine. This engine was chiefly invented by Hedley and built by Hackworth. It was set to work at hauling coal cars in 1812 but the boiler was not large enough, so the next year a better one was built. It was called the "Puffing Billy," and if you go to England to-day you may see it in the Kensington Museum.

Still the locomotive was not altogether satisfactory, so in 1829 the Directors of the Liverpool and Manchester Railway offered a prize of £500 for one that would suit better. Robert Stephenson won the prize with a loopmotive called the "Rocket," the kind that was afterwards used, with steady improvements of course, upon most general lines, although Hedley's continued to be used for coal hauling.

Rather strangely George Stephenson, father of Robert Stephenson, became known as Father of the Locomotive, although, as you have seen, he did not really have much to do with inventing He was, however, the chief engineer

TheBeaverCircle Diamond Dyes Can Solve Your **Dress Problem**

MISS R. L. ROSTON writes:



"Like all small towns ours has many cliques and rivalry runs rife.
"I found it impossible to keep up with girls whose dress allowances were much larger than mine, and worred and fretted—then I was told of Diamond Dyes.
"It is very easy to ex-

—then I was told of Diamond Dyes.

"It is very easy to escacgerate, but when I say that after using Diamond Dyes my tostumes were both envied and beautiful is expressing it mildly.

'It was so very easy.

"The enclosed photograph shows one of the delightful and stylish gowns I made,

"Taking a much used blue Charmens gown, i dyed it black with Diamond Dyes, The result was a goan much admired and I believe copied.

"Dresses that I thought I could never was I have recolored and transformed into beautiful stylish gowns.

"There's no need for any some the dress problem—she really owns it to herealf and those around her to get a mayte fackage of Diamond Dyes.

"They will entirely solve all varing problems of dress, making possible a complete stylish ward-robe."

Diamond

Made a Pleasure Trip Possible

MRS. H. R. RIDOT writes:

"I have just arrived from Warex, S. D., and as my trip was made pos-sible by Diamond Dyes I want to tellyou about it.

"I had few new c'othes, in fact not enough to go back east.

"Then I was told of Diumond Dyes.

"I got down all my old-est dresses—I hunted in the attic high and low for things I had discarded as absolutely worthless. "Old waists, trim-mings, long out of date, were added to the pile of what looked impossible.

The result was man stylish costumes much ad-mired.

"Mine may be an un-usual case, but now that I have used Diamond Dyes I know that every-woman may have all the splendor of dress—all those little touches so dear to a woman's heart. "N. B. The photograph I enclose will show you one of the gouns I made. I had a junk ebonge suit which I thought practically gone. By dyeing it dark blue with Diamond Dyes, it has turned out to be simply charming and



Truth about Dyes for Home Use

There are two classes of fabric—animal fibre fabrics and vegetable fibre fabrics.

Wool and Silk are animal fibre fabrics. Cottom and Linem are vegetable fibre fabrics. "Union" or "Mixed" goods are usually 60% to 80% Cotton—so must be treated as vegetable fibre fabrics. It is a chemical impossibility to get perfect color results on all classes of fabrics with any dye that claims to color animal fibre fabrics and vegetable fibre fabrics equally well in one bath.

We manufacture two classes of Diamond Dyes, namely—Diamond Dyes for Wool or Silk to color Animal Fibre Fabrics, and Diamond Dyes for Cotton. Linen, or Mixed Goods to color Vegetable Fibre Fabrics, so that you may obtain the Very Best results on EVERY fabric. Diamond Dyes sell at 10 Cents Per Package

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Please Mention the Advocate

of the Stockton and Darlington railway, the first line opened for general use, and afterwards he held a similar position on the Liverpool and Manchester Road.

Since his time, as you may imagine, locomotives, as well as cars, have been improved very much. If you look at the accompanying picture you will see what a queer old "train" one of the earliest was, for all the world like a series of cabs coupled together, with such an odd little engine.

Nowadays railway trains are, I suppose, about as nearly perfect as they will ever be, unless, indeed, some sort of apparatus for preventing collisions be

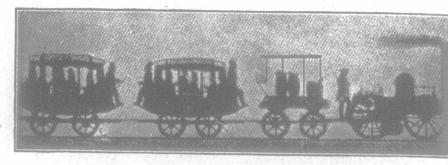
out of a tree to the ground. He picked it up and saw that it was a baby owl. He brought it home, and it grew to be very tame after a few hours pet-

I live on a farm of 110 acres. I can drive two of the horses. We often go for drives when the horses are not working.

As my letter is getting long I will close, wishing the Beaver Circle every LILIAN SNOW.

R. R. No. 4, Carlingford, Ont. (Age 13.)

Dear Puck and Beavers,-As this is my



The First New York Central Train, 1832.

placed on every train, and, perhaps, another for eating up the smoke so that it can't blow cinders into one's eyes. Men are working hard to discover just how both of these things may be done cheaply enough to be practicable.

So now, having conquered space on land and sea, inventors are also trying to conquer it in the air. Sometime, perhaps even in our day, travelling through the air will be as safe as travelling anywhere else. Don't you think a trip through the air would be jolly ?-No dust to bother, and short cuts everywhere as the crow flies! But I hope that, if that day comes the airships will not fly quite so high as they do now. Don't you?

JOKES.

The following will be appreciated by our very senior Beavers, those who are beginning to take up High School work:

APPLIED MATHEMATICS. I sometimes wonder what's the use Of squaring the Hypotenuse, Or why, unless it be to tease Things must be called Isosceles. Of course I know that mathematics Are mental stunts and acrobatics, To give the brain a drill gymnastic And make grey matter more elastic-Is that why Euclid has employed Trapezium and trapezold, I wonder ?-yet it seems to me That all the "Plain Geometry" One needs is just this simple feat: Whate'er your line, make both ends

Anne W. Young, in Harper's Magazine.

Easy Answer.—Instructor (at night school)-"Give a sentence with the word 'metaphysician' in it."

Shaggy-Haired Pupil.—"On his way home, Mr. Jones metaphysician."-Chicago Tribune.

"When Mark Twain was a boy at school in Hannihal," said a veteran Missourian, "the schoolmaster once set the class to writing a composition on 'The Result of Laziness.'

"Young Clemens, at the end of half an hour, handed in as his composition a blank slate.

"Oh, mother," cried a youngster, who had been visiting an elder brother in school, "I learned lots to-day." "What was one thing you learned?" asked the parent. "I learned in the 'rithmetic class," was the reply, "that the square of the base and perpendicular of a right-handed triangle is equal to the sum of the hippopotamus."

Senior Beavers' Letter Box.

Dear Puck and Beavers.—This is my second letter to your charming Circle. As my first one escaped the terrible monster, the w.-p.-b., I thought I would try again, and hope to see this in print. I will tell you about an owl my father got. He was walking through a bush one day when he saw a bird fall

first letter to the Circle I will not make it too long. My father has taken "The Farmer's Advocate" for many years, and thinks it is fine. For pets I have three cats. Their names are Winky, Toby and Exile. We found Exile on the road poor and starving, and we brought it home and took care of it. Exile and Winky, the kittens, play together mostly all the time. My three cats are white. The kittens have black spots on their heads. I live two miles from school. We have a new teacher this term. Her name is Miss Kincade. As my letter is getting rather long I will close, hoping this will escape the w.-p.-b. I would like some Beaver of

Good-bye, GRACE L. PERRY.

my age (13) to correspond with me.

Longwood, Ont. (Class Sr. IV., Age 13.)

Dear Puck and Beavers,—This is my first letter to the Beaver Circle. My father has taken "The Farmer's Advocate" for a long time. I enjoy reading the letters. I go to school every day. I am in the third book. I have a mile to go to school, it is not a very good road, for it is through the fields.

For pets I have one little black kitten, a dog, his name is Snap, and a horse, his name is George. He is very quiet. I can do anything with him. And he is twenty-two years old. I will close with two riddles:

What roof never keeps out the wet?

The roof of a mouth. Why is the letter G like the sun? Ans.-Because it is the centre of the ALICE WILLIAMSON.

R. R. No. 3. Georgetown, Ont. (Age 10, Sr. III)

Our Junior Beavers.

THE PIRATE CAT.

Oh, once there was a pirate cat As black as black could be. He told the kittens thrilling tales Of horrid things at sea.

He bragged of all the wrong he'd done; He yarned of wreck and fight, And scared those little cats until They could not sleep at night.

He said he'd seen cats walk the plank, And cats hung by their tails. He'd helped kidnap a kitten once, Despite the mother's wails.

"In fact," he said, "I really am The baddest thing I know. And when I come a-stealing round It's time for you to go."

Just then the kitten's mistress came, And, seeing him, cried, "Scat!" Which seemed to sadly disconcert That wicked pirate cat.

MORAL.

If any pirates, bad and black, Bring wicked tales to you, Just think of that and cry out "Scat!" And see what they will do.

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The Man in the Bath Tub

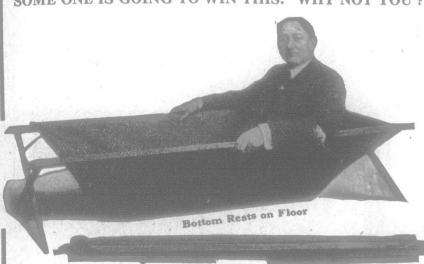
Has an Important Message for You!
HE IS GOING TO GIVE AWAY \$125.00 IN GOLD

 First Prize
 \$60.00

 Second Prize
 40.00

 Third Prize
 25.00

SOME ONE IS GOING TO WIN THIS. WHY NOT YOU?



FOLDED

Put on your thinking cap, and get into the game and share in the \$125.00 cash prizes for guessing the correct, or nearest correct, year and month the man in the tub was born.

This contest is open to all those who took part in our last contest and who have won second, third and fourth prizes, and those who have sent us their money orders, together with our cheques, are entitled to a guess on this contest free. It is also open to those who may still have our cheques in their possession, and have not sent in for their tub. By getting them in

without delay they are entitled to a free guess on this contest, and any others who may wish to take part in this may do so by sending us a money order for \$7.50. Each order sent us for a Bath Tub at the purchase price of \$7.50 entitles the person to a guess and a chance to win one of these tempting cash prizes. So get busy and sell your friends a Bath Tub as well. The more orders you send in, the more guesses you have, and the better

chance to win the prizes.

The man in the tub is over thirty and under fifty, and was not born on the thirtieth of February.

This Contest Will Appear in Two Issues of The Advocate Only, so Get Your Guesses in Early and Often.

In sending in your guesses be sure to state the year and month you think the man in the tub was born. Give your full address and write very plainly.

THIS CONTEST WILL CLOSE WEDNESDAY, OCTOBER 15TH, and results will appear in The Advocate, Thursday, October 23rd, 1913.

PRIZES WILL BE PAID IN GOLD MONEY.

The Folding Bath Tub Co., Limited GANANOQUE, ONTARIO.

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ST. THOMAS, ONTARIO

Junior Beavers' Letter Box.

Dear Puck and Beavers,-I have been reading the Beaver letters, and like to read them very much. So I thought I would take courage to write one. My father has taken "The Farmer's Advocate" for about eight years, and would not be without it. I live on a farm of 100 acres, and have to do all the horse-raking. We have 12 cows, and I milk two of them sometimes. We have a mulberry tree; it was just loaded this year. We had quite a few strawberries also. I have only one brother, and his name is Robert. We keep pure-bred Wyandotte hens. We have 158 and about 130 chickens, all raised with hens. We sell most of our eggs for hatching. We also have three henhouses, one large one with an open front. My grandma gave me a pair of gold fish last autumn, I go to school every day. There are about 35 going to our school just now. In the winter there are more. There are six in my class. We sell our cream to a dairy at Guelph where the O. A. C. is, We live nine miles from Guelph. The C. N. R. line is just below us, and the Grand Trunk above us. As my letter is getting long, I will close with a

If a horse weighed 1,600 pounds on four legs, how much will it weigh on three legs? Ans.—1,600 pounds.

I hope this will escape the w.-p.-b. Campbellville, Ort. FRED CROFT. (Age 10, Book III.)

Dear Puck and Beavers,—I am going to write you a little letter. I live on a farm near Eden Mills. I have two kittens and a cat, also two pigeons, They got first prize at the show last year. We have four horses and a colt. We call him Glenn. We have a driver, his name is Teddy. He is not afraid of anything. I go to school. My teacher's name is Miss Chalmers, from Fergus. I am seven years old, and have one brother called Fred. I will close with a riddle.

If a load of coal comes to ten dollars, what would a load of wood come to?

Ans.—Ashes.

ROBERT CROFT.

Campbellville, Ont.

Dear Puck and Beavers,—My papa takes "The Farmer's Advocate", so I thought I would write. I hope this will be fit to print, as I want to surprise my papa. I have two sisters, one is four years and the baby is nine months. One of my dolls is made of black cloth. I call her Dina. She is nearly as large as the baby. We have three little colts, and a lot of chickens and turkeys. I am very fond of flowers and I hope to learn a lot about them when I get a little older. I am six years old, and have been at school since last Christmas. Good-bye.

From a new Beaver.

LILA MAY BURGESS.

Norwood, Ont.

Dear Puck and Beavers,—This is my second letter to your Circle. I guess the other one found the w.-p.-b., I hope this one won't. My father has taken "The Farmer's Advocate" for about twelve years, and likes it fine. Our driving shed blew down on Good Friday about eleven o'clock in the morning. I go to school every day and like it. I have two miles and a half to go to school. I have two sisters and no brothers. One sister is seven years old and the other one is three. The oldest one goes to school with me. I guess that will be all.

Newry, Ont. FRANK CARSON. (Age 9.)

Dear Puck and Beavers,—As I didn't see my last letter in print I thought I would write again. My father has taken "The Farmer's Advocate" for a number of years. I have one brother and no sisters. I have two kittens, their names are Bessie and Clifford. We have two colts and two horses. I will close with some riddles.

What comes after cheese? Ans.—A mouse.

What is the difference between a Chinaman and a gardener? Ans.—One keeps



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should never be determined by the price asked. Nor should you be influenced one iota by the testimonials of well-known musicians. As a matter of fact, testimonials, in 90 cases out of 100, are paid for and merely add to the cost of the instrument. There are only a few really great pianos on the Canadian market. The

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Established 1892

This Washer Must Pay For Itself

A MAN tried to sell me a horse once. He said it was a fine horse and had nothing the matter with it. I wanted a fine horse. But. I didn't know anything about horses much, and I didn't know the man very well either.

So I told him I wanted to try the horse for

So I told him I wanted to try the horse for a month. He said "All right, but pay me first, and I'll give you back your money if the horse isn't all right."

Well, I didn't like that. I was afraid the horse wasn't "all right" and I might have to whistle for my money if I once parted with it. So I didn't buy the horse although I wanted it badly. Now this set me thinking.

You see I make Washing Machines — the "1900 Gravity" Washer.

And I said to myself, lots of people may think about my Washing Machine as I structured.

think about my Washing Machine as I thought about the horse, and about the man who owned it.

But I'd never know, because they wouldn't write and tell me. You see I sell my Washing Machines by mail. I have sold over half a million that way. So, thought I, it is only fair enough to let people try my Washing Machines for a month, before they pay for them, just as I wanted to try the horse. Now, I know what our "1900 Gravity" Washer will do. I know it will wash the clothes, without wearing or tearing them, in less than half the time they can be washed by hand or any other machine. I know it will wash a tub full of very dirty clothes in Six minutes. I know no other machine ever invented can do that, without wearing out the clothes.

clothes in Six minutes. I know no other machine ever invented can do that, without wearing out the clothes.

Our "1900 Gravity" Washer does the work so easy that a child can run it almost as well as a strong woman, and it don't wear the clothes, fray the edges nor break buttons the way all other machines do.

It just drives soapy water clear through the fibres of the clothes like a force pump might.

So, said I to myself, I will do with my "1900 Gravity" Washer what I wanted the man to do with the horse. Only I won't wait for people to ask me. I'll offer first, and I'll make good the offer every time.

Let me send you a "1900 Gravity" Washer on a month's free trial. I'll pay the freight out of my own pocket, and if you don't want the machine after you've used it a month, I'll take it back and pay the freight, too. Surely that is fair enough isn't it?

Doesn't it prove that the "1900 Gravity" Washer must be all that I say it is?

And you can pay me out of what it saves for you. It will save its whole cost in a few months, in wear and tear on the clothes alone. And then it will save 50 cents to 75 cents a week over that in washwoman's wages. If you keep the machine after the month's trial, I'll let you pay for it out of what it saves you. If it saves you 60 cents a week, send me 50 cents a week 'till paid for. I'll take that cheerfully, and wait for my money until the machine itself earns the balance.

Drop me a line to-day, and let me send you a book about the "1900 Gravity" Washer that washes clothes in 6 minutes.

Address me personally: A. L. Morris, Mgr. "1900" Washer Co., 357, Yonge St., Toronto.

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Canadian Correspondence College, Ltd. Dept. E, Toronto, Canada

the lawn wet, the other keeps the laundry. Strathroy, Ont. MARY WOOD. (Age 8.)@

Dear Puck and Beavers,-My father has taken "The Farmer's Advocate" for three years, and I like to read the little letters in it. I go to school every day except when I am sick. I have a little sister, her name is Wilma. She is only four years old. but I took her to school the last day before holidays.

We have forty-nine little ducks. My little sister has three calves and I have two. We all went to Carleton Place in an auto, and my auntie came with us. We all enjoyed the ride. I guess I will closs. HELEN STURGEON. Addison, Ont.

JUNIOR BEAVERS' NOTES.

Vira Pearson sent a very nice little letter, but it was written on both sides of the paper, so cannot be published. Some of the July letters are still on hand, little Beavers. Please do not become impatient. Your turn will come. Honor Roll :-Olive Aitchison,

The Ingle Nook.

[Rules for correspondence in this and other Desartments: (1) Kindly write on one side of paper enly. (2) Always send name and address with communications. If pen-name is also given, the real name will not be published. (3) When enclosing a letter to be forwarded to anyone, place it in stamped envelope ready to be sent on. (4) Allow one month in this department for answers to questions to appear.] to questions to appear.]

As Winter Approaches.

Dear Ingle Nook Friends,-I have not been through the country since fair-time, but I can see it all. Then, what a time of plenty it seemed. Apples were still hanging on the trees, globes of red and gold and green; -surely the writer of Arabian Nights' Entertainments must have had a vision of a Canadian orchard in September when he wrote about Aladdin's wonderful garden. . . And not apples only. From the train windows one could see grapevines hung with "purple clusters blushing through the green," fields still dappled with "stooks," cornfields with leaves rustling, and browning silk depending from full cobs, and gardens that were veritable kaleidoscopes of color, the red of beet mingling with the olive-green of carrot and silver-green cabbage, with the gold of squash and pumpkin glinting through all.

Yes, this was Southern Ontario as we passed through it at fair-time, a veritable land of plenty wherein surely no one

Now, no doubt, a change has passed over the scene. The good things have, for the most part, been gathered in, and the blackening touch of frost has been laid upon all that was left. You, thrifty housewife, stand in the midst of your garden, rake in hand, for you know that, in order to lessen the number of next year's insect pests you must cut down, rake up, and burn all the standing stalks, no matter how leafless they may be; for tiny cocoons lurk among the stems and blackened foliage, and, however much you may admire the wonderful transformation from chrysalis to winged butterfly or moth, and all allied changes, you do not wish to see a demonstration in your own garden.

When the stalks and leaves have all been burned, you will see to it, too, that the plot is nicely worked up and fertilized, for you know that this is the price of a fine garden for next year. When the soil is opened up to the influence of rain and frost, and the manure is put on early, there will be a whole six months' mellowing-time, six months of pulverizing and ripening and enriching, so that a tender, succulent seedbed will be all ready for the little rootlets to work through and suck nutriment from when May comes again with its showers and sunshine. What wonderful things those little rootlets are, each capped with its tiny, hardened point, for working through the ground !-And what a pleasure it is to look forward to May, even from this distance!

. Yes, Autumn, late Autumn, is really

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here, with its bit of pathos, as one thinks of facing the long winter. lean on your long rake and look about, and the poet's words come drifting back to you, "The melancholy days have come, the saddest of the year. Of wailing winds, and naked woods, and mea-dows brown and sere." But you see a sort of quiet beauty in it all, too. The shorn fields up there are very clean and still, with the cattle browsing over them.
You look off to the woods, where the riot of color is drip, dripping to the ground, so that the children are wading knee-deep in autumn leaves. Nearer a belated bit of corn-patch, "burned" with the frost, makes a music all its own, cheerier than the sough of pine trees, sharper than the murmur of a brook, while about you, here and there, on the raked ground from which the shrivelled vines have been swept away to make a fine fire at moonrise, lie pumpkins so golden that they glow, like coals still left on the hearth

of Nature. Yes, there is a beauty about it all, and a quietness that touches. The strenuous work is over, and rest has come, and so you do not wonder that yet another poet has called the Autumn, The Sabbath of the year.'

Now, are you tired of dreaming ?-But perhaps if you were shut up in an office away from it all, you would be dreaming, too.

Now, to turn to the more severely practical: As you stand, your thoughts turn, perhaps, to your next year's garden, for which all this fall preparation must be made. It is a joy to plan for it, even now. You know exactly what vegetables have given you pleasure and profit this year, and so, mentally, you jot them down on your list; then you think of the flowers, for which the same deep, rich autumn bed is being made. Please emphasize that word "rich," for flowers, like humans and vegetables, need the best of food, in order that they may A deep root - bed, rich with flourish. old, well-rotted manure, left over winter to mellow still more—this is the price of good flowers. Portulaca will do well on rather poor, sandy soil, and one or two other varieties, but they are the

When thinking of the flower garden, the question of succession of bloom is naturally one of the uppermost. You want flowers from early spring until late fall, do you not? And perhaps you will be glad to know, if you do not already know, that by obtaining a few of the early-flowering spring bulbs, and planting them this autumn (from the middle of October will be soon enough), you may have a fine showing of flowers, the very sweetest and most delicate of flowers, too, very early next spring.

If you go to any of the seed stores you will find the windows full of the bulbs, and boxes of them spread out everywhere temptingly, and so you can make a fine choice. A pleasant thing about it, too, is that most of them are very cheap, and will propagate themselves after you once have them.

Snowdrops will give you a dainty little "egg-cup" bouquet for the table, even before the snow has disappeared from the fence-corners. Almost as they disappear, the crocuses will be out, gayer in color, a mass of white and yellow, and lavender. They may be planted anywhere in the grass, but are fine for long, irregular borders. Almost simultaneously with the crocuses, come the scillas, blue as the skies above, and the grape

hyacinths, deeper in tint. Quickly, in succession, come daffodils and narcissi, hyacinths and tulips; and when they have faded, the beds may be reset with plants for summer bloom, without disturbing the bulbs. "I have been constantly surprised," says Mrs. Ely, in her "Hardy Garden," "to find that many gardeners take up all bulbs when through flowering in the spring, store through the summer, and re-plant in the autumn. This is not only unnecessary, but it is better for the bulbs to remain in the ground as nature intended. Mine have always been so treated, and have been successful." Every three years, she says, to prevent over - crowding, tulips should be dug up and reset, after the bed has been made rich.

Just a point here: It is very necessary that bulbs do not come in direct

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it has built into it the utmost of endurance, toughness, and sturdiness. I H C wagons are built of wood without a single flaw, every bit as good as they look. Examine them closely; you find no cross grained, knotty, split, or faulty timber. Every stick—oak and hickory for the wheels, yellow or bay poplar for box sides and long leaf yellow pine for bottoms, is selected from first grade lumber and carefully inspected. Every stick is toughened and seasoned by two or three years of airdrying. No brittle kiln-dried lumber has any part in I H C wagon

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Buy one now, watch its steady service on your farm, and mark this your future reliance will be on the I H C wagon. That future order is our ultimate aim. Ask the I H C local agent to show you the I H C wagon best suited to your needs. Get catalogues from him, or, write the nearest branch house.

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WOODS, KILN DRIED.

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you need.

82 Water Street, ST. JOHN, N. B.

planting them, and put a handful under and over each bulb. Only very old manure, or better still, manure loam should be used. Bulbs should, of course, be planted according to their size, the very small ones having but an inch or two of soil above them, the larger ones three or four inches. surface of the soil-likely in November-

keep a basket of sand beside you when

After the first slight freezing of the cover the bed with a mulch or litter of leaves, three or four inches deep. This will prevent heaving of the ground and destruction of the bulbs by the thaws and freezings of winter, and should be gradually removed in spring, about half of it being left on until all danger of frost is past.

The following is a list of other bulbs and perennial plants that may be planted (by the root) in fall, and mulched for winter protection: Lilies (auratum and philadelphicum are recommended by Bailey), funkia, mountain rock-cress, columbine, lily - of - the - valley, bleeding heart, iris, peony, anemone, gas plant, Oriental poppy, hollyhock, perennial larkspur, perennial phlox, golden glow, daisy, Scotch pink, gaillardia aristata.

The roots, of course, may be planted early in the spring, if one prefers, or the plants may be raised from seed, but that is a slower, if cheaper, way of raising perennials, which do not, you know, bloom the first year after sowing. You must depend upon annuals for that.

Speaking of succession of bloom, we were at a Flower Show about the first of September, and it struck us that one could go to no better place to find out just what the best of the flowers are that are in bloom at that time. What a beautiful place it was! What a kaleidoscope of color! The fall flowers are never so sweet as those that bloom in spring, of course, but they have a richness of beauty all their own.

Here is a list, as I jotted it down in my note-book:

Late roses-oh, how lovely they were! Sweet peas-Do best in heavy soil. Petunias-Very rich, frilled varieties. Gladioli-All colors.

Verbenas-Bloom until snow comes. Pansies-Bloom until snow comes. Shrubby althea.

hydrangea — Very persistent Garden bloomers

Perennial phlox-All colors. Tuberous begonias. Tiger lily

Water lily Zinnias-All colors. Larkspur-Perennial; very fine.

Star phlox-A novelty.

Balsams. Pinks. Marigolds--Large, double, golden Baby rambler rose.

Gaillardia-Coarse, but very effective. Canadian holly. Tritoma-Showy, flame-red color. Montbretia-Handsome in masses.

Plumbago capensis-A beautiful mauve. Ornamental grass. Mignonette.

Rose, Grussan Teplitz, best of all sumner roses. Salvia.

Golden glow. Night-blooming cereus. Funkia, or day lily-Very effective. Nicotiana-Pink and white. Snapdragons-Many colors. Salpiglossis-Many colors.

Hollyhocks.

Now, surely, if you are planning for a garden full of flowers for next autumn, here is choice enough. Just look in your seed catalogue to find further information about any which may be new to you.-So much for this time.

About Garden Books.

While we are on the subject of gardening, the following letter, touching upon garden books, is opportune. If there is one thing which can possibly add to the pleasure of a garden itself, it is reading interesting books about it, hence we give you "M. W.'s" (Waterloo Co., Ont.) recommendation, with our own hearty endorsement.

"Right here," she says, "I wish to thank you especially for your kind in-



Thousands who were formerly deaf, now hear distinctly every sound—even whispers do not escape them. Their life of loneliness has ended and all is now joy and sunshine. The impaired or lacking portions of their ear drums have been reinforced by simple little devices, scientifically constructed for that special purpose.

wilson Common-Sense Ear Drums often called "Little Wireless Phones for the Ears" are restoring perfect hearing in every condition of deafness or defective hearing from causes such as Catarrhal Deafness, Relaxed or Sunken Drums, Catarrhal Deafness, Relaxed or Sunken Drums, Perforated, Wholly or Partially Destroyed Drums, Perforated, Wholly or Partially Destroyed Drums, Discharge from Ears, etc. No matter what the case or how long standing it is, testimonials received show marvelous results. Common-Sense Drums strengthen the nerves of the ears and concentrate the sound waves on one point of the natural drums, thus successfully restoring perfect hearing where medical skill even fails to help. They are made of a soft, sensitized material, comfortable and safe to wear. They are easily adjusted by the wearer and out of sight when worn.

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mes for the Ears' every condition of me causes such as Sunken Drums, Hissing Sounds, Destroyed Drums, tter what the case pials received show a Drums strength-



Always the cookbook says: "Sift Your Flour."

No lumps, you see. Aerates the flour, making it lighter. Put FIVE ROSES in your sifter.

Never soft and sticky - never lumpy, musty, woolly.

Never coarse.

Milled superfine from Manitoba's grandest wheat.

Fine, granular, very dry.

Nothing remains in the sifter — FIVE ROSES is free, heavy.

And your bread is more porous, more yielding, more appetizing.

And more digestible.

Because the particles are finer, easier to get at by the stomach juices. Use this very fine flour—superfine.

FIVE ROSES.

Not Bleached

formation re garden books, which was given to my sister last winter, as later on we secured a few of them, 'Elizabeth and Her German Garden,' 'My Solitary Summer,' 'The Garden, You and I.' also read, 'My Summer in a Garden,' and just the other day, in looking over a case of the travelling library for our Women's Institutes, I found among them two other garden books which, I think, will prove very interesting, as well as instructive, to add to the previous list. They are, When Mother Lets Us Garden,' by Frances Duncan, and 'Another Hardy Garden Book,' by Helen Rutherford Ely. If you have not read them before, I am sure you'll enjoy them, and some day, Junia, we'll add them to our

CANNING TOMATOES.

I saw in your paper there is a person who wishes to know how to can raw tomatoes. Here is a good way: Put boiling water on till skin will

come off, put in sealers as tight as possible, then screw down until airtight. Set in boiler comtaining cold water and boil ten minutes. Remove sealers, and store away for winter use.

A SUBSCRIBER.

RE CORRESPONDENCE SCHOOLS.

Dear Junia,—I am very interested in the Ingle Nook, and I, too, like others, have come for help.

Can I obtain information from you regarding correspondence courses in Canada, if there are such, and also what expense there is attached to same? Would you kindly answer at your earliest possible convenience? Thanking you in advance. ANXIOUS ONE. Peterboro, Ont.

There is a Canadian Correspondence College at 603 Temple Building, Toronto. You may obtain all further in-



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formation by writing there for it, and we shall be very glad if, when doing so, you will be kind enough to mention our paper. There may be other correspondence schools in Canada, but I do not know of them. An advertisement from the one mentioned appeared in "The Farmer's Advocate and Home Magazine' for Sept. 18th, page 1653. You will find some details in regard to it there.

TO MAKE FERNS GROW.

Dear Junia,-I am much interested in your question corner, and would be pleased if you would answer one for me. Could you tell me how to make ferns I haven't much luck with them. and I thought I would ask if you could A FARMER'S WIFE. tell me. Waterloo Co., Ont.

Perhaps I cannot do better than tell you what a great florist, Eben Rexford, says to do with ferns, then you can see whether your method has been wrong or not.

Ferns, he says, (and we all may know if we observe woods ferns), like a rather moist atmosphere. Hence do not keep your fern in a very dry room, but either in the kitchen where there is plenty of steam, or in a room where water is kept evaporating on stove or register. Showering about the plant, he continues, will also be found of great benefit, but it should be done with a fine spray, frequently, but not until the foliage is saturated. If one has several plants, it is well to keep them on a table covered with an inch or so of sand, which may be kept constantly wet. A rim on the table will, of course, be required to keep

Ferns should, of course, be kept out of the sun, and the pots in which they grow should be very thoroughly drained. This may be done by placing an inch or so of broken crockery, covered with moss,

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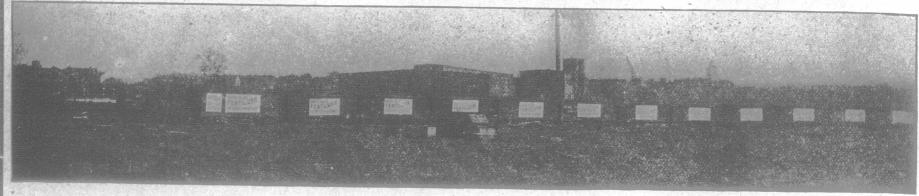
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in the bottom of each pot. The best soil is leaf mould, with a little sand added, but if leaf mould cannot be easily procured, turfy matter,—the soil scraped from about the roots of grass in a sodifield, for instance—will do very well. The soil should be kept constantly moist, but water should never be permitted to stand in the saucers.

Re "The Children of the Forest."

Dear Sir,-I have read with some astonishment and amusement a story by Miss Boyd, entitled "The Children of the Forest." You state every word is true, nothing has been invented, or even changed from which statement I beg leave to differ. As Burns says, "It is a good thing to see ourselves as others see us," but when the likeness is so fashioned that only our bad side is revealed, and touched up with spite and gossip, the sight is not a pleasing one, nor is the picture likely to be a true one; and as Miss Boyd is so merciless in her criticisms of us, the people of this township, she must excuse a little freedom in an answer to the charges brought against us.

I do not charge Miss Boyd with misrepresenting anything that actually came under her own observation, but this I do say, she has related as facts some things she has been told that are not true, and she has been made the sport of some jokers who have amused themselves at her lack of knowledge and thirst for information.

This township where Miss Boyd taught is two hundred miles north of Toronto, twenty miles south of North Bay, and twelve miles from the village of Powas-Miss Boyd's knowledge of the geography of Ontario must have been limited indeed if she thought Powassan was a Hudson Bay port and inhabited by Indians. The settlers of this township have been described by her as an ignorant, drunken, and dangerous class of people. Now, this is the first thing that is not true. Of course, there are some who occasionally get drunk Ara there not some such where Miss Boyd came from? Are there no ignorant there; no brutal or dangerous people in that city? If not, then it is a paradise indeed.

Miss Boyd remarks on the drunkards, but not a word on the total abstainers, and there are as many of them here as drunkards, but she did not appear to see nor hear of them. As to our ignorance, there were 5 public schools and 1 separate school in this township when she taught here; if we were ignorant, we did not wish our children to remain the same.

Miss Boyd complains that at the house of Mr. Smith (one of the trustees) where she stayed, it was full of men smoking, swearing, and indulging in coarse talk. Mrs. Smith is a decent, respectable

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woman, and I never heard anything of that kind there, and I do not think Mrs. Smith would allow it, as she had daughters of her own. I shall pass over the description of Mr. McDonald and his house. She next described the schoolhouse, and appears to be greatly surprised and disturbed about homemade things all through the story, but the desks called homemade were really made at the sash and door factory in the village, and cost the school board three dollars and fifty cents each. Now, I think we should deserve a little praise, if anything, for our ingenuity in constructing articles for our own use, and I often see in the papers (for we sometimes read the papers) such praise bestowed upon the settlers of other places and other days.

Miss Boyd says that the people in this district, who performed the meanest and most underhanded tricks upon her, were the English and their children. were four English families (not two as she states) whose children attended her school. Does she include all four as mean and underhanded? If she does, she contradicts herself, for in her last chapters she tells with a great deal of gush what a great comfort a little girl was to her. She was English; and she actually gives a son of mine considerable praise for his good conduct at school, and he is English, and some other English children who attended praises as clever; so which of these statements is correct?

Miss Boyd next states that the trustees ordered her three times to stop religious exercises in the school. Did they put it in writing? I was one of the trustees at that time, and I never ordered Miss Boyd or any other teacher to cease religious exercises, and more than that, I never knew that any of the other trustees did so. They may have, but Miss Boyd must not condemn all for what one does, and I may be permitted to boast that I was as well acquainted with the instructions in the registers as she was, and know that we could not stop her doing so as long as she complied with the Public School Act. I am a little surprised that a lady of Miss Boyd's calibre should descend to mimicing. It may be witty, but it is generally spiteful, and when she tries to mimic the talk of the sessor, as she calls him, it fails to be witty, as the assessor speaks as good English as she does herself.

She then has trouble over her bicycle, caused by Mr. Black breaking it, as she says, by teaching his mother to ride. However Mr. Black broke it, it was not by his mother's riding, for she, poor woman (now dead and gone), was a stout woman, over sixty years of age, and quite unfit to attempt such a feat.

I shall not comment on the disgraceful fight. I did not see it. Miss Boyd

I shall not comment on the disgraceful fight. I did not see it. Miss Boyd did, but I will say it was not true that the Justice of the Peace was forced to grant a summons at the point of a re-

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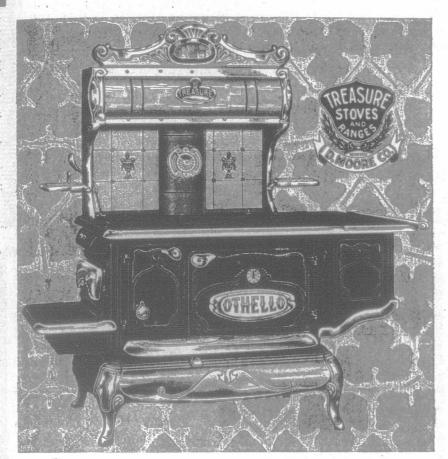
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It is not a fact that one of happened here. These are three statethe settlers killed his horse by over- ments that are absolutely false. driving it while drunk, and the story of Miss Boyd has been the victim of a the woman flogging her husband when joke when she states for facts the

playing a fiddle and frightening away wolves with a bropomstick across the Miss Boyd appears to imagine that this township is infested with wolves, and the romantic story she tells of the attack on Mr. McDonald's house by these ferocious creatures must have been copied from some thrilling story in a dime novel. There may be an occasional wolf around, but I have resided here for twelve years and have never seen nor heard one, and never heard of being torn to pieces by them. Miss Boyd evidently had an inquiring mind, and it was well supplied with fairy tales.

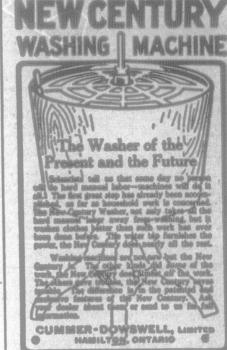
One of the things which appear to strike Miss Boyd as wonderful, is our poverty. Well, we were poor, and some of us are poor yet. If we hadn't been poor we wouldn't be here, and I have yet to learn that poverty is a crime, and I have no doubt that those who received some of the contents of the bale and box that is so often held up for the admiration of your readers, were thankful for it, but I think if she had said less about it, it would have been more graceful, and we are told that we should not let the right hand know what the left hand doeth.

I am now coming to a much more serious subject. Miss Boyd states, without a shadow of proof, that two women were murdered here, and Mr. McDonald was reported to have killed one of them. This is absolutely false, and I never heard that Mr. McDonald was accused of murder until I read it in Miss Boyd's story. She also states that the village doctor committed suicide; there is not partible of evidence to that effect.

She also states that her mail was opened and stolen. Now, this affects me somewhat, as such a story throws suspicion on three parties, the postmaster and my children, who for ten years, for no reward and few thanks, carried the mail from the post office to my house, a five-mile journey, and the children of Mr. McDonald, who carried it to their home. Now, if Miss Boyd's mail was tampered with, why did she not go to the post office for her own mail? She would then have found out if the mail was lost in the hands of the postal authorities, or whether it was taken by those who carried it from the post office. But no; this would have made it neces sary for her to have taken a walk of seven miles and a half along these wolfinfested roads, so it was much easier to cast this disgraceful slur upon those who obliged her than to take this long walk herself.

According to Miss Boyd's story, one would think that two of the trustees were the mortal enemies of the good little teacher, and she tells a pitiful tale of how they tried to prevent her teaching during Easter holidays so that she could leave this benighted region a week earlier at midsummer. Now, I freely admit I was opposed then, and always was, to the children being deprived of their holiday to suit the convenience of the teacher, for I contend that the children have rights as well as anyone else (and right here I should like to inform Miss Boyd, or any other teacher that happens to read this, that the correct way for a teacher to make any request to a school board, is in writing to the secretary; then the request must be properly considered by the school trustees, and the answer to the request delivered to the teacher,—and not by buttonholing individual members of the school board, as Miss Boyd admits was her method. An individual member of a school board may promise something to please a teacher that he may not be able to carry out). So I objected to Miss Boyd's teaching Easter week, but I gave way when I was told she was becoming hysterical about it; but Miss Boyd is mistaken in thinking that I or the Irish trustee were her enemies, for we always thought her a very good teacher, and think so yet. She also makes a most curious statement, that the English trustee made the laws, the Irish seconded them, and the Scotch trustee knew nothing about it. Now, what does she mean? Does she mean that the Scotch trustee never attended any school-board meetings? Because, if she does, she makes a very great mistake, for Mr. McDonald was one of the most attentive trustees I have known, and a very regular attendant at the meetings of the board. drunk is a pure fabrication; it never ridiculous story of catching foxes by She also says that the trustees (I sup-







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the summer holidays. This is also false. I never wrote to an Inspector about a teacher but once, and that was to defend one from an unjust attack upon her by two dissatisfied ratepayers, and I feel sure that her Scotch trustee would be the first to testify to the truth of this, and I was not as fond of writing to Inspectors as some were who were not trustees. Moreover, if we were such enemies as she appears to think, two trustees who are a majority of a school board, could have discharged her at any time by giving her a month's notice; but the truth of the matter is, she has been misled by sheer spiteful gossip to think of us as she does. She also states that the 'sessor, after hearing her sing and play hymns one Sunday, himself played jigs and sang immoral songs (which is a thing I never heard the assessor do), and I have made

pose she means two of them), called on the parents of the children and asked

them to keep their children home from school that week. This is utterly false

as far as I am concerned, and I do not think the other trustees did so, either.

She then accuses us of writing to the

Inspector to compel her to teach up to

some inquiries among some who have worked with him in lumber camps, and they have declared that he never did such a thing there, which is the most likely place for such a thing being done. Whatever may be the faults of the assessor, the singing of low songs is not one of them. She then charges that he turned around and wrote to the In-Now, I ladylike songs on Sunday. should like to know what proof she has of this. Did the School Inspector send this letter to her for explanation, which he should have done? Miss Boyd would then have had the means to haul the assessor up for slander, and make him pay dearly for it; or is it but some more of the spiteful tattle that was poured into her willing ears by some person who had an ill feeling against this man? And the story that he made his wife and mother-in-law carry a bag of grain to Powassan, and carry a bag of flour home, never happened. Miss Boyd wished to obtain all the knowledge about this place during the year she stayed here, and she had unbounded success in the endeavor.

Miss Boyd now describes the death of a neighbor, and his funeral. One or two statements in this account are not true. I have just called on the widow lady called Mrs. Foster and asked her if any man called on her and made the brutal and disgusting remarks as stated by Miss Boyd. She said that the story was false, and no one did such a thing. They did not gallop in an unseemly manner to the burying-ground, and the story of her little boy of nine who went to school with his father's coat on and a pair of boots given to him by a man over six feet in height, is not a fact. Even if it were, I cannot see that it is a friendly or kindly act (and Miss Boyd professed much friendship for this fam\$700 in cash prizes can be won with a load of 15 steers at the Fourth Annual

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ily) to publish it after ten years, for it Please mention "The Farmerjs Advocate."

must hurt the feelings of this young man and his mother. Miss Boyd makes slight mistake in my paying half the price of the coffin. Mrs. Foster, I am happy to say, by the industry of herself and children, met all her obligations. and now she is ever ready to help anyone who is in distress or difficulties, and does not advertise it in the papers or blow her own trumpet about it.

I should advise Miss Boyd to be more careful in future, and not make reckless statements, and when entering anything in her diary, to verify, if possible, charges against innocent people who never did anything to injure her, or some time she will find an action for libel an unpleasant sequel to her little story of her Christian endeavor. Finally. Miss Boyd draws a comparison between her Christian and our benighted condition in terms that have a remarkable family likeness to the "Thank God I am not as other men are" of the Pharisee.

THE ENGLISH TRUSTEE. Wasing, Ont.

The Editor of the Home Department assumes entirely the responsibility for inserting the note stating that the story referred to was true in all respects, the story having been given as true and the possibility of "hearsay" not being considered as it should have been. gret that misrepresentation anywhere to anyone has occurred, and trust that the publishing of the above letter has served to correct any mistakes.

TO KILL MOSQUITOES.

An engineer on the construction line of one of the railroads in British Columbia says he has discovered a new way to get rid of mosquitoes. He says the way to do it is to rub alum on your face and hands. When the mosquito takes a bite, it puckers his buzzer so he can't sting. He sits down in a damp place, tries to dig the pucker loose. catches his death of cold, and dies.

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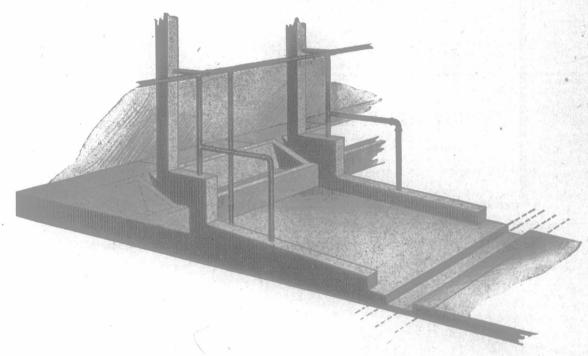
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HEN we tell you that some of the largest buildings that are being erected in Canada to-day are made of cement, you will realize that the builders have great faith in cement. They have faith in cement because they know it has the good qualities of all other building material, and also has a good many other advantages.

Cement is frost-proof, fire-proof, cheaper than wood, brick or stone, and will almost last forever. This means that there is practically no expense for repairs on any work done in Cement.

There are hundreds of improvements which every farmer can make with concrete; a few of which are: Barn foundations, house foundations, silos, barn approach, pig pen, chicken house, cow stalls, stable floors, water trough, feeding floor, fence posts, etc., etc.



Cow stall complete, showing sloping floor, columns, pipe connections and gutter, with feeding passage at front and stall entrance at rear.

Cement is of great value to every municipality for building concrete roads, concrete bridges and culverts, etc. If you have not looked into this question, we will be glad to furnish you with information.

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TRUSTEE.

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Gossip.

The famous English Shire stallion, Tattan Dray King, 28777, now in his tenth year, is reported by the Live Stock Journal as let for the season by his owners, W. & H. Whitley, Painton, South Devon, to the Melton Mowbray Shire Horse Society for the sum of £1,000. He has won numerous prizes, including the London championship in 1908, and at the sale of the late Earl Egerton of Tatton's stud was purchased by Messrs. Whitley for 3,700 guineas.

CAIRNBROGIE AGAIN INVINCIBLE.

If there is magic in a name, Cairnbrogie might be thought to possess it when associated with the highest quality and breed characteristics to which the great and world-popular Clydesdale has been brought by centuries of intelligent and scientific breeding. Graham Bros., whose name for over half a century has been a bye-word all over this continent wherever Clydesdales were being discussed, and who has probably done more than any other man or firm on this vast stretch of land between the seas to make the Clydesdale the most popular draft horse of America, and whose annual imports have invariably cleaned the board wherever shown on both sides of the line, are this year stronger than ever before in all classes from yearlings up, and are prepared to supply the trade with the best class of horses the breed produces, and at prices on a par with those obtained in the trade. Starting with the head of the stud is the unbeaten Scottish champion, Fyvie Baron, 15152, the brown six-year-old son of the renowned Baron's Pride, dam by the H. & A. S. champion, Prince Thomas, granddam by the \$3,500 horse, Garnet Cross. Fyvie Baron has a remarkable show record. He was first and champion at Aberdeen twice, first and champion at Kilmarnock, first and champion at Edinburgh, first at the Royal twice, first and champion at the Highland, and was first and champion at Toronto. He is a horse of outstanding merit from the ground up and his action is faultless. His unbroken series of winnings at the Scotch shows

This Roofing never costs a Cent for maintenance It's false economy to put your money in a "cheap" roofing that has to be painted, graveled or repaired every year or two. The real cost of a roofing is the purchase price plus the cost of maintenance. J-M Asbestos Roofing is the only ready roofing that never requires a single cent's worth of coating, graveling or other protection. Therefore it costs less per year of service than any other roofing. This roofing never needs any protection because it is made of layers of stone (Asbestos) felt securely cemented together with Trinidad Lake Asphalt. It is mineral through and through—literally a sheet of pliable stone. There isn't a particle of perishable material in Is it any wonder that this stone roofing is not affected by rain, heat, cold, salt air, chemical fumes, etc., and that it affords absolute protection against fire? And is it any wonder that this roofing is still in good condition on hundreds of roofs after more than twenty-five years of service? J-M Asbestos Roofing comes in rolls ready to lay; also furnished in built-up form. Suitable for any type of building. Easy to lay. J-M Roofing Cleats, packed in each roll, make absolutely water-tight laps and give the entire roof a handsome white appearance. Your dealer sells J-M Asbestos Roofing—if not, order from our nearest branch. Write for sample of the curious Asbestos Rock from which this Roofing is made and our Book No. 2774.

THE CANADIAN H. W. JOHNS-MANVILLE CO., LIMITED

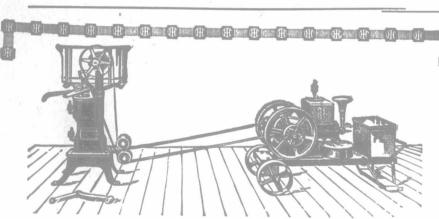
Manufacturers of Asbestos ASBESTOS Asbestos Roofings, Packings, and Magnesia Products ASBESTOS Electrical Supplies, Etc.

Winnipeg

Vancouver

Montreal

of the breed. It certainly took a bit of courage to pay the price to bring him to Canada, and to Graham Bros. is due the honor. A mighty close second to him in the matter of breed perfection is the bay two-year-old, Alert, 13848, a halfbrother to Fyvie Baron, being sired by Baron's Pride, and dam by the invincible Hiawatha, and granddam by the immortal Darnley. Up to 1,900 lbs. in weight, he has all the quality of underpinning possible, has an exceptionally stylish top, massive well-balanced body, and moves as true as a piece of machinery. Last year at Toronto he won first in his class; this year he was not out, being reserved for Chicago. He is certainly one of the greatest colts this country has ever seen. Another great horse is the brown three-year-old, Lord Ullin, 15191, by that popular sire of winners Sir Hugo, dam the noted show mare, Diana's Pride, by the great Baron's Pride, granddam by Prince Romeo. He is a horse of beautiful finish and great style, and with his great size has a flashy quality at the ground. At Toronto he was first in the three-year-old class. Rising Hope, 15195, is a bay two-year-old that was second at Toronto, sired by the noted Craigisla, dam by Look Again, and granddam by Signalman. Style, character and quality are predominant in this colt; his stately carriage and action make him the object of much admiration. A yearling of exceptional merit is the bay, Lord Malcolm, 15194, by the Inverness and Kilmarnock champion, Mendel, dam by the renowned Prince Sturdy, granddam by Sir John Maxwell. This colt was second at Dumfries and first at Toronto. The many other two, three and four-yearolds gracing the Cairnbrogie stables are up to equally as high a standard in size, breeding and quality. Several of them are up to the ton and over, but lack of space forbids their mention. In mares and fillies there are the Toronto champions, Baroness Lee, 84464, a bay three-year-old by Baron's Pride; Bonnie Rose, by Royal Ruby, second at Toronto in the three-year-old class; Rosy Price, first at Toronto in the two-yearold class; Lady Roger, first at Toronto in the yearling class, and many others



Toronto

Next Door to Perfection

POUR your milk into an IHC cream separator. Out of the cream spout will come close to 9,999 parts of cream for only one part that goes into the skim-

milk pail. That's marvelously close separation; it means every possible dollar of dairy profit from your cows.

It takes an I H C separator to do such efficient work. Every detail has its use, every mechanical point its purpose. Shafts and spindles are the strongest made for separators. Bearings all have phosphor bronze bushings. Gears work without back lash, and they are protected from dirt and writ. In short averathing in tected from dirt and grit. In short, everything in

Cream Separators Dairymaid, Bluebell, or Lily

makes for great strength and durability. Perfect adjustment and balance mean smoothness and ease in operating, hence continued satisfaction during long life. All parts are easily accessible for cleaning. There are four convenient sizes of each style.

Then if you have a one-horse power back-geared I H C engine to complete your separator outfit, you will soon find that an indispensable helper on the farm. It will run steadily and at the proper speed to pump water, run washing machine, churn, grindstone, etc.

Study I H C separator outfits at the local agent's. Catalogues may be obtained from him or written.

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WILL PROVIDE THE PROTECTION YOU NEED. Specially made for Houses, Floors, Barns, Fences, Implements, Carriages, etc. They have experience of over half a century behind them, and none better can be made. Ask your dealer,

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Armed with a *Marlin* you can go after moose, bear, deer, with nerve and confidence, for Marlins are always dependable.

Made in all popular big game calibers—guns of splendid accuracy, range They have Special Smokeless Steel barrels, and the quick, reliable Marlin lever action. All have the modern solid-top, side-ejecting construction, which keeps out rain, snow, twigs, sand, dirt; the empty shells cannot possibly be thrown in the shooter's face at a critical moment.

Tor smaller game—splendid **Marlin** lever action repeating rifles in .22 to .44.40 calibers; "pump action" rifles in .22 and .25 Rim Fire, .25-20 and .32-20 calibers; repeating shotguns, 12 and 16 gauges.

Send 3 stamps postage for big catalogue; helps you select right gun. The Marlin Firearms Co., Willow Street New Haven, Conn.

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WHEREVER the old wheelbarrow cleaning system is used you find a mussy stable.

It's too much to expect that a man will brush and sweep the passage ways every time he cleans the stable. He hasn't the time for one thing—and it's discouraging work for another.

But nowadays we think more about clean stables.

We know that dirty stables breed disease.

It's up to you, Mr. Farmer, to make your stable easy to clean—then it will always be clean.

You can learn something about how to do this in Dillon's Book on Clean Stables, which is sent free to Farmers. Dillon's make a Litter Carrier that lightens work about the stable. It's an equipment any man can put up, and is adaptable to stables large or small. The free book explains it fully.

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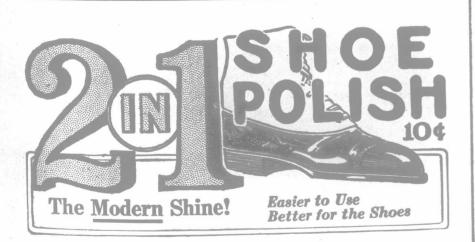
Get our free book.

Dillon's sell direct to the Farmer. There are no Agents and no Agents' profits. The price is the same to all, and lower than you would expect for such substantial and well-built equipment. DILLON'S BOOK ON CLEAN STABLES gives you an exact idea of what you can accomplish for a small outlay. Write for a free copy.

R. DILLON & SON

110 Mill St. South, • Oshawa, Ont.





Ormsby Grange Stock Farm, Ormston P, Que. "Hesperian" sailing from Clasgow 28th Sept., will carry—11 Clydes 1 de fillies, an 1 two stallions from the stud of A, and W. Mantgonery; and 5 shire no res and 2 yearling stallions from the Prambope hire Stud, Alderley. They are all of extra 12e and coality selected by me. They are well be ght and will be sold at reasonable prices—see them before you buy elsewhere.

Questions and Answers.

Miscellaneous.

Lantern Smokes Globe.

I would like to know the cause of lanterns smoking the globe. I have a new lantern and it blackens the globe in 30 minutes. How can I prevent it?

W. E.

Ans.—This is quite a common trouble in lanterns. It may be due to an inferior quality of oil, or the wick may be turned up too high, but most likely the trouble is caused by imperfect ventilation or circulation of air. A remedy is sometimes found by punching a few of the holes in the base around the burner a little larger to allow of the passage of more air.

Wild Carrot.

I am sending by this mail a weed for identification. Please let me know what it is and if it is a nuisance. It was found in a field of clover; there was only the one plant. We had not seen anything like it before. T. Dr. C.

Ans.—The weed sent is Wild Carrot (Daucus Carota). This is sometimes a troublesome weed in fence corners, along roadsides or in old meadows, and some have had difficulty with it in cultivated fields. However, it gives no trouble on land under regular crop rotation. Old meadows infested should be broken up and brought under cultivation for a few years. Sheep will keep it down in old pastures; spudding will kill it when the roots are cut before blossoming time.

The Black Nightshade.

I am sending you a specimen of a plant that is a stranger in this locality. Can you tell us what it is and if bad results may follow from allowing it to grow?

J. E. R:

Ans.—The plant received is the Black Nightshade—Solanum nigrum—a wild relation of the potato and tomato. Its somewhat triangular leaves are smooth, its whitish flowers shaped like those of the potato are borne in branching clusters and followed by pea-like fruits which ripen into purple-black berries. It loves rich soil around old buildings. The berries are numerous, somewhere between unwholesome and poisonous. This is, however, the plant that has been recently developed into the so-called garden huckleberry, which is gaining in popular-ity as a small fruit. The people who know how to cook it can make delicious pie of it.

Gossip.

Clydesdales were shipped from Glasgow the first week in September to South Africa, Russia, England, and Canada, the latter consigned to George Hay, Lachute, Quebec.

ORCHARD GROVE HEREFORDS.

Another year's tour of the leading shows in Ontario and the West has again proven the supremacy of the great herd of L. O. Clifford, of Oshawa, over all comers. For a number of years past this noted herd has been at the top in male and female championships and senior and junior herd prizes. This high standard has been maintained partly through the superior breeding qualities of the many times champion stock bull, Refiner, and partly to the annual importations selected from the leading herds of the United States, among which have been many Chicago and other winners at leading shows across the line. This high standard of the herd as a whole has developed for Mr. Clifford a most extensive trade in breeding and show stock extending from one end of the country to the other and necessitates his making several shipments a year from the United States to supply the many orders received. He is, therefore, in a particularly favorable position to meet the wants of all customers and this year can supply young bulls, cows or heifers of any quality desired. Write him your wants to Oshawa, Ont., or call him up on longdistance telephone.

Automobilist—What advantage has the airship over the motor car?

Aeronaut—Well, for one thing, you can always be sure of making good time on the return trip.



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IN choosing a litter carrier, one should consider all of the equipment necessary for a complete outfit: Carrier, Track, Hangers, Switches, and Swing Pola fittings. Do not place an order before learning of the many distinctive features to be found in Louden Equipment.

LOUDEN Litter Carrier

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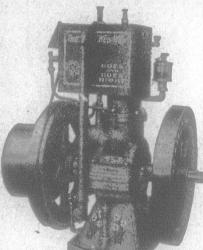
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Learn how a poor engine cats up profits and goes to pieces in a season



You need an engine. But remember, it is not the first cost that counts. Investigate the

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The NEW-WAY gives you more years of service with less worry and expense than any other engine in the world.

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PERCHERONS

Stallions two years old and over, dapple greys and blacks, 1,800 to 2,100. Stallions that are breeders. Stallions with style and action. Stallions that you can get business with. Mares that are breeders, for they have all raised colts and are now in foal to the best horses.



Send for circular, telling why I can sell cheaper than others.

F. J. Sullivan,

Windsor, Ontario

Imp. CLYDESDALES, PERCHERONS Imp.



I sold more horses last year than any other Canadian importer. Why? because I had a bigger and better selection than any other man in the business and my prices and terms are the best obtainable. This year I have 80 head to choose from and their breeding, size, quality, character and action are at the top of all others, Clydesdales, and Percherons, stallions and fillies.

T. H. HASSARD

Markham, G.T.R., Locust Hill, C.P.R.



CLYDESDALES---Stallions and Fillies
WE have again landed at our stables a large and choice collection of Clyde Stallions

WE have again landed at our stables a large and choice collection of Clyde Stallions and Fillies of strictly high-class show calibre. We never had a lot that measured up to the standard of this lot, big, flashy quality; close, straight action and bred in the purple. We can supply winners in any company. Write us.

SMITH & RICHARDSON - Columbus P.O.

Brooklin, G.T.R.; Myrtle, C.P.R. L.-D. 'phone,

IMPORTED CLYDESDALES
young stallions always on hand and for sale. Frequent importations

A few choice young stallions always on hand and for sale. Frequent importations maintain a high standard. Prices and terms to suit.

BARBER BROS., Gatineau Pt., Que., near Ottawa.



Imp. Stallions CLYDESDALES Fillies Imp.

To the Clydesdale men of Canada we wish to say our 1913 importation are home, and we have some of the best show material in this country. More size more style, more quality, more character and better breeding than ever before, in both stallions and fillies. JOHN A. BOAG & SON, Queensville, Ont. Electric Cars every hour

Clydesdales for Sale My first importation for 1913 landed in March. One dozen fillies of the highest standard will be offered at rock-bottom G. A. BRODIE

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Mount Victoria Clydes & Hackneys of a high - class on or filly, or something that has won and can win again in Hackney stallions or fillies, visit our barns at Hudson Heights, Que. T. B. MACAULAY, Proprietor E. WATSON, Manager, Hudson Heights, Que.

TOPPERS IN CLYDESDALES AND PERCHERONS
I have just landed a big importation of Clydesdales and Percherons, if you want a big ton stallion with the best of quality come and see me, I can show you the best lot of stallions and fillies you ever saw.

Bolton, Ont.





Imp. Percherons, Clydes. and Shires My 1913 importation Scotland are now in my stables; if you want the best in Percherons, Clydesdale and Shire stallions and fillies come and see my offering. 30 head to select from; also Hackneys and French Coach stallions, I have all ages of best breeding and highest quality and the prices are low.

Doings in Australia.

Editor "The Farmer's Advocate:"

Important experiments have been carried out during the past few years respecting the milling qualities of the various kinds of wheat by the Chemist of the N. S. W. Agricultural Department. It was feared that the wheats created by the late William Farrer would in a few years throw back to the soft kinds used in their production. But it has been proved not to be the case. All the strong-flour wheats of the dead scientist were selected for use in the work of building up the new wheats as they possessed strong powers of absorbing water when turned into flour. No case has been met with in which this characteristic was not associated with good baking quality. At one time, says Mr. Guthrie, it was generally conceded that guten-content and strength of flour were synonomous. This has been shown to be untenable, as the wheats giving the highest results in gluten contents-the durums-produced the weakest flours. The question as to what is the real cause of strength in flour remains to be answered. Another point proved is that when a strong and weak flour are blended before milling the resultant flqur is stronger than anticipated. These experiments also proved that the Farrer wheats have not deteriorated in milling qualities, especially in regard to the celebrated dry wheat known as Federation. Investigations were also made as to the effect of harvesting wheats at various stages of maturity. The advantage seemed to lie in that cut in the hard dough stage, while the conclusion was justified that, should weather appear to be unfavorable, the farmer would be safe to harvest the grain before it was ripe.

. The districts where rabbits are such a menace are now firmly convinced as to the efficiency of wire-netting. Hundreds of thousands of acres of sheep and wheat lands are now clear of the pest entirely. For a time the settlers relied upon trapping and poisoning, but there was no permanency to be secured by these methods. Paddocks might be cleaned out, but directly favorable seasons occurred the rabbits multiplied and seemed to arrive in waves. It was known, too, that the professional trapper, some of whom are at present making up to \$58.40 per week at the business, had a sneaking regard for the does and the kittens and liberated them. The netting when erected keeps back the stragglers and the hordes which flow in from the unused Crown lands. Take an instance. The Squatting Investment Company used to spend at least \$10,000 a year on a Queensland property until the netting was brought into use, but there was no appreciable diminution of the rabbits. Then netting was erected, and now the enclosed country is quite clear of the The Queensland Government is now passing a measure to provide for advances to buy netting and to take the responsibility of dealing with the unused Crown lands itself. The money advanced for netting will have a currency of 40 years.

The research work being carried out by Professor M'Alpine, in regard to bitter pit, is proceeding satisfactorily. It is two years now since he undertook the task delegated to him, and his time is not up for another two. He has proved beyond a doubt that the method of pruning has a great deal to do with the trouble. The severe cutting to which the apple and pear trees are subjected is an interference with the process of nature. The treatment of the laterals is the crucial point. If these are severely shortened on the Jonathan the fruit invariably becomes pitted, but when left uncut the percentage of damage is perceptibly less. Practical growers have already availed themselves of this knowledge with beneficial results. The professor is now studying the immunity of certain varieties. Why should the Yates, for instance, be free from the disease, while Cleopatra and Jonathan are so susceptible? This is a point under notice. The professor hopes to settle the whole question in the next two years ..

Professor M'Alpine finds that apples stored at a temperature of one or two degrees below freezing point will keep for six months without any material change. Consequently incipient bitter pit will not develop at that point. Re-

Gombault's Gaustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for Curb, Splint. Sweeny, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a Ruman Remedy for Rheumatism.
Sprains, Sore Throat, etc., it is invaluable.
Every bottle of Caustic Balsam sold is
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Bone Spavin

Ro matter how old the blemish, bow lame the horse, or how many dooton have tried and failed, 'uso

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Spavin and Ringhone Paste

Use it under our guarantee—year measurefunded if it doesn't make the heree ge seand. Most case cured by a single it minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike, Write for detailed information and a free copy of Flavoring's Vant. Pocket

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Veterinary Adviser

Winety-six pages, durably bound, indexed and illustrated. Overs over one hundred veterinary subjects. Read this book before yet treat any kind of lamenes in horses.

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A BSORBINE

Removes Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from any Bruise or Strain; Stops Spavin Lameness. Allays pain. Does not Blister, remove the hair or lay up the horse. \$2.00 a bottle, delivered. Book 1 K free.

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Will meet importers at any port in France of
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DR. BELL'S Veterinary Medical Wonfree to horsemen who will give The Wonder a fair trial. Guaranteed to cure Inflammation, Colic, Coughs, Colds, Distemper, Fevers, etc. Agents wanted. Dr. Bell, V.S., Kingston, Ont.

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or Rheumatism, it is invaluable. Balsam sold is fon. Price 31.50 ts, or sent by ex-all directions for riptive circulars, ., Toronto, Ont.

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& Scruby nt, England. of all descriptions. est references on large business in large business im cially Percherons, values. All over cool and mutton, solicit orders for bunches of field

Medical Wony Medical Wonre The Wonder a re Inflammation, per, Fevers, etc. Kingston, Ont. frigeration, he explains, stops the breathme process of the apple and this arrest keeps the fruit sound. He believes that mistake has been made by compelling the trees to fruit on short spurs coming from the main limbs, while the sap flow is strong. It is found that fruit on laterals is much less affected by the discase when the laterals are not shortened back. Pruning a lateral draws a much stronger flow of sap from the main limb in order to continue the growth at the point that has been cut, and the fruit is again on the strong sap flow. It seems to him better to leave the laterals untouched, in which respect they are like quiet back waters from the main channel, where the apples are not subject to the vicissitudes which occur in the latter owing to the changes of weather and temperature. What is called wrinkle is, he says, only a bad form of

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THE PARTY

OCTOBER 2, 1913

Experts urge that the question of producing a new apple, with the characteristics of the Jonathan, but which would ripen a little earlier, is a work that should be undertaken in the interests of the export industry. Immunity from bitter pit and black spot might, it is suggested, be secured, by the process. In order to try and catch the brisk markets of London some exporters last season sent the Jonathans away green and they lost heavily. Immature fruit does the whole industry harm. This mistake cannot very well be prevented while there are men who will take the risks. If they waited till the Jonathan-the chief export variety-was thoroughly ripe, the market would be reached late and the American crop would be in first. What is wanted is a variety that would be quite ready for shipment three or four weeks earlier than the Jonathan. It ought to be possible to raise it by hybridization. The various State Governments interested should put their heads together and offer \$5,000 to the producer of the wanted variety.

J. S. DUNNET. Sydney, Australia.

Gossip.

Of the ponies recently imported by T. B. Macaulay, Hudson Heights, Que., the Live Stock Journal said: "One is the two-year-old pony stallion Glendermott Wildfire, full brother to the great harness pony, Mel-Valley Masterpiece, sold to New York, for a record price. This to New York, for a record price. colt is a perfect pony, moves like clockwork all round, and is bound to make an impressive sire. The other is a Torchfire yearling filly, Ardimersay Flame, out of Mark, by Prospector. She is one of the most sensational goers of her age seen for many years, going as high all round almost as her sire. Then pony neck, beautiful shoulders, good flat bone, and carriage of a five-year-old." Glenavon Victoria and Peggy Sure IV., with a Torchfire foal at foot, were included in the shipment, all being toppers of their

ABERDEEN-ANGUS CATTLE AND SUFFOLK SHEEP.

Another year's tour of the leading Canadian shows from Edmonton to Toronto has demonstrated that the Aberdeen-Angus cattle and Suffolk sheep bred by James Bowman, of Guelph, can more than hold their own in competition with selections made from the leading herds in Scotland by men with millions at their command. This simply means that nowhere, in any country, is to be found a more perfect type of the world-famous beef-producing "Black Doddies" than at the farm of James Bowman, and he has for this season's trade young bulls sired by his invincible champion, Elm Park Wizard, and out of dams that were many times winners, and several of these young bulls were winners themselves in strong competition at some of the shows. The same is true of the female offering. High-class type and individual merit are their predominating features. Suffolk sheep are not half as well known in this country as their merits deserve. They are big, strong sheep; their flesh is evenly mixed with the fat, making them second to no other breed as an ideal mutton sheep, and their clip is heavy. Mr. Bowman can supply both rams and ewes of any desired age. Write him your

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to spend all her time in the kitchen striving to accomplish some new dish in baking. But when she can have a range like the Gurney-Oxford, cooking becomes a pleasure and a fascination because of its consistent assured success.

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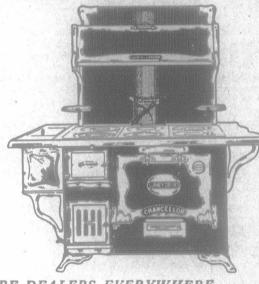
The oven is entirely surrounded by a perfectly even heat of any degree required for any kind of baking. Pans of biscuits, light rolls, or cakes, all cook evenly with a delicate, golden brown crust without having to be constantly changed around next the heat as in other ranges.

This perfect Gurney-Oxford oven encourages a woman to attempt delicious and unusual recipes of her own invention. Her reputation for being a "splendid cook" is at once established.

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The average woman abhors having by the Divided Flue Strip with perfect evenness in every corner. The fire is held low on a Special Reversible Grate which burns every coal to a white ash. There is a lift-up Broiler Top to expose the full fire, and a smooth polished surface that requires no black lead. The Warming Closet is big enough and strong enough to hold a whole dinner service.

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Shorthorns of them are bred, and made so that they are fit to head the best herds in any country, some of them are of the thick, straight, good feeding kind, that will produce money-making cattle; some of them are bred from the best-milking Shorthorns, and the prices of all are moderate. I have Shropshire and Cotswold rams and ewes of all valuable ages. Write for what you want, I can suit you in quality and in price

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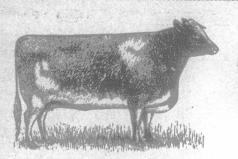
Young buils, also heifers, got by, and cows in calf to one of the good buils of the breed. In Lincolns. 5 yearling rams and 10 ram lambs by an imported ram. Inspection solicited. J. T. GIBSON, Denfield, Ont,

TREASURE VALLEY SHORTHORNS Present offering consists of a number of young cows and 2-year-old heifers in calf. Several are of dual-purpose type. Two are bred from —Helen's Rose— —75864—, now entered in Shorthorm Rose— hest; and has given over 5,000 lbs. milk in 5 months, testing 3.8 per cent.

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sold, a number of high-grade Clydesdales, one registered Hackney mare and a full line of farm implements. Terms: Cash, or 12 months on approved paper,

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I have a most excellent lot of young rams for sale, mostly sired by imported Connaught Royal. Something very choice in young bulls. House one mile from Lucan Crossing, G. T. Ry. A. W. SMITH, MAPLE LODGE, ONTARIO

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Here is a herd of breeders and milkers. Only one young buil left ready to go, and he is a good one. We also offer our two stock buils, =72692 = and =81845 =. Write your wants. Price sells.

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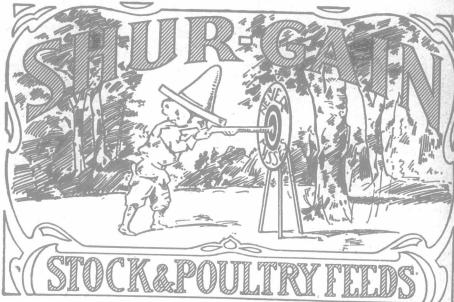
SHORTHORN Bulls and Heifers—choice lot, and heifers in calf, Former sires Joy of Morning (imp.) = 32070 = and Benachie (imp.) = 69954 =. Present stock bull, Royal Bruce (imp.) = 55038 = (89909). GEO. D. FLETCHER, R. R. No. 2, Erin, Ont.

Shorthorns "Trout Creek Wonder" at the head of the herd which numbers about 50 head. Heifers and bulls of the best quality for sale at reasonable prices. Duncan Brown & Sons

Advertise in the Advocate

Gossip.

T. D. Elliott, of Bolton, Ont., is the latest arrival home from across the water with his annual importation of Clydesdale stallions and Percheron stallions and fillies, and it is certain that in the lot he has the horses that will make the buying public look the second time, and at the winter shows will make the other importers go the limit. No man in the business has before brought over in one shipment so many ton-and-over horses standing on such nice, clean, flat bone, such well-sprung ankles, such big, wide feet, and that could handle their underpinning so nice and straight. Tom Elliott has brought over a good lot of horses, both in Clydesdales and Percherons. We do not intend to individualize many of them, but those we have space to mention are only a fair and honest representation of the shipment. Clydesdales, there are one eight-year-old, one six-year-old, two five-year-olds, three four-year-olds, one three-year-old, six two-year-olds, and one yearling. Percheron stallions, there are two fouryear-olds, and four two-year-olds. In Percheron fillies, there are one two-yearold, and two yearlings. The two-yearold is a grey, and the yearlings are black, and it is seldom that we have seen their equals, exceptionally well developed, they are particularly good at the ground, and look like sure winners. The Percheron stallions are up to Camadian horsemen's ideas of what the ideal of a draft horse should be, big, smooth, well-coupled, and with the proper kind of underpinning. Something exceptionally nice is the gray two-year-old, Lampyre 3919 (all numbers used will be Canadian numbers). He has a superb quality of bone, beautiful ankles, and big feet. will certainly be heard from in the show ring. The grey four-year-old, Just, 3923, is a good one, with faultless underpinning, big and smooth, and a free, straight mover. To illustrate the royal breeding of the Clydesdales, we mention only one or two. Royal Victory, 15221, brown, five years old, by the noted Cawdor Cup champion, Hiawatha, dam the famous show mare, Miss Mary, by the renowned sire of prize winners, Royal Favourite, granddam by the unbeaten £3,000 horse, Prince of Albion. Combined with this great breeding is an enviable show record of many winnings. over the ton in size, and a faultless set of legs and feet. Another is the renowned High Honor, 15178, a bay fiveyear-old, by Hiawatha, dam by the H. & A. S. first-prize Mcmtrave Mac, granddam by the Glasgow and H. & A. S. first-prize Flashwood. Here is another ton horse a noted winner, and faultless at the ground, one of the good ones to come to this country. There never was as choice a lot of horses in the Bolton stables as now, and there will be no disappointment for intending purchasers on visiting them. Mr. Elliott is now offering for sale the brown Thoroughbred stallion. Surmise, 15 years old, 16 hands 1 in. high, winner of many hard-fought races, sired by the great Sir Dixon, a son of Imp. Billett, dam the famous race mare, Conjecture, by Hindoo. For two years Surmise has earned the Government premium, is sound and right.



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Our Shorthorn offering for October and November includes 7 good young bulls from 9 to 15 months old. A catalogue of our Clydesdales will be mailed on application.

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-Records show that cattle bought from the Salem herd won numerous ribbons the past season; we have others. Several young bulls are priced reasonably. J. A. WATT, SALEM, ONT.

OCTOBER 2, 1913



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Aside from its many good uses in the home where it takes half the work from housekeeping, it is invaluable in quickly and hygienically cleaning the dairy pans and pails. In the barn, harness and carriage sides and tops clean easier and better. Everything that requires cleaning calls for Old Dutch Cleanser. Nothing else will do the work half so well.

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This comprises one of the best herds of dairy cattle in Western Ontario. The twenty-one cows in milk are a grand lot of producers, including a number of specially promising two-year-olds. Five choice yearlings are a feature of the offering; and nineteen calves, eleven heifers and eight bulls are second to none, being fashionably bred and showing high individual merit. All these cattle, over one year old, were subjected to the tuberculin test in May and not a single animal reacted.

C. P. R. noon trains going both ways will stop at Komoka on day of sale. Catalogues on application to D. Campbell, Prop., Komoka, Ont. LINDSAY, POUND & DIBB, Auctioneers. JOHN McPHERSON, Clerk.

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Near Prescott, Ont.

SUMMER HILL HERD OF

Do you realise that you must have another serviceable bull soon? Better go down to Hamilton right away and see those well-bred fellows with high official backing, that you can buy well worth the money from D. C. FLATT & SON, R.R. No. 2, HAMILTON, ONTARIO. 'Phone 2471.

Herd headed by Count Hengerveld Fayne De Kol, by Pietertje Hengerveld's Count De Kol out of Grace Fayne 2nd. He has 12 daughters already in the Record of Merit and many more to follow. Junior sire,—Dutchland Colantha Sir Mona, by Colantha Johanna Lad out of Mona Pauline de Kol (27.18 butter) the dam of one daughter ever 30-lbs. and one over 27-lbs; also the dam of the World's champion junior three-year-old for milk production. A few bull calves for sale. E. F. OSLER, Bronte, Ont

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Gossip.

A NEW IMPORTATION OF PERCHER-

ONS, CLYDES AND SHIRES. Always to the front with his stables filled with a choice collection of Percheron, Clydesdale and Shire horses, J. E. Arnold, of Grenville, Que., has this year launched out stronger than ever, and has lately landed a big importation of Percheron stallions and fillies, with a limited number of Belgians, Clydesdales and Shires. The Percherons range in age from one to seven years, and, needless to say, there is much high-class material among them, the eldest of which is the very thick, smooth, close-coupled horse. Roscoe L., 3477, by Hercules, and at the big show at Sherbrook, Que., won first in his class. He is a very big, smooth horse, with splendid underpinning. Prominent among the three-year-olds is the Sherbrooke and Ottawa third-prize horse, Kamos, 3896, by Faisan, a big, stylish horse, with the best of underpinning. Another nice three-year-old is the Sherbrooke and Ottawa second-prize horse, Kyste, by Georgino. Still another good one the same age and winner of the fourth prize at Ottawa is Karlos, by Gerbon. Among the twoyear-olds is the great colt, Loin, 8901, a gray, by the famous Gabier. This colt was first and champion at Sherbrooke and second at Ottawa, which speaks louder than words as to his quality. Second at Sherbrooke and third at Ottawa was the dark-gray, Londonien, 3899, by Horticulteur. Another big, well-balanced two-year-old that was third at Sherbrooke and fourth at Ottawa is Luz, 3900, by Hydromitre. Individual mention of all the other equally good ones would require too much space. ficient to say that nowhere else in Que-bec can so choice a lot of Percheron stallions be seen. The selection is a big one, and something will be there to please the most exacting buyer. In mares and fillies the quality is equally high from two-year-olds up. There are among them the Sherbrooke first- and second-prize, also champion, and Ottawa first-prize three-year-olds, the Sherbrooke first-prize and Ottawa first- and second-prize twoyear-olds, the Sherbrooke first-prize yearling which is all that need be said to convince the prospective buyer that here is the place to get a mare or filly. Duc, 646, by Infernal du Fosteau, is a twoyear.old Belgian stallion which won the red ribbon at Ottawa. He is one of the best representatives of the breed seen in this country for a number of years. There is also a Belgian filly, a two-yearold. The Clincker, 15196, is a bay twoyear-old Clydesdale stallion by the Royal first-prize and champion horse, The Right Honorable, dam by the H. & A. S. champion, Prince Thomas, granddam by the noted Pandora's Prince. These illustrious sires, with five numbered dams, make him one of the best-bred horses in Canada. In size, he will reach the ton when developed and has quality and character galore. At Sherbrooke he was second and at Ottawa he was fourth in his raw state, just landed. Kitty Mc-Rae, 31602, is a big two-year-old filly, by the noted breeding and show horse, Merry Marquis, dam by the renowned champion, Woodend Gartley-beautiful breeding, and a big, classy filly, with four numbered dams. Joliet General, 1016, is a bay two-year-old Shire stallion, by Verona Matchless, dam by Manor Society. He has quality seldom seen in a Shire, was first and champion at Sherbrooke and first at Ottawa. Daisy is a bay two-year-old Shire filly that won the same honors at Sherbrooke and Ottawa, as did Joliet General. Ardago is a French Coach stallion, dark brown, eleven years old, a noted winner of former years, and a big, stylish-going horse. Ardimersay is a chestnut Hackney stallion, which has won many times, including Madison Square Gardens, New York. He has action to spare. Enough has been said to show that the Grenville stud is headquarters in Quebec for the best in Percheron, Shire, Clydesdale' Hackney, and French Coach horses. It will be noted that all numbers used are the Canadian registration numbers.

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We never had as choice a lot of lambs as this year.
Our offering: Shearling ewes, ewe lambs, ram
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WM. BARNET & SONS, R. R. No. 3, Fergus, Ont.

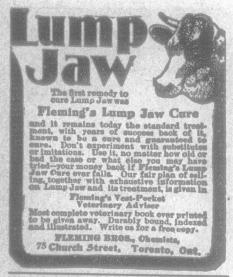
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Good covering, best quality. Also Barred Rock
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G. A. GREER, TROUT CREEK FARM,
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Shropshire Sheep for Sale Pedigreed Shropshires Shearling Rams and Ram Lamb. Prices right. Apply W. F. Somerset, Port Sydney, Ont.

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We have the champion Oxford Flock of America. Winners at Chicago International, Toronto, London, Winnipeg, Regina, Brandon and Saskatoon Fairs. Present offering: 100 ram and ewe lambs, and 50 yearling ewes by imported rams.

Consult us before buying.

Peter Arkell & Sons, Teeswater, Ont.

Pure Shropshires for sale—Twenty-five ram lambs; price from \$10 to \$12 each, including pedigree. Also a few ewes and ewe lambs, all descendants from imported stock. Am offering pure St. Lambert Jerseys, all ages, at moderate prices. For particulars write: H. E. Williams, Sunnylea Farm, Knowlton, P. Q.

DORSET RAMS FOR SALE

Two shear yealings and ram lambs. Prices reasonable for quick sale. A. E. FIELD-MARSHALL, Beamsville, Ont.

FOR SALE—A number of Registered Oxford Down ram lambs from show stock. Write for information. Prices moderate. N. A. McFarlane, Greenoak Farm, R. R. No 2, Dutton Ont.

Oxford Downs Choice ram and ewe lambs from prize-winning stock \$10, \$12 each, also yearling rams and ewes at close prices. Satisfaction guaranteed.

W. A BRYANT, R. R. No. 3 Strathroy, Ont.

For Sale—A nice lot of Registered Lincoln ram and ewe lambs, also some good breeding ewes will be bred to good rams, for particulars write—

S. W. Edwards, R.R. 4, Watford P.O., Ont.

MAPLE LEAF BERKSHIRES

for sale at reasonable prices, boars fit for service, also young pigs ready to wean; boars and sows 3 and 4 months old, bred from imported stock. Satisfaction guaranteed. J. Lawrence, Woodstock, Ont. R.R. 8

MINSTER FARM We are sold out of Tamworths also females in Helsteins but still have some choice bulls for sale from 2 to 6 months, officially backed and right R. O. MORROW & SON, Hilton, Ont.

Tamworths—A choice lot of your boars, large enough service and sons of first quality.

Brighton Sta., phone.

HERBERT GERMAN St. George Ontarlo

Hampshire Swine

I have a choice lot of Hampshire belted hogs for sale. Will be pleased to hear from you, and give you description and prices.

J. H. Rutherford, Box 62, Caledon East, Oat

When writing mention Advocate

Questions and Answers. Miscellaneous.

Autumn Maple Planting.

"A neighbor tells me he has had excellent results in transplanting maple saplings in early autumn for purposes of shade about the farm. Is this experi-ence to be relied upon? Referring to a recent editorial in "The Farmer's Advocate", urging various substantial reasons for tree planting, I have observed an additional one, viz., that in case of fields of corn or other susceptible crops protected on the north or west sides by a good row of trees, they suffer very much less injury from early frosts, and, sometimes, within a considerable area, escape altogether."

O. H. 0. H.

Ans.—Sugar maples are frequently transplanted during the autumn, as soon as the growth has stopped. Throughout the Southern part of Ontario, such planting is usually satisfactory. In my own planting work, we have always transplanted hardwoods, such as maples, in the early spring. E. J. ZAVITZ.

Probably Blackhead.

Flock of 15 young turkeys had the run of one hundred acres all summer and fall; have given them a nice meal of wheat at night when they came home. One got rather dull and stupid, and would eat a little, and go off with the rest, but not so lively and always a little behind, but at last stayed at the house and moped around, and died next day or Have another now the same, and its droppings are of a lemon-color, and a sort of spongy mass. Would be very thankful if you could tell me of some remedy to cure them or prevent it. I saw in your paper something about muriatic acid being recommended, but understand it is a poison, so would like more information. The rest of my turkeys are in a healthy, thriving condition.

Ans.-In all cases of poultry dying from unknown disease it is wise to express the body of the first dead bird to a bacteriologist, Prof. S. F. Edwards, O. A. C., Guelph, Ont., or Dr. Chas. H. Higgins, Biological Laboratory, Ottawa. Symptoms indicate blackhead, for which the treatment that we recommend with most confidence is muriatic acid. Starve the bird forty-eight hours and then let it drink from a mixture composed of a teaspoonful of muriatic acid to a quart of water. Avoid letting sick birds run over ground to which healthy ones have access, as premises are polluted by the droppings of ailing ones and rendered unsafe for turkeys or chickens for two or three years.

Storing Cabbage for Winter.

Would "The Farmer's Advocate" describe a couple of plans for storing cabpage from the farm garden use? ENQUIRER. Ans.—The two commonest ways of stor-

ing cabbages are: First, putting up slanted shelves in cellars of houses or barns, about eighteen inches apart, one above the other, setting the cabbages on these two layers thick. This allows a good circulation of air. Second, putting it in an A-shaped pile, starting the pile with five cabbages wide, then four, then three, then one, the one making the apex of the pile. The pile may be as long the other way as desired. Cabbages should be stored in a temperature as near 32 degrees as possible. Their freezing point is about 30 degrees. The atmosphere should just be moist enough to prevent shrivelling or starting growth. that cabbages which have not headed too hard will keep better and longer than those which are fit to market when put in storage. The other method, by far the most common among our growers, is the use of the A-shaped pile on a high, dry and well-drained spot in the field, running the row northwest by southeast, as near as possible. This gives an equal amount of sunshine to both sides of the row at once in the winter time. The cabbages are covered with straw and then with earth, the quantity of earth being increased as the cold becomes greater. Every twelve or fifteen feet we put in a tile, which acts as a ventilator. At cold times these ventilators are plugged with straw. A. H. McLENNAN

Demonstrator, Ontario Agricultural Col-

WERE YOU THINKING OF

OOFING?

ELL, that's our own particular business. Galt Steel Shingles will make your buildings waterproof, windproof, weatherproof and fireproof.

What's more—they are cheaper in the long run than wood or slate, can be laid for one-half the cost of laying wood shingles, or one-sixth the cost of laying slate.

We have some intensely interesting and valuable information to send you regarding this subject of roofing. A post card request will bring it by return mail.

Simply scribble the one word, "Roofing" on the back of a post card, together with your name and address. If you haven't a post card handy, tie a string around your finger so you'll be sure to remember.

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The Galt Art Metal Co., Limited 252 Stone Read, Galt, Ont.



SPRING-VALLEY SHROPSHIRES are bred from the best procurable imp, stock for generations back. Can supply Shearling Rams and Ewes, Ram and Ewe Lambs, all got by Imp. sires, highest types of the breed. Thos. Hall, R.R. No. 2, Bradford.

Shropshire and Cotswold Sheep—In Shropshires there are 50 shearling ewes, 50 shearling rams. In Cotswolds there are 25 shearing great demand, being well broken and reliable. See my exhibit of ponies are the kind which are (Resistance). Reason of the Reas (Blairgowrie Farm) JOHN MILLER, JR., Ashburn, Ont.



GLENALLAN SHROPSHIRES—We have something choice of lambs, sired by a Cooper ram. Shearling and Ewe lambs.

Flock headers of highest quality a specialty Glenallan Farm, Allandale, Ont. R. MOORE Manager

Shropshires and Cotswolds In my 1913 importation of 60 head just arrived are show rams and ewes, field rams and ewes of will be pleased to hear from you if interested in sheep as "No business no harm" is my motto. JOHN MILLER, Brougham, Ont., Pickering Stn., G.T.R. 7 miles. Claremont Stn.

Newcastle Tamworths

I am now offering young sows, bred, and young boars of breeding age; chuck full of Imp. blood and show-ring quality; I

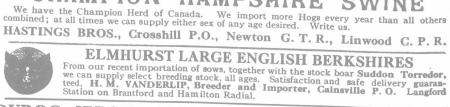
Also younger ones of both sexes.



Newcastle, Ont., L. D. 'Phone. SUNNYBROOK YORKSHIRES & SHROPSHIRES In Yorkshires we can supply either sex from a few weeks old up to breeding age, sired by the 1200-lb boar, Eldon Duke 32228, of Summerhill breeding and out of 700-lb Oak Lodge bred sows. Also some choice ram Lambs of Campbell's famous blood.

WM. MANNING & SONS, Woodville P.O., Grasshill Sta., C.P.R. & G.T.R.

CHAMPION HAMPSHIRE SWINE



DUROC JERSEY SWINE Cloverdale Large English Berkshires Twenty-five sows bred for fall farrow; a few boars ready for service; also one Jersey bull, II months, and two bulls, 6 months old, out of high-producing dams.

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Large White Yorkshires

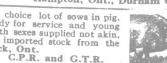
Have a choice lot of sows in pig.
Boars ready for service and young
pigs of both sexes supplied not akin,
at reasonable prices. All breeding stock imported, or from imported stock from the
Best British herds. Write or call H. J. DAVIS, Woodstock, Ont.
Long-distance 'phone.

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Gramandyne Yorkshires & Tamworths
Co., 656 Parkdale Ave., Ottawa, Ontario, can
supply Yorkshires and Tamworths, either sex, any
age, bred from prize-winners, none better. LongDistance Phone, 3874, Ottawa.

Morriston Tamworths and Shorthorns
bred from the prize-winning
herds of England. Have two choice young bulls for
sale 10 months old, out of large deep-milking cows
and also some choice cows. Tamworths both sexes.
CHAS. CURRIE Morriston, Ont.





Aylmer Superior Level Force Pump

For Hand and Windmill use. Has Six, Eight, and Ten-inch Stroke. Ad-justable Base.

Fig. 36.

Fig. 36 represents our Superior Lever Pump, fitted for hand and windmill use. Made in 1½ and

This style of lever and fulcrum has several advan-tages over the ordinary style: having longer stroke the power is greater, making it work easier. The handle being wood, they are not so liable to break in frosty weather.

The base is adjustable admitting of top being raised or lowered to any position

The handle is drilled for three lengths of stroke. Six, eight, and ten-inch stroke.

This is readily converted into a Windmill Pump by the addition of a flat bar, which screws into the crosshead on top.

head on top. Cylinders capped inside require to be two inches longer to obtain same

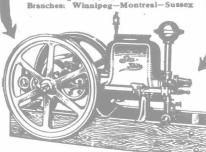
This pump is adapted for all depths of wells; furnished with Iron, Brass Body or Brass Lined Cylinder. You'll never regret placing your farm. Write us to-day et actalogue free one of these pumps on your farm. Write for prices and illustrated catalogue free.

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before you buy a gasoline engine anywhere. It is built right, stays right and the price is right. Costs the least to operate. A binding guaranty with every Sta-Rite.

The Sta-Rite book tells about the eleven exclusive improvements that eliminate all gasoline engine troubles. Write for it. Agents wanted.

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From all stations in Ontario at very low rates to:

Vancouver, B. C. Los Angeles, Cal. Victoria, B. C. Nelson, B. C.

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Full particulars, berth reservations, etc., from any Grand Trunk Agent.

The best 66 farmers and stockmen use 30,000 sold

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Combining all the latest ideas and improvements in this class of machinery. If you are going to buy a Silo Filler this year, be sure and see this splendid new machine. We also manufacture all kinds of Corn and Feed Cutters. Send for a booklet describing them.

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For a Better House--At Lower Cost--In a Month Less Time--Use

BISHOPRIC BOARD AND SHEATHIN

Bishopric Wall Board is made in sheets 4 x 4 feet by imbedding dressed laths, under 500 lbs. pressure, in one side of a sheet of hot Asphalt-Mastic and surfacing the other side with sized fibre-board. It comes to you in crates of 16 sheets, ready to nail on the wall, and any handy man can put it on in far less time than skilled workmen can apply lath and plaster.

Bishopric Wall Board goes on DRY, so that you can move into the house

the day it is finished, without weeks of waiting for it to set and dry.

On account of the lath (and Bishopric is the only Wall Board made with lath) it makes a flat, rigid, substantial wall. On account of the patented Asphalt-Mastic it makes a moisture-proof, rat- and vermin-proof, fire-resisting wall, warm in winter and cool in summer. On account of the surface of sized fibre-board it makes a wall that is easily painted or papered.

The first cost of Bishopric Wall Board is less than that of lath and plaster-it never falls off, so costs nothing for repairs-and it saves on the fuel bills every winter.

If you are building or remodelling, write us—a post card will do—it will bring you information of real dollars-and-cents value. Address Dept. "L 19." Working Plan for Bishopric Model Home:—Send six cents to cover cost of mailing roffice in Ottawa, and we will send you architectrual plan for building, etc. Bishopric Stucco Board, made specially for stucco work. Write for sample.

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When Writing Mention "The Advocate"

Davies Fertilizers

Money Seeds

"As you sow them-so shall you reap."

WRITE:

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EVERY FARMER NEEDS THIS Harness Repairing Outfit



We have the best Automatic Shoe and Harness Repairing Outfit on the market. The outfit consists of the Automatic Awl, Collar Awl, Needles, Linen Thread, Wax, Stitching Horse, also an extra bobbin, and full directions are given.

Complete: o ut fit.

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\$1.50, sent prepaid.
Agents wanted liberal commission. Send for this outfit to-day.
Write to

EDWARD FABER, Wellesley.

Ontario.



SEALED TENDERS addresred to the Postmaster-General will be received at Ottawa until noon on Friday, the 24th day of October, 1918, for the conveyance of His Majesty's mails on a proposed contract for four years, six times per week, over Thorndale (Leesboro') Rural Route, from the Postmaster-General's Pleasure, next.

Printed notices containing further information as to conditions of proposed contract may be seen, and blank forms of tender may be obtained at the Post Offices of Thorndale and Leesboro' and at the Office of the Post Office Inspector at London.

Post Office Department 1. G.C. ANDERSON

Post Office Department | G. C. ANDERSON, Mail Service Branch | Superintenden Ottawa, September 12th, 1913.



MAIL CONTRACT

SEALED TENDERS addressed to the Postmaster-General will be received at Ottawa until noon on Friday. the 24th day of October, 1913, for the conveyance of His Majesty's mails on a proposed contract for four years, six times per week, over Thamesford (North and West) Rural Route, from the Postmaster-General's Pleasure, next.

Printed notices containing further information as to conditions of proposed contract may be seen and blank forms of tender may be obtained at the Post Offices of Thamesford and Evelyn, and at the Office of the Post Office Inspector at London.

Post Office Department) G. C. ANDERSON

Post Office Department G. C. ANDERSON,
Mail Service Branch Ottawa, September 12th, 1913.



MAIL CONTRACT

SEALED TENDERS addressed to the Postmaster-General will be received at Ottawa until noon on Friday, the 24th day of October. 1913, for the conveyance of His Majesty's mails on a proposed contract for four years, six times per week, over London Junction Rural Route, from the Postmaster-General's Pleasure, next.

Printed notices containing further information may be seen and blank forms of tender may be obtained at the Post Offices of London, London Junction, Crumlin and Rebecca, and at the Office of the Post Office Inspector at London.

Post Office Department) G. C. ANDERSON

Post Office Department | G. C. ANDERSON, Mail Service Branch | Superintender Ottawa, September 12th, 1913.



SEALED TENDERS addressed to the Postmaster-General will be received at Ottawa until noon on Friday, the 31st day of October, 1913, for the conveyance of His Majesty's mails on a proposed contract of four years, six times per week over Appin (south) Rural Route, from the Postmaster-General's pleasure, next.

Printed notices containing further information as to conditions of proposed contract may be seen, and blank forms of tender may be obtained, at the Post Office of Appin, and at the office of the Post Office Inspector at London.

G. C. ANDERSON, Superintendent.

G. C. ANDERSON, Superintendent.
Post Office Department, Mail Service Branch.
Ottawa, September 19th, 1913.



Adding Power to the Farm

Your power to make money by getting as much profit from your farm as you should get--depends upon how much you know. The owner of a Telephone knows---when the other fellow has to guess and probably guess wrong. That's why a Northern Electric Telephone will add power to your farm---power to make more money.

Facts That Speak For Themselves

Supposing you had produce to sell-butter, eggs, poultry, fruit or Supposing you had produce to sell—butter, eggs, poultry, fruit or livestock—and you could know when to sell so as to get the kighest prices, that would be a good power to have—wouldn't it? And supposing you could know in advance whether there was going to be frost—or rain—or snow—in time to save your crops, that would also be a great power, wouldn't it? Then supposing that you had the power to talk to the town—right from your own home—the doctor, the veterinary, the mill, the farm machinery factory, the forge, or that son or daughter in the city,—at any time you wanted to, that would be great—wouldn't it? to, that would be great—wouldn't it?

A Northern Electric Telephone Will Give You This Power

You And Your Friends

Can build, own and operate your own Rural Telephone System at a cost to each of about the value of 20 bushels of wheat.

Our Free Book Tells you how to form a company among your neighbors and how

to build the system from start to finish by your own labor.

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Manufacturer of Telephone and Fire Alarm Apparatus and Distributor of Electrical

Yes, Mr. Brown, we sold that carload of cheese and butter alright. Glad we were able to Telephone you about that rise in prices. Good-bye.



Supplies for every possible need. MONTREAL HALIFAX TORONTO

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Gentlemen:

Please send me FREE, one copy of your 100-page bound and illustrated book, on "How to Build Rural Telephone Lines."

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In simple, straightforward language that even a child could understand. It makes the work of construction as easy as building a

We Will Help You

The Northern Electric & Mfg. Co., Limited—the oldest and largest Telephone manufacturers in Canada—will back you up and guide you and advise you in every step of the work until success is assured.

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To purchase the equipment write to our searest house and our experts will place their knowledge at your disposal. And remember that Northern Electric equipment costs no more than many inferior makes, and is the best Telephone equipment money can buy.

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Yes, dad, I'll be up home on Saturday. Send a rig to the station. The train gets in at z o'clock. Good-bye.